

| PROJECT | CUSTOMER | TRAIN |
|-----------------|----------|-----------|
| Xtrapolis-PRASA | PRASA | 228 – TFS |

RTR Train Functional Static Testing TS228 Report
GIB0000006574






| | CREATED | VERIFIED | APPROVED | DISTRIBUTION |
|-----------|-----------------|----------------|-----------------|---|
| Name | Neliswa MABUNDA | Sifiso LUKHELE | Kgomotso NKOANA | Confidentiality Category <i>Restricted</i> <i>Project</i> <i>Normal</i> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> |
| Date | 18/06/2024 | 18/06/2024 | 18/06/2024 | Control Category <i>Controlled</i> <i>Not Controlled</i> <input checked="" type="checkbox"/> <input type="checkbox"/> |
| Signature | | | | Language EN |

This report has been automatically generated from TES version 1

Table of modifications

| Rev | Date | Modifications Content | Writer |
|-----|------------|-----------------------|-----------------|
| A0 | 18/06/2024 | Creation | Neliswa MABUNDA |

Internal validations

| | Name | Function | Date | Signature |
|-----------------|-----------------|---------------------|------------|--|
| Creator | Neliswa MABUNDA | EPU Manager | 18/06/2024 | X  |
| | | | | Neliswa MABUNDA EPU Manager |
| Verifier | Sifiso LUKHELE | Serial Test Manager | 18/06/2024 | X  |
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| Approver | Kgomotso NKOANA | Test Expert | 18/06/2024 | X  |
| | | | | Kgomotso NKOANA Test Expert |

Execution Plan

| | |
|-------------------|------------|
| Start Date | 12/06/2024 |
| End Date | 18/06/2024 |

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Section 1 – Purpose / Objectives

Section 2 – High Voltage Distribution

2.3 Instructions list

2.3.1 010_NRG-High Voltage Distribution

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|------|---------------|--------------|---------------------------------------|---------|
| 10001 | I | Check the power lines, Non-earthed key | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10002 | I | <p>For the following tests, the train should not have the presence of high voltage "3KV"</p> <p>For the following tests, the earthing switch of 10A11 boxes must be out of ground position</p> <p>Make sure all power lines not suffer attrition with the rail infrastructure, terminals, resistance and pantographs are fixed with proper torque and there is no tool or material on the roof of the train.</p> <p>At Depot, when it is necessary to access the train roof, person who is responsible for the activity should apply working knowledge in height with appropriate equipment.</p> <p>If there is any change to the train or it's environment this check becomes invalid. Please be sure that the check on the train status is done before reconnecting it.</p> | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10003 | A | Apply LOTO procedure on the High Voltage Catenary before commencing with the procedure. | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10004 | I | High Voltage Line Continuity Check | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10005 | A | Check continuity of the following cables using a long wire, do not short any point to ground. | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|--|---------------------------------------|-------|
| 10006 | A | On TC1 car, from Converter Auxiliary Connector 18XT11 point HV+ cable (#1UP-W_1) to M4 car Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_3) | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10007 | R | There is continuity. Cables are visually connected, and bolts are torqued. | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10008 | A | On M4 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_3) to M1 car High Voltage Box Connector 10XT11_HT1 point 3 cable (#1UM-V_2) | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10009 | R | There is continuity. Cables are visually connected, and bolts are torqued. | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10010 | A | On M1 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to High Voltage Box Connector 10XT11_HT2 point 1 cable (#1UK-UM_1) | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10011 | R | There is continuity. Cables are visually connected, and bolts are torqued. | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10012 | A | On M1 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to any Ground Wire | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10013 | R | There is NO continuity. | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10014 | A | On M2 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to High Voltage Box Connector 10XT11_HT2 point 1 cable (#1UK-UM_1) | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10015 | R | There is continuity. Cables are visually connected, and bolts are torqued. | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10016 | A | On M2 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to any Ground Wire | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10017 | R | There is NO continuity. | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10018 | A | On M2 car, from High Voltage Box Connector 10XT11_HT1 point 3 cable (#1UM-V_2) to M3 car Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_3) | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|--|---------------------------------------|-------|
| 10019 | R | There is continuity. Cables are visually connected, and bolts are torqued. | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10020 | A | On M3 car, From Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_3) to TC2 car Converter Auxiliary Connector 18XT11 point HV+ cable (#1UP-W_1) | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10021 | R | There is continuity. Cables are visually connected, and bolts are torqued. | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10022 | A | Put back all the removed covers and tighten | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10023 | R | All covers are back and normalized | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10024 | I | End of Test | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

Section 3 – Energy Distribution 110V


3.3 Instructions list

3.3.1 015_NRG-Energy Distribution 110V

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|---|---------------|--------------|------------------------------|---------|
| 10001 | I | Energy Distribution 110V DC=SPP 015 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10002 | I | Initial Conditions | | OK | | Anthonia Mabowa - 494131 | Train |
| 10003 | I | Train powered in normal mode with only battery power | | OK | | Anthonia Mabowa - 494131 | Train |
| 10004 | A | Activate Cab on TC1 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10005 | A | Close the battery contactor 18S1 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10006 | A | Check on the DDU that all devices on TCMS network are in black colour i.e. successfully initialized | | OK | | Anthonia Mabowa - 494131 | Train |
| 10007 | R | After few minutes, the TCMS has successfully initialized on the DDU screen | | OK | | Anthonia Mabowa - 494131 | Train |
| 10008 | A | Check on the DDU that all devices on TCMS network are in black colour i.e. successfully initialized |  | OK | | Anthonia Mabowa - 494131 | Train |
| 10009 | R | The Battery Voltage on the Voltage line module is 110V | | OK | | Anthonia Mabowa - 494131 | Train |
| 10010 | R | On the Driver Screen, the battery voltage is the same as in the line module (110V) | | OK | | Anthonia Mabowa - 494131 | Train |
| 10011 | I | Parameter Update | | OK | | Nqobile Chirwa - 484648 | Train |
| 10012 | A | Perform the following procedure to update the Energy saving parameters |  | OK | | Nqobile Chirwa - 484648 | Train |
| 10013 | I | CVS Firmware Update/SW Update |  | OK | | Nqobile Chirwa - 484648 | Train |
| 10014 | I | When upgrading the software version ensure that both CVSs are online, and a train does not switch OFF and battery voltage should at least be 97V. Follow the instructions on the attachment for the upgrade in TC1 and TC2 |  | OK | | Thandanani Makhanya - 463827 | Train |
| 10015 | I | Power supply check for Equipment on Permanent line | | OK | | Anthonia Mabowa - 494131 | Train |

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|-------|---|--|--|----|--|--------------------------|-------|
| 10016 | R | The emergency Lighting is ON in TC1 saloon, left and right side in low brightness | | OK | | Anthonia Mabowa - 494131 | Train |
| 10017 | R | The emergency Lighting is ON in M4 saloon, left and right side in low brightness | | OK | | Anthonia Mabowa - 494131 | Train |
| 10018 | R | The emergency Lighting is ON in M1 saloon, left and right side in low brightness | | OK | | Anthonia Mabowa - 494131 | Train |
| 10019 | R | The emergency Lighting is ON in M2 saloon, left and right side in low brightness | | OK | | Anthonia Mabowa - 494131 | Train |
| 10020 | R | The emergency Lighting is ON in M3 saloon, left and right side in low brightness | | OK | | Anthonia Mabowa - 494131 | Train |
| 10021 | R | The emergency Lighting is ON in TC2 saloon, left and right side in low brightness | | OK | | Anthonia Mabowa - 494131 | Train |
| 10022 | A | Remove active cab on TC1 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10023 | I | Train preparation on TC2 cab | | OK | | Anthonia Mabowa - 494131 | Train |
| 10024 | A | Insert the Driver's Master key on TC2, turn it to ON position and close battery contactor 18S1 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10025 | R | The emergency Lighting is ON in TC1 saloon, left and right side in low brightness | | OK | | Anthonia Mabowa - 494131 | Train |
| 10026 | R | The emergency Lighting is ON in M4 saloon, left and right side in low brightness | | OK | | Anthonia Mabowa - 494131 | Train |
| 10027 | R | The emergency Lighting is ON in M1 saloon, left and right side in low brightness | | OK | | Anthonia Mabowa - 494131 | Train |
| 10028 | R | The emergency Lighting is ON in M2 saloon, left and right side in low brightness | | OK | | Anthonia Mabowa - 494131 | Train |
| 10029 | R | The emergency Lighting is ON in M3 saloon, left and right side in low brightness | | OK | | Anthonia Mabowa - 494131 | Train |
| 10030 | R | The emergency Lighting is ON in TC2 saloon, left and right side in low brightness | | OK | | Anthonia Mabowa - 494131 | Train |

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|-------|---|--|---|----|--|--------------------------|-------|
| 10031 | A | Shutdown the train by opening the battery contactor 18S1 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10032 | R | Train is successfully shutdown | | OK | | Anthonia Mabowa - 494131 | Train |
| 10033 | I | Battery Low Watchdog | | OK | | Anthonia Mabowa - 494131 | Train |
| 10034 | I | This test is to verify that the battery Watchdog relay is working, when the battery voltage drops below 93V DC, the train automatically shutdown | | OK | | Anthonia Mabowa - 494131 | Train |
| 10035 | A | On TC2, turn ON the cleaning lights switch 52S6 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10036 | R | Emergency lighting is ON in all cars | | OK | | Anthonia Mabowa - 494131 | Train |
| 10037 | A | Remove the relay 15K1 from its base | | OK | | Anthonia Mabowa - 494131 | Train |
| 10038 | R | Emergency lighting is OFF in all cars | | OK | | Anthonia Mabowa - 494131 | Train |
| 10039 | A | Put back the relay 15K1 on its base | | OK | | Anthonia Mabowa - 494131 | Train |
| 10040 | A | Walk to the TC2 CVS Agate compartment and confirm that the CVS Agate is not powered | | OK | | Anthonia Mabowa - 494131 | Train |
| 10041 | R | The CVS Agate is OFF | | OK | | Anthonia Mabowa - 494131 | Train |
| 10042 | A | Switch On the train on TC1 side | | OK | | Anthonia Mabowa - 494131 | Train |
| 10043 | A | Shutdown the train by opening the battery contactor 18S1 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10044 | A | Turn the switch 52S6 to switch ON the cleaning lights | | OK | | Anthonia Mabowa - 494131 | Train |
| 10045 | A | Remove the relay 15K1 from its base | | OK | | Anthonia Mabowa - 494131 | Train |
| 10046 | R | The emergency lighting is OFF in all cars | | OK | | Anthonia Mabowa - 494131 | Train |
| 10047 | A | Put back the relay on its base | | OK | | Anthonia Mabowa - 494131 | Train |
| 10048 | A | Walk to the TC1 CVS Agate compartment and confirm that the CVS Agate is not powered | | OK | | Anthonia Mabowa - 494131 | Train |
| 10049 | R | The CVS Agate is OFF | | OK | | Anthonia Mabowa - 494131 | Train |
| 10050 | I | Train Earthing Procedure |  | OK | | Anthonia Mabowa - 494131 | Train |

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|-------|---|--|--|----|--|--------------------------|-------|
| 10051 | R | The train is successfully isolated and earthed. | | OK | | Anthonia Mabowa - 494131 | Train |
| 10052 | A | Normalize the train | | OK | | Anthonia Mabowa - 494131 | Train |
| 10053 | R | The train is normalized. | | OK | | Anthonia Mabowa - 494131 | Train |
| 10054 | R | Check the IOS status to see if both PANTOS are NOT isolated. | | OK | | Anthonia Mabowa - 494131 | Train |
| 10055 | I | End of Test | | OK | | Anthonia Mabowa - 494131 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 4 – Energy Distribution 400V AC

4.3 Instructions list

4.3.1 014_NRG-Energy Distribution 400V AC

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|------|---------------|--------------|---------------------------|---------|
| 10001 | I | Auxiliary Converters Command=SPP 018 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10002 | I | Initial Conditions | | OK | | Dilikani Ngubane - 526515 | Train |
| 10003 | I | TCMS should be working on train | | OK | | Dilikani Ngubane - 526515 | Train |
| 10004 | I | No high voltage present on catenary | | OK | | Dilikani Ngubane - 526515 | Train |
| 10005 | I | Start of Test | | OK | | Dilikani Ngubane - 526515 | Train |
| 10006 | A | Activate the Cab on TC2 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10007 | A | Close the battery contactor 18S1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10008 | I | Wait for the TCMS to successfully initialize, then do the steps below | | OK | | Dilikani Ngubane - 526515 | Train |
| 10009 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1battcontactclosedr1__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10010 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1batteryconnectionr1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10011 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2battcontactclosedr2__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10012 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc2batteryconnectionr2 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10013 | A | Trip the Circuit Breaker CC(ALS) on TC2 CVS AGATE compartment | | OK | | Dilikani Ngubane - 526515 | Train |
| 10014 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2battcontactclosedr1__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10015 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2battcontactclosedr2__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10016 | R | Read Defined Variable [TT] | | OK | 0 | Dilikani Ngubane - 526515 | Train |

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|-------|---|---|--|----|---|------------------------------|-------|
| | | (MPU1)Li_NRG_Tc2DcDcGateDriveR1___1 = 0.0 | | | | | |
| 10017 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc2DcDcGateDriveR2___1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10018 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) | | OK | | Dilikani Ngubane - 526515 | Train |
| 10019 | A | Timer 30.0 S | | OK | | Dilikani Ngubane - 526515 | Train |
| 10020 | A | Reset the Circuit Breaker CC(ALS) on TC2 CVS AGATE compartment | | OK | | Dilikani Ngubane - 526515 | Train |
| 10021 | A | Trip the Circuit Breaker CC(AL) on TC2 CVS AGATE compartment | | OK | | Dilikani Ngubane - 526515 | Train |
| 10022 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc2CcAlAcuStatusR1___1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc2CcAlAcuStatusR2___1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10024 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) | | OK | | Dilikani Ngubane - 526515 | Train |
| 10025 | A | Timer 30.0 S | | OK | | Dilikani Ngubane - 526515 | Train |
| 10026 | A | Reset the Circuit Breaker CC(AL) on TC2 CVS AGATE compartment | | OK | | Dilikani Ngubane - 526515 | Train |
| 10027 | A | Activate the Cab on TC1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10028 | A | Close the battery contactor 18S1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10029 | I | Wait for the TCMS to successfully initialize, then do the steps below | | OK | | Dilikani Ngubane - 526515 | Train |
| 10030 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1battcontactclosedr1___1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1batteryconnectionr1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10032 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2battcontactclosedr2___1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10033 | R | Read Defined Variable [TT] | | OK | 1 | Dilikani Ngubane - 526515 | Train |


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|-------|---|--|--|----|---|---------------------------|-------|
| | | (MPU1)lo_nrg_tc2batteryconnectionr2 = 1.0 | | | | | |
| 10034 | A | Trip the Circuit Breaker CC(ALS) on TC1 CVS AGATE compartment | | OK | | Dilikani Ngubane - 526515 | Train |
| 10035 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1battcontactclosedr1___1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10036 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1battcontactclosedr2___1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10037 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc1DcDcGateDriveR1___1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10038 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc1DcDcGateDriveR2___1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10039 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) | | OK | | Dilikani Ngubane - 526515 | Train |
| 10040 | A | Timer 30.0 S | | OK | | Dilikani Ngubane - 526515 | Train |
| 10041 | A | Reset the Circuit Breaker CC(ALS) on TC1 CVS AGATE compartment | | OK | | Dilikani Ngubane - 526515 | Train |
| 10042 | A | Trip the Circuit Breaker CC(AL) on TC1 CVS AGATE compartment | | OK | | Dilikani Ngubane - 526515 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc1CcAlAcuStatusR1___1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc1CcAlAcuStatusR2___1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10045 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) | | OK | | Dilikani Ngubane - 526515 | Train |
| 10046 | A | Timer 30.0 S | | OK | | Dilikani Ngubane - 526515 | Train |
| 10047 | A | Reset the Circuit Breaker CC(AL) on TC1 CVS AGATE compartment | | OK | | Dilikani Ngubane - 526515 | Train |
| 10048 | I | Automatic Train Preparation & Auxiliary Converter Status | | OK | | Dilikani Ngubane - 526515 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1automaticstarttr1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |


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|-------|---|--|---|----|---|------------------------------|-------|
| 10050 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2automaticstartr2 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10051 | A | Force [TT] (MPU1)li_cab_tc1automaticstartr1 = 1.0 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10052 | A | Force [TT] (MPU1)li_cab_tc1automaticstartr2 = 1.0 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10053 | A | Timer 5.0 S | | OK | | Dilikani Ngubane - 526515 | Train |
| 10054 | R | Read Defined Variable [TT] (MPU1)lo_cab_tc1automaticstartr1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10055 | R | Read Defined Variable [TT] (MPU1)lo_cab_tc2automaticstartr2 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10056 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1converterfaultr2 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10057 | R | Lamp 18H1 is ON | | OK | | Dilikani Ngubane - 526515 | Train |
| 10058 | R | The ACU on TC1 and TC2 are not operational, the ACU appears in Grey colour on the DDU maintenance screen |  | OK | | Dilikani Ngubane - 526515 | Train |
| 10059 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc1CcAlAcuStatusR1___1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10060 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc2CcAlAcuStatusR1___1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10061 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc1CcAlAcuStatusR2___1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10062 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc2CcAlAcuStatusR2___1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10063 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r1___1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10064 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2contactopen400r2___1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10065 | R | Read Defined Variable [TT] (MPU1)li_pnt_m1pantorisedr1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10066 | R | Read Defined Variable [TT] (MPU1)li_pnt_m2pantorisedr2 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |

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|-------|---|---|---|----|---|---------------------------|-------|
| 10067 | A | Switch on 3 kV DC on the catenary | | OK | | Dilikani Ngubane - 526515 | Train |
| 10068 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc1closehscbr1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10069 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc2closehscbr1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10070 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r1__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10071 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10072 | R | Aux with reduced performance, lamp 18H1 is OFF | | OK | | Dilikani Ngubane - 526515 | Train |
| 10073 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1converterfault2 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10074 | R | Both ACUs are operational |  | OK | | Dilikani Ngubane - 526515 | Train |
| 10075 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc2DcDcGateDriveR1__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10076 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc2DcDcGateDriveR2__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10077 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc1DcDcGateDriveR1__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10078 | R | Read Defined Variable [TT] (MPU1)Li_NRG_Tc1DcDcGateDriveR2__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10079 | A | Release [TT] (MPU1)li_cab_tc1automaticstartr1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10080 | A | Release [TT] (MPU1)li_cab_tc1automaticstartr2 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10081 | I | ACU Isolation and Bypass | | OK | | Dilikani Ngubane - 526515 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1acubypassr1__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2acubypassr1__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |

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|-------|---|--|--|----|---|---------------------------|-------|
| 10084 | A | Put the switch 18S3(ACU ISOLATION) to ISOLATION position | | OK | | Dilikani Ngubane - 526515 | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1converterfaultr2 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1acubypassr1__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2acubypassr1__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10088 | I | The help contactor closes on M2 car | | OK | | Dilikani Ngubane - 526515 | Train |
| 10089 | R | Read Defined Variable [TT] (MPU1)lo_nrg_m2converterhelpr1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10090 | R | Verify that only one ACU is operational on the DDU, and the help contactor is closed | | OK | | Dilikani Ngubane - 526515 | Train |
| 10091 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position | | OK | | Dilikani Ngubane - 526515 | Train |
| 10092 | A | Press the button 22S12 to open HSCB | | OK | | Dilikani Ngubane - 526515 | Train |
| 10093 | R | Button lamp 22S12 is ON | | OK | | Dilikani Ngubane - 526515 | Train |
| 10094 | A | Press the button 22S11 to close HSCB | | OK | | Dilikani Ngubane - 526515 | Train |
| 10095 | R | Button lamp 22S12 is OFF | | OK | | Dilikani Ngubane - 526515 | Train |
| 10096 | R | Both ACUs are operational on DDU Driver's screen | | OK | | Dilikani Ngubane - 526515 | Train |
| 10097 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1converterfaultr2 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)lo_nrg_m2converterhelpr1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10099 | A | Put the switch 18S3(ACU ISOLATION) to ISOLATION position on TC2 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10100 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1converterfaultr2 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10101 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1acubypassr1__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2acubypassr1__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10103 | I | The help contactor closes on M2 car | | OK | | Dilikani Ngubane - 526515 | Train |

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|-------|---|---|--|----|---|------------------------------|-------|
| 10104 | R | Read Defined Variable [TT] (MPU1)lo_nrg_m2converterhelpr2 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10105 | R | Verify that only one ACU is operational on the DDU, and the help contactor is closed | | OK | | Dilikani Ngubane - 526515 | Train |
| 10106 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position on TC2 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10107 | A | Press the button 22S12 to open HSCB | | OK | | Dilikani Ngubane - 526515 | Train |
| 10108 | A | Press the button 22S11 to close HSCB | | OK | | Dilikani Ngubane - 526515 | Train |
| 10109 | R | Both ACUs are operational on DDU Driver's screen | | OK | | Dilikani Ngubane - 526515 | Train |
| 10110 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1converterfault2 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10111 | R | Read Defined Variable [TT] (MPU1)lo_nrg_m2converterhelpr2 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10112 | I | ACU Fault simulation | | OK | | Dilikani Ngubane - 526515 | Train |
| 10113 | A | Inside the ACU, switch off the AGATE by tripping ACU circuit breaker in TC1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10114 | A | Lamp 18H1 is ON in the alarm module | | OK | | Dilikani Ngubane - 526515 | Train |
| 10115 | A | Timer 20.0 S | | OK | | Dilikani Ngubane - 526515 | Train |
| 10116 | R | Read Defined Variable [TT] (MPU1)lo_nrg_m2converterhelpr1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10117 | A | Close the ACU AGATE circuit breaker | | OK | | Dilikani Ngubane - 526515 | Train |
| 10118 | A | Timer 30.0 S | | OK | | Dilikani Ngubane - 526515 | Train |
| 10119 | A | Open HSCB | | OK | | Dilikani Ngubane - 526515 | Train |
| 10120 | R | Read Defined Variable [TT] (MPU1)lo_nrg_m2converterhelpr1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10121 | A | Close HSCB | | OK | | Dilikani Ngubane - 526515 | Train |
| 10122 | R | Lamp 18H1 is OFF in the alarm module | | OK | | Dilikani Ngubane - 526515 | Train |
| 10123 | A | Inside the ACU, switch off the AGATE by tripping ACU circuit breaker in TC2 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10124 | A | Lamp 18H1 is ON in the alarm module | | OK | | Dilikani Ngubane - 526515 | Train |
| 10125 | A | Timer 20.0 S | | OK | | Dilikani Ngubane - 526515 | Train |

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|-------|---|--|---|----|---|---------------------------|-------|
| 10126 | A | Close the ACU AGATE circuit breaker | | OK | | Dilikani Ngubane - 526515 | Train |
| 10127 | A | Timer 30.0 S | | OK | | Dilikani Ngubane - 526515 | Train |
| 10128 | A | Open HSCB | | OK | | Dilikani Ngubane - 526515 | Train |
| 10129 | A | Close HSCB | | OK | | Dilikani Ngubane - 526515 | Train |
| 10130 | I | Verifying Aux Converter Output | | OK | | Dilikani Ngubane - 526515 | Train |
| 10131 | A | Put the switch 18S3 (ACU ISOLATION) to ISOLATION position on TC1 and TC2 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10132 | I | ACU stops working in TC1 and TC2 car | | OK | | Dilikani Ngubane - 526515 | Train |
| 10133 | R | Read Defined Variable [TT] (MPU1)lo_nrg_m2converterhelpr1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10134 | R | Lamp 18H1 is ON in the alarm module |  | OK | | Dilikani Ngubane - 526515 | Train |
| 10135 | I | This test is performed to verify that the ACUs can supply all the loads without tripping | | OK | | Dilikani Ngubane - 526515 | Train |
| 10136 | A | Open the circuit breaker 19Q2 on TC1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10137 | A | Open the circuit breaker 57Q1 for all HVAC units | | OK | | Dilikani Ngubane - 526515 | Train |
| 10138 | A | Open the circuit breaker 19Q2 TC2 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10139 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cb400distrib = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10140 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cb400distrib = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10141 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cb400distrib = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10142 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cb400distrib = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10143 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cb400distrib = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10144 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb400distrib = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10145 | R | Read Defined Variable [TT] (MPU1)li_air_tc1mcbcompressor = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10146 | R | Read Defined Variable [TT] (MPU1)li_air_tc2mcbcompressor = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |

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|-------|---|--|---|----|---|---------------------------|-------|
| 10147 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position on TC1 and TC2 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10148 | I | ACU starts working on TC1 and TC2 |  | OK | | Dilikani Ngubane - 526515 | Train |
| 10149 | A | Close the circuit breaker 19Q2 TC1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10150 | A | Close the circuit breaker 57Q1 for all HVAC units | | OK | | Dilikani Ngubane - 526515 | Train |
| 10151 | I | It is necessary to check on the DDU screen for HVAC status | | OK | | Dilikani Ngubane - 526515 | Train |
| 10152 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cb400distrib = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10153 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cb400distrib = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10154 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cb400distrib = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10155 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cb400distrib = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10156 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cb400distrib = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10157 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb400distrib = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10158 | A | Close the circuit breaker 19Q2 TC2 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10159 | R | Read Defined Variable [TT] (MPU1)li_air_tc1mcbcompressor = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10160 | R | Read Defined Variable [TT] (MPU1)li_air_tc2mcbcompressor = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10161 | R | Verify the circuit breaker 18Q2 ACU on TC1 and TC2 have not tripped | | OK | | Dilikani Ngubane - 526515 | Train |
| 10162 | A | Release [TT] (MPU1)lo_cab_tc1automaticstartr1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10163 | A | Release [TT] (MPU1)lo_cab_tc1automaticstartr2 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10164 | I | Shore supply 400Vac | | OK | | Dilikani Ngubane - 526515 | Train |
| 10165 | I | This test is to verify if the Aux converters are able to start-up successfully under external power supply and also charge the batteries without 3kV DC from the catenary. | | OK | | Dilikani Ngubane - 526515 | Train |

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|-------|---|--|--|----|---|---------------------------|-------|
| 10166 | I | The shore supply used should be limited to 63A at 400Vac, 50Hz, three phase. A neutral on the shore supply is mandatory. | | OK | | Dilikani Ngubane - 526515 | Train |
| 10167 | A | Press the button 22S12 to open the HSCB | | OK | | Dilikani Ngubane - 526515 | Train |
| 10168 | A | Press switch 21S1 to lower both pantographs | | OK | | Dilikani Ngubane - 526515 | Train |
| 10169 | R | Read Defined Variable [TT] (MPU1)li_pnt_m1pantorisedr1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10170 | R | Read Defined Variable [TT] (MPU1)li_pnt_m2pantorisedr2 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10171 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1shoresupply__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10172 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2shoresupply__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10173 | A | Connect the shore supply on TC1 ACU | | OK | | Dilikani Ngubane - 526515 | Train |
| 10174 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1shoresupply__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10175 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r2 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10176 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2shoresupply__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10177 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10178 | A | Press switch 21S1 to raise both pantographs | | OK | | Dilikani Ngubane - 526515 | Train |
| 10179 | A | Close HSCB using the button 22S11 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10180 | I | It is not possible to close HSCB with shore supply connected | | OK | | Dilikani Ngubane - 526515 | Train |
| 10181 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc1closehscbpr1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10182 | A | Remove shore supply from TC1 ACU | | OK | | Dilikani Ngubane - 526515 | Train |
| 10183 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1shoresupply__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10184 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r2 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |

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|-------|---|---|--|----|---|------------------------------|-------|
| 10185 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2shoresupply___1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10186 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2contactopen400r1___1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10187 | A | Connect the shore supply on TC2 ACU | | OK | | Dilikani Ngubane - 526515 | Train |
| 10188 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1shoresupply___1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10189 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r2 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10190 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2shoresupply___1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10191 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2contactopen400r2___1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10192 | A | Close HSCB using the button 22S11 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10193 | I | It is not possible to close HSCB with shore supply connected | | OK | | Dilikani Ngubane - 526515 | Train |
| 10194 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1hscbclosepbr1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10195 | A | Remove shore supply from TC2 ACU | | OK | | Dilikani Ngubane - 526515 | Train |
| 10196 | I | Shore Supply with 3kV present | | OK | | Dilikani Ngubane - 526515 | Train |
| 10197 | I | The system should be able to prevent the 400Vac contactor of the ACU from closing when 3 kV from the catenary is available and shore supply is connected. | | OK | | Dilikani Ngubane - 526515 | Train |
| 10198 | A | Close HSCB using the button 22S11 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10199 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1hscbclosepbr1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10200 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r1___1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10201 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2contactopen400r1___1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10202 | A | Connect the shore supply on TC1 ACU | | OK | | Dilikani Ngubane - 526515 | Train |

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|-------|---|--|--|----|---|------------------------------|-------|
| 10203 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10204 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10205 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1shoresupply__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10206 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2shoresupply__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10207 | A | Force [TT] (MPU1)li_nrg_tc1shoresupply__1 = 1.0 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10208 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10209 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2contactopen400r2__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10210 | R | The HSCBs open | | OK | | Dilikani Ngubane - 526515 | Train |
| 10211 | A | Release [TT] (MPU1)li_nrg_tc1shoresupply__1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10212 | A | Remove shore supply from TC1 ACU | | OK | | Dilikani Ngubane - 526515 | Train |
| 10213 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10214 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10215 | A | Close HSCB using the button 22S11 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10216 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r1__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10217 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2contactopen400r1__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10218 | A | Connect the shore supply on TC2 ACU | | OK | | Dilikani Ngubane - 526515 | Train |
| 10219 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10220 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |

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|-------|---|---|--|----|---|------------------------------|-------|
| 10221 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1shoresupply__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10222 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2shoresupply__1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10223 | A | Force [TT] (MPU1)li_nrg_tc2shoresupply__1 = 1.0 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10224 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10225 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2contactopen400r2__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10226 | R | The HSCBs open | | OK | | Dilikani Ngubane - 526515 | Train |
| 10227 | A | Release [TT] (MPU1)li_nrg_tc2shoresupply__1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10228 | A | Remove shore supply from TC2 ACU | | OK | | Dilikani Ngubane - 526515 | Train |
| 10229 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10230 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10231 | A | Close HSCB | | OK | | Dilikani Ngubane - 526515 | Train |
| 10232 | R | Both ACUs are operational | | OK | | Dilikani Ngubane - 526515 | Train |
| 10233 | I | ACU reverse mode | | OK | | Dilikani Ngubane - 526515 | Train |
| 10234 | A | Open HSCB | | OK | | Dilikani Ngubane - 526515 | Train |
| 10235 | R | Verify on the DDU that the HSCB is open on M1 and M2 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10236 | R | Verify on the DDU that all HVACs are only operating in Ventilation mode | | OK | | Dilikani Ngubane - 526515 | Train |
| 10237 | R | Verify on the DDU that both CVS are operating in reverse mode | | OK | | Dilikani Ngubane - 526515 | Train |
| 10238 | R | Verify on the DDU that both MASU are not running | | OK | | Dilikani Ngubane - 526515 | Train |
| 10239 | A | Switch ON the 3kV DC on the catenary | | OK | | Dilikani Ngubane - 526515 | Train |
| 10240 | A | Close HSCB using button 22S11 | | OK | | Dilikani Ngubane - 526515 | Train |

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|-------|---|--|--|----|---|---------------------------|-------|
| 10241 | R | Line voltage indicator shows at least 2.7kV DC | | OK | | Dilikani Ngubane - 526515 | Train |
| 10242 | R | Verify on the DDU that the HSCB is closed on M1 and M2 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10243 | R | Verify on the DDU that all HVACs are operating under normal condition | | OK | | Dilikani Ngubane - 526515 | Train |
| 10244 | I | Automatic Train De-preparation & Auxiliary Converter status TC2 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10245 | A | Press the Automatic start button 20S1 on the Driver's Desk or Virtual button on DDU screen | | OK | | Dilikani Ngubane - 526515 | Train |
| 10246 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1automaticstartr2 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10247 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2automaticstartr1 = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10248 | R | Read Defined Variable [TT] PNT_AllPantoRaised = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10249 | R | Read Defined Variable [TT] HSC_HscbClosedNum = 0.0 | | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10250 | R | Train is in LV ready | | OK | | Dilikani Ngubane - 526515 | Train |
| 10251 | I | Automatic train preparation and de-preparation on TC2 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10252 | A | Insert the Driver's master key on TC2 and turn it to ON position | | OK | | Dilikani Ngubane - 526515 | Train |
| 10253 | A | Close the battery contactor 18S1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10254 | A | After the TCMS successful initialization, press the automatic start button 20S1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10255 | R | Train is prepared in high voltage | | OK | | Dilikani Ngubane - 526515 | Train |
| 10256 | A | Press the automatic start button 20S1 to de-prepare the train | | OK | | Dilikani Ngubane - 526515 | Train |
| 10257 | R | Train is in LV ready | | OK | | Dilikani Ngubane - 526515 | Train |
| 10258 | A | Open the battery contactor 18S1 to shut down the train | | OK | | Dilikani Ngubane - 526515 | Train |
| 10259 | R | After few seconds, the train is successfully shutdown | | OK | | Dilikani Ngubane - 526515 | Train |

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|-------|---|--|--|----|---|---------------------------|-------|
| 10260 | A | Close the battery contactor 18S1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10261 | A | Wait for the TCMS to successfully initialize | | OK | | Dilikani Ngubane - 526515 | Train |
| 10262 | A | Before the PACIS initialize, open, and HOLD the battery contactor 18S1 and read the following: | | OK | | Dilikani Ngubane - 526515 | Train |
| 10263 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2battoffreqr1___1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10264 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2battoffreqr2___1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10265 | A | Release battery contactor 18S1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10266 | A | Once the PACIS has successfully initialized, Open the battery contactor 18S1. | | OK | | Dilikani Ngubane - 526515 | Train |
| 10267 | A | Insert the Driver's master key on TC1 and turn it to ON position | | OK | | Dilikani Ngubane - 526515 | Train |
| 10268 | A | Close the battery contactor 18S1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10269 | A | Wait for the TCMS to successfully initialize | | OK | | Dilikani Ngubane - 526515 | Train |
| 10270 | R | Train is in LV ready | | OK | | Dilikani Ngubane - 526515 | Train |
| 10271 | A | Open the battery contactor 18S1 to shut down the train | | OK | | Dilikani Ngubane - 526515 | Train |
| 10272 | A | Close the battery contactor 18S1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10273 | A | Wait for the TCMS to successfully initialize | | OK | | Dilikani Ngubane - 526515 | Train |
| 10274 | A | Before the PACIS initialize, open, and HOLD the battery contactor 18S1 and read the following: | | OK | | Dilikani Ngubane - 526515 | Train |
| 10275 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1battoffreqr1___1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10276 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1battoffreqr2___1 = 1.0 | | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10277 | A | Release battery contactor 18S1 | | OK | | Dilikani Ngubane - 526515 | Train |
| 10278 | A | Once the PACIS has successfully initialized, Open the battery contactor 18S1. | | OK | | Dilikani Ngubane - 526515 | Train |
| 10279 | I | End of test | | OK | | Dilikani Ngubane - 526515 | Train |



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Section 5 – Computer Network and DDU Screen

5.3 Instructions list

5.3.1 025_NET-Computer Network and DDU Screen

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|------|---------------|--------------|--------------------------|---------|
| 10001 | I | Computer Network and DDU Screen = SPP 025 | | OK | | Philemon Milani - 484650 | Train |
| 10002 | I | TCMS Network Loop | | OK | | Philemon Milani - 484650 | Train |
| 10003 | I | This is a reflectometry test to check the TCMS complete loop | | OK | | Philemon Milani - 484650 | Train |
| 10004 | I | Please save each result on the Fluke using the cable number given per line | | OK | | Philemon Milani - 484650 | Train |
| 10005 | R | There is good connection between CRS1-TC1[25A10] port X4 and CRS1-M1[25A10] port X3 TSX T01 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10006 | R | There is good connection between CRS4-TC1[25A13] port X3 and CRS1-M4[25A10] port X4 TSX T02 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10007 | R | There is good connection between TRS-TC1[25A15] port ETH3 and TBR-M4[25A14] port ETH0 TSX T03 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10008 | R | There is good connection between TBR-TC1 [25A14]ETH1 and TBR-M1[25A14]ETH0 TSX T04 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10009 | R | There is good connection between TBR-M4[25A14]ETH1 and TBR-M2[25A14]ETH1 TSX T05 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10010 | R | There is good connection between CRS2-M4[25A11] port X3 and CRS2-M2[25A11] port X4 TSX T06 | | OK | | Philemon Milani - 484650 | Train |

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|-------|---|---|--|----|--|--------------------------|-------|
| | | Cable is crossed | | | | | |
| 10011 | R | There is good connection between CRS2-M1[25A11] port X4 and CRS2-M3[25A11] port X3 TSX T07 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10012 | R | There is good connection between TBR-M1[25A14]ETH1 and TBR-M3[25A14]ETH1 TSX T08 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10013 | R | There is good connection between CRS1-M2[25A10] port X3 and CRS1-TC2[25A10] port X4 TSX T09 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10014 | R | There is good connection between TBR-M2[25A14]ETH0 and TBR-TC2[25A14]ETH1 TSX T10 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10015 | R | There is good connection between CRS1-M3[25A10] port X4 and CRS3-TC2[25A12] port X3 TSX T11 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10016 | R | There is good connection between TBR-M3[25A14]ETH0 and TRS-TC2[25A15]ETH1 TSX T12 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10017 | I | Pacis Network Loop | | OK | | Philemon Milani - 484650 | Train |
| 10018 | R | There is good connection between TRS1-TC1[54A13]ETH7 and CRS1-M4[54A10]port X7 TSX P01 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10019 | R | There is good connection between CRS1-TC1[54A10]port X7 and CRS2-M1[54A11]port X8 TSX P02 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10020 | R | There is good connection between CRS2-M4[54A11]port X8 and CRS1-M2[54A10]port X7 TSX P03 | | OK | | Philemon Milani - 484650 | Train |

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|-------|---|---|--|----|---|--------------------------|-------|
| | | Cable is crossed | | | | | |
| 10021 | R | There is good connection between CRS1-M1[54A10]port X7 and CRS2-M3[54A11]port X8 TSX P04 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10022 | R | There is good connection between CRS2-M2[54A11]port X8 and CRS1-TC2[54A10]port X7 TSX P05 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10023 | R | There is good connection between CRS1-M3[54A10]port X7 and TRS1-TC2[54A13]ETH7 TSX P06 Cable is crossed | | OK | | Philemon Milani - 484650 | Train |
| 10024 | A | Download the results from the Fluke into a PDF format and upload it below | | OK | | Ntobeko Ndlovu - 421595 | Train |
| 10025 | I | MCE Redundancy Test | | OK | | Philemon Milani - 484650 | Train |
| 10026 | A | Switch ON the train in TC1 in Normal mode | | OK | | Philemon Milani - 484650 | Train |
| 10027 | I | MCE in TC1 should be the master MCE to begin the test | | OK | | Philemon Milani - 484650 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)NET_LocalMcelsMaster = 1.0 | | OK | 1 | Philemon Milani - 484650 | Train |
| 10029 | R | Read Defined Variable [TT] (MPU2)NET_LocalMcelsMaster = 0.0 | | OK | 0 | Philemon Milani - 484650 | Train |
| 10030 | A | Open the circuit breaker 40Q1 in TC1 | | OK | | Philemon Milani - 484650 | Train |
| 10031 | I | The MCE in TC2 becomes the master MCE | | OK | | Philemon Milani - 484650 | Train |
| 10032 | R | Read Defined Variable [TT] (MPU2)NET_LocalMcelsMaster = 1.0 | | OK | 1 | Philemon Milani - 484650 | Train |
| 10033 | A | Close circuit breaker 40Q1 in TC1 | | OK | | Philemon Milani - 484650 | Train |
| 10034 | A | Open circuit breaker 40Q1 in TC2 | | OK | | Philemon Milani - 484650 | Train |
| 10035 | I | The MCE in TC1 becomes the Master | | OK | | Philemon Milani - 484650 | Train |
| 10036 | R | Read Defined Variable [TT] (MPU1)NET_LocalMcelsMaster = 1.0 | | OK | 1 | Philemon Milani - 484650 | Train |
| 10037 | A | Close the circuit breaker 40Q1 in TC2 | | OK | | Philemon Milani - 484650 | Train |

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|-------|---|--|--|----|---|-----------------------------|-------|
| 10038 | R | Read Defined Variable [TT] (MPU1)NET_LocalMcelsMaster = 1.0 | | OK | 1 | Philemon Milani - 484650 | Train |
| 10039 | R | Read Defined Variable [TT] (MPU2)NET_LocalMcelsMaster = 0.0 | | OK | 0 | Philemon Milani - 484650 | Train |
| 10040 | A | Go to software version on DDU and select RUN BL. | | OK | | Philemon Milani - 484650 | Train |
| 10041 | R | The Train Baseline is : 1.8/10.1/10.2 | | OK | | Philemon Milani - 484650 | Train |
| 10042 | I | End of Test | | OK | | Philemon Milani - 484650 | Train |



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Section 6 – Main Circuit Breaker Control

6.3 Instructions list

6.3.1 022_HSC-Main Circuit Breaker Control

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|------|---------------|--------------|---------------------------------------|---------|
| 10001 | I | Main Circuit Breaker Control=SPP 022 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10002 | I | Initial Conditions | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10003 | I | This test is to verify the correct operation of the main high voltage circuit breaker. | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10004 | I | Train in LV ready | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10005 | I | The catenary should be switched OFF | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10006 | I | Circuit breaker 34Q1 should be closed in all Propulsion boxes | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10007 | I | No Fire Detection alarm on the DDU screen | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10008 | I | Start Test | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10009 | I | HSCB control without High Voltage | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10010 | I | For this test, the HSCB control will be tested with no high voltage present to prevent degraded mode in the train in case there is wiring error | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10011 | I | The button 27S5 should not be pressed on both cars | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10012 | A | Active Cab on TC1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10013 | R | Read Defined Variable [TT] (MPU1)TBCU1_LI_DEMCL_HSCB = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10014 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_demcl_hscb = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10015 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_demcl_hscb = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10016 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_demcl_hscb = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10017 | R | Read Defined Variable [TT] (MPU1)TBCU1_LI_HSCB_CL = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|---|--|----|---|---------------------------------------|-------|
| 10018 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_hscb_cl = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10019 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_hscb_cl = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10020 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_hscb_cl = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10021 | R | Read Defined Variable [TT] (MPU1)TBCU1_LI_HSCB_HOLD = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10022 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_hscb_hold = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_hscb_hold = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_hscb_hold = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10025 | R | Read Defined Variable [TT] (MPU1)TBCU1_LI_HSCB_OP = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10026 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_hscb_op = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_hscb_op = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_hscb_op = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10029 | R | Read Defined Variable [TT] (MPU1)li_hsc_m1hscbopenr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10030 | R | Read Defined Variable [TT] (MPU1)li_hsc_m2hscbopenr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10031 | A | Press the button 21S1 to raise Pantographs | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10032 | A | Force [TT] (MPU1)Lo_HSC_Tc1HSCBCLOSE_R1 = 1.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10033 | A | Force [TT] (MPU1)Lo_HSC_Tc1HSCBCLOSE_R2 = 1.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10034 | A | Force [TT] (MPU1)Lo_HSC_Tc2HSCBCLOSE_R1 = 1.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10035 | A | Force [TT] | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

| | | | | | | | |
|-------|---|---|--|----|---|---------------------------------------|-------|
| | | (MPU1)Lo_HSC_Tc2HSCBCLOSE_R2 = 1.0 | | | | | |
| 10036 | R | Read Defined Variable [TT] (MPU1)li_fsd_tc1firedetection = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10037 | R | Read Defined Variable [TT] (MPU1)li_fsd_tc2firedetection = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10038 | R | Read Defined Variable [TT] (MPU1)TBCU1_LI_DEMCL_HSCB = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10039 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_demcl_hscb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10040 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_demcl_hscb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10041 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_demcl_hscb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10042 | R | Read Defined Variable [TT] (MPU1)TBCU1_LI_HSCB_CL = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_hscb_cl = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_hscb_cl = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10045 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_hscb_cl = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10046 | R | Read Defined Variable [TT] (MPU1)TBCU1_LI_HSCB_HOLD = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10047 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_hscb_hold = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_hscb_hold = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_hscb_hold = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10050 | R | Read Defined Variable [TT] (MPU1)TBCU1_LI_HSCB_OP = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10051 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_hscb_op = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10052 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_hscb_op = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10053 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_hscb_op = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |

| | | | | | | | |
|-------|---|--|--|----|---|---------------------------------------|-------|
| 10054 | R | Read Defined Variable [TT] (MPU1)li_hsc_m1hscbopenr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10055 | R | Read Defined Variable [TT] (MPU1)li_hsc_m2hscbopenr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10056 | A | Release [TT] (MPU1)Lo_HSC_Tc1HSCBCLOSE_R1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10057 | A | Release [TT] (MPU1)Lo_HSC_Tc1HSCBCLOSE_R2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10058 | A | Release [TT] (MPU1)Lo_HSC_Tc2HSCBCLOSE_R1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10059 | A | Release [TT] (MPU1)Lo_HSC_Tc2HSCBCLOSE_R2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10060 | A | Press the button 21S1 to lower pantographs | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10061 | I | Traction Converter Isolation TC1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10062 | A | Switch ON the 3kV DC on the catenary | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10063 | R | Verify on the line display that the catenary voltage is 3kV DC on the line display where the train is parked | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10064 | A | Press the button 21S1 to raise pantographs | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10065 | A | Press the button 22S11 to close HSCBs | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10066 | R | Button lamp 22S11 is ON | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10067 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc1closehscbpbr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10068 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc2closehscbpbr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10069 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm12 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10070 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm34 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10071 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc2tbcubypassm12 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10072 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc2tbcubypassm34 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|---|--|----|---|---------------------------------------|-------|
| 10073 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu1bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10074 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu2bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10075 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu3bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10076 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu4bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10077 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M1/M2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10078 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm12 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10079 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu1bypass = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10080 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu4bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm34 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu2bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu3bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10084 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc1closehscbr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc2closehscbr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10086 | A | Press the button 22S11 to close HSCB | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10087 | A | Both HSCBs are closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10088 | A | Put the Traction converter isolation switch 22S1 to NORMAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10089 | A | Open HSCBs | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10090 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10091 | A | Press the button 22S11 to close HSCB | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10092 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M3/M4 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm12 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10094 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm34 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10095 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu1bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10096 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu4bypass = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10097 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu3bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu2bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc1closehscbr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10100 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc2closehscbr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10101 | A | Press the button 22S11 to close HSCB | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10102 | A | Both HSCBs are closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10103 | A | Put the Traction converter isolation switch 22S1 to NORMAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10104 | A | Open HSCBs | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10105 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10106 | A | Press the button 22S11 to close HSCB | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10107 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M1+M3/M2+M4 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10108 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm12 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10109 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm34 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10110 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu1bypass = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|---|--|----|---|---------------------------------------|-------|
| 10111 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu2bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10112 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu3bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10113 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu4bypass = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10114 | R | Read Defined Variable [TT] (MPU1)li_hsc_m1hscbopenr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10115 | R | Read Defined Variable [TT] (MPU1)li_hsc_m2hscbopenr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10116 | A | Put the Traction converter isolation switch 22S1 to NORMAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10117 | A | Press the button 22S11 to close HSCB | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10118 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10119 | R | All Traction units are in service and operational | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10120 | A | Press the button 22S12 to open the HSCBs | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)li_hsc_m1hscbopenr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)li_hsc_m2hscbopenr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10123 | A | Press the button 21S1 to lower both pantographs | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10124 | R | Read Defined Variable [TT] PNT_AllPantoRaised = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10125 | A | Remove active cab on TC1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10126 | I | HSCB Operation with High Voltage | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10127 | A | Active Cab on TC2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10128 | A | Press the button 21S1 to raise both pantographs | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10129 | R | Both pantographs are raised successfully | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10130 | R | The voltage on the Line Voltage Indicator module is at least 2.7 kV DC | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|---|--|----|---|---------------------------------------|-------|
| 10131 | A | Press the button 22S11 to close HSCBs | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10132 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10133 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10134 | R | Read Defined Variable [TT] (MPU1)TBCU1_li_HSCB_CL = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10135 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_hscb_cl = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10136 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_hscb_cl = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10137 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_hscb_cl = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10138 | R | Read Defined Variable [TT] (MPU1)TBCU1_li_HSCB_HOLD = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10139 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_hscb_hold = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10140 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_hscb_hold = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10141 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_hscb_hold = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10142 | R | Read Defined Variable [TT] (MPU1)TBCU1_li_HSCB_OP = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10143 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_hscb_op = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10144 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_hscb_op = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10145 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_hscb_op = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10146 | I | Traction Converter Isolation TC2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10147 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc1closehscbpbr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10148 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc2closehscbpbr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10149 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm12 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10150 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm34 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10151 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc2tbcubypassm12 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10152 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc2tbcubypassm34 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10153 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu1bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10154 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu2bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10155 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu3bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10156 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu4bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10157 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc2tbcubypassm34 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10158 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M1/M2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10159 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc2tbcubypassm12 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10160 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu2bypass = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10161 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu3bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10162 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu4bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10163 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc1closehscbr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10164 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc2closehscbr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10165 | A | Press the button 22S11 to close HSCB | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10166 | A | Both HSCBs are closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10167 | A | Put the Traction converter isolation switch 22S1 to NORMAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10168 | A | Open HSCBs | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10169 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10170 | A | Press the button 22S11 to close HSCB | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10171 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M3/M4 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10172 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc2tbcubypassm12 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10173 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc2tbcubypassm34 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10174 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu1bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10175 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu2bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10176 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu3bypass = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10177 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu4bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10178 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc1closehscbr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10179 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc2closehscbr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10180 | A | Press the button 22S11 to close HSCB | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10181 | A | Both HSCBs are closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10182 | A | Put the Traction converter isolation switch 22S1 to NORMAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10183 | A | Open HSCBs | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10184 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10185 | A | Press the button 22S11 to close HSCB | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10186 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M1+M3/M2+M4 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10187 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc2tbcubypassm12 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|---|--|----|---|---------------------------------------|-------|
| 10188 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc2tbcubypassm34 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10189 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu1bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10190 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu2bypass = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10191 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu3bypass = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10192 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu4bypass = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10193 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc1closehscbr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10194 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc2closehscbr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10195 | A | Put the Traction converter isolation switch 22S1 to NORMAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10196 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10197 | A | Press the button 22S11 to close HSCB | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10198 | R | All Traction units are in service and operational | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10199 | I | End of test | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 7 – Cabin Control

7.3 Instructions list

7.3.1 020_CAB-Cabin Control

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|------|---------------|--------------|-------------------------|---------|
| 10001 | I | Cabin Control SPP=020 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10002 | I | Initial Condition | | OK | | Nqobile Chirwa - 484648 | Train |
| 10003 | I | Backup switch should be in Normal Position | | OK | | Nqobile Chirwa - 484648 | Train |
| 10004 | I | Train should be OFF | | OK | | Nqobile Chirwa - 484648 | Train |
| 10005 | I | Start Test | | OK | | Nqobile Chirwa - 484648 | Train |
| 10006 | I | Cab Active TC1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10007 | A | Insert Driver's Master key and turn it to ON position | | OK | | Nqobile Chirwa - 484648 | Train |
| 10008 | A | Close the battery contactor 18S1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10009 | R | Train successfully start up in normal mode | | OK | | Nqobile Chirwa - 484648 | Train |
| 10010 | A | Put the direction selector switch to FORWARD position | | OK | | Nqobile Chirwa - 484648 | Train |
| 10011 | A | Try to put the Driver's master key in OFF position or remove it from the cab | | OK | | Nqobile Chirwa - 484648 | Train |
| 10012 | R | It is not possible to remove or turn the Driver's master key | | OK | | Nqobile Chirwa - 484648 | Train |
| 10013 | A | Put the direction selector switch to NEUTRAL position | | OK | | Nqobile Chirwa - 484648 | Train |
| 10014 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1cabinactiveno = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10015 | A | Turn key to non-active cab | | OK | | Nqobile Chirwa - 484648 | Train |
| 10016 | A | Open and close circuit breaker 20Q2 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10017 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1masterkey__1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10018 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2masterkey__1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |

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|-------|---|--|--|----|---|----------------------------|-------|
| 10019 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1keyrelayr2 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10020 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc1KeyRelayR1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10021 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1keyrelayr2 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10022 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1cabinactiver1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1cabinactiver2 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1cabinactiver3 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10025 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc1CabinActiveR4 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10026 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc1CabinActiveR5 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc1KeyRelayR3 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc1KeyRelayR4 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10029 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1othercabinactive__1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10030 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2othercabinactive__1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10031 | A | Active cab on TC1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10032 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1cabinactiveno = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10033 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1masterkey__1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10034 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2masterkey__1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10035 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc1KeyRelayR1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10036 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1keyrelayr2 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |

| | | | | | | | |
|-------|---|--|--|----|---|----------------------------|-------|
| 10037 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc1KeyRelayR3 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10038 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc1KeyRelayR4 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10039 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1cabinactiver1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10040 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1cabinactiver2 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10041 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1cabinactiver3 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10042 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc1CabinActiveR4 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc1CabinActiveR5 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1othercabinactive__1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10045 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2othercabinactive__1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10046 | I | Train Preparation with Automatic Start button TC1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10047 | R | Read Defined Variable [TT] (MPU1)lo_cab_tc1automaticstartr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10048 | R | Read Defined Variable [TT] PNT_AllPantoRaised = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10049 | R | Read Defined Variable [TT] HSC_HscbClosedNum = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10050 | A | Press the automatic start button 20S1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10051 | R | Button lamp 20S1 will flash during train preparation and then light steady after preparation process is finish | | OK | | Nqobile Chirwa - 484648 | Train |
| 10052 | R | Read Defined Variable [TT] (MPU1)lo_cab_tc1automaticstartr1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10053 | R | Read Defined Variable [TT] PNT_AllPantoRaised = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10054 | R | Read Defined Variable [TT] HSC_HscbClosedNum = 2.0 | | OK | 2 | Nqobile Chirwa - 484648 | Train |

| | | | | | | | |
|-------|---|--|--|----|---|-------------------------|-------|
| 10055 | I | Train De-preparation with Automatic Start button TC1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10056 | A | Press the automatic start button 20S1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10057 | A | Timer 5.0 S | | OK | | Nqobile Chirwa - 484648 | Train |
| 10058 | R | Read Defined Variable [TT] (MPU1)lo_cab_tc1automaticstartr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10059 | R | Read Defined Variable [TT] PNT_AllPantoRaised = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10060 | R | Read Defined Variable [TT] HSC_HscbClosedNum = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10061 | A | Remove active cab on TC1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10062 | I | Standby mode TC1 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10063 | A | Active cab on TC1 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10064 | A | Press the automatic start button 20S1 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10065 | A | Remove active Cab on TC1 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10066 | A | Manually isolate EB on M4 using the pneumatic cock C2.3/1 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10067 | A | Press the standby mode button 20S2 and maintain it | | OK | | Celiwe Sokhela - 491462 | Train |
| 10068 | A | Manually isolate EB on TC1 using the pneumatic cock C1.3/1 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10069 | R | The pantograph lower and both HSCB open, then the train shuts down automatically | | OK | | Celiwe Sokhela - 491462 | Train |
| 10070 | A | Normalize the cock on M4 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10071 | A | Normalize the cock on TC1 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10072 | A | Cab Active TC2 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10073 | A | Insert Driver's Master Key and turn it to ON position | | OK | | Nqobile Chirwa - 484648 | Train |
| 10074 | A | Put the direction selector switch to FORWARD position | | OK | | Nqobile Chirwa - 484648 | Train |
| 10075 | A | Try to put the Driver's master key in OFF position or remove it from the cab | | OK | | Nqobile Chirwa - 484648 | Train |

| | | | | | | | |
|-------|---|---|--|----|---|-------------------------|-------|
| 10076 | R | It is not possible to remove or turn the Driver's master key | | OK | | Nqobile Chirwa - 484648 | Train |
| 10077 | A | Put the direction selector switch to NEUTRAL position | | OK | | Nqobile Chirwa - 484648 | Train |
| 10078 | A | Turn key to non-active cab | | OK | | Nqobile Chirwa - 484648 | Train |
| 10079 | A | Open and close the circuit breaker 20Q2 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10080 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2cabinactiveno = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1masterkey__1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2masterkey__1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2keyrelayr2__1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10084 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2keyrelayr1__1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc2KeyRelayR4 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2keyrelayr3 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc2CabinActiveR1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10088 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc2CabinActiveR2 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10089 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc2CabinActiveR3 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10090 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc2CabinActiveR4 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10091 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc2CabinActiveR5 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10092 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1othercabinactive__1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2othercabinactive__1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10094 | R | Read Defined Variable [TT] | | OK | 1 | Nqobile Chirwa - 484648 | Train |

| | | | | | | | |
|-------|---|---|--|----|---|-------------------------|-------|
| | | (MPU1)li_cab_tc1othercabinactive__1 = 1.0 | | | | | |
| 10095 | A | Active cab on TC2 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10096 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1masterkey__1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10097 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2masterkey__1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2keyrelayr1__1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2keyrelayr3 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10100 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2keyrelayr2__1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10101 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc2KeyRelayR4 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc2CabinActiveR1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10103 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc2CabinActiveR2 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10104 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc2CabinActiveR3 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc2CabinActiveR4 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10106 | R | Read Defined Variable [TT] (MPU1)Li_CAB_Tc2CabinActiveR5 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10107 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2cabinactiveno = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10108 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1othercabinactive__1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10109 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2othercabinactive__1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10110 | I | Train Preparation with Automatic Start button TC2 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10111 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2automaticstartr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |

| | | | | | | | |
|-------|---|--|--|----|---|----------------------------|-------|
| 10112 | R | Read Defined Variable [TT] PNT_AllPantoRaised = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10113 | R | Read Defined Variable [TT] HSC_HscbClosedNum = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10114 | A | Press the automatic start button 20S1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10115 | R | Button lamp 20S1 will flash during train preparation and then light steady after preparation process is finish | | OK | | Nqobile Chirwa - 484648 | Train |
| 10116 | R | Read Defined Variable [TT] (MPU1)lo_cab_tc2automaticstartr1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10117 | R | Read Defined Variable [TT] PNT_AllPantoRaised = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10118 | R | Read Defined Variable [TT] HSC_HscbClosedNum = 2.0 | | OK | 2 | Nqobile Chirwa - 484648 | Train |
| 10119 | I | Train De-preparation with Automatic Start button TC2 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10120 | A | Press the automatic start button 20S1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)lo_cab_tc2automaticstartr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10122 | R | Read Defined Variable [TT] PNT_AllPantoRaised = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10123 | R | Read Defined Variable [TT] HSC_HscbClosedNum = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10124 | I | Double Cabin and cabin change | | OK | | Nqobile Chirwa - 484648 | Train |
| 10125 | I | Each cabin must have its own Driver's Master key | | OK | | Nqobile Chirwa - 484648 | Train |
| 10126 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1cabinactiveno = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10127 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2cabinactiveno = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10128 | A | Remove active cab on TC2 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10129 | A | Open and close the circuit breaker 20Q2 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10130 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2cabinactiveno = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |

| | | | | | | | |
|-------|---|---|--|----|---|----------------------------|-------|
| 10131 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1cabinactiveno = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10132 | A | Activate the cab on TC2 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10133 | A | Active cab on TC1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10134 | R | IOS 064 appears on the Driver's event list to notify the driver a second key has been inserted | | OK | | Nqobile Chirwa - 484648 | Train |
| 10135 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1cabinactiveno = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10136 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2cabinactiveno = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10137 | A | Remove active cab on TC2 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10138 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2cabinactiveno = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10139 | R | IOS 064 disappears on the Driver's event list to notify the driver a second key has been inserted | | OK | | Nqobile Chirwa - 484648 | Train |
| 10140 | A | Remove active cab from TC1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10141 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1cabinactiveno = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10142 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2cabinactiveno = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10143 | I | Standby mode TC2 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10144 | A | Active cab on TC2 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10145 | A | Press the automatic start button 20S1 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10146 | A | Remove active Cab on TC2 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10147 | A | Manually isolate EB on M3 using the pneumatic cock C2.3/1 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10148 | A | Press the standby mode button 20S2 and maintain it | | OK | | Celiwe Sokhela - 491462 | Train |
| 10149 | A | Manually isolate EB on TC2 using the pneumatic cock C1.3/1 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10150 | R | The pantograph lower and both HSCB open, then the train shuts down | | OK | | Celiwe Sokhela - 491462 | Train |

| | | | | | | | |
|-------|---|---------------------------|--|----|--|----------------------------|-------|
| | | automatically | | | | | |
| 10151 | A | Normalize the cock on M3 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10152 | A | Normalize the cock on TC2 | | OK | | Celiwe Sokhela - 491462 | Train |
| 10153 | I | End of Test | | OK | | Celiwe Sokhela - 491462 | Train |



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|---|--|-----------------------------|
| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 8 – Internal Lighting

8.3 Instructions list

8.3.1 052_LGT-Internal Lighting

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|------|---------------|--------------|---------------------------|---------|
| 10001 | I | Internal Lighting = SPP 052 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10002 | I | Initial Conditions | | OK | | Alleta Sekgololo - 417407 | Train |
| 10003 | I | Train should be off | | OK | | Alleta Sekgololo - 417407 | Train |
| 10004 | I | Main lighting | | OK | | Alleta Sekgololo - 417407 | Train |
| 10005 | A | Press the automatic start button 20S1 to prepare the train in High voltage | | OK | | Alleta Sekgololo - 417407 | Train |
| 10006 | I | Main lighting is 100% brightness | | OK | | Alleta Sekgololo - 417407 | Train |
| 10007 | R | Main lighting is (ON) on TC1, verify the left and right LEDs are ON in each row in 100% brightness | | OK | | Alleta Sekgololo - 417407 | Train |
| 10008 | R | Main lighting is (ON) on M4, verify the left and right LEDs are ON in each row in 100% brightness. | | OK | | Alleta Sekgololo - 417407 | Train |
| 10009 | R | Main lighting is (ON) on M1, verify the left and right LEDs are ON in each row in 100% brightness | | OK | | Alleta Sekgololo - 417407 | Train |
| 10010 | R | Main lighting is (ON) on M2, verify the left and right LEDs are ON in each row in 100% brightness | | OK | | Alleta Sekgololo - 417407 | Train |
| 10011 | R | Main lighting is (ON) on M3, verify the left and right LEDs are ON in each row in 100% brightness | | OK | | Alleta Sekgololo - 417407 | Train |
| 10012 | R | Main lighting is (ON) on TC2, verify the left and right LEDs are ON in each row in 100% brightness | | OK | | Alleta Sekgololo - 417407 | Train |

| | | | | | | | |
|-------|---|---|--|----|--|---------------------------|-------|
| 10013 | A | Force [TT] (MPU1)lo_lgt_tc1mainlgtcmd = 0.0 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10014 | A | Force [TT] (MPU1)lo_lgt_tc2mainlgtcmd = 0.0 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10015 | R | Emergency lighting is (ON) on TC2, brightness has been reduced to low | | OK | | Alleta Sekgololo - 417407 | Train |
| 10016 | R | Emergency lighting is (ON) on M3, brightness has been reduced to low | | OK | | Alleta Sekgololo - 417407 | Train |
| 10017 | R | Emergency lighting is (ON) on M2, brightness has been reduced to low | | OK | | Alleta Sekgololo - 417407 | Train |
| 10018 | R | Emergency lighting is (ON) on M1, brightness has been reduced to low | | OK | | Alleta Sekgololo - 417407 | Train |
| 10019 | R | Emergency lighting is (ON) on M4, brightness has been reduced to low | | OK | | Alleta Sekgololo - 417407 | Train |
| 10020 | R | Emergency lighting is (ON) on TC1, brightness has been reduced to low | | OK | | Alleta Sekgololo - 417407 | Train |
| 10021 | A | Release [TT] (MPU1)lo_lgt_tc1mainlgtcmd | | OK | | Alleta Sekgololo - 417407 | Train |
| 10022 | A | Release [TT] (MPU1)lo_lgt_tc2mainlgtcmd | | OK | | Alleta Sekgololo - 417407 | Train |
| 10023 | I | End of Test | | OK | | Alleta Sekgololo - 417407 | Train |

Section 9 – Pantograph

9.3 Instructions list

9.3.1 021_PNT-Pantograph

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|------|---------------|--------------|--------------------------|---------|
| 10001 | I | Pantograph = SPP 021 | | OK | | Philemon Milani - 484650 | Train |
| 10002 | I | Initial Conditions | | OK | | Philemon Milani - 484650 | Train |
| 10003 | I | Main pipe should be 10bar | | OK | | Philemon Milani - 484650 | Train |
| 10004 | I | HSCB is open on M1 and M2 and both pantographs are low | | OK | | Philemon Milani - 484650 | Train |
| 10005 | I | Auxiliary Compressor test must be completed in car level prior to performing this test | | OK | | Philemon Milani - 484650 | Train |
| 10006 | I | Mechanical pantograph test must be completed prior to performing this test | | OK | | Philemon Milani - 484650 | Train |
| 10007 | I | EARTHING SWITCH T1 is in NORMAL Position on M1 | | OK | | Philemon Milani - 484650 | Train |
| 10008 | I | EARTHING SWITCH T1 is in NORMAL Position on M2 | | OK | | Philemon Milani - 484650 | Train |
| 10009 | I | HVB1 valve is in NORMAL position on M1 | | OK | | Philemon Milani - 484650 | Train |
| 10010 | I | HVB1 valve is in NORMAL position on M2 | | OK | | Philemon Milani - 484650 | Train |
| 10011 | I | Start of Test | | OK | | Philemon Milani - 484650 | Train |
| 10012 | A | Active Cab on TC1 | | OK | | Philemon Milani - 484650 | Train |
| 10013 | I | Main Tank pressure switch | | OK | | Philemon Milani - 484650 | Train |
| 10014 | I | Make sure the HSCB is open | | OK | | Philemon Milani - 484650 | Train |
| 10015 | A | Empty the main pipe using the cock F2.1/1 | | OK | | Philemon Milani - 484650 | Train |
| 10016 | A | Connect a manometer on valve K2.8 in M1 and measure the pressure | | OK | | Philemon Milani - 484650 | Train |
| 10017 | A | Drain the air in the auxiliary compressor pipe using the valve K2.5 in M1 | | OK | | Philemon Milani - 484650 | Train |
| 10018 | I | The sensor of the pantograph reservoir should switch when the pressure reaches | | OK | | Philemon Milani - 484650 | Train |

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|-------|---|---|--|----|---|--------------------------|-------|
| | | 5.5 bar(+/- 10%) | | | | | |
| 10019 | A | Normalize the valve K2.5 and wait | | OK | | Philemon Milani - 484650 | Train |
| 10020 | R | The auxiliary compressor stops when the pressure reaches 7 bar on K2.8 | | OK | | Philemon Milani - 484650 | Train |
| 10021 | A | Connect a manometer on valve K2.8 in M2 and measure the pressure | | OK | | Philemon Milani - 484650 | Train |
| 10022 | A | Drain the air in the auxiliary compressor pipe using the valve K2.5 in M2 car | | OK | | Philemon Milani - 484650 | Train |
| 10023 | I | The sensor of the pantograph reservoir should switch when the pressure reaches 5.5 bar(+/- 10%) | | OK | | Philemon Milani - 484650 | Train |
| 10024 | A | Normalize the valve K2.5 and wait | | OK | | Philemon Milani - 484650 | Train |
| 10025 | R | The auxiliary compressor stops when the pressure reaches 7 bar on K2.8 | | OK | | Philemon Milani - 484650 | Train |
| 10026 | A | Normalize the main pipe | | OK | | Philemon Milani - 484650 | Train |
| 10027 | A | Close the HSCB | | OK | | Philemon Milani - 484650 | Train |
| 10028 | A | Remove the manometer | | OK | | Philemon Milani - 484650 | Train |
| 10029 | A | Insert the nozzle of the manometer on M2 without the manometer connected, to drain the air when the auxiliary compressor starts | | OK | | Philemon Milani - 484650 | Train |
| 10030 | A | Close the circuit breaker 21Q1 in M2 | | OK | | Philemon Milani - 484650 | Train |
| 10031 | R | Auxiliary compressor starts working | | OK | | Philemon Milani - 484650 | Train |
| 10032 | R | Read Defined Variable [TT] (MPU1)lo_pnt_m1startauxiliarcompr1 = 0.0 | | OK | 0 | Philemon Milani - 484650 | Train |
| 10033 | R | Read Defined Variable [TT] (MPU1)lo_pnt_m1startauxiliarcompr2 = 0.0 | | OK | 0 | Philemon Milani - 484650 | Train |
| 10034 | R | Read Defined Variable [TT] (MPU1)lo_pnt_m2startauxiliarcompr1 = 1.0 | | OK | 1 | Philemon Milani - 484650 | Train |
| 10035 | R | Read Defined Variable [TT] (MPU1)lo_pnt_m2startauxiliarcompr2 = 1.0 | | OK | 1 | Philemon Milani - 484650 | Train |

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|-------|---|--|--|----|--|-----------------------------|-------|
| 10036 | A | Remove the manometer nozzle on M2 | | OK | | Philemon Milani - 484650 | Train |
| 10037 | A | Put HVB1 valve in NORMAL position on M2 | | OK | | Philemon Milani - 484650 | Train |
| 10038 | A | Put the earthing switch in NORMAL position on M2 | | OK | | Philemon Milani - 484650 | Train |
| 10039 | A | Put HVB1 valve in NORMAL position on M1 | | OK | | Philemon Milani - 484650 | Train |
| 10040 | A | Put the earthing switch in NORMAL position on M1 | | OK | | Philemon Milani - 484650 | Train |
| 10041 | I | End of Test | | OK | | Philemon Milani - 484650 | Train |



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|---|--|-----------------------------|
| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
|---|--|-----------------------------|

Section 10 – Air Production

10.3 Instructions list


10.3.1 019_AIR-Air Production

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|------|---------------|--------------|-----------------------|---------|
| 10001 | I | Air Production = SPP 019 | | OK | | Amanda Ntuli - 526239 | Train |
| 10002 | I | Initial Conditions | | OK | | Amanda Ntuli - 526239 | Train |
| 10003 | A | Put the train in LV ready (No High Voltage/No Shore Supply) on TC1 as active cab | | OK | | Amanda Ntuli - 526239 | Train |
| 10004 | A | Drain the air on TC1 main pipe using the cock F2.1/1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10005 | R | The pressure gauge of the main pipe is 0 bar | | OK | | Amanda Ntuli - 526239 | Train |
| 10006 | A | Normalise the cock | | OK | | Amanda Ntuli - 526239 | Train |
| 10007 | I | Start of Test | | OK | | Amanda Ntuli - 526239 | Train |
| 10008 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyrunning = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10009 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplydelay = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10010 | A | Open circuit breaker 19Q3 on TC1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10011 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyok = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10012 | A | Close circuit breaker 19Q3 | | OK | | Amanda Ntuli - 526239 | Train |
| 10013 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyok = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10014 | A | Open circuit breaker 19Q3 on TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10015 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplyok = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10016 | A | Close circuit breaker 19Q3 on TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10017 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplyok = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |

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|-------|---|--|--|----|---|-----------------------|-------|
| 10018 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplydelay = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10019 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplyrunning = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10020 | I | Main Compressor operation | | OK | | Amanda Ntuli - 526239 | Train |
| 10021 | A | Press the automatic start button 20S1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10022 | I | Both main air compressors start up | | OK | | Amanda Ntuli - 526239 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1compenabler1 = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1compenabler2 = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10025 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2compenabler1 = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10026 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2compenabler2 = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyrunning = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplyrunning = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10029 | I | It is necessary to check main pipe pressure on the pneumatic gauge of TC1 and TC2 individually | | OK | | Amanda Ntuli - 526239 | Train |
| 10030 | A | Wait for 10 minutes, then read the variables below | | OK | | Amanda Ntuli - 526239 | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1compenabler1 = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10032 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1compenabler2 = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10033 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2compenabler1 = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10034 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2compenabler2 = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10035 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyrunning = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10036 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplyrunning = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |

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|-------|---|---|--|----|---|-----------------------|-------|
| 10037 | A | Force [TT] NET_TrainTimeEvenDay = 1.0 | | OK | | Amanda Ntuli - 526239 | Train |
| 10038 | A | Drain the air in the main pipe from TC1 side using cock F2.1/1 until the pressure reaches below 8.5 bar | | OK | | Amanda Ntuli - 526239 | Train |
| 10039 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1compensabler2 = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10040 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2compensabler1 = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10041 | A | Normalise the cock F2.1/1 and let the compressor runs until it stops | | OK | | Amanda Ntuli - 526239 | Train |
| 10042 | A | Force [TT] NET_TrainTimeEvenDay = 0.0 | | OK | | Amanda Ntuli - 526239 | Train |
| 10043 | A | Drain the air in the main pipe from TC1 side using cock F2.1/1 until the pressure reaches below 8.5 bar | | OK | | Amanda Ntuli - 526239 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1compensabler1 = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10045 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2compensabler2 = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10046 | I | Compressor Manual Isolation TC1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10047 | A | Normalise the cock F2.1/1 and let the compressor runs until it stops | | OK | | Amanda Ntuli - 526239 | Train |
| 10048 | A | Put the pneumatic switch 19S1 to ISOLATION position | | OK | | Amanda Ntuli - 526239 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr1 = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10050 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr2 = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10051 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyok = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10052 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplydelay = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10053 | A | Put the pneumatic switch 19S1 to NORMAL position | | OK | | Amanda Ntuli - 526239 | Train |
| 10054 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr1 = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |

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|-------|---|---|---|----|---------|-----------------------|-------|
| 10055 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr2 = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10056 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplydelay = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10057 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyok = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10058 | R | | | OK | 1000.72 | Amanda Ntuli - 526239 | Train |
| 10059 | I | Compressor stops when it reaches 10 bar | | OK | | Amanda Ntuli - 526239 | Train |
| 10060 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyok = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10061 | R | Verify that the pressure gauge indicates the correct pressure values, according to the DDU BC: Brake cylinder(yellow indicator) MRP: Main Pipe(Red indicator) |  | OK | | Amanda Ntuli - 526239 | Train |
| 10062 | I | Compressor Remote Isolation TC1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10063 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplydelay = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10064 | R | Read Defined Variable [TT] (MPU1)li_air_tc1mcbcompressor = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10065 | R | Read Defined Variable [TT] (MPU1)li_air_tc1remotecb = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10066 | I | It is important to make sure the main pipe pressure is always below 10 bar for the purpose of this test | | OK | | Amanda Ntuli - 526239 | Train |
| 10067 | A | Release the air in the main pipe until it reaches below 8.5 bar | | OK | | Amanda Ntuli - 526239 | Train |
| 10068 | A | Open circuit breaker 19Q3 | | OK | | Amanda Ntuli - 526239 | Train |
| 10069 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyrunning = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10070 | A | Press the button 19S2 and hold | | OK | | Amanda Ntuli - 526239 | Train |
| 10071 | R | Read Defined Variable [TT] (MPU1)li_air_tc1remotecb = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10072 | R | Read Defined Variable [TT] (MPU1)li_air_tc1mcbcompressor = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |

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|-------|---|--|--|----|---|-----------------------|-------|
| 10073 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyrunning = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10074 | A | Release the button 19S2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10075 | R | Read Defined Variable [TT] (MPU1)li_air_tc1mcbcompressor = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10076 | R | Read Defined Variable [TT] (MPU1)li_air_tc1remotecb = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10077 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyrunning = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10078 | A | Open circuit breaker 19Q2 in the LVB | | OK | | Amanda Ntuli - 526239 | Train |
| 10079 | R | Read Defined Variable [TT] (MPU1)li_air_tc1mcbcompressor = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10080 | A | Press and hold the button 19S2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1)li_air_tc1remotecb = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10082 | A | Release the button 19S2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1remotecb = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10084 | A | Close circuit breaker 19Q3 | | OK | | Amanda Ntuli - 526239 | Train |
| 10085 | A | Press 19S2 and RELEASE in less than a second | | OK | | Amanda Ntuli - 526239 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)li_air_tc1remotecb = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)li_air_tc1mcbcompressor = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10088 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyrunning = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10089 | I | Compressor Manual Isolation TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10090 | A | Put the pneumatic switch 19S1 to ISOLATION position | | OK | | Amanda Ntuli - 526239 | Train |
| 10091 | R | Read Defined Variable [TT] (MPU1)li_air_tc2condemnedr1 = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10092 | R | Read Defined Variable [TT] (MPU1)li_air_tc2condemnedr2 = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |

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|-------|---|--|--|----|---------|-----------------------|-------|
| 10093 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplyrunning = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10094 | A | Force [TT] (MPU1)lo_air_tc2compenabler2 = 1.0 | | OK | | Amanda Ntuli - 526239 | Train |
| 10095 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplyrunning = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10096 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplyok = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10097 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplydelay = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10098 | A | Put the pneumatic switch 19S1 to NORMAL position | | OK | | Amanda Ntuli - 526239 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)li_air_tc2condemnedr1 = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10100 | R | Read Defined Variable [TT] (MPU1)li_air_tc2condemnedr2 = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10101 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplyrunning = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplydelay = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10103 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplyok = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10104 | I | Compressor stops when it reaches 10 bar | | OK | | Amanda Ntuli - 526239 | Train |
| 10105 | R | | | OK | 1005.46 | Amanda Ntuli - 526239 | Train |
| 10106 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplyrunning = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10107 | A | Remove active cab on TC1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10108 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplyok = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10109 | A | Active cab on TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10110 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplydelay = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10111 | I | Compressor Remote Isolation TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10112 | R | Read Defined Variable [TT] (MPU1)li_air_tc2mcbcompressor = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |

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|-------|---|---|--|----|---|-----------------------|-------|
| 10113 | R | Read Defined Variable [TT] (MPU1)li_air_tc2remotecb = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10114 | I | It is important to make sure the main pipe pressure is always below 10 bar for the purpose of this test | | OK | | Amanda Ntuli - 526239 | Train |
| 10115 | A | Release the air in the main pipe until it reaches below 8.5 bar | | OK | | Amanda Ntuli - 526239 | Train |
| 10116 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplyrunning = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10117 | A | Open circuit breaker 19Q3 | | OK | | Amanda Ntuli - 526239 | Train |
| 10118 | A | Press and hold the button 19S2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10119 | R | Read Defined Variable [TT] (MPU1)li_air_tc2remotecb = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10120 | R | Read Defined Variable [TT] (MPU1)li_air_tc2mcbcompressor = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10121 | A | Release the button 19S2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)li_air_tc2mcbcompressor = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10123 | R | Read Defined Variable [TT] (MPU1)li_air_tc2remotecb = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10124 | A | Open circuit breaker 19Q2 in LVB | | OK | | Amanda Ntuli - 526239 | Train |
| 10125 | R | Read Defined Variable [TT] (MPU1)li_air_tc2mcbcompressor = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10126 | A | Press and hold the button 19S2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10127 | R | Read Defined Variable [TT] (MPU1)li_air_tc2remotecb = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10128 | A | Release the button 19S2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10129 | A | Close circuit breaker 19Q3 | | OK | | Amanda Ntuli - 526239 | Train |
| 10130 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2remotecb = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10131 | A | Press 19S2 and RELEASE in less than a second | | OK | | Amanda Ntuli - 526239 | Train |
| 10132 | R | Read Defined Variable [TT] (MPU1)li_air_tc2mcbcompressor = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |

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|-------|---|---|--|----|--------|-----------------------|-------|
| 10133 | R | Read Defined Variable [TT] (MPU1)air_bcu2airsupplyrunning = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10134 | R | Read Defined Variable [TT] (MPU1)li_air_tc2remotecb = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10135 | I | Air tightness of Main pipe and other pneumatic systems on train | | OK | | Amanda Ntuli - 526239 | Train |
| 10136 | A | Force [TT] (MPU1)lo_air_tc1compenabler1 = 0.0 | | OK | | Amanda Ntuli - 526239 | Train |
| 10137 | A | Force [TT] (MPU1)lo_air_tc2compenabler1 = 0.0 | | OK | | Amanda Ntuli - 526239 | Train |
| 10138 | A | Empty the main pipe pressure using draining cock A5/1 until it reaches below 7.5 bar | | OK | | Amanda Ntuli - 526239 | Train |
| 10139 | I | Put both compressors in service by closing circuit breaker 19Q2 and also ensure isolation switch 19S1 is in NORMAL position on both TC cars | | OK | | Amanda Ntuli - 526239 | Train |
| 10140 | A | Release [TT] (MPU1)lo_air_tc1compenabler1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10141 | A | Release [TT] (MPU1)lo_air_tc2compenabler1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10142 | I | Only one compressor starts when the pressure reaches below 8.5 bar. At 10bar +/- 0.2 bar the compressor stops. | | OK | | Amanda Ntuli - 526239 | Train |
| 10143 | I | After 10 minutes, the air in the main pipe should not be less than 9.3 bar | | OK | | Amanda Ntuli - 526239 | Train |
| 10144 | R | Read Undefined Variable [TT] (MPU1)air_bcu1mrpres | | OK | 977.02 | Amanda Ntuli - 526239 | Train |
| 10145 | I | Air tightness of main reservoirs and associated devices combined with other pneumatic equipment's | | OK | | Amanda Ntuli - 526239 | Train |
| 10146 | A | Isolate the Service and Emergency Brake circuit of each car by turning the isolation cocks C1.3/1 and C.2.3/1 towards the isolation position | | OK | | Amanda Ntuli - 526239 | Train |
| 10147 | A | Reset the air in the main pipe to 10 bar+/- 0.2 bar | | OK | | Amanda Ntuli - 526239 | Train |
| 10148 | I | If necessary drain the air in the main pipe until at least one compressor starts to reset the pressure to 10 bar | | OK | | Amanda Ntuli - 526239 | Train |

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|-------|---|--|---|----|---------|-----------------------|-------|
| 10149 | R | Measure the pressure of the main pipe on A1.12 test point and verify that the pressure does not fall by more than 75 kPa (0.75 bar) after 10 minutes, from an initial pressure of 1000 kPa (10 bar). | | OK | | Amanda Ntuli - 526239 | Train |
| 10150 | R | | | OK | 1007.89 | Amanda Ntuli - 526239 | Train |
| 10151 | A | NORMALISE the isolation cocks C1.3/1 and C2.3/1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10152 | I | Air tightness of brake cylinders and auxiliary reservoirs | | OK | | Amanda Ntuli - 526239 | Train |
| 10153 | R | The pressure on the pneumatic indicator is 10 bar +/- 0.2 bar | | OK | | Amanda Ntuli - 526239 | Train |
| 10154 | A | Select driving direction to FORWARD position | | OK | | Amanda Ntuli - 526239 | Train |
| 10155 | A | Put Master Controller in 100% Service brake position | | OK | | Amanda Ntuli - 526239 | Train |
| 10156 | A | Using the manometer, check the SB values in each brake panel, in each car the pressure should not decrease more than 20kPa in over 12 minutes | | OK | | Amanda Ntuli - 526239 | Train |
| 10157 | R | SB TC1 Result Min/Max : 118<= x <= 158 (kPa) | | OK | 141 | Amanda Ntuli - 526239 | Train |
| 10158 | R | SB M4 Result Min/Max : 133<= x <= 173 (kPa) | | OK | 140 | Amanda Ntuli - 526239 | Train |
| 10159 | R | SB M1 Result Min/Max : 137<= x <= 177 (kPa) | | OK | 139 | Amanda Ntuli - 526239 | Train |
| 10160 | R | SB M2 Result Min/Max : 137<= x <= 176 (kPa) | | OK | 141 | Amanda Ntuli - 526239 | Train |
| 10161 | R | SB M3 Result Min/Max : 133<= x <= 173 (kPa) | | OK | 138 | Amanda Ntuli - 526239 | Train |
| 10162 | R | SB TC2 Result Min/Max : 118<= x <= 158 (kPa) | | OK | 142 | Amanda Ntuli - 526239 | Train |
| 10163 | R | Verify that the pressure gauge indicates the correct pressure values, according to the DDU BC: Brake cylinder(yellow indicator) MRP: Main Pipe(Red indicator) |  | OK | | Amanda Ntuli - 526239 | Train |
| 10164 | I | Draining Cock for Intercar | | OK | | Amanda Ntuli - 526239 | Train |
| 10165 | I | Air in the main pipe should be 10 bar +/- 0.2 bar | | OK | | Amanda Ntuli - 526239 | Train |
| 10166 | A | This test is to ensure that the draining cocks are fully functional | | OK | | Amanda Ntuli - 526239 | Train |

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|-------|---|--|--|----|--|-----------------------|-------|
| 10167 | A | Isolate all the cocks from M3 to M4 | | OK | | Amanda Ntuli - 526239 | Train |
| 10168 | A | Drain the air on TC1 car using the cock F2.1/1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10169 | A | Drain the air on M4 car using the cock F2.1/1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10170 | A | Drain the air on M1 car using the cock F2.1/1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10171 | A | Drain the air on M2 car using the cock F2.1/1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10172 | A | Drain the air on M3 car using the cock F2.1/1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10173 | A | Drain the air on TC2 car using the cock F2.1/1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10174 | A | Normalise all the cocks | | OK | | Amanda Ntuli - 526239 | Train |
| 10175 | A | Use the tool on the top right corner to add the manometer used for this test (serial number) | | OK | | Amanda Ntuli - 526239 | Train |
| 10176 | I | End of Test | | OK | | Amanda Ntuli - 526239 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 11 – Monitoring Circuit Breakers

11.3 Instructions list

11.3.1 080_MCB-Monitoring Circuit Breakers

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|------|---------------|--------------|----------------------------|---------|
| 10001 | I | Monitoring Circuit Breakers SPP=080 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10002 | I | TC1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10003 | A | Open the circuit breaker 15Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10004 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cb110distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10005 | A | Close the circuit breaker 15Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10006 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cb110distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10007 | A | Open the circuit breaker 13Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10008 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cb230distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10009 | A | Close the circuit breaker 13Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10010 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cb230distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10011 | A | Open the circuit breaker 57Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10012 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cb400distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10013 | A | Close the circuit breaker 57Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10014 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cb400distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10015 | A | Open the circuit breaker 72Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10016 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbauxfct = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10017 | A | Close the circuit breaker 72Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10018 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbauxfct = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10019 | A | Open the circuit breaker 40Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |

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|-------|---|---|--|----|---|-------------------------------|-------|
| 10020 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbbrake = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10021 | A | Close the circuit breaker 40Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10022 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbbrake = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10023 | A | Open the circuit breaker 50Q7 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbdoors = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10025 | A | Close the circuit breaker 50Q7 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10026 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbdoors = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10027 | A | Open the circuit breaker 22Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbenergy = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10029 | A | Close the circuit breaker 22Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10030 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbenergy = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10031 | A | Open the circuit breaker 44Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10032 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbsafetyfctr1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10033 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbsafetyfctr2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10034 | A | Close the circuit breaker 44Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10035 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbsafetyfctr1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10036 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbsafetyfctr2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10037 | A | Open the circuit breaker 72Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10038 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbsockets = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10039 | A | Close the circuit breaker 72Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10040 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbsockets = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |

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|-------|---|--|--|----|---|----------------------------|-------|
| 10041 | A | Open the circuit breaker 25Q11 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10042 | R | Read Defined Variable [TT] (MPU2)Li_DDK_Tc1CbTcms1R2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10043 | A | Close the circuit breaker 25Q11 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10044 | A | Open the circuit breaker 25Q13 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10045 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbtcms1r1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10046 | A | Close the circuit breaker 25Q13 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10047 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbtcms1r1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbtcms1r2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10049 | A | Open the circuit breaker 25Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10050 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbtcms2r1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10051 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbtcms2r2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10052 | A | Close the circuit breaker 25Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10053 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbtcms2r1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10054 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbtcms2r2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10055 | A | Open the circuit breaker 75Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10056 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbdrivingfctr1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10057 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbdrivingfctr2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10058 | A | Close the circuit breaker 75Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10059 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbdrivingfctr1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10060 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cbdrivingfctr2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10061 | I | M4 | | OK | | Mpumelelo Sithole - 529980 | Train |

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|-------|---|---|--|----|---|----------------------------|-------|
| 10062 | A | Open the circuit breaker 15Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10063 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cb110distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10064 | A | Close the circuit breaker 15Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10065 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cb110distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10066 | A | Open the circuit breaker 13Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10067 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cb230distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10068 | A | Close the circuit breaker 13Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10069 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cb230distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10070 | A | Open the circuit breaker 57Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10071 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cb400distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10072 | A | Close the circuit breaker 57Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10073 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cb400distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10074 | A | Open the circuit breaker 40Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10075 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbbrake = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10076 | A | Close the circuit breaker 40Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10077 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbbrake = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10078 | A | Open the circuit breaker 50Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10079 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbdoors = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10080 | A | Close the circuit breaker 50Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbdoors = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10082 | A | Open the circuit breaker 57Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |

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|-------|---|--|--|----|---|-------------------------------|-------|
| 10083 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbhvac = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10084 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbhvac = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10085 | A | Close the circuit breaker 57Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbhvac = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10087 | A | Open the circuit breaker 52Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10088 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cblighting = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10089 | A | Close the circuit breaker 52Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10090 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cblighting = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10091 | A | Open the circuit breaker 54Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10092 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbpacs = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10093 | A | Close the circuit breaker 54Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10094 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbpacs = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10095 | A | Open the circuit breaker 44Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10096 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbsafetyfctr1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10097 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbsafetyfctr2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10098 | A | Close the circuit breaker 44Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbsafetyfctr1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10100 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbsafetyfctr2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10101 | A | Open the circuit breaker 13Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbsockets = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10103 | A | Close the circuit breaker 13Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |

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|-------|---|--|--|----|---|-------------------------------|-------|
| 10104 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbsockets = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10105 | A | Open the circuit breaker 25Q6 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10106 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbtcms1r1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10107 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbtcms1r2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10108 | A | Close the circuit breaker 25Q6 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10109 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbtcms1r1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10110 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbtcms1r2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10111 | A | Open the circuit breaker 25Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10112 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbtcms2r1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10113 | A | Close the circuit breaker 25Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10114 | A | Open the circuit breaker 25Q14 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10115 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbtcms2r2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10116 | A | Close the circuit breaker 25Q14 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10117 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbtcms2r1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10118 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbtcms2r2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10119 | A | Open the circuit breaker 33Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10120 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbtraction = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10121 | A | Close the circuit breaker 33Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbtraction = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10123 | A | Open the circuit breaker 55Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10124 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbvideoinfo = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |

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|-------|---|---|--|----|---|----------------------------|-------|
| 10125 | A | Close the circuit breaker 55Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10126 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cbvideoinfo = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10127 | I | M1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10128 | A | Open the circuit breaker 15Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10129 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cb110distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10130 | A | Close the circuit breaker 15Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10131 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cb110distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10132 | A | Open the circuit breaker 13Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10133 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cb230distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10134 | A | Close the circuit breaker 13Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10135 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cb230distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10136 | A | Open the circuit breaker 57Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10137 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cb400distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10138 | A | Close the circuit breaker 57Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10139 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cb400distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10140 | A | Open the circuit breaker 40Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10141 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbbrake = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10142 | A | Close the circuit breaker 40Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10143 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbbrake = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10144 | A | Open the circuit breaker 50Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10145 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbdoors = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10146 | A | Close the circuit breaker 50Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |

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|-------|---|--|--|----|---|-------------------------------|-------|
| 10147 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbdoors = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10148 | A | Open the circuit breaker 21Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10149 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbenergy = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10150 | A | Close the circuit breaker 21Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10151 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbenergy = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10152 | A | Open the circuit breaker 57Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10153 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbhvac = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10154 | A | Close the circuit breaker 57Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10155 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbhvac = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10156 | A | Open the circuit breaker 52Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10157 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cblighting = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10158 | A | Close the circuit breaker 52Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10159 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cblighting = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10160 | A | Open the circuit breaker 54Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10161 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbpacs = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10162 | A | Close the circuit breaker 54Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10163 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbpacs = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10164 | A | Open the circuit breaker 44Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10165 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbsafetyfctr1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10166 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbsafetyfctr2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10167 | A | Close the circuit breaker 44Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |

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| 10168 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbsafetyfctr1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10169 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbsafetyfctr2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10170 | A | Open the circuit breaker 13Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10171 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbsockets = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10172 | A | Close the circuit breaker 13Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10173 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbsockets = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10174 | A | Open the circuit breaker 25Q6 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10175 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbtcms1r1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10176 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbtcms1r2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10177 | A | Close the circuit breaker 25Q6 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10178 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbtcms1r1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10179 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbtcms1r2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10180 | A | Open the circuit breaker 25Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10181 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbtcms2r1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10182 | A | Close the circuit breaker 25Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10183 | A | Open the circuit breaker 25Q14 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10184 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbtcms2r2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10185 | A | Close the circuit breaker 25Q14 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10186 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbtcms2r1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10187 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbtcms2r2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10188 | A | Open the circuit breaker 33Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |

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| 10189 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbtraction = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10190 | A | Close the circuit breaker 33Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10191 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbtraction = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10192 | A | Open the circuit breaker 55Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10193 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbvideoinfo = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10194 | A | Close the circuit breaker 55Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10195 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cbvideoinfo = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10196 | I | M2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10197 | A | Open the circuit breaker 15Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10198 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cb110distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10199 | A | Close the circuit breaker 15Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10200 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cb110distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10201 | A | Open the circuit breaker 13Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10202 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cb230distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10203 | A | Close the circuit breaker 13Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10204 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cb230distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10205 | A | Open the circuit breaker 57Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10206 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cb400distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10207 | A | Close the circuit breaker 57Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10208 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cb400distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10209 | A | Open the circuit breaker 40Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |

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| 10210 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbbrake = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10211 | A | Close the circuit breaker 40Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10212 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbbrake = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10213 | A | Open the circuit breaker 50Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10214 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbdoors = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10215 | A | Close the circuit breaker 50Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10216 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbdoors = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10217 | A | Open the circuit breaker 21Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10218 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbenergy = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10219 | A | Close the circuit breaker 21Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10220 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbenergy = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10221 | A | Open the circuit breaker 62Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10222 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbertmsr1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10223 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbertmsr2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10224 | A | Close the circuit breaker 62Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10225 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbertmsr1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10226 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbertmsr2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10227 | A | Open the circuit breaker 57Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10228 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbhvac = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10229 | A | Close the circuit breaker 57Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10230 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbhvac = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |

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|-------|---|--|--|----|---|----------------------------|-------|
| 10231 | A | Open the circuit breaker 52Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10232 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cblighting = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10233 | A | Close the circuit breaker 52Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10234 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cblighting = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10235 | A | Open the circuit breaker 54Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10236 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbpacs = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10237 | A | Close the circuit breaker 54Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10238 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbpacs = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10239 | A | Open the circuit breaker 44Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10240 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbsafetyfctr1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10241 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbsafetyfctr2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10242 | A | Close the circuit breaker 44Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10243 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbsafetyfctr1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10244 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbsafetyfctr2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10245 | A | Open the circuit breaker 13Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10246 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbsockets = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10247 | A | Close the circuit breaker 13Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10248 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbsockets = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10249 | A | Open the circuit breaker 25Q6 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10250 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbtcms1r1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10251 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbtcms1r2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |

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| 10252 | A | Close the circuit breaker 25Q6 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10253 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbtcms1r1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10254 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbtcms1r2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10255 | A | Open the circuit breaker 25Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10256 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbtcms2r1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10257 | A | Close the circuit breaker 25Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10258 | A | Open the circuit breaker 25Q14 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10259 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbtcms2r2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10260 | A | Close the circuit breaker 25Q14 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10261 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbtcms2r1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10262 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbtcms2r2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10263 | A | Open the circuit breaker 33Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10264 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbtraction = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10265 | A | Close the circuit breaker 33Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10266 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbtraction = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10267 | A | Open the circuit breaker 55Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10268 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbvideoinfo = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10269 | A | Close the circuit breaker 55Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10270 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cbvideoinfo = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10271 | I | M3 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10272 | A | Open the circuit breaker 15Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |

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| 10273 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cb110distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10274 | A | Close the circuit breaker 15Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10275 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cb110distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10276 | A | Open the circuit breaker 13Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10277 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cb230distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10278 | A | Close the circuit breaker 13Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10279 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cb230distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10280 | A | Open the circuit breaker 57Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10281 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cb400distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10282 | A | Close the circuit breaker 57Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10283 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cb400distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10284 | A | Open the circuit breaker 40Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10285 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbbrake = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10286 | A | Close the circuit breaker 40Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10287 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbbrake = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10288 | A | Open the circuit breaker 50Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10289 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbdoors = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10290 | A | Close the circuit breaker 50Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10291 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbdoors = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10292 | A | Open the circuit breaker 57Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10293 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbhvacc = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |

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|-------|---|--|--|----|---|----------------------------|-------|
| 10294 | A | Close the circuit breaker 57Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10295 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbhvac = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10296 | A | Open the circuit breaker 52Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10297 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cblighting = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10298 | A | Close the circuit breaker 52Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10299 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cblighting = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10300 | A | Open the circuit breaker 54Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10301 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbpacs = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10302 | A | Close the circuit breaker 54Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10303 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbpacs = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10304 | A | Open the circuit breaker 44Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10305 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbsafetyfctr1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10306 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbsafetyfctr2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10307 | A | Close the circuit breaker 44Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10308 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbsafetyfctr1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10309 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbsafetyfctr2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10310 | A | Open the circuit breaker 13Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10311 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbsockets = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10312 | A | Close the circuit breaker 13Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10313 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbsockets = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10314 | A | Open the circuit breaker 25Q6 | | OK | | Mpumelelo Sithole - 529980 | Train |

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| 10315 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbtcms1r1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10316 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbtcms1r2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10317 | A | Close the circuit breaker 25Q6 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10318 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbtcms1r1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10319 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbtcms1r2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10320 | A | Open the circuit breaker 25Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10321 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbtcms2r1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10322 | A | Close the circuit breaker 25Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10323 | A | Open the circuit breaker 25Q14 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10324 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbtcms2r2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10325 | A | Close the circuit breaker 25Q14 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10326 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbtcms2r1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10327 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbtcms2r2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10328 | A | Open the circuit breaker 33Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10329 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbtraction = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10330 | A | Close the circuit breaker 33Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10331 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbtraction = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10332 | A | Open the circuit breaker 55Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10333 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbvideoinfo = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10334 | A | Close the circuit breaker 55Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10335 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cbvideoinfo = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |

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|-------|---|--|--|----|---|----------------------------|-------|
| 10336 | I | TC2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10337 | A | Open the circuit breaker 15Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10338 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb110distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10339 | A | Close the circuit breaker 15Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10340 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb110distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10341 | A | Open the circuit breaker 13Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10342 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb230distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10343 | A | Close the circuit breaker 13Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10344 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb230distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10345 | A | Open the circuit breaker 57Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10346 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb400distrib = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10347 | A | Close the circuit breaker 57Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10348 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb400distrib = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10349 | A | Open the circuit breaker 72Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10350 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbauxfct = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10351 | A | Close the circuit breaker 72Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10352 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbauxfct = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10353 | A | Open the circuit breaker 40Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10354 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbbrake = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10355 | A | Close the circuit breaker 40Q4 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10356 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbbrake = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10357 | A | Open the circuit breaker 50Q7 | | OK | | Mpumelelo Sithole - 529980 | Train |

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|-------|---|---|--|----|---|-------------------------------|-------|
| 10358 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbdoors = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10359 | A | Close the circuit breaker 50Q7 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10360 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbdoors = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10361 | A | Open the circuit breaker 22Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10362 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbenergy = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10363 | A | Close the circuit breaker 22Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10364 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbenergy = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10365 | A | Open the circuit breaker 44Q1. | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10366 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbsafetyfctr1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10367 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbsafetyfctr2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10368 | A | Close the circuit breaker 44Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10369 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbsafetyfctr1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10370 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbsafetyfctr2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10371 | A | Open the circuit breaker 72Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10372 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbsockets = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10373 | A | Close the circuit breaker 72Q2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10374 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbsockets = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10375 | A | Open the circuit breaker 25Q11 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10376 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbtms1r1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10377 | A | Close the circuit breaker 25Q11 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10378 | A | Open the circuit breaker 25Q15 | | OK | | Mpumelelo Sithole - 529980 | Train |

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| 10379 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbtcms1r2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10380 | A | Close the circuit breaker 25Q15 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10381 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbtcms1r1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10382 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbtcms1r2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10383 | A | Open the circuit breaker 25Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10384 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbtcms2r1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10385 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbtcms2r2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10386 | A | Close the circuit breaker 25Q10 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10387 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbtcms2r1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10388 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbtcms2r2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10389 | A | Open the circuit breaker 75Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10390 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbdrivingfctr1 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10391 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbdrivingfctr2 = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10392 | A | Close the circuit breaker 75Q1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10393 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbdrivingfctr1 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10394 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbdrivingfctr2 = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10395 | R | On the Driver's event list, check there are no IOS recorded about circuit breakers | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10396 | I | End of Test | | OK | | Mpumelelo Sithole - 529980 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 12 – HVAC Air Conditioning

12.3 Instructions list

12.3.1 057_HVAC-HVAC Air Conditioning

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|---|---------------|--------------|--------------------------|---------|
| 10001 | I | Air Conditioning SPP=057 | | OK | | Sithembile Xulu - 416253 | Train |
| 10002 | I | HVAC panel key switch should be in AUTO position for all cars | | OK | | Sithembile Xulu - 416253 | Train |
| 10003 | I | Train Prepared in High voltage with active cab on TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10004 | I | Please note that HVAC has protection against too low and too high temperatures. Normally the event that HVAC will be report is BLP when the temperature is too cold, or it will report high duct temperature if the temperature is too hot. It is important to note that this is not a fault. | | OK | | Sithembile Xulu - 416253 | Train |
| 10005 | I | The HVAC parameters are set on the DDU maintenance screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10006 | I | Cabin TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10007 | I | Use the temperature sensor to verify the temperature of the cabin | | OK | | Sithembile Xulu - 416253 | Train |
| 10008 | I | Open the Program HCU_finder.exe click on the IP address of a specific car, check the picture attached |  | OK | | Sithembile Xulu - 416253 | Train |
| 10009 | I | Check the Steps below and compare with Maintenance software | | OK | | Sithembile Xulu - 416253 | Train |
| 10010 | A | Turn Key 30A1.S1 to Active Cabin Position on TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10011 | A | Select the switch 57S1 to Low-Speed Ventilation | | OK | | Sithembile Xulu - 416253 | Train |
| 10012 | A | Select the switch '57S2' to position 1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10013 | R | Temperature is set to 20°C | | OK | | Sithembile Xulu - 416253 | Train |
| 10014 | A | Select the switch '57S2' to position 2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10015 | R | Temperature is set to 22°C | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|---|--|----|---|--------------------------|-------|
| 10016 | A | Select the switch '57S2' to position 3 | | OK | | Sithembile Xulu - 416253 | Train |
| 10017 | R | Temperature is set to 24°C | | OK | | Sithembile Xulu - 416253 | Train |
| 10018 | A | Select the switch '57S2' to position 4 | | OK | | Sithembile Xulu - 416253 | Train |
| 10019 | R | Temperature is set to 26°C | | OK | | Sithembile Xulu - 416253 | Train |
| 10020 | A | Now select the switch '57S1' to High Ventilation | | OK | | Sithembile Xulu - 416253 | Train |
| 10021 | A | Select the switch '57S2' to position 1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10022 | R | Temperature is set to 20°C | | OK | | Sithembile Xulu - 416253 | Train |
| 10023 | A | Select the switch '57S2' to position 2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10024 | R | Temperature is set to 22°C | | OK | | Sithembile Xulu - 416253 | Train |
| 10025 | A | Select the switch '57S2' to position 3 | | OK | | Sithembile Xulu - 416253 | Train |
| 10026 | R | Temperature is set to 24°C | | OK | | Sithembile Xulu - 416253 | Train |
| 10027 | A | Select the switch '57S2' to position 4 | | OK | | Sithembile Xulu - 416253 | Train |
| 10028 | R | Temperature is set to 26°C | | OK | | Sithembile Xulu - 416253 | Train |
| 10029 | I | Cabin HVAC Fault on TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10030 | A | Select the switch '57S1' to OFF position | | OK | | Sithembile Xulu - 416253 | Train |
| 10031 | A | Trip the Circuit-Breaker F120 to simulate the fault. Located in HVAC Control Panel | | OK | | Sithembile Xulu - 416253 | Train |
| 10032 | A | Turn on the cabin HVAC by switch '57S1' and verify on HCU Finder if the operation is according to the selected position | | OK | | Sithembile Xulu - 416253 | Train |
| 10033 | R | Operation speed selection is working properly | | OK | | Sithembile Xulu - 416253 | Train |
| 10034 | A | Select the switch '57S1' to OFF position | | OK | | Sithembile Xulu - 416253 | Train |
| 10035 | A | Normalize the Circuit Breaker F120 | | OK | | Sithembile Xulu - 416253 | Train |
| 10036 | A | Turn on the cabin HVAC by switch '57S1' and check its behaviour. | | OK | | Sithembile Xulu - 416253 | Train |
| 10037 | I | Cabin Footrest Heater Test on TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10038 | R | Read Defined Variable [TT] | | OK | 0 | Sithembile Xulu - 416253 | Train |

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|-------|---|---|--|----|---|--------------------------|-------|
| | | (MPU1)li_hva_tc1footheaterfault__1 = 0.0 | | | | | |
| 10039 | R | Foot Heater is Off | | OK | | Sithembile Xulu - 416253 | Train |
| 10040 | A | Simulate a failure of the heater by opening circuit breaker 57Q2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10041 | A | Press the button 57S3 | | OK | | Sithembile Xulu - 416253 | Train |
| 10042 | R | Foot Heater is Off | | OK | | Sithembile Xulu - 416253 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault__1 = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10044 | A | Release '57S3' pushbutton | | OK | | Sithembile Xulu - 416253 | Train |
| 10045 | A | Close circuit breaker 57Q2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10046 | A | Press the button 57S3 to activate the foot heater | | OK | | Sithembile Xulu - 416253 | Train |
| 10047 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault__1 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10048 | R | Foot Heater is ON | | OK | | Sithembile Xulu - 416253 | Train |
| 10049 | I | HVAC Saloon TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10050 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10051 | A | On the maintenance software web-browser, clear all the alarms and events for TC1 car | | OK | | Sithembile Xulu - 416253 | Train |
| 10052 | A | Launch the HVAC test for TC1 car on the DDU maintenance screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10053 | A | On the maintenance software, check that the HVAC mode for TC1 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling | | OK | | Sithembile Xulu - 416253 | Train |
| 10054 | R | After 9 to 12 minutes, the TC1 saloon HVAC test has passed. | | OK | | Sithembile Xulu - 416253 | Train |
| 10055 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding. | | OK | | Sithembile Xulu - 416253 | Train |


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|-------|---|---|--|----|--|--------------------------|-------|
| 10056 | A | Launch the HVAC test for the TC1 Cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10057 | A | On the maintenance software, check that the HVAC mode for TC1 Cab corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling | | OK | | Sithembile Xulu - 416253 | Train |
| 10058 | R | After 9 to 12 minutes, the TC1 cab HVAC test has passed. | | OK | | Sithembile Xulu - 416253 | Train |
| 10059 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding. | | OK | | Sithembile Xulu - 416253 | Train |
| 10060 | I | HVAC Saloon M4 | | OK | | Sithembile Xulu - 416253 | Train |
| 10061 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for M4 | | OK | | Sithembile Xulu - 416253 | Train |
| 10062 | A | On the maintenance software web-browser, clear all the alarms and events for M4 car | | OK | | Sithembile Xulu - 416253 | Train |
| 10063 | A | Launch the HVAC test for M4 car on the DDU maintenance screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10064 | A | On the maintenance software, check that the HVAC mode for M4 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling | | OK | | Sithembile Xulu - 416253 | Train |
| 10065 | R | After 9 to 12 minutes, the M4 saloon HVAC test has passed. | | OK | | Sithembile Xulu - 416253 | Train |
| 10066 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding. | | OK | | Sithembile Xulu - 416253 | Train |
| 10067 | I | HVAC Saloon M1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10068 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for M1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10069 | A | On the maintenance software web-browser, clear all the alarms and events for M1 car | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|--|--------------------------|-------|
| 10070 | A | Launch the HVAC test for M1 car on the DDU maintenance screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10071 | A | On the maintenance software, check that the HVAC mode for M1 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling | | OK | | Sithembile Xulu - 416253 | Train |
| 10072 | R | After 9 to 12 minutes, the M1 saloon HVAC test has passed. | | OK | | Sithembile Xulu - 416253 | Train |
| 10073 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding. | | OK | | Sithembile Xulu - 416253 | Train |
| 10074 | I | HVAC Saloon M2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10075 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for M2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10076 | A | On the maintenance software web-browser, clear all the alarms and events for M2 car | | OK | | Sithembile Xulu - 416253 | Train |
| 10077 | A | Launch the HVAC test for M2 car on the DDU maintenance screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10078 | A | On the maintenance software, check that the HVAC mode for M2 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling | | OK | | Sithembile Xulu - 416253 | Train |
| 10079 | R | After 9 to 12 minutes, the M2 saloon HVAC test has passed. | | OK | | Sithembile Xulu - 416253 | Train |
| 10080 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding. | | OK | | Sithembile Xulu - 416253 | Train |
| 10081 | I | HVAC Saloon M3 | | OK | | Sithembile Xulu - 416253 | Train |
| 10082 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for M3 | | OK | | Sithembile Xulu - 416253 | Train |
| 10083 | A | On the maintenance software web-browser, clear all the alarms and events for M3 car | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|---|--|----|--|--------------------------|-------|
| 10084 | A | Launch the HVAC test for M3 car on the DDU maintenance screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10085 | A | On the maintenance software, check that the HVAC mode for M3 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling | | OK | | Sithembile Xulu - 416253 | Train |
| 10086 | R | After 9 to 12 minutes, the M3 saloon HVAC test has passed. | | OK | | Sithembile Xulu - 416253 | Train |
| 10087 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding. | | OK | | Sithembile Xulu - 416253 | Train |
| 10088 | I | HVAC Saloon TC2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10089 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for TC2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10090 | A | On the maintenance software web-browser, clear all the alarms and events for TC2 car | | OK | | Vuma Mlaba - 435642 | Train |
| 10091 | A | Launch the HVAC test for TC2 car on the DDU maintenance screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10092 | A | On the maintenance software, check that the HVAC mode for TC2 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling | | OK | | Vuma Mlaba - 435642 | Train |
| 10093 | R | After 9 to 12 minutes, the TC2 saloon HVAC test has passed. | | OK | | Vuma Mlaba - 435642 | Train |
| 10094 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding. | | OK | | Vuma Mlaba - 435642 | Train |
| 10095 | A | Launch the HVAC test for the TC2 Cab | | OK | | Vuma Mlaba - 435642 | Train |
| 10096 | A | On the maintenance software, check that the HVAC mode for TC2 Cab corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling | | OK | | Vuma Mlaba - 435642 | Train |
| 10097 | R | After 9 to 12 minutes, the TC2 saloon HVAC test has passed. | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|--|--|----|--|---------------------|-------|
| 10098 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding. | | OK | | Vuma Mlaba - 435642 | Train |
| 10099 | I | Cabin HVAC on TC2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10100 | I | Use the temperature sensor to verify the temperature of the cabin | | OK | | Vuma Mlaba - 435642 | Train |
| 10101 | A | Switch Active cab to TC2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10102 | I | Check the Steps below and compare with Maintenance software | | OK | | Vuma Mlaba - 435642 | Train |
| 10103 | A | Select the switch 57S1 to Low-Speed Ventilation | | OK | | Vuma Mlaba - 435642 | Train |
| 10104 | A | Select the switch 57S2 to position 1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10105 | R | Temperature is set to 20°C | | OK | | Vuma Mlaba - 435642 | Train |
| 10106 | A | Select the switch 57S2 to position 2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10107 | R | Temperature is set to 22°C | | OK | | Vuma Mlaba - 435642 | Train |
| 10108 | A | Select the switch 57S2 to position 3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10109 | R | Temperature is set to 24°C | | OK | | Vuma Mlaba - 435642 | Train |
| 10110 | A | Select the switch 57S2 to position 4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10111 | R | Temperature is set to 26°C | | OK | | Vuma Mlaba - 435642 | Train |
| 10112 | A | Now select the switch '57S1' to High Ventilation | | OK | | Vuma Mlaba - 435642 | Train |
| 10113 | A | Select the switch '57S2' to position 1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10114 | R | Temperature is set to 20°C | | OK | | Vuma Mlaba - 435642 | Train |
| 10115 | A | Select the switch '57S2' to position 2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10116 | R | Temperature is set to 22°C | | OK | | Vuma Mlaba - 435642 | Train |
| 10117 | A | Select the switch '57S2' to position 3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10118 | R | Temperature is set to 24°C | | OK | | Vuma Mlaba - 435642 | Train |
| 10119 | A | Select the switch '57S2' to position 4 | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|---|--|----|---|---------------------|-------|
| 10120 | R | Temperature is set to 26°C | | OK | | Vuma Mlaba - 435642 | Train |
| 10121 | I | Cabin HVAC Fault on TC2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10122 | A | Select the switch '57S1' to OFF position | | OK | | Vuma Mlaba - 435642 | Train |
| 10123 | A | Trip the Circuit-Breaker F120 to simulate the fault. Located in HVAC Control Panel | | OK | | Vuma Mlaba - 435642 | Train |
| 10124 | A | Turn on the cabin HVAC by switch '57S1' and verify on HCU Finder if the operation is according to the selected position | | OK | | Vuma Mlaba - 435642 | Train |
| 10125 | R | Operation speed selection is working properly | | OK | | Vuma Mlaba - 435642 | Train |
| 10126 | A | Select the switch '57S1' to OFF position | | OK | | Vuma Mlaba - 435642 | Train |
| 10127 | A | Normalize the Circuit Breaker F120 | | OK | | Vuma Mlaba - 435642 | Train |
| 10128 | A | Turn on the cabin HVAC by switch '57S1' and check its behaviour. | | OK | | Vuma Mlaba - 435642 | Train |
| 10129 | I | Cabin Footrest Heater Test on TC2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10130 | R | Read Defined Variable [TT] (MPU1)li_hva_tc2footheaterfault__1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10131 | R | Foot Heater is Off | | OK | | Vuma Mlaba - 435642 | Train |
| 10132 | A | Simulate a failure of the heater by opening circuit breaker 57Q2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10133 | A | Command '57S3' pushbutton | | OK | | Vuma Mlaba - 435642 | Train |
| 10134 | R | Read Defined Variable [TT] (MPU1)li_hva_tc2footheaterfault__1 = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10135 | R | Foot Heater is Off | | OK | | Vuma Mlaba - 435642 | Train |
| 10136 | A | Release '57S3' pushbutton | | OK | | Vuma Mlaba - 435642 | Train |
| 10137 | A | Close 57Q2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10138 | A | Command '57S3' pushbutton | | OK | | Vuma Mlaba - 435642 | Train |
| 10139 | R | Read Defined Variable [TT] (MPU1)li_hva_tc2footheaterfault__1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10140 | R | Foot Heater is ON | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|--|---|----|--|--------------------------|-------|
| 10141 | I | Emergency Ventilation Mode | | OK | | Vuma Mlaba - 435642 | Train |
| 10142 | R | All HVACs are working in NORMAL condition |  | OK | | Vuma Mlaba - 435642 | Train |
| 10143 | A | Switch off the catenary voltage 3kV | | OK | | Vuma Mlaba - 435642 | Train |
| 10144 | R | Both Auxiliary Converter stop to work | | OK | | Sithembile Xulu - 416253 | Train |
| 10145 | R | 400 V AC is not present on train | | OK | | Sithembile Xulu - 416253 | Train |
| 10146 | R | No high voltage power is available on HVAC unit to operate Ventilation and Cooling or Heating. | | OK | | Sithembile Xulu - 416253 | Train |
| 10147 | R | All HVAC units and Cab HVAC units stop | | OK | | Sithembile Xulu - 416253 | Train |
| 10148 | R | After about 45 seconds without 400V, Auxiliary Converter will generate 400V from Train Batteries with an inverter. | | OK | | Sithembile Xulu - 416253 | Train |
| 10149 | R | After this time about (45s) All HVAC units will operate in "Emergency Ventilation" | | OK | | Sithembile Xulu - 416253 | Train |
| 10150 | A | Switch on the 3kV on the catenary | | OK | | Sithembile Xulu - 416253 | Train |
| 10151 | R | Now, 400V AC is available by Auxiliary Converter | | OK | | Sithembile Xulu - 416253 | Train |
| 10152 | R | All HVAC units and Cab HVAC units only operate Ventilation with maximum fresh airflow, Air Extractor are switch ON | | OK | | Sithembile Xulu - 416253 | Train |
| 10153 | I | End of Test | | OK | | Vuma Mlaba - 435642 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 13 – Driving Command

13.3 Instructions list

13.3.1 030_DRC-Driving Command

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|------|---------------|--------------|--------------------------|---------|
| 10001 | I | Driving command = SPP 30 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10002 | I | Initial Conditions | | OK | | Anthonia Mabowa - 494131 | Train |
| 10003 | I | Train should be prepared with High voltage | | OK | | Anthonia Mabowa - 494131 | Train |
| 10004 | I | Deadman override switch 60S1 must be in OVERRIDE position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10005 | I | Driving command TC1 side | | OK | | Anthonia Mabowa - 494131 | Train |
| 10006 | I | Direction Selector Switch TC1 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10007 | A | Put the Direction selector switch 30A1.S2 in NEUTRAL position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10008 | R | Read Defined Variable [TT] (TBCU1)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10009 | R | Read Defined Variable [TT] (TBCU2)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10010 | R | Read Defined Variable [TT] (TBCU3)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10011 | R | Read Defined Variable [TT] (TBCU4)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10012 | R | Read Defined Variable [TT] (TBCU1)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10013 | R | Read Defined Variable [TT] (TBCU2)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10014 | R | Read Defined Variable [TT] (TBCU3)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10015 | R | Read Defined Variable [TT] (TBCU4)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10016 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1dsnozeror1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10017 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1dsreverser1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |

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|-------|---|---|--|----|---|--------------------------|-------|
| 10018 | A | Put the Direction selector switch 30A1.S2 in FORWARD position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10019 | R | Read Defined Variable [TT] (TBCU1)LI_FORWARD = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10020 | R | Read Defined Variable [TT] (TBCU2)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10021 | R | Read Defined Variable [TT] (TBCU3)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10022 | R | Read Defined Variable [TT] (TBCU4)LI_FORWARD = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10023 | R | Read Defined Variable [TT] (TBCU1)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10024 | R | Read Defined Variable [TT] (TBCU2)LI_REVERSE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10025 | R | Read Defined Variable [TT] (TBCU3)LI_REVERSE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10026 | R | Read Defined Variable [TT] (TBCU4)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1dsnozeror1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1dsreverser1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10029 | A | Put the Direction selector switch 30A1.S2 in REVERSE position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10030 | R | Read Defined Variable [TT] (TBCU1)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10031 | R | Read Defined Variable [TT] (TBCU2)LI_FORWARD = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10032 | R | Read Defined Variable [TT] (TBCU3)LI_FORWARD = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10033 | R | Read Defined Variable [TT] (TBCU4)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10034 | R | Read Defined Variable [TT] (TBCU1)LI_REVERSE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10035 | R | Read Defined Variable [TT] (TBCU2)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |

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|-------|---|---|--|----|---|-----------------------------|-------|
| 10036 | R | Read Defined Variable [TT] (TBCU3)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10037 | R | Read Defined Variable [TT] (TBCU4)LI_REVERSE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10038 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1dsnozeror1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10039 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1dsreverser1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10040 | I | Reduced Power Test TC1 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10041 | I | Button Lamp 30S2 is OFF | | OK | | Anthonia Mabowa - 494131 | Train |
| 10042 | I | Driving mode switch in SPEED CONTROL mode | | OK | | Anthonia Mabowa - 494131 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1reducedpowerr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc1reducedlampr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10045 | A | Press button 30S2 to activate the reduced power mode and maintain it | | OK | | Anthonia Mabowa - 494131 | Train |
| 10046 | R | Button Lamp 30S2 is ON | | OK | | Anthonia Mabowa - 494131 | Train |
| 10047 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1reducedpowerr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc1reducedlampr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10049 | A | Release the button 30S2 and press it again to de-activate reduced power mode | | OK | | Anthonia Mabowa - 494131 | Train |
| 10050 | R | Button Lamp 30S2 is OFF | | OK | | Anthonia Mabowa - 494131 | Train |
| 10051 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1reducedpowerr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10052 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc1reducedlampr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10053 | A | Put the driving mode switch to EFFORT mode | | OK | | Anthonia Mabowa - 494131 | Train |
| 10054 | A | Press button 30S2 to activate the reduced power mode and maintain it | | OK | | Anthonia Mabowa - 494131 | Train |

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|-------|---|---|--|----|---|-----------------------------|-------|
| 10055 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1reducedpowerr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10056 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc1reducedlampr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10057 | A | Release the button 30S2 and press it again to de-activate reduced power mode | | OK | | Anthonia Mabowa - 494131 | Train |
| 10058 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1reducedpowerr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10059 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc1reducedlampr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10060 | I | It not possible to activate reduced power in depot or coupling mode | | OK | | Anthonia Mabowa - 494131 | Train |
| 10061 | A | Put the driving mode switch to DEPOT mode | | OK | | Anthonia Mabowa - 494131 | Train |
| 10062 | A | Press button 30S2 to activate the reduced power mode and maintain it | | OK | | Anthonia Mabowa - 494131 | Train |
| 10063 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc1reducedlampr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10064 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1reducedpowerr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10065 | A | Release the button 30S2 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10066 | A | Put the driving mode switch to COUPLING mode | | OK | | Anthonia Mabowa - 494131 | Train |
| 10067 | A | Press button 30S2 to activate the reduced power mode and maintain it | | OK | | Anthonia Mabowa - 494131 | Train |
| 10068 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc1reducedlampr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10069 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1reducedpowerr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10070 | A | Release the button 30S2 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10071 | I | Master Controller / No Brake | | OK | | Anthonia Mabowa - 494131 | Train |
| 10072 | I | The direction selector switch 30A1.S2 must be in NEUTRAL position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10073 | I | The Master controller of Traction/Brake should be on OFF position | | OK | | Anthonia Mabowa - 494131 | Train |

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|-------|---|---|--|----|------|-----------------------------|-------|
| 10074 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10075 | I | The Traction Interlock Override Switch 31S1 should be in NORMAL position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10076 | R | Read Defined Variable [TT] UBK_EmgcyBrkApld = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10077 | R | LED 31H1 is OFF on the alarm module | | OK | | Anthonia Mabowa - 494131 | Train |
| 10078 | R | LED 44H4 is "ON" on the alarm module | | OK | | Anthonia Mabowa - 494131 | Train |
| 10079 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10080 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10081 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10082 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10083 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10084 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10085 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10086 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10087 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10088 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10089 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10090 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10091 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpositionch1 : 5479<= x <= 6369 | | OK | 5968 | Anthonia Mabowa - 494131 | Train |
| 10092 | R | Read Min/Max [TT] | | OK | 5952 | Anthonia Mabowa - 494131 | Train |

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|-------|---|---|--|----|---|-----------------------------|-------|
| | | (MPU1)ai_drc_tc1mcpositionch2 : 5479<= x <= 6369 | | | | | |
| 10093 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mctractior1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10094 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mctractior2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10095 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcnoastr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10096 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcnoastr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10097 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcbraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcbraker2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcemergencybraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10100 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcemergencybraker2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10101 | A | Put the Direction selector switch 30A1.S2 in FORWARD position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10102 | R | Read Defined Variable [TT] UBK_EmgcyBrkApd = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10103 | R | LED 44H4 is OFF on the alarm module | | OK | | Anthonia Mabowa - 494131 | Train |
| 10104 | R | LED 31H1 is "ON" on the alarm module | | OK | | Anthonia Mabowa - 494131 | Train |
| 10105 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10106 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10107 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10108 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10109 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10110 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |

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|-------|---|--|--|----|------|-----------------------------|-------|
| 10111 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10112 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10113 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10114 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10115 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10116 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10117 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpoositionch1 : 5479<= x <= 6369 | | OK | 5984 | Anthonia Mabowa - 494131 | Train |
| 10118 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpoositionch2 : 5479<= x <= 6369 | | OK | 5952 | Anthonia Mabowa - 494131 | Train |
| 10119 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mctractio nr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10120 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mctractio nr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcnoastr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcnoastr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10123 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcbraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10124 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcbraker2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10125 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcemergencybraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10126 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcemergencybraker2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10127 | I | For safety purposes ENSURE that NO one is working NEAR, OUTSIDE or on the DOORS of the Train | | OK | | Anthonia Mabowa - 494131 | Train |

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|-------|---|---|--|----|---|--------------------------|-------|
| 10128 | A | Press Automatic Start Button to Drop the Pantographs | | OK | | Anthonia Mabowa - 494131 | Train |
| 10129 | A | Timer 15.0 S | | OK | | Anthonia Mabowa - 494131 | Train |
| 10130 | R | Read Defined Variable [TT] (MPU1)li_pnt_m1pantorisedr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10131 | R | Read Defined Variable [TT] (MPU1)li_pnt_m1pantorisedr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10132 | R | Read Defined Variable [TT] (MPU1)li_pnt_m2pantorisedr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10133 | R | Read Defined Variable [TT] (MPU1)li_pnt_m2pantorisedr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10134 | A | Put the Master controller of Traction/Brake in 100% TRACTION position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10135 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10136 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10137 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10138 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10139 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10140 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10141 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10142 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10143 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10144 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10145 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |

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|-------|---|--|--|----|-------|-----------------------------|-------|
| 10146 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10147 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpositionch1 : 29183<= x <= 31102 | | OK | 30864 | Anthonia Mabowa - 494131 | Train |
| 10148 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpositionch2 : 29183<= x <= 31102 | | OK | 30800 | Anthonia Mabowa - 494131 | Train |
| 10149 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mctractio1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10150 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mctractio2 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10151 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcnoastr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10152 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcnoastr2 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10153 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcbrake1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10154 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcbrake2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10155 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcemergencybrake1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10156 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcemergencybrake2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10157 | A | Put the Master controller of Traction/Brake in OFF position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10158 | R | Read Defined Variable [TT] (BCU1)LI_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10159 | R | Read Defined Variable [TT] (BCU2)LI_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10160 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10161 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10162 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |

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| 10163 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10164 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10165 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10166 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10167 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10168 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10169 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10170 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpositionch1 : 5479<= x <= 6369 | | OK | 5984 | Anthonia Mabowa - 494131 | Train |
| 10171 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpositionch2 : 5479<= x <= 6369 | | OK | 5952 | Anthonia Mabowa - 494131 | Train |
| 10172 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mctractonr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10173 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mctractonr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10174 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcnoastr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10175 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcnoastr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10176 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcbraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10177 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcbraker2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10178 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcemergencybraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10179 | A | Put the direction selector switch in REVERSE position | | OK | | Anthonia Mabowa - 494131 | Train |

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|-------|---|---|--|----|-------|--------------------------|-------|
| 10180 | A | Put the Master controller of Traction/Brake in 100% BRAKE position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10181 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10182 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10183 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10184 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10185 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10186 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10187 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10188 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10189 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10190 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10191 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10192 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10193 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpoitionch1 : 29183<= x <= 31102 | | OK | 30032 | Anthonia Mabowa - 494131 | Train |
| 10194 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpoitionch2 : 29183<= x <= 31102 | | OK | 30704 | Anthonia Mabowa - 494131 | Train |
| 10195 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mtractionr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10196 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mtractionr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10197 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcnoastr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |

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| 10198 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcnoastr2 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10199 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcbraker1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10200 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcbraker2 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10201 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcemergencybraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10202 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcemergencybraker2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10203 | A | Put the Master controller of Traction/Brake in EMERGENCY BRAKE position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10204 | R | Read Defined Variable [TT] (BCU1)LI_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10205 | R | Read Defined Variable [TT] (BCU2)LI_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10206 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10207 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10208 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10209 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10210 | R | Read Defined Variable [TT] (BCU1)LI_noBrake = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10211 | R | Read Defined Variable [TT] (BCU2)LI_noBrake = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10212 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10213 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10214 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |

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| 10215 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10216 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpositionch1 : 29183<= x <= 31102 | | OK | 30864 | Anthonia Mabowa - 494131 | Train |
| 10217 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpositionch2 : 29183<= x <= 31102 | | OK | 30800 | Anthonia Mabowa - 494131 | Train |
| 10218 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mctractior1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10219 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mctractior2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10220 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcnoastr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10221 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcnoastr2 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10222 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcbraker1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10223 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcbraker2 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10224 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcemergencybraker1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10225 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcemergencybraker2 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10226 | I | Driving command TC2 side | | OK | | Anthonia Mabowa - 494131 | Train |
| 10227 | I | Direction Selector Switch TC2 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10228 | A | Switch active cab to TC2 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10229 | A | Press 21S1 to raise the Pantographs | | OK | | Anthonia Mabowa - 494131 | Train |
| 10230 | A | Press 22S11 to close the HSCB | | OK | | Anthonia Mabowa - 494131 | Train |
| 10231 | A | Put the Direction selector switch 30A1.S2 in NEUTRAL position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10232 | R | Read Defined Variable [TT] (TBCU1)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |

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| 10233 | R | Read Defined Variable [TT] (TBCU2)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10234 | R | Read Defined Variable [TT] (TBCU3)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10235 | R | Read Defined Variable [TT] (TBCU4)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10236 | R | Read Defined Variable [TT] (TBCU1)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10237 | R | Read Defined Variable [TT] (TBCU2)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10238 | R | Read Defined Variable [TT] (TBCU3)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10239 | R | Read Defined Variable [TT] (TBCU4)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10240 | A | Put the Direction selector switch 30A1.S2 in FORWARD position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10241 | R | Read Defined Variable [TT] (TBCU1)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10242 | R | Read Defined Variable [TT] (TBCU2)LI_FORWARD = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10243 | R | Read Defined Variable [TT] (TBCU3)LI_FORWARD = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10244 | R | Read Defined Variable [TT] (TBCU4)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10245 | R | Read Defined Variable [TT] (TBCU1)LI_REVERSE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10246 | R | Read Defined Variable [TT] (TBCU2)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10247 | R | Read Defined Variable [TT] (TBCU3)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10248 | R | Read Defined Variable [TT] (TBCU4)LI_REVERSE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10249 | A | Put the Direction selector switch 30A1.S2 in REVERSE position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10250 | R | Read Defined Variable [TT] (TBCU1)LI_FORWARD = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |

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| 10251 | R | Read Defined Variable [TT] (TBCU2)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10252 | R | Read Defined Variable [TT] (TBCU3)LI_FORWARD = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10253 | R | Read Defined Variable [TT] (TBCU4)LI_FORWARD = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10254 | R | Read Defined Variable [TT] (TBCU1)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10255 | R | Read Defined Variable [TT] (TBCU2)LI_REVERSE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10256 | R | Read Defined Variable [TT] (TBCU3)LI_REVERSE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10257 | R | Read Defined Variable [TT] (TBCU4)LI_REVERSE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10258 | A | Put Master Controller in OFF position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10259 | I | Button Lamp 30S2 is OFF | | OK | | Anthonia Mabowa - 494131 | Train |
| 10260 | I | Reduced Power Test TC2 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10261 | A | Put the driving mode switch in SPEED CONTROL mode | | OK | | Anthonia Mabowa - 494131 | Train |
| 10262 | A | Press button 30S2 to activate the reduced power mode and maintain it | | OK | | Anthonia Mabowa - 494131 | Train |
| 10263 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2reducedpowerr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10264 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc2reducedlampr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10265 | R | Button Lamp 30S2 is ON | | OK | | Anthonia Mabowa - 494131 | Train |
| 10266 | A | Release the button 30S2 and press it again to de-activate reduced power mode | | OK | | Anthonia Mabowa - 494131 | Train |
| 10267 | R | Button Lamp 30S2 is OFF | | OK | | Anthonia Mabowa - 494131 | Train |
| 10268 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2reducedpowerr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10269 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc2reducedlampr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10270 | A | Put the driving mode switch to EFFORT mode | | OK | | Anthonia Mabowa - 494131 | Train |

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| 10271 | A | Press button 30S2 to activate the reduced power mode and maintain it | | OK | | Anthonia Mabowa - 494131 | Train |
| 10272 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2reducedpowerr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10273 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc2reducedlampr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10274 | A | Release the button 30S2 and press it again to de-activate reduced power mode | | OK | | Anthonia Mabowa - 494131 | Train |
| 10275 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc2reducedlampr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10276 | I | It not possible to activate reduced power in depot or coupling mode | | OK | | Anthonia Mabowa - 494131 | Train |
| 10277 | A | Put the driving mode switch to DEPOT mode | | OK | | Anthonia Mabowa - 494131 | Train |
| 10278 | A | Press button 30S2 to activate the reduced power mode and maintain it | | OK | | Anthonia Mabowa - 494131 | Train |
| 10279 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc2reducedlampr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10280 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2reducedpowerr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10281 | A | Release the button 30S2 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10282 | A | Put the driving mode switch to COUPLING mode | | OK | | Anthonia Mabowa - 494131 | Train |
| 10283 | A | Press button 30S2 to activate the reduced power mode and maintain it | | OK | | Anthonia Mabowa - 494131 | Train |
| 10284 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2reducedpowerr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10285 | R | Read Defined Variable [TT] (MPU1)lo_drc_tc2reducedlampr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10286 | A | Release the button 30S2 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10287 | I | Master Controller/ No Brake | | OK | | Anthonia Mabowa - 494131 | Train |
| 10288 | I | The direction selector switch 30A1.S2 must be in NEUTRAL position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10289 | I | The Master controller of Traction/Brake should be on OFF position | | OK | | Anthonia Mabowa - 494131 | Train |

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|-------|---|--|--|----|------|--------------------------|-------|
| 10290 | I | Emergency Brake must be applied | | OK | | Anthonia Mabowa - 494131 | Train |
| 10291 | I | All doors should be closed | | OK | | Anthonia Mabowa - 494131 | Train |
| 10292 | I | The Traction Interlock Override Switch 31S1 should be in NORMAL position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10293 | R | LED 31H1 is OFF on the alarm module | | OK | | Anthonia Mabowa - 494131 | Train |
| 10294 | R | LED 44H4 is "ON" on the alarm module | | OK | | Anthonia Mabowa - 494131 | Train |
| 10295 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10296 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10297 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10298 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10299 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10300 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10301 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10302 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10303 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10304 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10305 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10306 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10307 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch1 : 5479<= x <= 6369 | | OK | 6032 | Anthonia Mabowa - 494131 | Train |
| 10308 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch2 : 5479<= x <= 6369 | | OK | 5968 | Anthonia Mabowa - 494131 | Train |

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|-------|---|--|--|----|---|-----------------------------|-------|
| 10309 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractio1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10310 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractio2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10311 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcnoastr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10312 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcnoastr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10313 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcbraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10314 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcbraker2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10315 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcemergencybraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10316 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcemergencybraker2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10317 | A | Put the Direction selector switch 30A1.S2 in FORWARD position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10318 | I | No emergency brake is applied | | OK | | Anthonia Mabowa - 494131 | Train |
| 10319 | R | LED 44H4 is OFF on the alarm module | | OK | | Anthonia Mabowa - 494131 | Train |
| 10320 | R | LED 31H1 is "ON" on the alarm module | | OK | | Anthonia Mabowa - 494131 | Train |
| 10321 | R | Relay 31K1 and 31K2 are energized | | OK | | Anthonia Mabowa - 494131 | Train |
| 10322 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10323 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10324 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10325 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10326 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10327 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |

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|-------|---|--|--|----|------|-----------------------------|-------|
| 10328 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10329 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10330 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10331 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10332 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10333 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10334 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch1 : 5479<= x <= 6369 | | OK | 6032 | Anthonia Mabowa - 494131 | Train |
| 10335 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch2 : 5479<= x <= 6369 | | OK | 5952 | Anthonia Mabowa - 494131 | Train |
| 10336 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractior1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10337 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractior2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10338 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcnoastr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10339 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcnoastr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10340 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcbraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10341 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcbraker2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10342 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcemergencybraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10343 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcemergencybraker2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10344 | I | For safety purposes ENSURE that NO one is working NEAR, OUTSIDE or on the DOORS of the Train | | OK | | Anthonia Mabowa - 494131 | Train |

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|-------|---|---|--|----|---|--------------------------|-------|
| 10345 | A | Press Automatic Start Button to Drop the Pantographs | | OK | | Anthonia Mabowa - 494131 | Train |
| 10346 | A | Timer 15.0 S | | OK | | Anthonia Mabowa - 494131 | Train |
| 10347 | R | Read Defined Variable [TT] (MPU1)li_pnt_m1pantorisedr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10348 | R | Read Defined Variable [TT] (MPU1)li_pnt_m1pantorisedr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10349 | R | Read Defined Variable [TT] (MPU1)li_pnt_m2pantorisedr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10350 | R | Read Defined Variable [TT] (MPU1)li_pnt_m2pantorisedr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10351 | A | Put the Master controller of Traction/Brake in 100% TRACTION position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10352 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10353 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10354 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10355 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10356 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10357 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10358 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10359 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10360 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10361 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10362 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |

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|-------|---|--|--|----|-------|-----------------------------|-------|
| 10363 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10364 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch1 : 29183<= x <= 31102 | | OK | 30960 | Anthonia Mabowa - 494131 | Train |
| 10365 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch2 : 29183<= x <= 31102 | | OK | 30848 | Anthonia Mabowa - 494131 | Train |
| 10366 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractioanr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10367 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractioanr2 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10368 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcnoastr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10369 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcnoastr2 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10370 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcbraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10371 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcbraker2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10372 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcemergencybraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10373 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcemergencybraker2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10374 | A | Put the Master controller of Traction/Brake in OFF position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10375 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10376 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10377 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10378 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10379 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |

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|-------|---|---|--|----|------|-----------------------------|-------|
| 10380 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10381 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10382 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10383 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10384 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10385 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10386 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10387 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch1 : 5479<= x <= 6369 | | OK | 6032 | Anthonia Mabowa - 494131 | Train |
| 10388 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch2 : 5479<= x <= 6369 | | OK | 5952 | Anthonia Mabowa - 494131 | Train |
| 10389 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractonr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10390 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractonr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10391 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcnoastr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10392 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcnoastr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10393 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcbraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10394 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcbraker2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10395 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcemergencybraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10396 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcemergencybraker2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |

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|-------|---|--|--|----|-------|--------------------------|-------|
| 10397 | A | Put the Master controller of Traction/Brake in 100% BRAKE position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10398 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10399 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10400 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10401 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10402 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10403 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10404 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10405 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10406 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10407 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10408 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10409 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10410 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch1 : 29183<= x <= 31102 | | OK | 30960 | Anthonia Mabowa - 494131 | Train |
| 10411 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch2 : 29183<= x <= 31102 | | OK | 30832 | Anthonia Mabowa - 494131 | Train |
| 10412 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractonr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10413 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractonr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10414 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcnoastr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |

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|-------|---|---|--|----|---|-----------------------------|-------|
| 10415 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcnoastr2 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10416 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcbraker1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10417 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcbraker2 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10418 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcemergencybraker1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10419 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcemergencybraker2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10420 | A | Put the Master controller of Traction/Brake in EMERGENCY BRAKE position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10421 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10422 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10423 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10424 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10425 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10426 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10427 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10428 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10429 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10430 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10431 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |

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|-------|---|--|--|----|-------|-----------------------------|-------|
| 10432 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10433 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch1 : 29183<= x <= 31102 | | OK | 30960 | Anthonia Mabowa - 494131 | Train |
| 10434 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch2 : 29183<= x <= 31102 | | OK | 30848 | Anthonia Mabowa - 494131 | Train |
| 10435 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractonr1 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10436 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractonr2 = 0.0 | | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10437 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcnoastr1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10438 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcnoastr2 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10439 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcbraker1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10440 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcbraker2 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10441 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcemergencybraker1 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10442 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcemergencybraker2 = 1.0 | | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10443 | A | Put the Master controller of Traction/Brake in OFF position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10444 | A | Put the direction switch to NEUTRAL position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10445 | A | Close HSCB using button 22S11 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10446 | I | End of Test | | OK | | Anthonia Mabowa - 494131 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 14 – Holding and Parking Brake

14.3 Instructions list

14.3.1 045_PBK-Holding and Parking Brake

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|------|---------------|--------------|-----------------------|---------|
| 10001 | I | Parking brake SPP= 045 | | OK | | Amanda Ntuli - 526239 | Train |
| 10002 | I | Initial Conditions | | OK | | Amanda Ntuli - 526239 | Train |
| 10003 | I | Train must be properly scotched with sufficient scotch blocked to prevent it from moving | | OK | | Amanda Ntuli - 526239 | Train |
| 10004 | I | Automatic parking brake application | | OK | | Amanda Ntuli - 526239 | Train |
| 10005 | I | Train in LV ready with active cab on TC1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10006 | A | Release parking brake using the switch 45S1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10007 | R | Verify on the DDU that all cars have parking brake released | | OK | | Amanda Ntuli - 526239 | Train |
| 10008 | A | Force [TT] (MPU1)lo_air_tc1compenabler1 = 0.0 | | OK | | Amanda Ntuli - 526239 | Train |
| 10009 | A | Force [TT] (MPU1)lo_air_tc1compenabler2 = 0.0 | | OK | | Amanda Ntuli - 526239 | Train |
| 10010 | A | Force [TT] (MPU1)lo_air_tc2compenabler1 = 0.0 | | OK | | Amanda Ntuli - 526239 | Train |
| 10011 | A | Force [TT] (MPU1)lo_air_tc2compenabler2 = 0.0 | | OK | | Amanda Ntuli - 526239 | Train |
| 10012 | A | Drain the air from the main pipe until it reaches 0bar | | OK | | Amanda Ntuli - 526239 | Train |
| 10013 | R | Main pipe pressure is 0bar on the Pneumatic indicator | | OK | | Amanda Ntuli - 526239 | Train |
| 10014 | R | Verify on the DDU that all cars have parking brake applied | | OK | | Amanda Ntuli - 526239 | Train |
| 10015 | R | Lamp 45H2 is "ON" on the alarm module | | OK | | Amanda Ntuli - 526239 | Train |
| 10016 | R | Read Defined Variable [TT] (MPU1)tbcu2_parkbrakerelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10017 | R | Read Defined Variable [TT] (MPU1)TBCU1_parkbrakerelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |

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|-------|---|--|--|----|---|-----------------------|-------|
| 10018 | R | Read Defined Variable [TT] (MPU1)bcu1_parkbrakerelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10019 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakeRelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10020 | R | Read Defined Variable [TT] (MPU1)tbcu3_parkbrakerelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10021 | R | Read Defined Variable [TT] (MPU1)tbcu4_parkbrakerelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10022 | R | Read Defined Variable [TT] (MPU1)tbcu1_li_pbrake_stat = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_pbrake_stat = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_pbrake_stat = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10025 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_pbrake_stat = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10026 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakeIsolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)TBCU1_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)tbcu2_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10029 | R | Read Defined Variable [TT] (MPU1)bcu1_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10030 | R | Read Defined Variable [TT] (MPU1)tbcu3_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)tbcu4_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10032 | R | Read Defined Variable [TT] (BCU1)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10033 | R | Read Defined Variable [TT] (BCU2)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10034 | R | Read Defined Variable [TT] (TBCU1)LI_PARK_BR_RELEASE = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10035 | R | Read Defined Variable [TT] (TBCU2)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |

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|-------|---|---|--|----|---|-----------------------|-------|
| 10036 | R | Read Defined Variable [TT] (TBCU3)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10037 | R | Read Defined Variable [TT] (TBCU4)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10038 | A | Release [TT] (MPU1)lo_air_tc1compenabler1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10039 | A | Release [TT] (MPU1)lo_air_tc1compenabler2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10040 | A | Release [TT] (MPU1)lo_air_tc2compenabler1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10041 | A | Release [TT] (MPU1)lo_air_tc2compenabler2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10042 | A | Press the automatic start button 20S1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1compenabler1 = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2compenabler1 = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10045 | R | After 10 minutes, the air in the main pipe is 10bar +/-0.2bar | | OK | | Amanda Ntuli - 526239 | Train |
| 10046 | A | Turn the switch 45S1 to release parking brake | | OK | | Amanda Ntuli - 526239 | Train |
| 10047 | R | Lamp 45H2 is OFF on the alarm module | | OK | | Amanda Ntuli - 526239 | Train |
| 10048 | I | Parking brake is released in all cars | | OK | | Amanda Ntuli - 526239 | Train |
| 10049 | R | Lamp 45H2 is OFF on the alarm module | | OK | | Amanda Ntuli - 526239 | Train |
| 10050 | R | On the Driver's event list, there is no message reporting parking brake release failure | | OK | | Amanda Ntuli - 526239 | Train |
| 10051 | R | Read Defined Variable [TT] (MPU1)tbcu2_parkbrakerelease = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10052 | R | Read Defined Variable [TT] (MPU1)TBCU1_parkbrakerelease = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10053 | R | Read Defined Variable [TT] (MPU1)bcu1_parkbrakerelease = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10054 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakeRelease = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |

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|-------|---|--|--|----|---|-----------------------|-------|
| 10055 | R | Read Defined Variable [TT] (MPU1)tbcu3_parkbrakerelease = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10056 | R | Read Defined Variable [TT] (MPU1)tbcu4_parkbrakerelease = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10057 | R | Read Defined Variable [TT] (MPU1)tbcu1_li_pbrake_stat = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10058 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_pbrake_stat = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10059 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_pbrake_stat = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10060 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_pbrake_stat = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10061 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakeIsolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10062 | R | Read Defined Variable [TT] (MPU1)TBCU1_parkbrakeisoldc = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10063 | R | Read Defined Variable [TT] (MPU1)tbcu2_parkbrakeisoldc = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10064 | R | Read Defined Variable [TT] (MPU1)bcu1_parkbrakeisoldc = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10065 | R | Read Defined Variable [TT] (MPU1)tbcu3_parkbrakeisoldc = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10066 | R | Read Defined Variable [TT] (MPU1)tbcu4_parkbrakeisoldc = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10067 | R | Read Defined Variable [TT] (BCU1)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10068 | R | Read Defined Variable [TT] (BCU2)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10069 | R | Read Defined Variable [TT] (TBCU1)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10070 | R | Read Defined Variable [TT] (TBCU2)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10071 | R | Read Defined Variable [TT] (TBCU3)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10072 | R | Read Defined Variable [TT] (TBCU4)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10073 | I | Remote parking brake application TC1 | | OK | | Amanda Ntuli - 526239 | Train |

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|-------|---|---|--|----|------|-----------------------|-------|
| 10074 | A | Turn the switch 45S1 to parking brake release | | OK | | Amanda Ntuli - 526239 | Train |
| 10075 | R | Lamp 45H2 is OFF on the alarm module | | OK | | Amanda Ntuli - 526239 | Train |
| 10076 | R | Measure the pressure of the test point C1.11 on TC1, test point must be set to 6 bar Read Undefined Value : x () | | OK | 6.21 | Amanda Ntuli - 526239 | Train |
| 10077 | R | Measure the pressure of the test point C2.11 on M4, test point must be set to 6 bar Read Undefined Value : x () | | OK | 6.13 | Amanda Ntuli - 526239 | Train |
| 10078 | R | Measure the pressure of the test point C2.11 on M1, test point must be set to 6 bar Read Undefined Value : x () | | OK | 6.11 | Amanda Ntuli - 526239 | Train |
| 10079 | R | Measure the pressure of the test point C2.11 on M2, test point must be set to 6 bar Read Undefined Value : x () | | OK | 6.07 | Amanda Ntuli - 526239 | Train |
| 10080 | R | Measure the pressure of the test point C2.11 on M3, test point must be set to 6 bar Read Undefined Value : x () | | OK | 6.09 | Amanda Ntuli - 526239 | Train |
| 10081 | R | Measure the pressure of the test point C1.11 on TC2, test point must be set to 6 bar Read Undefined Value : x () | | OK | 6.21 | Amanda Ntuli - 526239 | Train |
| 10082 | A | Turn the switch 45S1 to apply parking brake | | OK | | Amanda Ntuli - 526239 | Train |
| 10083 | R | Lamp 45H2 is ON on the alarm module | | OK | | Amanda Ntuli - 526239 | Train |
| 10084 | R | Measure the pressure of the test point C1.11 on TC1, test point must below 4.8 bar Result Max : x <= 5 (Bar) | | OK | 1.69 | Amanda Ntuli - 526239 | Train |
| 10085 | R | Measure the pressure of the test point C1.11 on M4, test point must below 4.8 bar Result Max : x <= 5 (Bar) | | OK | 2.12 | Amanda Ntuli - 526239 | Train |
| 10086 | R | Measure the pressure of the test point C2.11 on M1, test point must below 4.8 bar Result Max : x <= 5 (Bar) | | OK | 2.14 | Amanda Ntuli - 526239 | Train |
| 10087 | R | Measure the pressure of the test point C2.11 on M2, test point must below 4.8 bar Result Max : x <= 5 (Bar) | | OK | 3.12 | Amanda Ntuli - 526239 | Train |
| 10088 | R | Measure the pressure of the test point C2.11 on M3, test point must below 4.8 bar Result Max : x <= 5 (Bar) | | OK | 2.38 | Amanda Ntuli - 526239 | Train |
| 10089 | R | Measure the pressure of the test point C1.11 on TC2, test point must below 4.8 | | OK | 1.66 | Amanda Ntuli - 526239 | Train |

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|-------|---|--|--|----|---|-----------------------|-------|
| | | bar Result Max : x <= 5 (Bar) | | | | | |
| 10090 | R | Read Defined Variable [TT] (MPU1)tbcu2_parkbrakerelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10091 | R | Read Defined Variable [TT] (MPU1)TBCU1_parkbrakerelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10092 | R | Read Defined Variable [TT] (MPU1)bcu1_parkbrakerelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakeRelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10094 | R | Read Defined Variable [TT] (MPU1)tbcu3_parkbrakerelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10095 | R | Read Defined Variable [TT] (MPU1)tbcu4_parkbrakerelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10096 | R | Read Defined Variable [TT] (MPU1)tbcu1_li_pbrake_stat = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10097 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_pbrake_stat = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_pbrake_stat = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_pbrake_stat = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10100 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakeIsolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10101 | R | Read Defined Variable [TT] (MPU1)TBCU1_parkbrakeisoldc = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)tbcu2_parkbrakeisoldc = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10103 | R | Read Defined Variable [TT] (MPU1)bcu1_parkbrakeisoldc = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10104 | R | Read Defined Variable [TT] (MPU1)tbcu3_parkbrakeisoldc = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)tbcu4_parkbrakeisoldc = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10106 | R | Read Defined Variable [TT] (BCU1)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10107 | R | Read Defined Variable [TT] (BCU2)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |

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|-------|---|---|--|----|---|-----------------------|-------|
| 10108 | R | Read Defined Variable [TT] (TBCU1)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10109 | R | Read Defined Variable [TT] (TBCU2)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10110 | R | Read Defined Variable [TT] (TBCU3)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10111 | R | Read Defined Variable [TT] (TBCU4)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10112 | I | Parking brake manual isolation | | OK | | Amanda Ntuli - 526239 | Train |
| 10113 | I | TC1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10114 | A | Put the switch C1.3.2 in ISOLATION position on TC1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10115 | R | Read Defined Variable [TT] (BCU1)LI_PARK_BR_RELEASE = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10116 | R | Read Defined Variable [TT] (MPU1)li_pbk_tc1parkbrakeisol = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10117 | R | Read Defined Variable [TT] (MPU1)bcu1_parkbrakeisoldc = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10118 | R | Read Defined Variable [TT] (BCU1)LI_PARK_BR_DC = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10119 | A | Put the switch C1.3.2 in NORMAL position on TC1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10120 | R | Read Defined Variable [TT] (BCU1)LI_PARK_BR_RELEASE = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10121 | A | Pull the parking brake manual lever of both bogies(a click sound must be heard to indicate parking brake lever is working) | | OK | | Amanda Ntuli - 526239 | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)li_pbk_tc1parkbrakeisol = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10123 | R | Read Defined Variable [TT] (MPU1)bcu1_parkbrakeisoldc = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10124 | R | Read Defined Variable [TT] (BCU1)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10125 | I | M4 | | OK | | Amanda Ntuli - 526239 | Train |
| 10126 | A | Put the switch C2.3.2 for in ISOLATION position | | OK | | Amanda Ntuli - 526239 | Train |

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|-------|---|--|--|----|---|-----------------------|-------|
| 10127 | R | Read Defined Variable [TT] (TBCU4)LI_PARK_BR_RELEASE = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10128 | R | Read Defined Variable [TT] (MPU1)li_pbk_m4parkbrakeisol = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10129 | R | Read Defined Variable [TT] (MPU1)tbcu4_parkbrakeisoldc = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10130 | R | Read Defined Variable [TT] (TBCU4)LI_PARK_BR_DC = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10131 | A | Put the switch C2.3.2 in NORMAL position on M4 | | OK | | Amanda Ntuli - 526239 | Train |
| 10132 | R | Read Defined Variable [TT] (TBCU4)LI_PARK_BR_RELEASE = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10133 | R | Verify on the DDU that parking brake is still released | | OK | | Amanda Ntuli - 526239 | Train |
| 10134 | A | Pull the parking brake manual lever of both bogies(a click sound must be heard to indicate parking brake lever is working | | OK | | Amanda Ntuli - 526239 | Train |
| 10135 | R | Read Defined Variable [TT] (MPU1)li_pbk_m4parkbrakeisol = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10136 | R | Read Defined Variable [TT] (MPU1)tbcu4_parkbrakeisoldc = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10137 | R | Read Defined Variable [TT] (TBCU4)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10138 | I | M1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10139 | A | Put the switch C2.3.2 for in ISOLATION position | | OK | | Amanda Ntuli - 526239 | Train |
| 10140 | R | Read Defined Variable [TT] (MPU1)li_pbk_m1parkbrakeisol = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10141 | R | Read Defined Variable [TT] (MPU1)TBCU1_parkbrakeisoldc = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10142 | R | Read Defined Variable [TT] (TBCU1)LI_PARK_BR_DC = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10143 | A | Put the switch C2.3.2 in NORMAL position on M1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10144 | A | Pull the parking brake manual lever of both bogies(a click sound must be heard to indicate parking brake lever is working | | OK | | Amanda Ntuli - 526239 | Train |

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|-------|---|--|--|----|---|-----------------------|-------|
| 10145 | R | Read Defined Variable [TT] (MPU1)li_pbk_m1parkbrakeisol = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10146 | R | Read Defined Variable [TT] (MPU1)TBCU1_parkbrakeisoldc = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10147 | R | Read Defined Variable [TT] (TBCU1)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10148 | I | M2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10149 | A | Put the switch C2.3.2 in ISOLATION position on M2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10150 | R | Read Defined Variable [TT] (MPU1)li_pbk_m2parkbrakeisol = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10151 | R | Read Defined Variable [TT] (MPU1)tbcu2_parkbrakeisoldc = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10152 | R | Read Defined Variable [TT] (TBCU2)LI_PARK_BR_DC = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10153 | A | Put the cock C2.3.2 for in NORMAL position on M2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10154 | A | Pull the parking brake manual lever of both bogies(a click sound must be heard to indicate parking brake lever is working | | OK | | Amanda Ntuli - 526239 | Train |
| 10155 | R | Read Defined Variable [TT] (MPU1)li_pbk_m2parkbrakeisol = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10156 | R | Read Defined Variable [TT] (MPU1)tbcu2_parkbrakeisoldc = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10157 | R | Read Defined Variable [TT] (TBCU2)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10158 | I | M3 | | OK | | Amanda Ntuli - 526239 | Train |
| 10159 | A | Put the switch C2.3.2 in ISOLATION position on M3 | | OK | | Amanda Ntuli - 526239 | Train |
| 10160 | R | Read Defined Variable [TT] (MPU1)li_pbk_m3parkbrakeisol = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10161 | R | Read Defined Variable [TT] (MPU1)tbcu3_parkbrakeisoldc = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10162 | R | Read Defined Variable [TT] (TBCU3)LI_PARK_BR_DC = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |

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|-------|---|---|--|----|---|-----------------------|-------|
| 10163 | A | Put the cock C2.3.2 for in NORMAL position on M3 | | OK | | Amanda Ntuli - 526239 | Train |
| 10164 | A | Pull the parking brake manual lever of both bogies(a click sound must be heard to indicate parking brake lever is working | | OK | | Amanda Ntuli - 526239 | Train |
| 10165 | R | Read Defined Variable [TT] (MPU1)li_pbk_m3parkbrakeisol = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10166 | R | Read Defined Variable [TT] (MPU1)tbcu3_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10167 | I | TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10168 | A | Put the switch C1.3.2 in ISOLATION position on TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10169 | R | Read Defined Variable [TT] (TBCU3)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10170 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakeisolDC = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10171 | R | Read Defined Variable [TT] (MPU1)li_pbk_tc2parkbrakeisol = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10172 | R | Read Defined Variable [TT] (BCU2)LI_PARK_BR_DC = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10173 | A | Put the switch C1.3.2 in NORMAL position on TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10174 | R | Read Defined Variable [TT] (BCU2)LI_PARK_BR_RELEASE = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10175 | A | Pull the parking brake manual lever of both bogies(a click sound must be heard to indicate parking brake lever is working) | | OK | | Amanda Ntuli - 526239 | Train |
| 10176 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10177 | R | Read Defined Variable [TT] (MPU1)li_pbk_tc2parkbrakeisol = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10178 | I | Remote parking brake application TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10179 | R | Read Defined Variable [TT] (BCU2)LI_PARK_BR_DC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10180 | A | Switch active cab to TC2 | | OK | | Amanda Ntuli - 526239 | Train |

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|-------|---|--|--|----|------|-----------------------|-------|
| 10181 | A | Turn the switch 45S1 to apply parking brake | | OK | | Amanda Ntuli - 526239 | Train |
| 10182 | R | Lamp 45H2 is ON on the alarm module | | OK | | Amanda Ntuli - 526239 | Train |
| 10183 | R | Measure the pressure of the test point C1.11 on TC1, test point must be set to 4.8 bar Read Undefined Value : x (Bar) | | OK | 1.56 | Amanda Ntuli - 526239 | Train |
| 10184 | R | Measure the pressure of the test point C2.11 on M4, test point must be set to 4.8 bar Read Undefined Value : x (Bar) | | OK | 2.26 | Amanda Ntuli - 526239 | Train |
| 10185 | R | Measure the pressure of the test point C2.11 on M1, test point must be set to 4.8 bar Read Undefined Value : x (Bar) | | OK | 3.63 | Amanda Ntuli - 526239 | Train |
| 10186 | R | Measure the pressure of the test point C2.11 on M2, test point must be set to 4.8 bar Read Undefined Value : x (Bar) | | OK | 2.02 | Amanda Ntuli - 526239 | Train |
| 10187 | R | Measure the pressure of the test point C2.11 on M3, test point must be set to 4.8 bar Read Undefined Value : x (Bar) | | OK | 1.97 | Amanda Ntuli - 526239 | Train |
| 10188 | R | Measure the pressure of the test point C1.11 on TC2, test point must be set to 4.8 bar Read Undefined Value : x (Bar) | | OK | 1.72 | Amanda Ntuli - 526239 | Train |
| 10189 | R | Read Defined Variable [TT] (MPU1)tbcu2_parkbrakerelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10190 | R | Read Defined Variable [TT] (MPU1)TBCU1_parkbrakerelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10191 | R | Read Defined Variable [TT] (MPU1)bcu1_parkbrakerelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10192 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakeRelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10193 | R | Read Defined Variable [TT] (MPU1)tbcu3_parkbrakerelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10194 | R | Read Defined Variable [TT] (MPU1)tbcu4_parkbrakerelease = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10195 | R | Read Defined Variable [TT] (MPU1)tbcu1_li_pbrake_stat = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10196 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_pbrake_stat = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10197 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_pbrake_stat = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |

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|-------|---|---|--|----|---|-----------------------|-------|
| 10198 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_pbrake_stat = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10199 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakeIsolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10200 | R | Read Defined Variable [TT] (MPU1)TBCU1_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10201 | R | Read Defined Variable [TT] (MPU1)tbcu2_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10202 | R | Read Defined Variable [TT] (MPU1)bcu1_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10203 | R | Read Defined Variable [TT] (MPU1)tbcu3_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10204 | R | Read Defined Variable [TT] (MPU1)tbcu4_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10205 | A | Turn the switch 45S1 to release parking brake | | OK | | Amanda Ntuli - 526239 | Train |
| 10206 | R | Lamp 45H2 is OFF on the alarm module | | OK | | Amanda Ntuli - 526239 | Train |
| 10207 | I | Parking brake is released in all cars | | OK | | Amanda Ntuli - 526239 | Train |
| 10208 | R | On the Driver's event list, there is no message reporting parking brake release failure | | OK | | Amanda Ntuli - 526239 | Train |
| 10209 | R | Read Defined Variable [TT] (MPU1)tbcu2_parkbrakerelease = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10210 | R | Read Defined Variable [TT] (MPU1)TBCU1_parkbrakerelease = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10211 | R | Read Defined Variable [TT] (MPU1)bcu1_parkbrakerelease = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10212 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakeRelease = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10213 | R | Read Defined Variable [TT] (MPU1)tbcu3_parkbrakerelease = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10214 | R | Read Defined Variable [TT] (MPU1)tbcu4_parkbrakerelease = 1.0 | | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10215 | R | Read Defined Variable [TT] (MPU1)tbcu1_li_pbrake_stat = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10216 | R | Read Defined Variable [TT] (MPU1)tbcu2_li_pbrake_stat = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |

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|-------|---|---|--|----|---|-----------------------|-------|
| 10217 | R | Read Defined Variable [TT] (MPU1)tbcu3_li_pbrake_stat = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10218 | R | Read Defined Variable [TT] (MPU1)tbcu4_li_pbrake_stat = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10219 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakeIsolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10220 | R | Read Defined Variable [TT] (MPU1)TBCU1_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10221 | R | Read Defined Variable [TT] (MPU1)tbcu2_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10222 | R | Read Defined Variable [TT] (MPU1)bcu1_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10223 | R | Read Defined Variable [TT] (MPU1)tbcu3_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10224 | R | Read Defined Variable [TT] (MPU1)tbcu4_parkbrakeisolDC = 0.0 | | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10225 | I | End of Test | | OK | | Amanda Ntuli - 526239 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 15 – Service Brake

15.3 Instructions list

15.3.1 040_SBK-Service Brake

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|------|---------------|--------------|------------------------------|---------|
| 10001 | I | Service Brake SPP=040 SBK | | OK | | Amanda Ntuli - 526239 | Train |
| 10002 | I | Initial Conditions | | OK | | Amanda Ntuli - 526239 | Train |
| 10003 | I | Emergency brake button 44S1 is released in both TC1 and TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10004 | I | Pressure on the main pipe should be higher than 7 bar | | OK | | Amanda Ntuli - 526239 | Train |
| 10005 | I | The ERTMS switch 62S1 is in ISOLATION position in both TC1 and TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10006 | I | The Deadman switch 60S1 is in OVERRIDE position in both TC1 and TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10007 | I | Driving mode should be selected as COUPLE/WASH in both TC1 and TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10008 | I | Train has sufficient scotch blocks to prevent it from moving | | OK | | Amanda Ntuli - 526239 | Train |
| 10009 | I | Ensure that the propulsion system is inhibited to prevent movement when the master controller is in TRACTION position | | OK | | Amanda Ntuli - 526239 | Train |
| 10010 | I | Start of Test | | OK | | Amanda Ntuli - 526239 | Train |
| 10011 | I | Brake application / release | | OK | | Amanda Ntuli - 526239 | Train |
| 10012 | A | Activate the cab on TC1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10013 | I | To begin test, the EPC life signal must be live | | OK | | Thandanani Makhanya - 463827 | Train |
| 10014 | R | Read Defined Variable [TT] (BCU1)LI_REGULATOR_STAT = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10015 | R | Read Defined Variable [TT] (BCU2)LI_REGULATOR_STAT = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10016 | R | Read Defined Variable [TT] (TBCU1)LI_REGULATOR_STAT = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|------|---------------------------------|-------|
| 10017 | R | Read Defined Variable [TT] (TBCU2)LI_REGULATOR_STAT = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10018 | R | Read Defined Variable [TT] (TBCU3)LI_REGULATOR_STAT = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10019 | R | Read Defined Variable [TT] (TBCU4)LI_REGULATOR_STAT = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10020 | A | Put the direction selector switch in FORWARD position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10021 | R | Emergency brake is released | | OK | | Thandanani Makhanya - 463827 | Train |
| 10022 | R | LED 40H1 is OFF on the alarm module | | OK | | Thandanani Makhanya - 463827 | Train |
| 10023 | A | Move slowly the master controller from OFF position to maximum brake position and check the following items - Variables on brake software as demanded below. | | OK | | Thandanani Makhanya - 463827 | Train |
| 10024 | I | The pressure measured below can have the values changed after the brake adjustment during performance test. The brake pressure should increase with respect to the master controller position and there should be no sudden jumps in the pressure when observing the PWM signal on the DDU maintenance screen | | OK | | Thandanani Makhanya - 463827 | Train |
| 10025 | I | All the brake discs apply pressure on the wheels, it is necessary to go bogie by bogie to physically check if the brake pads are in contact with the wheel | | OK | | Thandanani Makhanya - 463827 | Train |
| 10026 | R | SBTP TC1 Result Min/Max : 1.27<= x <= 1.67 (Bar) | | OK | 1.41 | Thandanani Makhanya - 463827 | Train |
| 10027 | R | Brake discs apply pressure on car TC1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10028 | R | SBTP M4 Result Min/Max : 1.29<= x <= 1.69 (Bar) | | OK | 1.4 | Thandanani Makhanya - 463827 | Train |
| 10029 | R | Brake discs apply pressure on car M4 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10030 | R | SBTP M1 Result Min/Max : 1.29<= x <= 1.69 (Bar) | | OK | 1.39 | Thandanani Makhanya - 463827 | Train |
| 10031 | R | Brake discs apply pressure on car M1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10032 | R | SBTP M2 Result Min/Max : 1.29<= x <= 1.69 (Bar) | | OK | 1.41 | Thandanani Makhanya - 463827 | Train |
| 10033 | R | Brake discs apply pressure on car M2 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10034 | R | SBTP M3 Result Min/Max : 1.29<= x <= 1.69 (Bar) | | OK | 1.38 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|--------|---------------------------------|-------|
| 10035 | R | Brake discs apply pressure on car M3 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10036 | R | SBTP TC2 Result Min/Max : 1.27<= x <= 1.67 (Bar) | | OK | 1.42 | Thandanani Makhanya - 463827 | Train |
| 10037 | R | Brake discs apply pressure on car TC2 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10038 | I | The pressure measured below should be approximately equal to what is observed on the PWM signa on the DDU maintenance screen | | OK | | Thandanani Makhanya - 463827 | Train |
| 10039 | R | Read Min/Max [TT] (MPU1)bcu1_bcubpipepress : 127<= x <= 167 | | OK | 164.76 | Thandanani Makhanya - 463827 | Train |
| 10040 | R | Read Min/Max [TT] (MPU1)BCU2_BcuBPipePress : 127<= x <= 167 | | OK | 160.32 | Thandanani Makhanya - 463827 | Train |
| 10041 | R | Read Min/Max [TT] (MPU1)TBCU1_bcubpipepress : 129<= x <= 169 | | OK | 140.57 | Thandanani Makhanya - 463827 | Train |
| 10042 | R | Read Min/Max [TT] (MPU1)tbcu2_bcubpipepress : 129<= x <= 169 | | OK | 133.66 | Thandanani Makhanya - 463827 | Train |
| 10043 | R | Read Min/Max [TT] (MPU1)tbcu3_bcubpipepress : 129<= x <= 169 | | OK | 142.05 | Thandanani Makhanya - 463827 | Train |
| 10044 | R | Read Min/Max [TT] (MPU1)tbcu4_bcubpipepress : 129<= x <= 169 | | OK | 140.08 | Thandanani Makhanya - 463827 | Train |
| 10045 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10046 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10047 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10050 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10051 | R | Read Defined Variable [TT] (BCU1)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|-------|---------------------------------|-------|
| 10052 | R | Read Defined Variable [TT] (BCU2)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10053 | R | Check the pressure on the brake pressure gauge on TC1 Read Undefined Value : x () | | OK | 10.3 | Thandanani Makhanya - 463827 | Train |
| 10054 | R | Check the pressure on the brake pressure gauge on TC2 Read Undefined Value : x () | | OK | 10.12 | Thandanani Makhanya - 463827 | Train |
| 10055 | I | The pressure showed on pressure gauge (driver desk) is the same as the measured on the test point BCTP of the car TC. | | OK | | Thandanani Makhanya - 463827 | Train |
| 10056 | A | Move slowly the master controller from 100% BRAKE position to OFF position. Observe the PWM behaviour of the brake cylinder pressure. it may be necessary to repeat the test until you are satisfied | | OK | | Thandanani Makhanya - 463827 | Train |
| 10057 | I | There must not have sudden release of pressure while the master controller is slowly moved to OFF position. | | OK | | Thandanani Makhanya - 463827 | Train |
| 10058 | R | Pressure on BCTP (Car TC) = 0bar (+/- 0,2bar) Read Undefined Value : x () | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10059 | R | Pressure on SBTP (all M cars) = 0bar (+/- 0,2bar) Read Undefined Value : x () | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10060 | R | Pressure on BCTP (all M cars) = 0bar (+/- 0,2bar) Read Undefined Value : x () | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10061 | R | Pressure on SBTP all TC cars) = 0bar (+/- 0,2bar) Read Undefined Value : x () | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10062 | I | It is necessary to go bogie by bogie to verify that brake pads are not in contact with the wheels | | OK | | Thandanani Makhanya - 463827 | Train |
| 10063 | R | Brake discs do not apply pressure on car TC1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10064 | R | Brake discs do not apply pressure on car M4 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10065 | R | Brake discs do not apply pressure on car M1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10066 | R | Brake discs do not apply pressure on car M2 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10067 | R | Brake discs do not apply pressure on car M3 | | OK | | Thandanani Makhanya - 463827 | Train |

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|-------|---|---|--|----|---|---------------------------------|-------|
| 10068 | R | Brake discs do not apply pressure on car TC2 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10069 | I | Holding Brake | | OK | | Thandanani Makhanya - 463827 | Train |
| 10070 | A | Put the master controller on 100% BRAKE position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10071 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10072 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10073 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10074 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10075 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10076 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10077 | R | Read Defined Variable [TT] (MPU1)bcu1_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10078 | R | Read Defined Variable [TT] (MPU1)BCU2_HoldBrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10079 | R | Read Defined Variable [TT] (MPU1)TBCU1_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10080 | R | Read Defined Variable [TT] (MPU1)tbcu2_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1)tbcu3_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)tbcu4_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10083 | A | Put the master controller on OFF position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10084 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |

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|-------|---|---|--|----|---|---------------------------------|-------|
| 10087 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10088 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10089 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10090 | R | Read Defined Variable [TT] (MPU1)bcu1_holdbrake = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10091 | R | Read Defined Variable [TT] (MPU1)BCU2_HoldBrake = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10092 | R | Read Defined Variable [TT] (MPU1)TBCU1_holdbrake = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)tbcu2_holdbrake = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10094 | R | Read Defined Variable [TT] (MPU1)tbcu3_holdbrake = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10095 | R | Read Defined Variable [TT] (MPU1)tbcu4_holdbrake = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10096 | A | Put the driving mode switch 30S1 to EFFORT position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10097 | A | Put the master controller on 100% BRAKE position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10100 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10101 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10103 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10104 | R | Read Defined Variable [TT] (MPU1)bcu1_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |

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|-------|---|---|--|----|---|---------------------------------|-------|
| 10105 | R | Read Defined Variable [TT] (MPU1)BCU2_HoldBrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10106 | R | Read Defined Variable [TT] (MPU1)TBCU1_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10107 | R | Read Defined Variable [TT] (MPU1)tbcu2_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10108 | R | Read Defined Variable [TT] (MPU1)tbcu3_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10109 | R | Read Defined Variable [TT] (MPU1)tbcu4_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10110 | A | Position the master controller on OFF position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10111 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10112 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10113 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10114 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10115 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10116 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10117 | R | Read Defined Variable [TT] (MPU1)bcu1_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10118 | R | Read Defined Variable [TT] (MPU1)BCU2_HoldBrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10119 | R | Read Defined Variable [TT] (MPU1)TBCU1_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10120 | R | Read Defined Variable [TT] (MPU1)tbcu2_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)tbcu3_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)tbcu4_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |

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|-------|---|---|--|----|---|---------------------------------|-------|
| 10123 | A | Position the driving mode switch 30S1 to DEPOT position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10124 | A | Position the master controller on 100% BRAKE position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10125 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10126 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10127 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10128 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10129 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10130 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10131 | R | Read Defined Variable [TT] (MPU1)bcu1_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10132 | R | Read Defined Variable [TT] (MPU1)BCU2_HoldBrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10133 | R | Read Defined Variable [TT] (MPU1)TBCU1_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10134 | R | Read Defined Variable [TT] (MPU1)tbcu2_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10135 | R | Read Defined Variable [TT] (MPU1)tbcu3_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10136 | R | Read Defined Variable [TT] (MPU1)tbcu4_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10137 | A | Position the master controller on OFF position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10138 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10139 | R | Read Defined Variable [TT] (MPU1)bcu1_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10140 | R | Read Defined Variable [TT] (MPU1)BCU2_HoldBrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |

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|-------|---|---|--|----|---|---------------------------------|-------|
| 10141 | R | Read Defined Variable [TT] (MPU1)TBCU1_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10142 | R | Read Defined Variable [TT] (BCU2)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10143 | R | Read Defined Variable [TT] (TBCU1)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10144 | R | Read Defined Variable [TT] (MPU1)tbcu2_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10145 | R | Read Defined Variable [TT] (TBCU2)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10146 | R | Read Defined Variable [TT] (TBCU3)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10147 | R | Read Defined Variable [TT] (TBCU4)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10148 | R | Read Defined Variable [TT] (MPU1)tbcu3_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10149 | R | Read Defined Variable [TT] (MPU1)tbcu4_holdbrake = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10150 | A | Return the driving mode switch 30S1 to COUPLE / WASH position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10151 | A | Position the master controller in 100% BRAKE position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10152 | I | Brake isolation through the isolation cock | | OK | | Thandanani Makhanya - 463827 | Train |
| 10153 | I | TC1 service brake manual isolation | | OK | | Thandanani Makhanya - 463827 | Train |
| 10154 | A | Close the isolation cock C1.3.1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10155 | R | Lamp 40H2 is ON on the alarm mode for EB reduced | | OK | | Thandanani Makhanya - 463827 | Train |
| 10156 | R | Read Defined Variable [TT] (BCU1)LI_BRAKE_NOT_APPLIED = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10157 | A | Put the manometer test point to BCTP | | OK | | Thandanani Makhanya - 463827 | Train |
| 10158 | R | Pressure on BCTP decreases slowly until it reaches +/- 0.2 bar | | OK | | Thandanani Makhanya - 463827 | Train |
| 10159 | R | Brake discs are not in contact with wheels on TC1 bogies | | OK | | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10160 | R | Read Defined Variable [TT] (MPU1)bcu1_servbrakeisoldc = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10161 | R | Read Defined Variable [TT] (MPU1)BCU2_ServBrakelsolDC = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10162 | R | Read Defined Variable [TT] (MPU1)TBCU1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10163 | R | Read Defined Variable [TT] (BCU1)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10164 | R | Read Defined Variable [TT] (TBCU1)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10165 | R | Read Defined Variable [TT] (BCU1)LI_BRAKE_NOT_APPLIED = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10166 | R | Read Defined Variable [TT] (TBCU2)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10167 | R | Read Defined Variable [TT] (TBCU3)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10168 | R | Read Defined Variable [TT] (TBCU4)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10169 | R | Read Defined Variable [TT] (MPU1)tbcu2_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10170 | R | Read Defined Variable [TT] (MPU1)tbcu3_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10171 | R | Read Defined Variable [TT] (MPU1)tbcu4_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10172 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc1servicebrakedc = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10173 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10174 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10175 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10176 | R | Read Defined Variable [TT] (MPU1)li_sbk_m4servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10177 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |

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|-------|---|---|--|----|---|---------------------------------|-------|
| 10178 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10179 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10180 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10181 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10182 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10183 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10184 | A | Open the isolation cock C1.3.1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10185 | R | Lamp 40H2 is OFF on the alarm mode for EB reduced | | OK | | Thandanani Makhanya - 463827 | Train |
| 10186 | R | Read Defined Variable [TT] (BCU1)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10187 | R | Pressure measured on test point BCTP increases slowly (brake reservoir) until service brake pressure in TC1 until it reaches 1,47bar (+/-0,2bar) | | OK | | Thandanani Makhanya - 463827 | Train |
| 10188 | R | Brake discs are in contact with wheels on TC1 bogies | | OK | | Thandanani Makhanya - 463827 | Train |
| 10189 | R | Read Defined Variable [TT] (MPU1)bcu1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10190 | R | Read Defined Variable [TT] (MPU1)BCU2_ServBrakeIsolDC = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10191 | R | Read Defined Variable [TT] (MPU1)TBCU1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10192 | R | Read Defined Variable [TT] (MPU1)tbcu2_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10193 | R | Read Defined Variable [TT] (MPU1)tbcu3_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10194 | R | Read Defined Variable [TT] (MPU1)tbcu4_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10195 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10196 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10197 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10198 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10199 | R | Read Defined Variable [TT] (MPU1)li_sbk_m4servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10200 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10201 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10202 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10203 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10204 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10205 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10206 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10207 | A | Remove manometer on TC1 BCTP point | | OK | | Thandanani Makhanya - 463827 | Train |
| 10208 | I | M4 service brake manual isolation | | OK | | Thandanani Makhanya - 463827 | Train |
| 10209 | A | Close the isolation cock C2.3.1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10210 | R | Message on DDU warning the maintenance/driver for repair at the end of the day. IOS 886: "Mechanical Brake manually isolated on M4" | | OK | | Thandanani Makhanya - 463827 | Train |
| 10211 | R | Lamp 40H2 is "ON" on the alarm mode for EB reduced | | OK | | Thandanani Makhanya - 463827 | Train |
| 10212 | A | Put manometer on M4 BCTP point | | OK | | Thandanani Makhanya - 463827 | Train |
| 10213 | R | Pressure measured on test point BCTP decreases slowly until 0 bar (+/-0,2bar) | | OK | | Thandanani Makhanya - 463827 | Train |
| 10214 | R | Brake discs are not in contact with wheels on M4 bogies | | OK | | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10215 | R | Read Defined Variable [TT] (MPU1)bcu1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10216 | R | Read Defined Variable [TT] (MPU1)BCU2_ServBrakelsolDC = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10217 | R | Read Defined Variable [TT] (MPU1)TBCU1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10218 | R | Read Defined Variable [TT] (MPU1)tbcu2_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10219 | R | Read Defined Variable [TT] (MPU1)tbcu3_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10220 | R | Read Defined Variable [TT] (MPU1)tbcu4_servbrakeisoldc = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10221 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10222 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10223 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10224 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10225 | R | Read Defined Variable [TT] (MPU1)li_sbk_m4servicebrakedc = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10226 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10227 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10228 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10229 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10230 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10231 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10232 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10233 | A | Open the isolation cock C2.3.1 | | OK | | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10234 | R | Lamp 40HZ is OFF for EB reduced on the alarm module | | OK | | Thandanani Makhanya - 463827 | Train |
| 10235 | R | Pressure measured on test point BCTP increases slowly (brake reservoir) until service brake pressure in M4 car reaches 1,49bar (+/-0,2bar) | | OK | | Thandanani Makhanya - 463827 | Train |
| 10236 | R | Brake discs are in contact with wheels on M4 bogies | | OK | | Thandanani Makhanya - 463827 | Train |
| 10237 | R | Read Defined Variable [TT] (MPU1)bcu1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10238 | R | Read Defined Variable [TT] (MPU1)BCU2_ServBrakeisoldC = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10239 | R | Read Defined Variable [TT] (MPU1)TBCU1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10240 | R | Read Defined Variable [TT] (MPU1)tbcu2_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10241 | R | Read Defined Variable [TT] (MPU1)tbcu3_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10242 | R | Read Defined Variable [TT] (MPU1)tbcu4_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10243 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10244 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10245 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10246 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10247 | R | Read Defined Variable [TT] (MPU1)li_sbk_m4servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10248 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10249 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10250 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10251 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10252 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10253 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10254 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10255 | A | Remove manometer on M4 BCTP point | | OK | | Thandanani Makhanya - 463827 | Train |
| 10256 | I | M1 service brake manual isolation | | OK | | Thandanani Makhanya - 463827 | Train |
| 10257 | A | Close the isolation cock C2.3.1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10258 | R | Message on DDU warning the maintenance/driver for repair at the end of the day. IOS 883: "Mechanical Brake manually isolated on M1" | | OK | | Thandanani Makhanya - 463827 | Train |
| 10259 | R | Lamp 40H2 is ON for EB reduced on the alarm module | | OK | | Thandanani Makhanya - 463827 | Train |
| 10260 | A | Put manometer on M1 BCTP point | | OK | | Thandanani Makhanya - 463827 | Train |
| 10261 | R | Pressure measured on test point BCTP decreases slowly (drain the brake reservoir) until 0bar (+/-0,2bar) | | OK | | Thandanani Makhanya - 463827 | Train |
| 10262 | R | Brake discs are not in contact with wheels on M1 bogies | | OK | | Thandanani Makhanya - 463827 | Train |
| 10263 | R | Read Defined Variable [TT] (MPU1)bcu1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10264 | R | Read Defined Variable [TT] (MPU1)BCU2_ServBrakeIsolDC = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10265 | R | Read Defined Variable [TT] (MPU1)TBCU1_servbrakeisoldc = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10266 | R | Read Defined Variable [TT] (MPU1)tbcu2_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10267 | R | Read Defined Variable [TT] (MPU1)tbcu3_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10268 | R | Read Defined Variable [TT] (MPU1)tbcu4_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10269 | R | Read Defined Variable [TT] (MPU1)li_sbkc_tc1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10270 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1servicebrakedc = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10271 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10272 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10273 | R | Read Defined Variable [TT] (MPU1)li_sbk_m4servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10274 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10275 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10276 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10277 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10278 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10279 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10280 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10281 | A | Open the isolation cock C2.3.1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10282 | R | Lamp 40H2 is OFF for EB reduced on the alarm module | | OK | | Thandanani Makhanya - 463827 | Train |
| 10283 | R | Pressure measured on test point BCTP increases slowly (brake reservoir) until service brake pressure in M1 car reaches 1,49bar (+/-0,2bar) | | OK | | Thandanani Makhanya - 463827 | Train |
| 10284 | R | Brake discs are in contact with wheels on M1 bogies | | OK | | Thandanani Makhanya - 463827 | Train |
| 10285 | R | Read Defined Variable [TT] (MPU1)bcu1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10286 | R | Read Defined Variable [TT] (MPU1)BCU2_ServBrakeIsolDC = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10287 | R | Read Defined Variable [TT] (MPU1)TBCU1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10288 | R | Read Defined Variable [TT] (MPU1)tbcu2_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10289 | R | Read Defined Variable [TT] (MPU1)tbcu3_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10290 | R | Read Defined Variable [TT] (MPU1)tbcu4_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10291 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10292 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10293 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10294 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10295 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10296 | R | Read Defined Variable [TT] (MPU1)li_sbk_m4servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10297 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10298 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10299 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10300 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10301 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10302 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10303 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10304 | A | Remove manometer on M1 BCTP point | | OK | | Thandanani Makhanya - 463827 | Train |
| 10305 | I | M2 service brake manual isolation | | OK | | Thandanani Makhanya - 463827 | Train |
| 10306 | A | Close the isolation cock C2.3.1 | | OK | | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10307 | R | Lamp 40HZ is ON for EB reduced on the alarm module | | OK | | Thandanani Makhanya - 463827 | Train |
| 10308 | A | Put manometer on M2 BCTP point | | OK | | Thandanani Makhanya - 463827 | Train |
| 10309 | R | Pressure measured on test point BCTP decreases slowly (drain the brake reservoir) until 0bar (+/-0,2bar) | | OK | | Thandanani Makhanya - 463827 | Train |
| 10310 | R | Read Defined Variable [TT] (MPU1)tbcu2_servbrakeisoldc = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10311 | R | Brake discs are not in contact with wheels on M2 bogies | | OK | | Thandanani Makhanya - 463827 | Train |
| 10312 | R | Read Defined Variable [TT] (MPU1)bcu1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10313 | R | Read Defined Variable [TT] (MPU1)BCU2_ServBrakelsolDC = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10314 | R | Read Defined Variable [TT] (MPU1)TBCU1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10315 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2servicebrakedc = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10316 | R | Read Defined Variable [TT] (MPU1)tbcu3_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10317 | R | Read Defined Variable [TT] (MPU1)tbcu4_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10318 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10319 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10320 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10321 | R | Read Defined Variable [TT] (MPU1)li_sbk_m4servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10322 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10323 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10324 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10325 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10326 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10327 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10328 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10329 | A | Open the isolation cock C2.3.1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10330 | R | Lamp 40H2 is OFF for EB reduced on the alarm module | | OK | | Thandanani Makhanya - 463827 | Train |
| 10331 | R | Pressure measured on test point BCTP increases slowly (brake reservoir) until service brake pressure in M2 car reaches 1,49bar (+/-0,2bar) | | OK | | Thandanani Makhanya - 463827 | Train |
| 10332 | R | Brake discs are in contact with wheels on M2 bogies | | OK | | Thandanani Makhanya - 463827 | Train |
| 10333 | R | Read Defined Variable [TT] (MPU1)bcu1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10334 | R | Read Defined Variable [TT] (MPU1)BCU2_ServBrakeIsolDC = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10335 | R | Read Defined Variable [TT] (MPU1)TBCU1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10336 | R | Read Defined Variable [TT] (MPU1)tbcu3_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10337 | R | Read Defined Variable [TT] (MPU1)tbcu4_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10338 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10339 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10340 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10341 | R | Read Defined Variable [TT] (MPU1)li_sbk_m4servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10342 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10343 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10344 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10345 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10346 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10347 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10348 | A | Remove manometer on M2 BCTP point | | OK | | Thandanani Makhanya - 463827 | Train |
| 10349 | I | M3 Service brake manual isolation | | OK | | Thandanani Makhanya - 463827 | Train |
| 10350 | A | Close the isolation cock C2.3.1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10351 | R | Message on DDU warning the maintenance/driver for repair at the end of the day. IOS 885: "Mechanical Brake manually isolated on M3" | | OK | | Thandanani Makhanya - 463827 | Train |
| 10352 | R | Lamp 40H2 is ON for EB reduced on the alarm module | | OK | | Thandanani Makhanya - 463827 | Train |
| 10353 | A | Put the manometer on the BCTP test point of M3 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10354 | R | Pressure measured on test point BCTP decreases slowly (drain the brake reservoir) until Obar (+/-0,2bar) | | OK | | Thandanani Makhanya - 463827 | Train |
| 10355 | R | Brake discs are not in contact with wheels on M3 bogies | | OK | | Thandanani Makhanya - 463827 | Train |
| 10356 | R | Read Defined Variable [TT] (MPU1)bcu1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10357 | R | Read Defined Variable [TT] (MPU1)BCU2_ServBrakelsolDC = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10358 | R | Read Defined Variable [TT] (MPU1)TBCU1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10359 | R | Read Defined Variable [TT] (MPU1)tbcu2_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10360 | R | Read Defined Variable [TT] (MPU1)tbcu3_servbrakeisoldc = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10361 | R | Read Defined Variable [TT] (MPU1)tbcu4_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10362 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10363 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10364 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10365 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3servicebrakedc = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10366 | R | Read Defined Variable [TT] (MPU1)li_sbk_m4servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10367 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10368 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10369 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10370 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10371 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10372 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10373 | R | Read Defined Variable [TT] (BCU2)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10374 | R | Read Defined Variable [TT] (TBCU1)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10375 | R | Read Defined Variable [TT] (BCU1)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10376 | R | Read Defined Variable [TT] (TBCU2)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10377 | R | Read Defined Variable [TT] (TBCU3)LI_BRAKE_NOT_APPLIED = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10378 | R | Read Defined Variable [TT] (TBCU4)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10379 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10380 | A | Open the isolation cock C2.3.1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10381 | R | Lamp 40H2 is OFF for EB reduced on the alarm module | | OK | | Thandanani Makhanya - 463827 | Train |
| 10382 | R | Pressure measured on test point BCTP increases slowly (brake reservoir) until service brake pressure in M3 car reaches 1,49bar (+/-0,2bar) | | OK | | Thandanani Makhanya - 463827 | Train |
| 10383 | R | Brake discs are in contact with wheels on M3 bogies | | OK | | Thandanani Makhanya - 463827 | Train |
| 10384 | R | Read Defined Variable [TT] (MPU1)bcu1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10385 | R | Read Defined Variable [TT] (MPU1)BCU2_ServBrakeIsolDC = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10386 | R | Read Defined Variable [TT] (MPU1)TBCU1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10387 | R | Read Defined Variable [TT] (MPU1)tbcu2_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10388 | R | Read Defined Variable [TT] (MPU1)tbcu3_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10389 | R | Read Defined Variable [TT] (MPU1)tbcu4_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10390 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10391 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10392 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10393 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10394 | R | Read Defined Variable [TT] (MPU1)li_sbk_m4servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10395 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10396 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10397 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10398 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10399 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10400 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10401 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10402 | A | Remove the manometer from the BCTP test point | | OK | | Thandanani Makhanya - 463827 | Train |
| 10403 | I | TC2 Service brake manual isolation | | OK | | Thandanani Makhanya - 463827 | Train |
| 10404 | A | Close the isolation cock C1.3.1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10405 | R | Message on DDU warning the maintenance/driver for repair at the end of the day. IOS 882 : "Mechanical Brake manually isolated on TC2" | | OK | | Thandanani Makhanya - 463827 | Train |
| 10406 | R | Lamp 40H2 is ON for EB reduced on the alarm module | | OK | | Thandanani Makhanya - 463827 | Train |
| 10407 | A | Put manometer on BCTP test point | | OK | | Thandanani Makhanya - 463827 | Train |
| 10408 | R | Pressure measured on test point BCTP decreases slowly (drain the brake reservoir) until Obar (+/-0,2bar) | | OK | | Thandanani Makhanya - 463827 | Train |
| 10409 | R | Brake discs are not in contact with wheels on TC2 bogies | | OK | | Thandanani Makhanya - 463827 | Train |
| 10410 | R | Read Defined Variable [TT] (MPU1)bcu1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10411 | R | Read Defined Variable [TT] (MPU1)BCU2_ServBrakelsolDC = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10412 | R | Read Defined Variable [TT] (MPU1)TBCU1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10413 | R | Read Defined Variable [TT] (MPU1)tbcu2_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10414 | R | Read Defined Variable [TT] (MPU1)tbcu3_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10415 | R | Read Defined Variable [TT] (MPU1)tbcu4_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10416 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10417 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10418 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10419 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10420 | R | Read Defined Variable [TT] (MPU1)li_sbk_m4servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10421 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2servicebrakedc = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10422 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10423 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10424 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10425 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10426 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10427 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10428 | A | Open the isolation cock C1.3.1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10429 | R | Lamp 40H2 is OFF for EB reduced on the alarm module | | OK | | Thandanani Makhanya - 463827 | Train |
| 10430 | A | Put the manometer on the BCTP point in TC2 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10431 | R | Pressure measured on test point BCTP increases slowly (brake reservoir) until service brake pressure in TC car reaches 1,47bar (+/-0,2bar) | | OK | | Thandanani Makhanya - 463827 | Train |
| 10432 | R | Read Defined Variable [TT] (BCU2)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10433 | R | Read Defined Variable [TT] (TBCU1)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10434 | R | Read Defined Variable [TT] (BCU1)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10435 | R | Read Defined Variable [TT] (TBCU2)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10436 | R | Read Defined Variable [TT] (TBCU3)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10437 | R | Read Defined Variable [TT] (TBCU4)LI_BRAKE_NOT_APPLIED = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10438 | R | Brake discs are in contact with wheels on TC2 bogies | | OK | | Thandanani Makhanya - 463827 | Train |
| 10439 | R | Read Defined Variable [TT] (MPU1)bcu1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10440 | R | Read Defined Variable [TT] (MPU1)BCU2_ServBrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10441 | R | Read Defined Variable [TT] (MPU1)TBCU1_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10442 | R | Read Defined Variable [TT] (MPU1)tbcu2_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10443 | R | Read Defined Variable [TT] (MPU1)tbcu3_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10444 | R | Read Defined Variable [TT] (MPU1)tbcu4_servbrakeisoldc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10445 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10446 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10447 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10448 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10449 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10450 | R | Read Defined Variable [TT] (MPU1)li_sbk_m4servicebrakedc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|---|---------------------------------|-------|
| 10451 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10452 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10453 | R | Read Defined Variable [TT] (MPU1)tbcu3_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10454 | R | Read Defined Variable [TT] (MPU1)tbcu4_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10455 | R | Read Defined Variable [TT] (MPU1)BCU2_BrakeNotApp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10456 | R | Read Defined Variable [TT] (MPU1)bcu1_brakenotapp = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10457 | A | Remove the manometer from the BCTP point of TC2 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10458 | I | BCU Fault Test | | OK | | Thandanani Makhanya - 463827 | Train |
| 10459 | I | Emergency brake must be applied to force the variables mentioned. After forcing the variables, release emergency brake. | | OK | | Thandanani Makhanya - 463827 | Train |
| 10460 | A | Position the master controller on OFF position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10461 | A | Put the direction selector switch in Neutral position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10462 | A | Force [TT] (BCU1)LO_BRK_FLT = 0.0 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10463 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc1bcufault = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10464 | A | Release [TT] (BCU1)LO_BRK_FLT | | OK | | Thandanani Makhanya - 463827 | Train |
| 10465 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc1bcufault = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10466 | A | Force [TT] (TBCU4)LO_BRK_FLT = 0.0 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10467 | R | Read Defined Variable [TT] (MPU1)li_sbk_m4bcufault = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10468 | A | Release [TT] (TBCU4)LO_BRK_FLT | | OK | | Thandanani Makhanya - 463827 | Train |
| 10469 | R | Read Defined Variable [TT] (MPU1)li_sbk_m4bcufault = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |

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|-------|---|---|--|----|---|---------------------------------|-------|
| 10470 | A | Force [TT] (TBCU2)LO_BRK_FLT = 0.0 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10471 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2bcufault = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10472 | A | Release [TT] (TBCU2)LO_BRK_FLT | | OK | | Thandanani Makhanya - 463827 | Train |
| 10473 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2bcufault = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10474 | A | Force [TT] (TBCU1)LO_BRK_FLT = 0.0 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10475 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1bcufault = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10476 | A | Release [TT] (TBCU1)LO_BRK_FLT | | OK | | Thandanani Makhanya - 463827 | Train |
| 10477 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1bcufault = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10478 | A | Force [TT] (TBCU3)LO_BRK_FLT = 0.0 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10479 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3bcufault = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10480 | A | Release [TT] (TBCU3)LO_BRK_FLT | | OK | | Thandanani Makhanya - 463827 | Train |
| 10481 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3bcufault = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10482 | A | Force [TT] (BCU2)LO_BRK_FLT = 0.0 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10483 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2bcufault = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10484 | A | Release [TT] (BCU2)LO_BRK_FLT | | OK | | Thandanani Makhanya - 463827 | Train |
| 10485 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2bcufault = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10486 | I | Wheel Slide test | | OK | | Nqobile Chirwa - 484648 | Train |
| 10487 | A | On DDU from TC1 car, request the WSP test on test screen and perform the actions shown on DDU. | | OK | | Nqobile Chirwa - 484648 | Train |
| 10488 | I | To request the WSP test, go to test screen and request the brake test. Perform the Parking brake test. After the parking brake test, the WSP test will be available. | | OK | | Nqobile Chirwa - 484648 | Train |
| 10489 | I | Safety requirement: [Prasa1-56] | | OK | | Thandanani Makhanya - 463827 | Train |

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|-------|---|---|--|----|---|---------------------------------|-------|
| 10490 | R | Read Defined Variable [TT] (MPU1)BCU2_BcuTstOk = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10491 | R | Read Defined Variable [TT] (MPU1)TBCU1_BcuTstOk = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10492 | R | Read Defined Variable [TT] (MPU1)TBCU2_BcuTstOk = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10493 | R | Read Defined Variable [TT] (MPU1)TBCU3_BcuTstOk = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10494 | R | Read Defined Variable [TT] (MPU1)TBCU4_BcuTstOk = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10495 | A | Force [TT] (MPU1)lo_sbk_tc1slipslidelampr1 = 1.0 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10496 | A | Force [TT] (MPU1)lo_sbk_tc1slipslidelampr2 = 0.0 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10497 | R | The visual indication of wheel slide detection (41H1) on the alarm module is ON. | | OK | | Thandanani Makhanya - 463827 | Train |
| 10498 | A | Force [TT] (MPU1)lo_sbk_tc1slipslidelampr1 = 0.0 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10499 | A | Force [TT] (MPU1)lo_sbk_tc1slipslidelampr2 = 1.0 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10500 | R | The visual indication of wheel slide detection (41H1) on the alarm module is ON. | | OK | | Thandanani Makhanya - 463827 | Train |
| 10501 | A | Force [TT] (MPU1)lo_sbk_tc1slipslidelampr1 = 1.0 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10502 | A | Force [TT] (MPU1)lo_sbk_tc1slipslidelampr2 = 1.0 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10503 | R | The visual indication of wheel slide detection (41H1) on the alarm module is ON. | | OK | | Thandanani Makhanya - 463827 | Train |
| 10504 | A | Force [TT] (MPU1)lo_sbk_tc1slipslidelampr1 = 0.0 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10505 | A | Force [TT] (MPU1)lo_sbk_tc1slipslidelampr2 = 0.0 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10506 | R | The visual indication of wheel slide detection (41H1) on the alarm module is OFF. | | OK | | Thandanani Makhanya - 463827 | Train |

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|-------|---|---|--|----|--|---------------------------------|-------|
| 10507 | A | Release [TT] (MPU1)lo_sbk_tc1slipslidelampr1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10508 | A | Release [TT] (MPU1)lo_sbk_tc1slipslidelampr2 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10509 | I | End of Test | | OK | | Thandanani Makhanya - 463827 | Train |

15.3.2 040_SUP-Car Suspension

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|------|---------------|--------------|---------------------------------|---------|
| 10001 | I | Car suspension Test | | OK | | Thandanani Makhanya - 463827 | Train |
| 10002 | I | Initial Conditions | | OK | | Thandanani Makhanya - 463827 | Train |
| 10003 | I | Car suspension is not isolated in all cars | | OK | | Thandanani Makhanya - 463827 | Train |
| 10004 | I | Air in main pipe is 10 bar | | OK | | Thandanani Makhanya - 463827 | Train |
| 10005 | I | TC1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10006 | R | Check the pressure on test point LPTP. Read Undefined Value : x () | | OK | 3.17 | Thandanani Makhanya - 463827 | Train |
| 10007 | R | Read Min/Max [TT] (MPU1)bcu1_bcususpess : 311<= x <= 371 | | OK | 323.32 | Thandanani Makhanya - 463827 | Train |
| 10008 | R | Read Defined Variable [TT] (MPU1)bcu1_suspisodc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10009 | A | Close the isolation cock C1.10 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10010 | R | Read Defined Variable [TT] (MPU1)bcu1_suspisodc = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10011 | R | Check Pressure on test point C1.11.2 = Obar Read Undefined Value : x () | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10012 | A | Open the isolation cock C1.10 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10013 | A | Check all test point covers have been put back in place in the brake panel and suspension. | | OK | | Thandanani Makhanya - 463827 | Train |
| 10014 | I | M4 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10015 | R | Check the pressure on test point LPTP. Read Undefined Value : x () | | OK | 2.561 | Thandanani Makhanya - 463827 | Train |
| 10016 | R | Read Min/Max [TT] (MPU1)tbcu4_bcususpess : 260<= x <= 320 | | OK | 261 | Thandanani Makhanya - 463827 | Train |
| 10017 | R | Read Defined Variable [TT] (MPU1)tbcu4_suspisodc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10018 | A | Close the isolation cock C2.10 | | OK | | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|--|----|--------|---------------------------------|-------|
| 10019 | R | Check Pressure on test point C2.11.2 = Obar Read Undefined Value : x () | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10020 | R | Read Defined Variable [TT] (MPU1)tbcu4_suspsodc = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10021 | A | Open the isolation cock C2.10 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10022 | A | Check all test point covers have been put back in place in the brake panel and suspension. | | OK | | Thandanani Makhanya - 463827 | Train |
| 10023 | I | M1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10024 | R | Check the pressure on test point LPTP. Read Undefined Value : x () | | OK | 2.78 | Thandanani Makhanya - 463827 | Train |
| 10025 | R | Read Min/Max [TT] (MPU1)TBCU1_bcususppress : 271<= x <= 331 | | OK | 274.88 | Thandanani Makhanya - 463827 | Train |
| 10026 | R | Read Defined Variable [TT] (MPU1)TBCU1_suspsodc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10027 | A | Close the isolation cock C2.10 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10028 | R | Check Pressure on test point C2.11.2 = Obar Read Undefined Value : x () | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10029 | R | Read Defined Variable [TT] (MPU1)TBCU1_suspsodc = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10030 | A | Open the isolation cock C2.10 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10031 | A | Check all test point covers have been put back in place in the brake panel and suspension. | | OK | | Thandanani Makhanya - 463827 | Train |
| 10032 | I | M2 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10033 | R | Check the pressure on test point LPTP. Read Undefined Value : x () | | OK | 283 | Thandanani Makhanya - 463827 | Train |
| 10034 | R | Read Min/Max [TT] (MPU1)tbcu2_bcususppress : 271<= x <= 331 | | OK | 281.3 | Thandanani Makhanya - 463827 | Train |
| 10035 | R | Read Defined Variable [TT] (MPU1)tbcu2_suspsodc = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10036 | A | Close the isolation cock C2.10 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10037 | R | Check Pressure on test point C2.11.2 = Obar Read Undefined Value : x () | | OK | 0 | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|----|--------|---------------------------------|-------|
| 10038 | R | Read Defined Variable [TT] (MPU1)tbcu2_suspsodc = 1.0 | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10039 | A | Open the isolation cock C2.10 | OK | | Thandanani Makhanya - 463827 | Train |
| 10040 | A | Check all test point covers have been put back in place in the brake panel and suspension. | OK | | Thandanani Makhanya - 463827 | Train |
| 10041 | I | M3 | OK | | Thandanani Makhanya - 463827 | Train |
| 10042 | A | Check the pressure on test point LPTP. | OK | | Thandanani Makhanya - 463827 | Train |
| 10043 | R | LPTP | OK | 2.8 | Thandanani Makhanya - 463827 | Train |
| 10044 | R | Read Min/Max [TT] (MPU1)tbcu3_bcususpess : 260<= x <= 320 | OK | 279.26 | Thandanani Makhanya - 463827 | Train |
| 10045 | R | Read Defined Variable [TT] (MPU1)tbcu3_suspsodc = 0.0 | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10046 | A | Close the isolation cock C2.10 | OK | | Thandanani Makhanya - 463827 | Train |
| 10047 | R | Check Pressure on test point C2.11.2 = Obar Read Undefined Value : x () | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)tbcu3_suspsodc = 1.0 | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10049 | A | Open the isolation cock C2.10 | OK | | Thandanani Makhanya - 463827 | Train |
| 10050 | A | Check all test point covers have been put back in place in the brake panel and suspension. | OK | | Thandanani Makhanya - 463827 | Train |
| 10051 | I | TC2 | OK | | Thandanani Makhanya - 463827 | Train |
| 10052 | R | Check the pressure on test point LPTP. Read Undefined Value : x () | OK | 3.331 | Thandanani Makhanya - 463827 | Train |
| 10053 | R | Read Min/Max [TT] (MPU1)BCU2_BcuSuspPress : 311<= x <= 371 | OK | 332.98 | Thandanani Makhanya - 463827 | Train |
| 10054 | R | Read Defined Variable [TT] (MPU1)BCU2_SuspIsoDC = 0.0 | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10055 | A | Close the isolation cock C1.10 | OK | | Thandanani Makhanya - 463827 | Train |
| 10056 | R | Read Defined Variable [TT] (MPU1)BCU2_SuspIsoDC = 1.0 | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10057 | R | Check Pressure on test point C1.11.2 = Obar Read Undefined Value : x () | OK | 0 | Thandanani Makhanya - 463827 | Train |

| | | | | | | | |
|-------|---|--|--|----|--|---------------------------------|-------|
| 10058 | A | Open the isolation cock C1.10 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10059 | A | Check all test point covers have been put back in place in the brake panel and suspension. | | OK | | Thandanani Makhanya - 463827 | Train |
| 10060 | I | End of Test | | OK | | Thandanani Makhanya - 463827 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 16 – Emergency Brake Interlock

16.3 Instructions list

16.3.1 044_UBK-Emergency Brake Interlock

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|------|---------------|--------------|--------------------------|---------|
| 10001 | I | Emergency Brake SPP=044 UBK | | OK | | Sithembile Xulu - 416253 | Train |
| 10002 | I | Emergency Brake Cylinder Pressure | | OK | | Sithembile Xulu - 416253 | Train |
| 10003 | I | Pressure in the main pipe should be 10 bar +/- 0.2bar | | OK | | Sithembile Xulu - 416253 | Train |
| 10004 | I | The direction selector switch is in Neutral position | | OK | | Sithembile Xulu - 416253 | Train |
| 10005 | I | Emergency brake is applied | | OK | | Sithembile Xulu - 416253 | Train |
| 10006 | A | Measure the pressure of the BCTP point in all cars with a calibrated manometer | | OK | | Sithembile Xulu - 416253 | Train |
| 10007 | R | BCTP TC1 Result Min/Max : 157<= x <= 197 (kPa) | | OK | 168.1 | Sithembile Xulu - 416253 | Train |
| 10008 | R | BCTP M4 Result Min/Max : 187<= x <= 227 (kPa) | | OK | 197.1 | Sithembile Xulu - 416253 | Train |
| 10009 | R | BCTP M1 Result Min/Max : 192<= x <= 232 (kPa) | | OK | 205.1 | Sithembile Xulu - 416253 | Train |
| 10010 | R | BCTP M2 Result Min/Max : 192<= x <= 232 (kPa) | | OK | 213 | Sithembile Xulu - 416253 | Train |
| 10011 | R | BCTP M3 Result Min/Max : 187<= x <= 227 (kPa) | | OK | 212 | Sithembile Xulu - 416253 | Train |
| 10012 | R | BCTP TC2 Result Min/Max : 157<= x <= 197 (kPa) | | OK | 163.1 | Sithembile Xulu - 416253 | Train |
| 10013 | I | Emergency brake TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10014 | I | Emergency brake by Direction Switch TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10015 | I | Direction selector switch is in NEUTRAL position | | OK | | Sithembile Xulu - 416253 | Train |
| 10016 | A | Active cab on TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10017 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10018 | R | Read Defined Variable [TT] (MPU1)BCU2_tINeb = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10019 | R | Read Defined Variable [TT] (MPU1)bcu1_tIneb = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|---|-----------------------------|-------|
| 10020 | R | Read Defined Variable [TT] (MPU1)tbcu2_tlnb = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10021 | R | Read Defined Variable [TT] (MPU1)TBCU1_tlnb = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10022 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnb = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnb = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10024 | A | Put the direction selector switch in FORWARD position | | OK | | Sithembile Xulu - 416253 | Train |
| 10025 | R | Read Defined Variable [TT] UBK_EmgcyBrkApld = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10026 | R | Read Defined Variable [TT] (MPU1)BCU2_TINb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)tbcu2_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10029 | R | Read Defined Variable [TT] (MPU1)TBCU1_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10030 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10032 | A | Put the direction selector switch in REVERSE position | | OK | | Sithembile Xulu - 416253 | Train |
| 10033 | R | Read Defined Variable [TT] UBK_EmgcyBrkApld = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10034 | R | Read Defined Variable [TT] (MPU1)BCU2_TINb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10035 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10036 | R | Read Defined Variable [TT] (MPU1)tbcu2_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10037 | R | Read Defined Variable [TT] (MPU1)TBCU1_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |

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|-------|---|---|--|----|---|-----------------------------|-------|
| 10038 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10039 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10040 | A | Put the direction selector switch in NEUTRAL position | | OK | | Sithembile Xulu - 416253 | Train |
| 10041 | I | Emergency Brake Button TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10042 | A | Put the direction selector switch in FORWARD position | | OK | | Sithembile Xulu - 416253 | Train |
| 10043 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10044 | A | Apply emergency brake using the red button 44S1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10045 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10046 | A | Release the button 44S1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10047 | A | Put the direction selector switch in NEUTRAL Position and again in FORWARD position to reset the emergency brake | | OK | | Sithembile Xulu - 416253 | Train |
| 10048 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10049 | A | On the non-active cab TC2, apply emergency brake using the red button 44S1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10050 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10051 | A | Release the button 44S1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10052 | A | Put the direction selector switch in NEUTRAL position | | OK | | Sithembile Xulu - 416253 | Train |
| 10053 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10054 | I | Emergency Brake by Master controller TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10055 | A | Put the direction selector switch in FORWARD position | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|---|-----------------------------|-------|
| 10056 | R | Read Defined Variable [TT] UBK_EmgcyBrkApld = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10057 | A | Put the master controller in EMERGENCY BRAKE position | | OK | | Sithembile Xulu - 416253 | Train |
| 10058 | R | Read Defined Variable [TT] UBK_EmgcyBrkApld = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10059 | A | Put the master controller in OFF position | | OK | | Sithembile Xulu - 416253 | Train |
| 10060 | R | Read Defined Variable [TT] UBK_EmgcyBrkApld = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10061 | I | PEA override TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10062 | A | Put the direction selector switch in FORWARD position | | OK | | Sithembile Xulu - 416253 | Train |
| 10063 | R | Read Defined Variable [TT] UBK_EmgcyBrkApld = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10064 | R | Lamp 44H5 is OFF | | OK | | Sithembile Xulu - 416253 | Train |
| 10065 | A | Pull any PEA on train | | OK | | Sithembile Xulu - 416253 | Train |
| 10066 | R | Lamp 44H5 is ON | | OK | | Sithembile Xulu - 416253 | Train |
| 10067 | A | Press the PEA override button 44S5 | | OK | | Sithembile Xulu - 416253 | Train |
| 10068 | A | Reset the PEA by switch 44S6 | | OK | | Sithembile Xulu - 416253 | Train |
| 10069 | R | Lamp 44H5 is OFF | | OK | | Sithembile Xulu - 416253 | Train |
| 10070 | A | Press the button 44S5 to normalize PEA override | | OK | | Sithembile Xulu - 416253 | Train |
| 10071 | I | Emergency brake TC2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10072 | I | Emergency brake by Direction Switch TC2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10073 | I | Direction selector switch is in NEUTRAL position | | OK | | Sithembile Xulu - 416253 | Train |
| 10074 | A | Switch active cab to TC2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10075 | R | Read Defined Variable [TT] UBK_EmgcyBrkApld = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10076 | R | Read Defined Variable [TT] (MPU1)BCU2_TINeb = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|---|-----------------------------|-------|
| 10077 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnb = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10078 | R | Read Defined Variable [TT] (MPU1)tbcu2_tlnb = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10079 | R | Read Defined Variable [TT] (MPU1)TBCU1_tlnb = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10080 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnb = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnb = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10082 | A | Put the direction selector switch in FORWARD position | | OK | | Sithembile Xulu - 416253 | Train |
| 10083 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10084 | R | Read Defined Variable [TT] (MPU1)BCU2_TINb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)tbcu2_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)TBCU1_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10088 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10089 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10090 | A | Put the direction selector switch in REVERSE position | | OK | | Sithembile Xulu - 416253 | Train |
| 10091 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10092 | R | Read Defined Variable [TT] (MPU1)BCU2_TINb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10094 | R | Read Defined Variable [TT] (MPU1)tbcu2_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |

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|-------|---|---|--|----|---|-----------------------------|-------|
| 10095 | R | Read Defined Variable [TT] (MPU1)TBCU1_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10096 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10097 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnb = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10098 | I | Emergency Brake Button TC2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10099 | A | Apply emergency brake using the red button 44S1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10100 | A | Put the direction selector switch in FORWARD position | | OK | | Sithembile Xulu - 416253 | Train |
| 10101 | A | Release the button 44S1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10102 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10103 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake | | OK | | Sithembile Xulu - 416253 | Train |
| 10104 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10105 | A | On the non-active can TC1, apply emergency brake using the red button 44S1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10106 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10107 | A | Release the button 44S1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10108 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake | | OK | | Sithembile Xulu - 416253 | Train |
| 10109 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10110 | A | Put the direction selector switch in NEUTRAL position | | OK | | Sithembile Xulu - 416253 | Train |
| 10111 | I | Emergency Brake by Master controller TC2 | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|---|--|----|---|--------------------------|-------|
| 10112 | A | Put the direction selector switch in FORWARD position | | OK | | Sithembile Xulu - 416253 | Train |
| 10113 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10114 | A | Put the master controller in EMERGENCY BRAKE position | | OK | | Sithembile Xulu - 416253 | Train |
| 10115 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10116 | A | Put the master controller in OFF position | | OK | | Sithembile Xulu - 416253 | Train |
| 10117 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10118 | I | PEA override TC2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10119 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10120 | A | Pull any PEA on train | | OK | | Sithembile Xulu - 416253 | Train |
| 10121 | R | Lamp 44H5 is ON | | OK | | Sithembile Xulu - 416253 | Train |
| 10122 | A | Press the PEA override button 44S5 | | OK | | Sithembile Xulu - 416253 | Train |
| 10123 | A | Reset the PEA by switch 44S6 | | OK | | Sithembile Xulu - 416253 | Train |
| 10124 | R | Lamp 44H5 is OFF | | OK | | Sithembile Xulu - 416253 | Train |
| 10125 | A | Press the button 44S5 to normalize PEA override | | OK | | Sithembile Xulu - 416253 | Train |
| 10126 | A | Put the direction selector switch in Neutral and FORWARD position | | OK | | Sithembile Xulu - 416253 | Train |
| 10127 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10128 | I | Low Pressure | | OK | | Sithembile Xulu - 416253 | Train |
| 10129 | A | Force [TT] (MPU1)lo_air_tc1compenabler1 = 0.0 | | OK | | Sithembile Xulu - 416253 | Train |
| 10130 | A | Force [TT] (MPU1)lo_air_tc1compenabler2 = 0.0 | | OK | | Sithembile Xulu - 416253 | Train |
| 10131 | A | Force [TT] (MPU1)lo_air_tc2compenabler1 = 0.0 | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|---|-----------------------------|-------|
| 10132 | A | Force [TT] (MPU1)lo_air_tc2compenabler2 = 0.0 | | OK | | Sithembile Xulu - 416253 | Train |
| 10133 | R | Drain the air in the main pipe until it reaches below 6 bar, i.e. drain air to reach the range 5-5.5 bar | | OK | | Sithembile Xulu - 416253 | Train |
| 10134 | R | On DDU screen, emergency brake due to low pressure appears | | OK | | Sithembile Xulu - 416253 | Train |
| 10135 | R | Read Defined Variable [TT] (BCU1)li_mp_ps_ok = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10136 | R | Read Defined Variable [TT] (BCU2)li_mp_ps_ok = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10137 | R | Read Defined Variable [TT] UBK_EmgcyBrkApld = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10138 | A | Release [TT] (MPU1)lo_air_tc1compenabler1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10139 | A | Release [TT] (MPU1)lo_air_tc1compenabler2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10140 | A | Release [TT] (MPU1)lo_air_tc2compenabler2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10141 | A | Release [TT] (MPU1)lo_air_tc2compenabler1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10142 | I | The pressure in the main pipe should be at least 7 bar for emergency brake to be released | | OK | | Sithembile Xulu - 416253 | Train |
| 10143 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position | | OK | | Sithembile Xulu - 416253 | Train |
| 10144 | R | Read Defined Variable [TT] (BCU1)li_mp_ps_ok = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10145 | R | Read Defined Variable [TT] (BCU2)li_mp_ps_ok = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10146 | R | Read Defined Variable [TT] UBK_EmgcyBrkApld = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10147 | I | End of Test | | OK | | Sithembile Xulu - 416253 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 17 – Fire Detection

17.3 Instructions list

17.3.1 067_FSD-Fire Detection

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|------|---------------|--------------|---------------------|---------|
| 10001 | I | Fire Detection SPP= 067 | | OK | | Vuma Mlaba - 435642 | Train |
| 10002 | I | Start of Test | | OK | | Vuma Mlaba - 435642 | Train |
| 10003 | A | Turn the key to Active cab | | OK | | Vuma Mlaba - 435642 | Train |
| 10004 | A | Close the battery contactor 18S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10005 | A | Press the automatic start button 20S1 to prepare the train in High voltage | | OK | | Vuma Mlaba - 435642 | Train |
| 10006 | R | Read Defined Variable [TT] PNT_AllPantoRaised = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10007 | R | Read Defined Variable [TT] HSC_HscbClosedNum = 2.0 | | OK | 2 | Vuma Mlaba - 435642 | Train |
| 10008 | R | Read Defined Variable [TT] (MPU1)NET_FDCUPresCIP = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10009 | R | Read Defined Variable [TT] (MPU1)FSD_FireSystemOk = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10010 | R | Read Defined Variable [TT] (MPU1)FSD_FireLocation = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10011 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10012 | R | Read Defined Variable [TT] (MPU1)FDCU_Data2 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10013 | R | Read Defined Variable [TT] (MPU1)FDCU_Data3 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10014 | R | Read Defined Variable [TT] (MPU1)FDCU_DiagData = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10015 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10016 | I | Fire Detection Simulation test in Saloon | | OK | | Vuma Mlaba - 435642 | Train |
| 10017 | I | In order to see the CCTV footage where fire was simulated, navigate through the ISO event. | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|---|---|----|----|---------------------|-------|
| 10018 | I | Both cameras will be activated when a fire is detected in the saloon | | OK | | Vuma Mlaba - 435642 | Train |
| 10019 | I | All HVACs are operational |  | OK | | Vuma Mlaba - 435642 | Train |
| 10020 | I | TC1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10021 | A | Simulate a fire by spraying the gas on the fire detection unit 67A4 on TC1 cab for at least 1s | | OK | | Vuma Mlaba - 435642 | Train |
| 10022 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10023 | R | HVAC stops working in the cab and TC1 saloon | | OK | | Vuma Mlaba - 435642 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0 | | OK | 49 | Vuma Mlaba - 435642 | Train |
| 10025 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10026 | A | Reset the fire detection loop on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10027 | R | 67H1 turns OFF on the Alarm Module and NO fire detected on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10028 | R | The HVAC of TC1 Cab and Saloon starts working in normal condition | | OK | | Vuma Mlaba - 435642 | Train |
| 10029 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10030 | A | It takes about 40 seconds for the variable "FDCU_Status" below to change to 17. Read the variable before the next simulation. | | OK | | Vuma Mlaba - 435642 | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10032 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on TC1 car for at least 1s | | OK | | Vuma Mlaba - 435642 | Train |
| 10033 | R | The CCTV footage showing TC1 saloon where the fire was detected is shown on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10034 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10035 | R | HVAC stop working in TC1 saloon. | | OK | | Vuma Mlaba - 435642 | Train |

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| 10036 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0 | | OK | 49 | Vuma Mlaba - 435642 | Train |
| 10037 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 2.0 | | OK | 2 | Vuma Mlaba - 435642 | Train |
| 10038 | A | Reset the fire detection loop on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10039 | R | HVAC starts working in TC1 saloon | | OK | | Vuma Mlaba - 435642 | Train |
| 10040 | R | Camera footage disappears from the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10041 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10042 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10043 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on TC1 car for at least 1s | | OK | | Vuma Mlaba - 435642 | Train |
| 10044 | R | The CCTV footage showing TC1 saloon where the fire was detected is shown on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10045 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10046 | R | HVAC stop working in TC1 saloon | | OK | | Vuma Mlaba - 435642 | Train |
| 10047 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0 | | OK | 49 | Vuma Mlaba - 435642 | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 4.0 | | OK | 4 | Vuma Mlaba - 435642 | Train |
| 10049 | A | Reset the fire detection loop on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10050 | R | HVAC starts working in TC1 saloon | | OK | | Vuma Mlaba - 435642 | Train |
| 10051 | R | Camera footage disappears from the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10052 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10053 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10054 | I | M4 car Test | | OK | | Vuma Mlaba - 435642 | Train |
| 10055 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M4 car for at | | OK | | Vuma Mlaba - 435642 | Train |

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| | | least 1s | | | | | |
| 10056 | R | The CCTV footage showing M4 saloon where the fire was detected is shown on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10057 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10058 | R | HVAC unit stop in M4 saloon. | | OK | | Vuma Mlaba - 435642 | Train |
| 10059 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0 | | OK | 49 | Vuma Mlaba - 435642 | Train |
| 10060 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 32.0 | | OK | 32 | Vuma Mlaba - 435642 | Train |
| 10061 | A | Reset the fire detection loop on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10062 | R | HVAC starts working in the saloon | | OK | | Vuma Mlaba - 435642 | Train |
| 10063 | R | Camera footage disappears from the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10064 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10065 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10066 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M4 car for at least 1s | | OK | | Vuma Mlaba - 435642 | Train |
| 10067 | R | The CCTV footage showing M4 saloon where the fire was detected is shown on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10068 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10069 | R | HVAC stop working in the saloon | | OK | | Vuma Mlaba - 435642 | Train |
| 10070 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0 | | OK | 49 | Vuma Mlaba - 435642 | Train |
| 10071 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 64.0 | | OK | 64 | Vuma Mlaba - 435642 | Train |
| 10072 | A | Reset the fire detection loop on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10073 | R | HVAC starts working in M4 saloon | | OK | | Vuma Mlaba - 435642 | Train |

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| 10074 | R | Camera footage disappears from the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10075 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10076 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10077 | I | M1 car | | OK | | Vuma Mlaba - 435642 | Train |
| 10078 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M1 car for at least 1s | | OK | | Vuma Mlaba - 435642 | Train |
| 10079 | R | The CCTV footage showing M1 saloon where the fire was detected is shown on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10080 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10081 | R | HVAC stop working on M1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0 | | OK | 49 | Vuma Mlaba - 435642 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 256.0 | | OK | 256 | Vuma Mlaba - 435642 | Train |
| 10084 | A | Reset the fire detection loop on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10085 | R | HVAC starts working in M1 saloon | | OK | | Vuma Mlaba - 435642 | Train |
| 10086 | R | Camera footage disappears from the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10088 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10089 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M1 car for at least 1s | | OK | | Vuma Mlaba - 435642 | Train |
| 10090 | R | The CCTV footage showing M1 saloon where the fire was detected is shown on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10091 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |

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| 10092 | R | HVAC stop working in M1 saloon. | | OK | | Vuma Mlaba - 435642 | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0 | | OK | 49 | Vuma Mlaba - 435642 | Train |
| 10094 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 512.0 | | OK | 512 | Vuma Mlaba - 435642 | Train |
| 10095 | A | Reset the fire detection loop on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10096 | R | HVAC starts working in M1 saloon | | OK | | Vuma Mlaba - 435642 | Train |
| 10097 | R | Camera footage disappears from the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10100 | I | M2 car Test | | OK | | Vuma Mlaba - 435642 | Train |
| 10101 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M2 for at least 1s | | OK | | Vuma Mlaba - 435642 | Train |
| 10102 | R | The CCTV footage showing M2 saloon where the fire was detected is shown on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10103 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10104 | R | HVAC stop working in M2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0 | | OK | 49 | Vuma Mlaba - 435642 | Train |
| 10106 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 4096.0 | | OK | 4096 | Vuma Mlaba - 435642 | Train |
| 10107 | A | Reset the fire detection loop on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10108 | R | HVAC starts working in M2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10109 | R | Camera footage disappears from DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10110 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10111 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |

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| 10112 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M2 for at least 1s | | OK | | Vuma Mlaba - 435642 | Train |
| 10113 | R | The CCTV footage showing M2 saloon where the fire was detected is shown on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10114 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10115 | R | HVAC stop working | | OK | | Vuma Mlaba - 435642 | Train |
| 10116 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0 | | OK | 49 | Vuma Mlaba - 435642 | Train |
| 10117 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 2048.0 | | OK | 2048 | Vuma Mlaba - 435642 | Train |
| 10118 | A | Reset the fire detection loop on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10119 | R | HVAC starts working in M2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10120 | R | Camera footage disappears from the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10123 | I | M3 car Test | | OK | | Vuma Mlaba - 435642 | Train |
| 10124 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M3 for at least 1s | | OK | | Vuma Mlaba - 435642 | Train |
| 10125 | R | The CCTV footage showing M3 saloon where the fire was detected is shown on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10126 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10127 | R | HVAC stop working in M3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10128 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0 | | OK | 49 | Vuma Mlaba - 435642 | Train |
| 10129 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 32768.0 | | OK | 32768 | Vuma Mlaba - 435642 | Train |

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| 10130 | A | Reset the fire detection loop on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10131 | R | HVAC starts working in M3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10132 | R | Camera footage disappears from the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10133 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10134 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10135 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M3 for at least 1s | | OK | | Vuma Mlaba - 435642 | Train |
| 10136 | R | The CCTV footage showing M3 saloon where the fire was detected is shown on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10137 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10138 | R | HVAC stop working in M3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10139 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0 | | OK | 49 | Vuma Mlaba - 435642 | Train |
| 10140 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 16384.0 | | OK | 16384 | Vuma Mlaba - 435642 | Train |
| 10141 | A | Reset the fire detection loop on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10142 | R | HVAC starts working in M3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10143 | R | Camera footage disappears from the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10144 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10145 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10146 | I | TC2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10147 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on TC2 for at least 1s | | OK | | Vuma Mlaba - 435642 | Train |
| 10148 | R | The CCTV footage showing TC2 saloon where the fire was detected is shown on the DDU | | OK | | Vuma Mlaba - 435642 | Train |

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| 10149 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10150 | R | HVAC stops working in TC2 saloon | | OK | | Vuma Mlaba - 435642 | Train |
| 10151 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0 | | OK | 49 | Vuma Mlaba - 435642 | Train |
| 10152 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 524288.0 | | OK | 524288 | Vuma Mlaba - 435642 | Train |
| 10153 | A | Reset the fire detection loop on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10154 | R | HVAC starts working in TC2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10155 | R | Camera footage disappears from the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10156 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10157 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10158 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on TC2 for at least 1s | | OK | | Vuma Mlaba - 435642 | Train |
| 10159 | R | The CCTV footage showing TC2 saloon where the fire was detected is shown on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10160 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10161 | R | HVAC stops working in TC2 saloon | | OK | | Vuma Mlaba - 435642 | Train |
| 10162 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0 | | OK | 49 | Vuma Mlaba - 435642 | Train |
| 10163 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 262144.0 | | OK | 262144 | Vuma Mlaba - 435642 | Train |
| 10164 | A | Reset the fire detection loop on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10165 | R | HVAC starts working in TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10166 | R | Camera footage disappears from the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10167 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |

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| 10168 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10169 | A | Simulate a fire by spraying the gas on the fire detection unit 67A4 on TC2 cab for at least 1s | | OK | | Vuma Mlaba - 435642 | Train |
| 10170 | R | 67H1 becomes "ON" on the Alarm Module of TC2 and TC1, and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10171 | R | HVAC stops working in TC2 saloon | | OK | | Amanda Ntuli - 526239 | Train |
| 10172 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0 | | OK | 49 | Vuma Mlaba - 435642 | Train |
| 10173 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 131072.0 | | OK | 131072 | Vuma Mlaba - 435642 | Train |
| 10174 | A | Reset the fire detection loop on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10175 | R | HVAC starts working in TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10176 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10177 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10178 | I | Fire Detection Simulation Underframe |  | OK | | Vuma Mlaba - 435642 | Train |
| 10179 | I | TC2 ACU Test | | OK | | Vuma Mlaba - 435642 | Train |
| 10180 | A | Toggle the switch to activate a fire in the ACU | | OK | | Vuma Mlaba - 435642 | Train |
| 10181 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10182 | R | Read Undefined Variable [TT] (MPU1)FDCU_Data1 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10183 | R | Read Defined Variable [TT] (MPU1)li_hsc_m1hscbopenr1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10184 | R | Read Defined Variable [TT] (MPU1)li_hsc_m2hscbopenr1 = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10185 | A | Remove the switch and put back the cover | | OK | | Vuma Mlaba - 435642 | Train |
| 10186 | A | Reset the fire detection loop from the DDU | | OK | | Vuma Mlaba - 435642 | Train |

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| 10187 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10188 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10189 | I | M3 car propulsion box | | OK | | Vuma Mlaba - 435642 | Train |
| 10190 | A | Toggle the switch to activate a fire in M3 propulsion box | | OK | | Vuma Mlaba - 435642 | Train |
| 10191 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10192 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 65536.0 | | OK | 65536 | Vuma Mlaba - 435642 | Train |
| 10193 | R | Confirm that the value above is 65536 | | OK | | Vuma Mlaba - 435642 | Train |
| 10194 | A | Remove the switch and put back the cover | | OK | | Vuma Mlaba - 435642 | Train |
| 10195 | A | Reset the fire detection loop from the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10196 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10197 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10198 | I | M2 car propulsion box | | OK | | Vuma Mlaba - 435642 | Train |
| 10199 | A | Toggle the switch to activate a fire in M2 propulsion box | | OK | | Vuma Mlaba - 435642 | Train |
| 10200 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10201 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 8192.0 | | OK | 8192 | Vuma Mlaba - 435642 | Train |
| 10202 | A | Remove the switch and put back the cover | | OK | | Vuma Mlaba - 435642 | Train |
| 10203 | A | Reset the fire detection loop from the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10204 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10205 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10206 | I | M1 car propulsion box | | OK | | Vuma Mlaba - 435642 | Train |

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| 10207 | A | Toggle the switch to activate a fire in M1 propulsion box | | OK | | Vuma Mlaba - 435642 | Train |
| 10208 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10209 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 1024.0 | | OK | 1024 | Vuma Mlaba - 435642 | Train |
| 10210 | R | Read Defined Variable [TT] (MPU1)li_hsc_m1hscbopenr1 = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10211 | A | Remove the switch and put back the cover | | OK | | Vuma Mlaba - 435642 | Train |
| 10212 | A | Reset the fire detection loop from the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10213 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10214 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10215 | I | M4 Propulsion box | | OK | | Vuma Mlaba - 435642 | Train |
| 10216 | A | Toggle the switch to activate a fire in M4 Propulsion box | | OK | | Vuma Mlaba - 435642 | Train |
| 10217 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |
| 10218 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 128.0 | | OK | 128 | Vuma Mlaba - 435642 | Train |
| 10219 | A | Remove the switch and put back the cover | | OK | | Vuma Mlaba - 435642 | Train |
| 10220 | A | Reset the fire detection loop from the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10221 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10222 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10223 | I | TC1 ACU Test | | OK | | Vuma Mlaba - 435642 | Train |
| 10224 | A | Toggle the switch in TC1 to activate a fire in the ACU | | OK | | Vuma Mlaba - 435642 | Train |
| 10225 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|---|--|----|----|---------------------|-------|
| 10226 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 16.0 | | OK | 16 | Vuma Mlaba - 435642 | Train |
| 10227 | A | Remove the switch and put back the cover | | OK | | Vuma Mlaba - 435642 | Train |
| 10228 | A | Reset the fire detection loop from the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10229 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10230 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0 | | OK | 17 | Vuma Mlaba - 435642 | Train |
| 10231 | A | Close the HSCB | | OK | | Vuma Mlaba - 435642 | Train |
| 10232 | R | Read Defined Variable [TT] (MPU1)li_hsc_m1hscbopenr1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10233 | R | Read Defined Variable [TT] (MPU1)li_hsc_m2hscbopenr1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10234 | I | End of Test | | OK | | Vuma Mlaba - 435642 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 18 – Passenger Doors

18.3 Instructions list

18.3.1 050_DOR-Passenger Doors

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|---|---------------|--------------|---------------------|---------|
| 10001 | I | Doors SPP = 050 DOR | | OK | | Vuma Mlaba - 435642 | Train |
| 10002 | I | Initial Conditions | | OK | | Vuma Mlaba - 435642 | Train |
| 10003 | I | All doors should be closed | | OK | | Vuma Mlaba - 435642 | Train |
| 10004 | I | Speed less than 3km/h relay 61K3 is energized | | OK | | Vuma Mlaba - 435642 | Train |
| 10005 | I | Start of Test | | OK | | Vuma Mlaba - 435642 | Train |
| 10006 | I | Uploading procedure: | | OK | | Vuma Mlaba - 435642 | Train |
| 10007 | I | Follow the below instructions to upload software on all the doors |  | OK | | Vuma Mlaba - 435642 | Train |
| 10008 | I | Doors functional Test TC1 Cab | | OK | | Vuma Mlaba - 435642 | Train |
| 10009 | I | Door authorization not possible in non-active cab | | OK | | Vuma Mlaba - 435642 | Train |
| 10010 | A | Remove active cab on TC1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10011 | A | Put the door authorization switch 50S7 to DRIVER mode | | OK | | Vuma Mlaba - 435642 | Train |
| 10012 | A | Press the AUTH LEFT button 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10013 | R | Door AUTH LEFT not possible, Lamp 50S5 is OFF | | OK | | Vuma Mlaba - 435642 | Train |
| 10014 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10015 | R | OPEN LEFT door not possible, Lamp 50S1 is OFF | | OK | | Vuma Mlaba - 435642 | Train |
| 10016 | A | Press the AUTH RIGHT button 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10017 | R | Door AUTH RIGHT not possible, Lamp 50S6 is OFF | | OK | | Vuma Mlaba - 435642 | Train |
| 10018 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|---|---|----|---|---------------------|-------|
| 10019 | R | OPEN RIGHT door not possible, Lamp 50S2 is OFF | | OK | | Vuma Mlaba - 435642 | Train |
| 10020 | I | Door authorization with active cab | | OK | | Vuma Mlaba - 435642 | Train |
| 10021 | A | Activate cab on TC1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10022 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10023 | A | Press and hold the AUTH LEFT button 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1opendoorpleftr1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10025 | A | Press and hold the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10026 | R | Read Defined Variable [TT] (MPU1)lo_dor_tc1opendoorleft = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1opendoorpleftr1 = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10028 | R | Check on DDU screen that all left doors are OPEN and in WHITE colour | | OK | | Vuma Mlaba - 435642 | Train |
| 10029 | R | Door safety loop is OPEN, lamp 51H1 is ON |  | OK | | Vuma Mlaba - 435642 | Train |
| 10030 | A | Press and hold the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1closedoorpleftr1 = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10032 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1closedoorlineleft = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10033 | R | Lamp 51H1 is OFF | | OK | | Vuma Mlaba - 435642 | Train |
| 10034 | R | Check on the DDU screen that all left doors are closed and in blue colour | | OK | | Vuma Mlaba - 435642 | Train |
| 10035 | A | Press and hold the AUTH RIGHT button 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10036 | R | Lamp 50S6 is ON | | OK | | Vuma Mlaba - 435642 | Train |
| 10037 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1authdoorpbright = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10038 | R | Read Defined Variable [TT] | | OK | 0 | Vuma Mlaba - 435642 | Train |

| | | | | | | | |
|-------|---|---|---|----|---|---------------------|-------|
| | | (MPU1)li_dor_tc1opendoorbrightr1 = 0.0 | | | | | |
| 10039 | A | Press and hold the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10040 | R | Read Defined Variable [TT] (MPU1)lo_dor_tc1opendoorright = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10041 | R | Read Defined Variable [TT] (MPU1)lo_dor_tc1opendoorright = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10042 | R | Check on DDU screen that all right doors are OPEN | | OK | | Vuma Mlaba - 435642 | Train |
| 10043 | R | Door safety loop is OPEN, lamp 51H1 is ON |  | OK | | Vuma Mlaba - 435642 | Train |
| 10044 | A | Press and hold the button 50S4 to close all right doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10045 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1closedoorbrightr1 = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10046 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1closedoorlineright = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10047 | R | Lamp 51H1 is OFF | | OK | | Vuma Mlaba - 435642 | Train |
| 10048 | R | Check on the DDU screen that all right doors are closed and in blue colour | | OK | | Vuma Mlaba - 435642 | Train |
| 10049 | A | Press the AUTH LEFT button 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10050 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10051 | A | Press the AUTH RIGHT button 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10052 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10053 | R | Take a walk to TC2 on the train, verify that all doors have the light 50H20 lighting in GREEN colour to indicate door is open | | OK | | Vuma Mlaba - 435642 | Train |
| 10054 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10055 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10056 | R | All doors are closed on the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10057 | I | Train speed more than 3km/h TC1 | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|---|--|----|--|---------------------|-------|
| 10058 | A | Open 61Q1 to switch OFF the OTDR | | OK | | Vuma Mlaba - 435642 | Train |
| 10059 | A | Press the AUTH LEFT button 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10060 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10061 | A | Press the AUTH RIGHT button 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10062 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10063 | A | Force [TT] (BCU1)LO_SPEED_THRSLD1 = 0.0 | | OK | | Vuma Mlaba - 435642 | Train |
| 10064 | A | Force [TT] (BCU2)LO_SPEED_THRSLD1 = 0.0 | | OK | | Vuma Mlaba - 435642 | Train |
| 10065 | R | All left doors are closed | | OK | | Vuma Mlaba - 435642 | Train |
| 10066 | R | All right doors are closed | | OK | | Vuma Mlaba - 435642 | Train |
| 10067 | A | Press the AUTH LEFT button 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10068 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10069 | A | Press the AUTH RIGHT button 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10070 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10071 | R | All doors remain closed | | OK | | Vuma Mlaba - 435642 | Train |
| 10072 | A | Release [TT] (BCU1)LO_SPEED_THRSLD1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10073 | A | Release [TT] (BCU2)LO_SPEED_THRSLD1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10074 | I | Doors functional Test TC2 Cab | | OK | | Vuma Mlaba - 435642 | Train |
| 10075 | I | Door authorization not possible in non-active cab | | OK | | Vuma Mlaba - 435642 | Train |
| 10076 | A | Press the AUTH LEFT button 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10077 | R | Door AUTH LEFT not possible, Lamp 50S5 is OFF | | OK | | Vuma Mlaba - 435642 | Train |
| 10078 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10079 | R | OPEN LEFT door is not possible, Lamp 50S1 is OFF | | OK | | Vuma Mlaba - 435642 | Train |
| 10080 | A | Press the AUTH RIGHT button 50S6 | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|---|---|----|---|---------------------|-------|
| 10081 | R | Door AUTH RIGHT not possible, Lamp 50S6 is OFF | | OK | | Vuma Mlaba - 435642 | Train |
| 10082 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10083 | R | OPEN RIGHT door not possible, Lamp 50S2 is OFF | | OK | | Vuma Mlaba - 435642 | Train |
| 10084 | I | Door authorization with active cab | | OK | | Vuma Mlaba - 435642 | Train |
| 10085 | A | Activate cab on TC2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10086 | A | Set the door authorization switch 50S7 to DRIVER mode in LV1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2alldoorsclosedr1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10088 | A | Press and hold the AUTH LEFT button 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10089 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2authdoorpleft = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10090 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2opendoorpleftr1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10091 | A | Press and hold the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10092 | R | Read Defined Variable [TT] (MPU1)lo_dor_tc2opendoorleft = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2opendoorpleftr1 = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10094 | R | Check on DDU screen that all left doors are OPEN and in WHITE colour | | OK | | Vuma Mlaba - 435642 | Train |
| 10095 | I | Door safety loop is OPEN, lamp 51H1 is ON |  | OK | | Vuma Mlaba - 435642 | Train |
| 10096 | A | Press and hold the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10097 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2closedoorlineleft = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2closedoorpleftr1 = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10099 | R | Lamp 51H1 is OFF | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|---|--|----|---|---------------------|-------|
| 10100 | R | Check on the DDU screen that all left doors are closed and in blue colour | | OK | | Vuma Mlaba - 435642 | Train |
| 10101 | A | Press and hold and hold the AUTH RIGHT button 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2authdoorpbright = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10103 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2opendoorpbright1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10104 | A | Press and hold the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2opendoorpbright1 = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10106 | R | Check on DDU screen that all right doors are OPEN | | OK | | Vuma Mlaba - 435642 | Train |
| 10107 | I | Door safety loop is OPEN, lamp 51H1 is ON |  | OK | | Vuma Mlaba - 435642 | Train |
| 10108 | R | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10109 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2closedoorlineleft = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10110 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2closedoorpbright1 = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10111 | R | Lamp 51H1 is OFF | | OK | | Vuma Mlaba - 435642 | Train |
| 10112 | R | Check on the DDU screen that all right doors are closed and in blue colour | | OK | | Vuma Mlaba - 435642 | Train |
| 10113 | A | Press the AUTH LEFT button 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10114 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10115 | A | Press the AUTH RIGHT button 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10116 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10117 | R | Take a walk to TC1 on the train, verify that all doors have the light 50H20 lighting in GREEN colour to indicate door is open | | OK | | Vuma Mlaba - 435642 | Train |
| 10118 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|---|--|----|--|---------------------|-------|
| 10119 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10120 | R | All doors are closed on the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10121 | I | Train speed more than 3km/h TC2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10122 | A | Open 61Q1 to switch OFF the OTDR | | OK | | Vuma Mlaba - 435642 | Train |
| 10123 | A | Press the AUTH LEFT button 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10124 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10125 | A | Press the AUTH RIGHT button 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10126 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10127 | A | Force [TT] (BCU1)LO_SPEED_THRSLD1 = 0.0 | | OK | | Vuma Mlaba - 435642 | Train |
| 10128 | A | Force [TT] (BCU2)LO_SPEED_THRSLD1 = 0.0 | | OK | | Vuma Mlaba - 435642 | Train |
| 10129 | R | All left doors are closed | | OK | | Vuma Mlaba - 435642 | Train |
| 10130 | R | All right doors are closed | | OK | | Vuma Mlaba - 435642 | Train |
| 10131 | A | Press the AUTH LEFT button 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10132 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10133 | A | Press the AUTH RIGHT button 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10134 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10135 | R | All doors remain closed | | OK | | Vuma Mlaba - 435642 | Train |
| 10136 | A | Release [TT] (BCU1)LO_SPEED_THRSLD1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10137 | A | Release [TT] (BCU2)LO_SPEED_THRSLD1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10138 | A | Close 61Q1 circuit breaker | | OK | | Vuma Mlaba - 435642 | Train |
| 10139 | I | Door Obstacle Detection | | OK | | Vuma Mlaba - 435642 | Train |
| 10140 | I | This test is to verify if the CCTV footage will display on the DDU when an obstacle is detected at any door | | OK | | Vuma Mlaba - 435642 | Train |
| 10141 | A | Press the DOOR AUTH left button 50S5 | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|---|---|----|-----|---------------------|-------|
| 10142 | A | Press the button 50S1 to open left doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10143 | A | Place an obstacle at the centre of any of the open doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10144 | A | Close the left doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10145 | I | The door with an obstacle will attempt to close 3 times | | OK | | Vuma Mlaba - 435642 | Train |
| 10146 | R | The door with an obstacle appears in white colour on the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10147 | A | Remove the obstacle | | OK | | Vuma Mlaba - 435642 | Train |
| 10148 | A | Open and close left doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10149 | R | The door which had the obstacle appears closed on the DDU and it's in blue colour | | OK | | Vuma Mlaba - 435642 | Train |
| 10150 | I | Door Manual Opening |  | OK | | Vuma Mlaba - 435642 | Train |
| 10151 | A | All doors should be closed including the door covers in each saloon | | OK | | Vuma Mlaba - 435642 | Train |
| 10152 | I | TC1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10153 | A | Put the switch 50S7 in DRIVER mode | | OK | | Vuma Mlaba - 435642 | Train |
| 10154 | A | Try to manually open ALL TC1 DOORS | | OK | | Vuma Mlaba - 435642 | Train |
| 10155 | R | It is not possible to manually open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10156 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA | | OK | | Vuma Mlaba - 435642 | Train |
| 10157 | R | DOOR1 PEA effort Result Max : $x \leq 120$ (N) | | OK | 114 | Vuma Mlaba - 435642 | Train |
| 10158 | R | DOOR2 PEA effort Result Max : $x \leq 120$ (N) | | OK | 109 | Vuma Mlaba - 435642 | Train |
| 10159 | R | DOOR3 PEA effort Result Max : $x \leq 120$ (N) | | OK | 104 | Vuma Mlaba - 435642 | Train |
| 10160 | R | DOOR4 PEA effort Result Max : $x \leq 120$ (N) | | OK | 102 | Vuma Mlaba - 435642 | Train |
| 10161 | R | DOOR5 PEA effort Result Max : $x \leq 120$ (N) | | OK | 99 | Vuma Mlaba - 435642 | Train |
| 10162 | R | DOOR6 PEA effort Result Max : $x \leq 120$ (N) | | OK | 118 | Vuma Mlaba - 435642 | Train |
| 10163 | A | Manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10164 | R | Doors opens freely | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|---|--|----|---|---------------------|-------|
| 10165 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10166 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10167 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10168 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10169 | R | Read Defined Variable [TT] (MPU1)lo_dor_tc1opendoorright = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10170 | R | Read Defined Variable [TT] (MPU1)lo_dor_tc1opendoorleft = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10171 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10172 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10173 | R | The TC1 doors remains open | | OK | | Vuma Mlaba - 435642 | Train |
| 10174 | A | Press the button 54S3 to acknowledge PEAs | | OK | | Vuma Mlaba - 435642 | Train |
| 10175 | A | Reset the PEA using switch 44S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10176 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10177 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10178 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10179 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10180 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10181 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10182 | R | The TC1 doors closes | | OK | | Vuma Mlaba - 435642 | Train |
| 10183 | A | Activate the lockout device on ALL TC1 Doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10184 | R | Doors of TC1 appear as OUT OF SERVICE on DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10185 | A | Try to manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10186 | R | It is not possible to open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10187 | A | Pull the PEAs | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|--|--|----|-----|---------------------|-------|
| 10188 | A | Try to manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10189 | R | It is not possible to open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10190 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10191 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10192 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10193 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10194 | R | All Train doors are open except for TC1 doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10195 | A | Press the button 54S3 to acknowledge PEA | | OK | | Vuma Mlaba - 435642 | Train |
| 10196 | A | Release the lockout devices | | OK | | Vuma Mlaba - 435642 | Train |
| 10197 | A | Reset the PEAs using the switch 44S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10198 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10199 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10200 | R | Doors appears as Closed on the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10201 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10202 | I | M4 car | | OK | | Vuma Mlaba - 435642 | Train |
| 10203 | A | Try to manually open ALL M4 DOORS | | OK | | Vuma Mlaba - 435642 | Train |
| 10204 | R | It is not possible to manually open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10205 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA | | OK | | Vuma Mlaba - 435642 | Train |
| 10206 | R | DOOR1 PEA effort Result Max : x <= 120 (N) | | OK | 98 | Vuma Mlaba - 435642 | Train |
| 10207 | R | DOOR2 PEA effort Result Max : x <= 120 (N) | | OK | 100 | Vuma Mlaba - 435642 | Train |
| 10208 | R | DOOR3 PEA effort Result Max : x <= 120 (N) | | OK | 104 | Vuma Mlaba - 435642 | Train |
| 10209 | R | DOOR4 PEA effort Result Max : x <= 120 (N) | | OK | 115 | Vuma Mlaba - 435642 | Train |
| 10210 | R | DOOR5 PEA effort Result Max : x <= 120 (N) | | OK | 111 | Vuma Mlaba - 435642 | Train |

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|-------|---|--|--|----|-----|---------------------------------|-------|
| 10211 | R | DOOR6 PEA effort Result Max : x <= 120 (N) | | OK | 103 | Vuma Mlaba - 435642 | Train |
| 10212 | A | Manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10213 | R | Doors opens freely | | OK | | Vuma Mlaba - 435642 | Train |
| 10214 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10215 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10216 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10217 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10218 | R | Read Defined Variable [TT] (MPU1)lo_dor_m4opendoorright = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10219 | R | Read Defined Variable [TT] (MPU1)lo_dor_m4opendoorleft = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10220 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10221 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10222 | R | The M4 doors remains open | | OK | | Vuma Mlaba - 435642 | Train |
| 10223 | A | Press the button 54S3 to acknowledge PEAs | | OK | | Vuma Mlaba - 435642 | Train |
| 10224 | A | Reset the PEA using switch 44S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10225 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10226 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10227 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10228 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10229 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10230 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10231 | R | The M4 doors closes | | OK | | Vuma Mlaba - 435642 | Train |
| 10232 | A | Activate the lockout device on ALL M4 Doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10233 | R | Doors of M4 appear as OUT OF SERVICE on DDU screen | | OK | | Thandanani Makhanya - 463827 | Train |
| 10234 | A | Try to manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|--|--|----|-----|---------------------|-------|
| 10235 | R | It is not possible to open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10236 | A | Pull the PEAs | | OK | | Vuma Mlaba - 435642 | Train |
| 10237 | A | Try to manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10238 | R | It is not possible to open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10239 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10240 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10241 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10242 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10243 | R | All Train doors are open except for M4 doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10244 | A | Press the button 54S3 to acknowledge PEA | | OK | | Vuma Mlaba - 435642 | Train |
| 10245 | A | Release the lockout devices | | OK | | Vuma Mlaba - 435642 | Train |
| 10246 | A | Reset the PEAs using the switch 44S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10247 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10248 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10249 | R | Doors appears as Closed on the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10250 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10251 | I | M1 car | | OK | | Vuma Mlaba - 435642 | Train |
| 10252 | A | Try to manually open ALL M1 DOORS | | OK | | Vuma Mlaba - 435642 | Train |
| 10253 | R | It is not possible to manually open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10254 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA | | OK | | Vuma Mlaba - 435642 | Train |
| 10255 | R | DOOR1 PEA effort Result Max : x <= 120 (N) | | OK | 110 | Vuma Mlaba - 435642 | Train |
| 10256 | R | DOOR2 PEA effort Result Max : x <= 120 (N) | | OK | 108 | Vuma Mlaba - 435642 | Train |
| 10257 | R | DOOR3 PEA effort Result Max : x <= 120 (N) | | OK | 112 | Vuma Mlaba - 435642 | Train |

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|-------|---|--|--|----|-----|---------------------|-------|
| 10258 | R | DOOR4 PEA effort Result Max : x <= 120 (N) | | OK | 101 | Vuma Mlaba - 435642 | Train |
| 10259 | R | DOOR5 PEA effort Result Max : x <= 120 (N) | | OK | 107 | Vuma Mlaba - 435642 | Train |
| 10260 | R | DOOR6 PEA effort Result Max : x <= 120 (N) | | OK | 99 | Vuma Mlaba - 435642 | Train |
| 10261 | A | Manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10262 | R | Doors opens freely | | OK | | Vuma Mlaba - 435642 | Train |
| 10263 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10264 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10265 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10266 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10267 | R | Read Defined Variable [TT] (MPU1)lo_dor_m1opendoorright = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10268 | R | Read Defined Variable [TT] (MPU1)lo_dor_m2opendoorleft = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10269 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10270 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10271 | R | The M1 doors remains open | | OK | | Vuma Mlaba - 435642 | Train |
| 10272 | A | Press the button 54S3 to acknowledge PEAs | | OK | | Vuma Mlaba - 435642 | Train |
| 10273 | A | Reset the PEA using switch 44S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10274 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10275 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10276 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10277 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10278 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10279 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10280 | R | The M1 doors closes | | OK | | Vuma Mlaba - 435642 | Train |
| 10281 | A | Activate the lockout device on ALL M1 Doors | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|--|--|----|----|---------------------|-------|
| 10282 | R | Doors of M1 appear as OUT OF SERVICE on DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10283 | A | Try to manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10284 | R | It is not possible to open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10285 | A | Pull the PEAs | | OK | | Vuma Mlaba - 435642 | Train |
| 10286 | A | Try to manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10287 | R | It is not possible to open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10288 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10289 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10290 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10291 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10292 | R | All Train doors are open except for M1 doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10293 | A | Press the button 54S3 to acknowledge PEA | | OK | | Vuma Mlaba - 435642 | Train |
| 10294 | A | Release the lockout devices | | OK | | Vuma Mlaba - 435642 | Train |
| 10295 | A | Reset the PEAs using the switch 44S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10296 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10297 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10298 | R | Doors appears as Closed on the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10299 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10300 | I | M2 car | | OK | | Vuma Mlaba - 435642 | Train |
| 10301 | A | Try to manually open ALL M2 DOORS | | OK | | Vuma Mlaba - 435642 | Train |
| 10302 | R | It is not possible to manually open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10303 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA | | OK | | Vuma Mlaba - 435642 | Train |
| 10304 | R | DOOR1 PEA effort Result Max : x <= 120 (N) | | OK | 99 | Vuma Mlaba - 435642 | Train |

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|-------|---|--|--|----|-----|---------------------|-------|
| 10305 | R | DOOR2 PEA effort Result Max : x <= 120 (N) | | OK | 102 | Vuma Mlaba - 435642 | Train |
| 10306 | R | DOOR3 PEA effort Result Max : x <= 120 (N) | | OK | 98 | Vuma Mlaba - 435642 | Train |
| 10307 | R | DOOR4 PEA effort Result Max : x <= 120 (N) | | OK | 109 | Vuma Mlaba - 435642 | Train |
| 10308 | R | DOOR5 PEA effort Result Max : x <= 120 (N) | | OK | 103 | Vuma Mlaba - 435642 | Train |
| 10309 | R | DOOR6 PEA effort Result Max : x <= 120 (N) | | OK | 108 | Vuma Mlaba - 435642 | Train |
| 10310 | A | Manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10311 | R | Doors opens freely | | OK | | Vuma Mlaba - 435642 | Train |
| 10312 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10313 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10314 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10315 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10316 | R | Read Defined Variable [TT] (MPU1)lo_dor_m2opendoorright = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10317 | R | Read Defined Variable [TT] (MPU1)lo_dor_m2opendoorleft = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10318 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10319 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10320 | R | The M2 doors remains open | | OK | | Vuma Mlaba - 435642 | Train |
| 10321 | A | Press the button 54S3 to acknowledge PEAs | | OK | | Vuma Mlaba - 435642 | Train |
| 10322 | A | Reset the PEA using switch 44S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10323 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10324 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10325 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10326 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10327 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10328 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10329 | R | The M2 doors closes | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|--|--|----|---|---------------------|-------|
| 10330 | A | Activate the lockout device on ALL M2 Doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10331 | R | Doors of M2 appear as OUT OF SERVICE on DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10332 | A | Try to manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10333 | R | It is not possible to open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10334 | A | Pull the PEAs | | OK | | Vuma Mlaba - 435642 | Train |
| 10335 | A | Try to manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10336 | R | It is not possible to open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10337 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10338 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10339 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10340 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10341 | R | All Train doors are open except for M2 doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10342 | A | Press the button 54S3 to acknowledge PEA | | OK | | Vuma Mlaba - 435642 | Train |
| 10343 | A | Release the lockout devices | | OK | | Vuma Mlaba - 435642 | Train |
| 10344 | A | Reset the PEAs using the switch 44S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10345 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10346 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10347 | R | Doors appears as Closed on the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10348 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10349 | I | M3 car | | OK | | Vuma Mlaba - 435642 | Train |
| 10350 | A | Try to manually open ALL M3 DOORS | | OK | | Vuma Mlaba - 435642 | Train |
| 10351 | R | It is not possible to manually open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|--|--|----|-----|---------------------|-------|
| 10352 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA | | OK | | Vuma Mlaba - 435642 | Train |
| 10353 | R | DOOR1 PEA effort Result Max : x <= 120 (N) | | OK | 99 | Vuma Mlaba - 435642 | Train |
| 10354 | R | DOOR2 PEA effort Result Max : x <= 120 (N) | | OK | 101 | Vuma Mlaba - 435642 | Train |
| 10355 | R | DOOR3 PEA effort Result Max : x <= 120 (N) | | OK | 103 | Vuma Mlaba - 435642 | Train |
| 10356 | R | DOOR4 PEA effort Result Max : x <= 120 (N) | | OK | 108 | Vuma Mlaba - 435642 | Train |
| 10357 | R | DOOR5 PEA effort Result Max : x <= 120 (N) | | OK | 110 | Vuma Mlaba - 435642 | Train |
| 10358 | R | DOOR6 PEA effort Result Max : x <= 120 (N) | | OK | 109 | Vuma Mlaba - 435642 | Train |
| 10359 | A | Manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10360 | R | Doors opens freely | | OK | | Vuma Mlaba - 435642 | Train |
| 10361 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10362 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10363 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10364 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10365 | R | Read Defined Variable [TT] (MPU1)lo_dor_m3opendoorright = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10366 | R | Read Defined Variable [TT] (MPU1)lo_dor_m3opendoorleft = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10367 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10368 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10369 | R | The M3 doors remains open | | OK | | Vuma Mlaba - 435642 | Train |
| 10370 | A | Press the button 54S3 to acknowledge PEAs | | OK | | Vuma Mlaba - 435642 | Train |
| 10371 | A | Reset the PEA using switch 44S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10372 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10373 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10374 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10375 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|---|--|----|---|---------------------|-------|
| 10376 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10377 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10378 | R | The M3 doors closes | | OK | | Vuma Mlaba - 435642 | Train |
| 10379 | A | Activate the lockout device on ALL M3 Doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10380 | R | Doors of M3 appear as OUT OF SERVICE on DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10381 | A | Try to manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10382 | R | It is not possible to open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10383 | A | Pull the PEAs | | OK | | Vuma Mlaba - 435642 | Train |
| 10384 | A | Try to manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10385 | R | It is not possible to open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10386 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10387 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10388 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10389 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10390 | R | All Train doors are open except for M3 doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10391 | A | Press the button 54S3 to acknowledge PEA | | OK | | Vuma Mlaba - 435642 | Train |
| 10392 | A | Release the lockout devices | | OK | | Vuma Mlaba - 435642 | Train |
| 10393 | A | Reset the PEAs using the switch 44S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10394 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10395 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10396 | R | Doors appears as Closed on the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10397 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10398 | I | TC2 car | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|--|--|----|-----|---------------------|-------|
| 10399 | A | Try to manually open ALL TC2 DOORS | | OK | | Vuma Mlaba - 435642 | Train |
| 10400 | R | It is not possible to manually open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10401 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA | | OK | | Vuma Mlaba - 435642 | Train |
| 10402 | R | DOOR1 PEA effort Result Max : x <= 120 (N) | | OK | 118 | Vuma Mlaba - 435642 | Train |
| 10403 | R | DOOR2 PEA effort Result Max : x <= 120 (N) | | OK | 116 | Vuma Mlaba - 435642 | Train |
| 10404 | R | DOOR3 PEA effort Result Max : x <= 120 (N) | | OK | 112 | Vuma Mlaba - 435642 | Train |
| 10405 | R | DOOR4 PEA effort Result Max : x <= 120 (N) | | OK | 110 | Vuma Mlaba - 435642 | Train |
| 10406 | R | DOOR5 PEA effort Result Max : x <= 120 (N) | | OK | 107 | Vuma Mlaba - 435642 | Train |
| 10407 | R | DOOR6 PEA effort Result Max : x <= 120 (N) | | OK | 103 | Vuma Mlaba - 435642 | Train |
| 10408 | A | Manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10409 | R | Doors opens freely | | OK | | Vuma Mlaba - 435642 | Train |
| 10410 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10411 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10412 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10413 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10414 | R | Read Defined Variable [TT] (MPU1)lo_dor_tc2opendoorright = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10415 | R | Read Defined Variable [TT] (MPU1)lo_dor_tc2opendoorleft = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10416 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10417 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10418 | R | The TC2 doors remains open | | OK | | Vuma Mlaba - 435642 | Train |
| 10419 | A | Press the button 54S3 to acknowledge PEAs | | OK | | Vuma Mlaba - 435642 | Train |
| 10420 | A | Reset the PEA using switch 44S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10421 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10422 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|---|--|----|--|---------------------|-------|
| 10423 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10424 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10425 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10426 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10427 | R | The TC2 doors closes | | OK | | Vuma Mlaba - 435642 | Train |
| 10428 | A | Activate the lockout device on ALL TC2 Doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10429 | R | Doors of TC2 appear as OUT OF SERVICE on DDU screen | | OK | | Vuma Mlaba - 435642 | Train |
| 10430 | A | Try to manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10431 | R | It is not possible to open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10432 | A | Pull the PEAs | | OK | | Vuma Mlaba - 435642 | Train |
| 10433 | A | Try to manually open the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10434 | R | It is not possible to open any of the doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10435 | A | Press AUTH LEFT BUTTON 50S5 | | OK | | Vuma Mlaba - 435642 | Train |
| 10436 | A | Press AUTH RIGHT BUTTON 50S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10437 | A | Press the OPEN LEFT button 50S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10438 | A | Press the OPEN RIGHT button 50S2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10439 | R | All Train doors are open except for TC2 doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10440 | A | Press the button 54S3 to acknowledge PEA | | OK | | Vuma Mlaba - 435642 | Train |
| 10441 | A | Release the lockout devices | | OK | | Vuma Mlaba - 435642 | Train |
| 10442 | A | Reset the PEAs using the switch 44S6 | | OK | | Vuma Mlaba - 435642 | Train |
| 10443 | A | Press the CLOSE LEFT button 50S3 | | OK | | Vuma Mlaba - 435642 | Train |
| 10444 | A | Press the CLOSE RIGHT button 50S4 | | OK | | Vuma Mlaba - 435642 | Train |
| 10445 | R | Doors appears as Closed on the DDU screen | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|--|--|----|---|---------------------|-------|
| 10446 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10447 | I | Door cycle test | | OK | | Vuma Mlaba - 435642 | Train |
| 10448 | I | This test should be performed at the end of the shift when there is no one who will want to go inside the train and disrupt the test cycle. | | OK | | Vuma Mlaba - 435642 | Train |
| 10449 | A | Check all the doors beep when opening and closing | | OK | | Vuma Mlaba - 435642 | Train |
| 10450 | A | Check door lights are green when open for all doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10451 | A | Check door lights are red when closing from all doors | | OK | | Vuma Mlaba - 435642 | Train |
| 10452 | A | Launch the door cycle test from the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10453 | I | At the beginning of the next shift (test should be left to run overnight), all doors should still be able to open and close without any issues | | OK | | Vuma Mlaba - 435642 | Train |
| 10454 | R | Door cycle test is successful | | OK | | Vuma Mlaba - 435642 | Train |
| 10455 | I | End Test | | OK | | Vuma Mlaba - 435642 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 19 – Traction Interlock

19.3 Instructions list

19.3.1 031_TRC-Traction Interlock

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|------|---------------|--------------|---------------------------------------|---------|
| 10001 | I | Traction Interlock SPP=031 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10002 | I | Initial Conditions | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10003 | I | The direction selector switch 30A1.S2 should be in NEUTRAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10004 | I | All doors should be closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10005 | I | Emergency brake should be applied | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10006 | I | PEA override switch should be in NORMAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10007 | I | Traction Interlock override switch 31S1 should be in NORMAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10008 | I | Backup mode switch 27S1 should be in NORMAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10009 | I | Start of Test | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10010 | I | Traction Interlock TC1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10011 | A | Active cab on TC1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10012 | A | Force [TT] (MPU1)lo_drc_tc1tractionloopr1 = 1.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10013 | A | Force [TT] (MPU1)lo_drc_tc1tractionloopr2 = 1.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10014 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10015 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10016 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10017 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10018 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10019 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10020 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10021 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10022 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10024 | A | Put the direction selector switch 30A1.S2 should be in FORWARD position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10025 | I | Emergency brake is released | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10026 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10029 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10030 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10032 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10033 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10034 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10035 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10036 | A | Put the direction selector switch 30A1.S2 should be in REVERSE position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10037 | I | Emergency brake is released | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10038 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10039 | R | Read Defined Variable [TT] (MPU1)BCU2_Tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10040 | R | Read Defined Variable [TT] (MPU1)TBCU1_Tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10041 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10042 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10045 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10046 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10047 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10048 | I | Traction interlock with Doors TC1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10049 | A | Manually open any door | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10050 | R | LED 51H1 is "ON" on alarm module | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10051 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10052 | R | Read Defined Variable [TT] (MPU1)BCU2_Tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10053 | R | Read Defined Variable [TT] (MPU1)TBCU1_Tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10054 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10055 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10056 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10057 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10058 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10059 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10060 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10061 | I | Simulate train speed of 5km/h contactor 61K2 is closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10062 | A | Energize point 41 of terminal block 93XT104_5 with 110V DC | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10063 | R | The opened door will automatically close | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10064 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10065 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10066 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10067 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10068 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10069 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10070 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10071 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10072 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10073 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10074 | A | Activate any PEA | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10075 | A | After 3 seconds press the button 44S5 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10076 | I | Speed is greater than 5km/h therefore all doors will remain closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10077 | R | Door safety loop is closed, contactor 51K1 and 51K2 are energized | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10078 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10079 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10080 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10084 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10088 | A | Reset PEA using switch 44S6 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10089 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10090 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10091 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10092 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10094 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10095 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10096 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10097 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10099 | A | Remove 110V DC from terminal block 93XT104_5 point 41 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10100 | A | Activate any PEA | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10101 | R | Door is unlocked and can be manually opened | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10103 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10104 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10106 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10107 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10108 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10109 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10110 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10111 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10112 | A | Reset PEA using switch 44S6 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10113 | A | Close the door opened above manually | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10114 | R | Door safety loop is closed, contactor 51K1 and 51K2 are energized | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10115 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10116 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10117 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10118 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10119 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10120 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10123 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10124 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10125 | A | Press the red button 44S1 to make an emergency brake | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10126 | R | Contactor of 44K12 and 44K11 are de-energized | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10127 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10128 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10129 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10130 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10131 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|---|--|----|---|---------------------------------------|-------|
| 10132 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhb = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10133 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10134 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10135 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10136 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10137 | A | Release the red button 44S1 for emergency brake | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10138 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10139 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10140 | R | Read Defined Variable [TT] (MPU1)BCU2_TlNotInhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10141 | R | Read Defined Variable [TT] (MPU1)TBCU1_TlNotInhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10142 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10143 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10144 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10145 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10146 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10147 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10148 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10149 | A | Force [TT] (MPU1)lo_drc_tc1tractionloopr1 = 1.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10150 | A | Force [TT] (MPU1)lo_drc_tc1tractionloopr2 = 0.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10151 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10152 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10153 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10154 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10155 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10156 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10157 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10158 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10159 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10160 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10161 | A | Force [TT] (MPU1)lo_drc_tc1tractionloopr1 = 0.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10162 | A | Force [TT] (MPU1)lo_drc_tc1tractionloopr2 = 1.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10163 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10164 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10165 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10166 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10167 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10168 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10169 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10170 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10171 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10172 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10173 | A | Force [TT] (MPU1)lo_drc_tc1tractionloopr1 = 0.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10174 | A | Force [TT] (MPU1)lo_drc_tc1tractionloopr2 = 0.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10175 | A | Put the direction selector switch in NEUTRAL Position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10176 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhb = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10177 | R | Read Defined Variable [TT] (MPU1)BCU2_TlNotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10178 | R | Read Defined Variable [TT] (MPU1)TBCU1_TlNotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10179 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhb = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10180 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhb = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10181 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhb = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10182 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10183 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10184 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10185 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10186 | A | Release [TT] (MPU1)lo_drc_tc1tractionloopr1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10187 | A | Release [TT] (MPU1)lo_drc_tc1tractionloopr2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10188 | I | Traction Interlock Override TC1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10189 | A | Put the Traction Interlock switch 31S1 in OVERRIDE position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10190 | R | A fault code is generated on the DDU screen to inform the driver that the door interlock has been override | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10191 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10192 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10193 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10194 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10195 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10196 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10197 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10198 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10199 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10200 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10201 | A | Put the Traction Interlock switch 31S1 in NORMAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10202 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhb = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10203 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10204 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10205 | R | Read Defined Variable [TT] (MPU1)TBCU2_tInotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10206 | R | Read Defined Variable [TT] (MPU1)tbcu3_tInotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10207 | R | Read Defined Variable [TT] (MPU1)tbcu4_tInotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10208 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10209 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10210 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10211 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10212 | A | Release [TT] (MPU1)lo_drc_tc1tractionloopr1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10213 | A | Release [TT] (MPU1)lo_drc_tc1tractionloopr2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10214 | A | Put the direction selector switch 30A1.S2 should be in NEUTRAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10215 | A | Remove active cab on TC1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10216 | I | Traction Interlock TC2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10217 | A | Active Cab on TC2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10218 | I | The direction selector switch 30A1.S2 should be in NEUTRAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10219 | I | All doors should be closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10220 | I | Emergency brake should be applied | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10221 | I | PEA override switch should be in NORMAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10222 | I | Traction Interlock override switch 31S1 should be in NORMAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10223 | I | Backup mode switch 27S1 should be in NORMAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10224 | A | Force [TT] (MPU1)lo_drc_tc2tractionloopr1 = 1.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10225 | A | Force [TT] (MPU1)lo_drc_tc2tractionloopr2 = 1.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10226 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10227 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10228 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10229 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10230 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10231 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10232 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10233 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10234 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10235 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10236 | A | Put the direction selector switch 30A1.S2 should be in FORWARD position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10237 | I | Emergency brake is released | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10238 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10239 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10240 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10241 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10242 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10243 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10244 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10245 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10246 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10247 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10248 | A | Put the direction selector switch 30A1.S2 should be in REVERSE position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10249 | I | Emergency brake is released | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10250 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10251 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10252 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10253 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10254 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10255 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10256 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10257 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10258 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10259 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10260 | I | Traction Interlock with Doors TC2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10261 | A | Manually open any door | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10262 | R | LED 51H1 is "ON" on alarm module | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10263 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10264 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10265 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10266 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10267 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10268 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10269 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10270 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10271 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10272 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10273 | I | Simulate train speed of 5km/h contactor 61K2 is closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10274 | A | Energize point 41 of terminal block 93XT104_5 with 110V DC | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10275 | R | The opened door will automatically close | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10276 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10277 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10278 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10279 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10280 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10281 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10282 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10283 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10284 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10285 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10286 | A | Activate any PEA | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10287 | A | After 3 seconds press the button 44S5 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10288 | I | Speed is greater than 5km/h therefore all doors will remain closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10289 | R | Door safety loop is closed, contactor 51K1 and 51K2 are energized | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10290 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10291 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10292 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10293 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10294 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10295 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10296 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10297 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10298 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10299 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10300 | A | Reset PEA using switch 44S6 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10301 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10302 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10303 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10304 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10305 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10306 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10307 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10308 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10309 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10310 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10311 | A | Remove 110V DC from terminal block 93XT104_5 point 41 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10312 | A | Activate any PEA | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10313 | R | Door is unlocked and can be manually opened | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10314 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10315 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10316 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10317 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10318 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10319 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10320 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10321 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10322 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10323 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10324 | A | Reset PEA using switch 44S6 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10325 | A | Close the door opened above manually | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10326 | R | Door safety loop is closed, contactor 51K1 and 51K2 are energized | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10327 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10328 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10329 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10330 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10331 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10332 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10333 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10334 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10335 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10336 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10337 | A | Press the red button 44S1 to make an emergency brake | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|---|--|----|---|---------------------------------------|-------|
| 10338 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhb = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10339 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10340 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10341 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhb = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10342 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhb = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10343 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhb = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10344 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10345 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10346 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10347 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10348 | A | Release the red button 44S1 for emergency brake | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10349 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10350 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10351 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10352 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10353 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10354 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10355 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10356 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10357 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10358 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10359 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10360 | A | Force [TT] (MPU1)lo_drc_tc2tractionloopr2 = 0.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10361 | A | Force [TT] (MPU1)lo_drc_tc2tractionloopr1 = 1.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10362 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10363 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10364 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10365 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10366 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10367 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10368 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10369 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10370 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10371 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10372 | A | Force [TT] (MPU1)lo_drc_tc2tractionloopr2 = 1.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10373 | A | Force [TT] (MPU1)lo_drc_tc2tractionloopr1 = 0.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10374 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10375 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10376 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10377 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10378 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10379 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10380 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10381 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10382 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10383 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10384 | A | Force [TT] (MPU1)lo_drc_tc2tractionloopr2 = 0.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10385 | A | Force [TT] (MPU1)lo_drc_tc2tractionloopr1 = 0.0 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10386 | A | Put the direction selector switch in NEUTRAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10387 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10388 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10389 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10390 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10391 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10392 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10393 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10394 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10395 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10396 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10397 | I | Traction Interlock Override TC2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10398 | A | Put the Traction Interlock switch 31S1 in OVERRIDE position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10399 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10400 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10401 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10402 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10403 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10404 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10405 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10406 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10407 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10408 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhb = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10409 | A | Put the Traction Interlock switch 31S1 in NORMAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10410 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhb = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|---|---------------------------------------|-------|
| 10411 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr1 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10412 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractionauthorr2 = 1.0 | | OK | 1 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10413 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider1 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10414 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2tractintoverrider2 = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10415 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10416 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10417 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10418 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10419 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 0.0 | | OK | 0 | Hlawulani Nick Mabundzane - 418320 | Train |
| 10420 | A | Put the direction selector switch 30A1.S2 should be in NEUTRAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10421 | I | End of Test | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |




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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 20 – Deadman


20.3 Instructions list

20.3.1 060_DSD-Deadman


I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|---|---------------|--------------|-------------------------|---------|
| 10001 | I | Deadman SPP = 060 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10002 | I | Initial Conditions | | OK | | Nqobile Chirwa - 484648 | Train |
| 10003 | I | The Traction and Emergency test procedure must be completed prior to performing this test | | OK | | Nqobile Chirwa - 484648 | Train |
| 10004 | I | Lamp 60H2 is OFF | | OK | | Nqobile Chirwa - 484648 | Train |
| 10005 | I | Master Controller is in Neutral position | | OK | | Nqobile Chirwa - 484648 | Train |
| 10006 | I | No Driving Direction selected | | OK | | Nqobile Chirwa - 484648 | Train |
| 10007 | I | Prepare train in LV ready with active cab on TC1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10008 | I | Start of Test | | OK | | Nqobile Chirwa - 484648 | Train |
| 10009 | I | Deadman override TC1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10010 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanoverridr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10011 | A | Put the override switch 60S1 to OVERRIDE position | | OK | | Nqobile Chirwa - 484648 | Train |
| 10012 | R | Lamp 60H2 is "ON" on the alarm module |  | OK | | Nqobile Chirwa - 484648 | Train |
| 10013 | R | Verify that the Deadman override indication appears on the DDU screen | | OK | | Nqobile Chirwa - 484648 | Train |
| 10014 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanoverridr2 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10015 | A | Put the override switch 60S1 to NORMAL position | | OK | | Nqobile Chirwa - 484648 | Train |
| 10016 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanoverridr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10017 | R | Lamp 60H2 is OFF | | OK | | Nqobile Chirwa - 484648 | Train |

| | | | | | | | |
|-------|---|--|---|----|---|-------------------------|-------|
| 10018 | I | Deadman by Master Controller TC1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10019 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10020 | A | Press the master controller Deadman switch 30A1.S4 and hold while reading variable below | | OK | | Nqobile Chirwa - 484648 | Train |
| 10021 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanr1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10022 | A | Release the Master Controller switch 30A1.S4 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10024 | I | Deadman by button 60S3 TC1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10025 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10026 | A | Press the button 60S3 and hold it while reading variable below | | OK | | Nqobile Chirwa - 484648 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanr1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10028 | A | Release the button 60S3 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10029 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10030 | I | Deadman functional test TC1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)lo_dsd_tc1dmbuzzerr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10032 | R | Read Defined Variable [TT] (MPU1)lo_dsd_tc1deadmanlampr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10033 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc1ebdeadmanrelayr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10034 | A | Select Driving Direction to FORWARD | | OK | | Nqobile Chirwa - 484648 | Train |
| 10035 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnb = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10036 | I | After 2.5 seconds buzzer starts beeping | | OK | | Nqobile Chirwa - 484648 | Train |
| 10037 | R | Lamp 60H1 is ON |  | OK | | Nqobile Chirwa - 484648 | Train |

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|-------|---|--|---|----|---|----------------------------|-------|
| 10038 | R | Read Defined Variable [TT] (MPU1)lo_dsd_tc1deadmanlampr1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10039 | R | Read Defined Variable [TT] (MPU1)lo_dsd_tc1dmbuzzerr1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10040 | I | A constant push on the button 60S3 or Master controller will result in Emergency brake | | OK | | Nqobile Chirwa - 484648 | Train |
| 10041 | A | Press and hold down the master controller for about 2s | | OK | | Nqobile Chirwa - 484648 | Train |
| 10042 | R | Lamp 60H1 is OFF | | OK | | Nqobile Chirwa - 484648 | Train |
| 10043 | R | No sound from buzzer | | OK | | Nqobile Chirwa - 484648 | Train |
| 10044 | A | Release master controller | | OK | | Nqobile Chirwa - 484648 | Train |
| 10045 | I | After 2.5 seconds buzzer starts beeping | | OK | | Nqobile Chirwa - 484648 | Train |
| 10046 | R | Lamp 60H1 is ON | | OK | | Nqobile Chirwa - 484648 | Train |
| 10047 | A | Press and hold the button 60S3 for about 2s | | OK | | Nqobile Chirwa - 484648 | Train |
| 10048 | R | Lamp 60H1 is OFF | | OK | | Nqobile Chirwa - 484648 | Train |
| 10049 | R | No sound from buzzer | | OK | | Nqobile Chirwa - 484648 | Train |
| 10050 | A | Release Deadman button 60S3 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10051 | I | After 2.5 seconds buzzer starts beeping | | OK | | Nqobile Chirwa - 484648 | Train |
| 10052 | R | After 5 seconds, emergency brake is applied |  | OK | | Nqobile Chirwa - 484648 | Train |
| 10053 | R | Verify on the DDU that the Emergency brake by Deadman indication is ON | | OK | | Nqobile Chirwa - 484648 | Train |
| 10054 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc1ebdeadmanrelayr1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10055 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnb = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10056 | A | Select Driving direction to NEUTRAL and FORWARD again to reset the emergency brake | | OK | | Nqobile Chirwa - 484648 | Train |
| 10057 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnb = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |

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|-------|---|--|---|----|---|-------------------------|-------|
| 10058 | A | Press down the Master controller and hold | | OK | | Nqobile Chirwa - 484648 | Train |
| 10059 | I | After 45s, emergency brake is applied |  | OK | | Nqobile Chirwa - 484648 | Train |
| 10060 | R | Verify on the DDU that the Emergency brake by Deadman indication is ON | | OK | | Nqobile Chirwa - 484648 | Train |
| 10061 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc1ebdeadmanrelayr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10062 | A | Release the Master controller | | OK | | Nqobile Chirwa - 484648 | Train |
| 10063 | A | Select the driving direction to NEUTRAL position | | OK | | Nqobile Chirwa - 484648 | Train |
| 10064 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnb = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10065 | A | Remove active cab on TC1 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10066 | I | Deadman Override TC2 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10067 | A | Active cab on TC2 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10068 | I | Deadman override switch 60S1 must be in NORMAL position | | OK | | Nqobile Chirwa - 484648 | Train |
| 10069 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanoverridr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10070 | A | Put the Deadman override switch 60S1 to OVERRIDE position |  | OK | | Nqobile Chirwa - 484648 | Train |
| 10071 | R | Verify on the DDU that the Deadman override indication is ON | | OK | | Nqobile Chirwa - 484648 | Train |
| 10072 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanoverridr1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10073 | R | Lamp 60H2 is ON | | OK | | Nqobile Chirwa - 484648 | Train |
| 10074 | A | Put the override switch 60S1 in NORMAL position | | OK | | Nqobile Chirwa - 484648 | Train |
| 10075 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanoverridr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10076 | R | Lamp 60H2 is OFF | | OK | | Nqobile Chirwa - 484648 | Train |

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|-------|---|--|---|----|---|-------------------------|-------|
| 10077 | I | Deadman by Master Controller TC2 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10078 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanr2 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10079 | A | Press the master controller Deadman switch 30A1.S4 and hold while reading variable below | | OK | | Nqobile Chirwa - 484648 | Train |
| 10080 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanr2 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10081 | A | Release the master controller | | OK | | Nqobile Chirwa - 484648 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanr2 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10083 | I | Deadman by button 60S3 TC2 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10084 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10085 | A | Press the button 60S3 and hold it while reading the variable below | | OK | | Nqobile Chirwa - 484648 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanr1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10087 | A | Release the button 60S3 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10088 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10089 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2ebdeadmanrelayr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10090 | I | Deadman functional test TC2 | | OK | | Nqobile Chirwa - 484648 | Train |
| 10091 | R | Read Defined Variable [TT] (MPU1)lo_dsd_tc2dmbuzzerr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10092 | R | Read Defined Variable [TT] (MPU1)lo_dsd_tc2deadmanlampr1 = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10093 | A | Select Driving Direction to FORWARD | | OK | | Nqobile Chirwa - 484648 | Train |
| 10094 | R | Read Defined Variable [TT] (MPU1)BCU2_TINeb = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10095 | I | After 2.5 seconds buzzer starts beeping | | OK | | Nqobile Chirwa - 484648 | Train |
| 10096 | R | lamp 60H1 is ON |  | OK | | Nqobile Chirwa - 484648 | Train |

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|-------|---|--|---|----|---|-------------------------|-------|
| 10097 | R | Verify on the DDU screen that the Deadman active indication is ON | | OK | | Nqobile Chirwa - 484648 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)lo_dsd_tc2deadmanlampr1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)lo_dsd_tc2dmbuzzerr1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10100 | I | A constant push on the button 60S3 or Master controller will result in Emergency brake | | OK | | Nqobile Chirwa - 484648 | Train |
| 10101 | A | Press and hold down the master controller for about 2s | | OK | | Nqobile Chirwa - 484648 | Train |
| 10102 | R | Lamp 60H1 is OFF | | OK | | Nqobile Chirwa - 484648 | Train |
| 10103 | R | No sound from buzzer | | OK | | Nqobile Chirwa - 484648 | Train |
| 10104 | A | Release the master controller | | OK | | Nqobile Chirwa - 484648 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)BCU2_TINeb = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10106 | R | After 2.5 seconds buzzer starts beeping | | OK | | Nqobile Chirwa - 484648 | Train |
| 10107 | R | After 5 seconds, emergency brake is applied |  | OK | | Nqobile Chirwa - 484648 | Train |
| 10108 | R | Verify on the DDU screen that the emergency brake applied by Deadman indication is ON | | OK | | Nqobile Chirwa - 484648 | Train |
| 10109 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2ebdeadmanrelayr1 = 1.0 | | OK | 1 | Nqobile Chirwa - 484648 | Train |
| 10110 | A | Select Driving direction to NEUTRAL and FORWARD again to reset the emergency brake | | OK | | Nqobile Chirwa - 484648 | Train |
| 10111 | R | Read Defined Variable [TT] (MPU1)BCU2_TINeb = 0.0 | | OK | 0 | Nqobile Chirwa - 484648 | Train |
| 10112 | A | Press down the Master controller and hold | | OK | | Nqobile Chirwa - 484648 | Train |
| 10113 | R | After 45s, emergency brake is applied |  | OK | | Nqobile Chirwa - 484648 | Train |
| 10114 | R | Verify on the DDU that the Emergency brake by Deadman indication is ON | | OK | | Nqobile Chirwa - 484648 | Train |
| 10115 | R | Read Defined Variable [TT] | | OK | 0 | Nqobile Chirwa - 484648 | Train |

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|-------|---|--|--|----|--|-------------------------|-------|
| | | (MPU1)li_dsd_tc2ebdeadmanrelayr1 = 0.0 | | | | | |
| 10116 | A | Release the Master controller | | OK | | Nqobile Chirwa - 484648 | Train |
| 10117 | A | Select the driving direction to NEUTRAL position | | OK | | Nqobile Chirwa - 484648 | Train |
| 10118 | I | End of test | | OK | | Nqobile Chirwa - 484648 | Train |




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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 21 – Rescue Mode and Emergency Disconnection


21.3 Instructions list

21.3.1 027_ERM-Rescue Mode and Emergency Disconnection

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|---|---------------|--------------|---------------------------------------|---------|
| 10001 | I | Rescue Mode and Emergency Disconnection = SPP 027 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10002 | I | Initial Conditions | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10003 | I | Train in Normal mode with LV ready | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10004 | I | Emergency brake is applied due to no direction selected on Train | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10005 | I | The Blue button 27S5 must be released in TC1 and TC2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10006 | I | Start of Test | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10007 | I | Back-up Mode TC1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10008 | A | Put the switch 27S1 in BACKUP position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10009 | R | The TCMS is not available on the DDU screen | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10010 | R | Lamp 27H2 is ON |  | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10011 | A | Timer 60.0 S | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10012 | R | Both pantographs are raised | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10013 | R | Both HSCBs are closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10014 | R | Both ACUs are operational, sound can be heard from outside the train | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10015 | R | All four traction units are in operation, sound can be heard from outside the train | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10016 | R | There is a gradual increase in the main pipe pressure | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10017 | R | HVAC units are operational in all cars | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10018 | R | Emergency lighting is ON in all cars | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10019 | I | Emergency Disconnection TC1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|---|--|----|--|---------------------------------------|-------|
| 10020 | A | Push the button 27S5 to disconnect pantographs and open HSCBs | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10021 | R | Both pantographs are lower and HSCBs are open | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10022 | A | Release the button 27S5 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10023 | I | Traction authorization TC1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10024 | A | Put the direction selector switch in FORWARD position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10025 | R | TA is authorized | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10026 | R | Lamp 31H1 is ON on the alarm module | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10027 | A | Put the direction selector switch in NEUTRAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10028 | R | TA is not authorized | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10029 | R | Lamp 31H1 is OFF on the alarm module | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10030 | I | Doors Operation TC1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10031 | A | Press the auth button 50S5 to open left doors | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10032 | R | Check visually that all left doors are open | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10033 | A | Press the auth button 50S6 to open right doors | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10034 | R | Check visually that all right doors are open | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10035 | A | Press the button 50S3 to close all the left doors | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10036 | R | Check visually that all left doors are closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10037 | A | Press the button 50S4 to close all right doors | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10038 | R | Check visually that all right doors are closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10039 | I | Emergency Brake TC1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10040 | A | Put the direction selector switch in FORWARD position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|---|----|--|---------------------------------------|-------|
| 10041 | A | Apply emergency brake using the red button 44S1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10042 | R | Emergency brake is applied, lamp 44H4 is ON | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10043 | R | Verify the pressure of the brake cylinder on the pneumatic gauge on the driver's desk | | OK | | Mvelo Mthembu - 425564 | Train |
| 10044 | A | Release the emergency brake button 44S1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10045 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10046 | A | Apply emergency brake using by putting the Master Controller in Emergency brake position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10047 | R | Emergency brake is applied, lamp 44H4 is ON | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10048 | A | Put the Master controller in OFF position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10049 | A | Put the direction selector switch in NEUTRAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10050 | A | Switch OFF the train by putting the switch 18S1 in OFF position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10051 | A | Remove active cab on TC1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10052 | I | Back-up Mode TC2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10053 | R | Train is OFF | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10054 | A | Active Cab on TC2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10055 | A | Switch ON the train using battery contactor 18S1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10056 | R | Train start-up in Normal mode, the TCMS is available on the DDU screen | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10057 | A | Put the backup mode switch 27S1 in BACKUP position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10058 | R | The TCMS is no longer available on the DDU screen | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10059 | R | Lamp 27H2 is ON |  | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|---|--|----|--|---------------------------------------|-------|
| 10060 | A | Timer 60.0 S | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10061 | R | Both pantographs are raised | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10062 | R | Both HSCBs are closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10063 | R | Both ACUs are operational, sound can be heard from outside the train | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10064 | R | All four traction units are in operation, sound can be heard from outside the train | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10065 | R | There is a gradual increase in the main pipe pressure | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10066 | R | HVAC units are operational in all cars | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10067 | R | Emergency lighting is ON in all cars | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10068 | I | Traction authorization TC2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10069 | A | Put the direction selector switch in FORWARD position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10070 | R | TA is authorized | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10071 | R | Lamp 31H1 is "ON" on the alarm module | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10072 | R | Relay 31K1 and 31K2 are energized | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10073 | A | Put the direction selector switch in NEUTRAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10074 | R | TA is not authorized | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10075 | R | Lamp 31H1 is OFF on the alarm module | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10076 | R | Relay 31K1 and 31K2 are de-energized | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10077 | I | Doors Operation TC2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10078 | A | Press the auth button 50S5 to open left doors | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10079 | R | Check visually that all left doors are open | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10080 | A | Press the auth button 50S6 to open right doors | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10081 | R | Check visually that all right doors are open | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|--|---------------------------------------|-------|
| 10082 | A | Press the button 50S3 to close all the left doors | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10083 | A | Put the direction selector switch in FORWARD position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10084 | R | Check visually that all left doors are closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10085 | A | Press the button 50S4 to close all right doors | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10086 | R | Check visually that all right doors are closed | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10087 | I | Emergency Brake TC2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10088 | A | Put the direction selector switch in NEUTRAL and again in FORWARD position to reset the emergency brake | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10089 | A | Apply emergency brake using the red button 44S1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10090 | R | Verify the pressure of the brake cylinder on the pneumatic gauge on the driver's desk | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10091 | R | Release the emergency brake button 44S1 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10092 | A | Apply emergency brake using by putting the Master controller is Emergency brake position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10093 | R | Emergency brake is applied, lamp 44H4 is ON | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10094 | A | Put the Master controller in OFF position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10095 | R | Emergency brake is applied | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10096 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10097 | I | Emergency Disconnection TC2 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10098 | A | Push the button 27S5 to disconnect pantographs and open HSCBs | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10099 | R | Both pantographs are lower and HSCBs are open | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |

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|-------|---|--|--|----|--|---------------------------------------|-------|
| 10100 | A | Release the button 27S5 | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10101 | A | Put the direction selector switch in NEUTRAL position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10102 | A | Switch OFF the train by putting the switch 18S1 in OFF position | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10103 | R | Train is OFF | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10104 | A | Restart the train in Normal mode | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |
| 10105 | I | End of Test | | OK | | Hlawulani Nick Mabundzane - 418320 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 22 – ERTMS

22.3 Instructions list

22.3.1 062_ERTMS-ERTMS

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|---|---------------|----------------------|-------------------------|---------|
| 10001 | I | ERTMS SPP=062 | | OK | | Walter Sigudla - 486333 | Train |
| 10002 | I | Safety Precautions | | OK | | Walter Sigudla - 486333 | Train |
| 10003 | R | The ERTMS Warning Signs are attached in both ends underneath | | OK | | Walter Sigudla - 486333 | Train |
| 10004 | I | No one should go near the Eurobalise Antennas during the test | | OK | | Walter Sigudla - 486333 | Train |
| 10005 | I | ERTMS sim cards installation | | OK | | Walter Sigudla - 486333 | Train |
| 10006 | A | Record the serial number of the sim card and install the sim cards on MT1 and MT2 cards respectively | | OK | | Walter Sigudla - 486333 | Train |
| 10007 | R | Serial number for sim card installed on MT1 Result Min : 99999<= x () | | OK | 89260420160520001748 | Walter Sigudla - 486333 | Train |
| 10008 | R | Serial number for sim card installed on MT2 Result Min : 99999<= x () | | OK | 89260420160520001747 | Walter Sigudla - 486333 | Train |
| 10009 | I | ERTMS Complete Test | | OK | | Walter Sigudla - 486333 | Train |
| 10010 | I | Perform the complete static test using the following procedure: |  | OK | | Walter Sigudla - 486333 | Train |
| 10011 | R | Static Test is complete | | OK | | Walter Sigudla - 486333 | Train |
| 10012 | I | ERTMS Functional Test | | OK | | Walter Sigudla - 486333 | Train |
| 10013 | I | The functional test should only be performed once ALL the software has been loaded and the Complete Test is done. | | OK | | Walter Sigudla - 486333 | Train |
| 10014 | I | ERTMS Bypass | | OK | | Walter Sigudla - 486333 | Train |
| 10015 | A | Activate cab TC1 | | OK | | Walter Sigudla - 486333 | Train |
| 10016 | A | Put the ERTMS isolation switch 62S1 in ISOLATION position | | OK | | Walter Sigudla - 486333 | Train |
| 10017 | R | The IOS 524 is generated to inform the driver that the ERTMS has been | | OK | | Walter Sigudla - 486333 | Train |

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|-------|---|---|--|----|---|----------------------------|-------|
| | | bypassed in LV1 cubicle on TC1 or TC2 | | | | | |
| 10018 | R | Read Defined Variable [TT] (MPU1)li_ets_tc1ertmsbypassr1 = 1.0 | | OK | 1 | Walter Sigudla - 486333 | Train |
| 10019 | R | Read Defined Variable [TT] (MPU1)li_ets_tc1ertmsbypassr2 = 1.0 | | OK | 1 | Walter Sigudla - 486333 | Train |
| 10020 | R | ERTMS bypass led 62H1 is "ON" on alarm module | | OK | | Walter Sigudla - 486333 | Train |
| 10021 | R | ERTMS HMI is OFF on TC1 | | OK | | Walter Sigudla - 486333 | Train |
| 10022 | R | ERTMS EVC unit is OFF | | OK | | Walter Sigudla - 486333 | Train |
| 10023 | R | The cold movement detector is ON | | OK | | Walter Sigudla - 486333 | Train |
| 10024 | A | Put the direction selector switch in FORWARD position | | OK | | Walter Sigudla - 486333 | Train |
| 10025 | A | Put the Master controller in EMERGENCY BRAKE position | | OK | | Walter Sigudla - 486333 | Train |
| 10026 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 1.0 | | OK | 1 | Walter Sigudla - 486333 | Train |
| 10027 | A | Put Master controller in OFF position | | OK | | Walter Sigudla - 486333 | Train |
| 10028 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position | | OK | | Walter Sigudla - 486333 | Train |
| 10029 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0 | | OK | 0 | Walter Sigudla - 486333 | Train |
| 10030 | A | Put the direction selector switch in NEUTRAL position | | OK | | Walter Sigudla - 486333 | Train |
| 10031 | A | Put ERTMS isolation switch 62S1 in NORMAL position | | OK | | Walter Sigudla - 486333 | Train |
| 10032 | R | Read Defined Variable [TT] (MPU1)li_ets_tc1ertmsbypassr1 = 0.0 | | OK | 0 | Walter Sigudla - 486333 | Train |
| 10033 | R | Read Defined Variable [TT] (MPU1)li_ets_tc1ertmsbypassr2 = 0.0 | | OK | 0 | Walter Sigudla - 486333 | Train |
| 10034 | R | ERTMS bypass led 62H1 is OFF on alarm module | | OK | | Walter Sigudla - 486333 | Train |
| 10035 | R | ERTMS HMI is ON in TC1 | | OK | | Walter Sigudla - 486333 | Train |

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|-------|---|--|--|----|---|-------------------------|-------|
| 10036 | I | ERTMS Fault Monitoring (SPP M 62/13) | | OK | | Walter Sigudla - 486333 | Train |
| 10037 | A | Open circuit breaker S01 on ERTMS - 62A1 module | | OK | | Walter Sigudla - 486333 | Train |
| 10038 | A | In M2 car, open the circuit breaker 25Q6 | | OK | | Walter Sigudla - 486333 | Train |
| 10039 | A | Remove -62XP1_X06 connector | | OK | | Walter Sigudla - 486333 | Train |
| 10040 | A | In M2 car, close the circuit breaker 25Q6 | | OK | | Walter Sigudla - 486333 | Train |
| 10041 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsdc = 0.0 | | OK | 0 | Walter Sigudla - 486333 | Train |
| 10042 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmscb = 0.0 | | OK | 0 | Walter Sigudla - 486333 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmstemp = 0.0 | | OK | 0 | Walter Sigudla - 486333 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsfan = 0.0 | | OK | 0 | Walter Sigudla - 486333 | Train |
| 10045 | I | TEMPERATURE + FAN | | OK | | Walter Sigudla - 486333 | Train |
| 10046 | A | In M2 car, open the circuit breaker 25Q6 | | OK | | Walter Sigudla - 486333 | Train |
| 10047 | A | Apply a shunt between pins 42 and 60, pin 78 and 96 on -62XP1_X06 connector. | | OK | | Walter Sigudla - 486333 | Train |
| 10048 | A | In M2 car, close the circuit breaker 25Q6 | | OK | | Walter Sigudla - 486333 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmstemp = 1.0 | | OK | 1 | Walter Sigudla - 486333 | Train |
| 10050 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsfan = 1.0 | | OK | 1 | Walter Sigudla - 486333 | Train |
| 10051 | A | In M2 car, open the circuit breaker 25Q6 | | OK | | Walter Sigudla - 486333 | Train |
| 10052 | A | Remove all jumpers and put back the connector -62XP1_X06 | | OK | | Walter Sigudla - 486333 | Train |
| 10053 | A | In M2 car, close the circuit breaker 25Q6 | | OK | | Walter Sigudla - 486333 | Train |
| 10054 | A | Close circuit breaker S01 on ERTMS - 62A1 module | | OK | | Walter Sigudla - 486333 | Train |

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|-------|---|---|--|----|---|----------------------------|-------|
| 10055 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsdcdc = 1.0 | | OK | 1 | Walter Sigudla - 486333 | Train |
| 10056 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmstemp = 1.0 | | OK | 1 | Walter Sigudla - 486333 | Train |
| 10057 | I | 110V/24V converters | | OK | | Walter Sigudla - 486333 | Train |
| 10058 | A | Open circuit breaker S01 on ERTMS - 62A1 module | | OK | | Walter Sigudla - 486333 | Train |
| 10059 | A | In M2 car, open the circuit breaker 25Q6 | | OK | | Walter Sigudla - 486333 | Train |
| 10060 | A | Remove one DC/DC power supply | | OK | | Walter Sigudla - 486333 | Train |
| 10061 | A | In M2 car, close the circuit breaker 25Q6 | | OK | | Walter Sigudla - 486333 | Train |
| 10062 | A | Close circuit breaker S01 on ERTMS - 62A1 module | | OK | | Walter Sigudla - 486333 | Train |
| 10063 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsdcdc = 0.0 | | OK | 0 | Walter Sigudla - 486333 | Train |
| 10064 | A | Open circuit breaker S01 on ERTMS - 62A1 module | | OK | | Walter Sigudla - 486333 | Train |
| 10065 | A | In M2 car, open the circuit breaker 25Q6 | | OK | | Walter Sigudla - 486333 | Train |
| 10066 | A | Put back the DC/DC power supply | | OK | | Walter Sigudla - 486333 | Train |
| 10067 | I | INTERNAL CIRCUIT BREAKERS | | OK | | Walter Sigudla - 486333 | Train |
| 10068 | A | In M2 car, close the circuit breaker 25Q6 | | OK | | Walter Sigudla - 486333 | Train |
| 10069 | A | Close circuit breaker S01 on ERTMS - 62A1 module | | OK | | Walter Sigudla - 486333 | Train |
| 10070 | A | Open circuit breaker F01 and close all other circuit breakers from F02 - F20 | | OK | | Walter Sigudla - 486333 | Train |
| 10071 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmscb = 0.0 | | OK | 0 | Walter Sigudla - 486333 | Train |
| 10072 | A | Close circuit breaker F01 on ERTMS - 62A1 module | | OK | | Walter Sigudla - 486333 | Train |
| 10073 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmscb = 1.0 | | OK | 1 | Walter Sigudla - 486333 | Train |
| 10074 | A | Open circuit breaker S01 on ERTMS - 62A1 module | | OK | | Walter Sigudla - 486333 | Train |

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|-------|---|--|--|----|--|-------------------------|-------|
| 10075 | R | ERTMS EVC unit is OFF | | OK | | Walter Sigudla - 486333 | Train |
| 10076 | A | Normalize everything inside LV4 and leave all circuit breakers closed. | | OK | | Walter Sigudla - 486333 | Train |
| 10077 | I | End of Test | | OK | | Walter Sigudla - 486333 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 23 – On-board train data recorder

23.3 Instructions list

23.3.1 061_REC-OTDR

I - Information A - Action R - Result NE - Not Executed


| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|---|---------------|--------------|---------------------------|---------|
| 10001 | I | Event Recorder SPP= 061 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10002 | I | Initial Conditions | | OK | | Alleta Sekgololo - 417407 | Train |
| 10003 | I | Software must be updated in the OTDR with the latest baseline following below procedure |  | OK | | Alleta Sekgololo - 417407 | Train |
| 10004 | I | Software must be updated in the CPM according to the latest baseline following the below procedure |  | OK | | Alleta Sekgololo - 417407 | Train |
| 10005 | I | Train should be OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10006 | I | Start of Test | | OK | | Alleta Sekgololo - 417407 | Train |
| 10007 | A | Prepare the train with active cabin on TC1 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10008 | R | Read Defined Variable [TT] PNT_AllPantoRaised = 1.0 | | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10009 | R | Read Defined Variable [TT] HSC_HscbClosedNum = 2.0 | | OK | 2 | Alleta Sekgololo - 417407 | Train |
| 10010 | I | Speedometer Test TC1 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10011 | A | Remove Active Cabin on TC1 and activate it again | | OK | | Alleta Sekgololo - 417407 | Train |
| 10012 | R | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s | | OK | | Alleta Sekgololo - 417407 | Train |
| 10013 | R | Speedometer lamp is ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10014 | A | Force [TT] (MPU1)lo_rec_tc2speedindtest = 1.0 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10015 | R | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s | | OK | | Alleta Sekgololo - 417407 | Train |
| 10016 | A | Release [TT] (MPU1)lo_rec_tc2speedindtest | | OK | | Alleta Sekgololo - 417407 | Train |
| 10017 | I | OTDR Reset | | OK | | Alleta Sekgololo - 417407 | Train |

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|-------|---|---|--|----|--|---------------------------|-------|
| 10018 | I | When OTDR is resetting, the power supply LED will go OFF and ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10019 | A | Force [TT] (MPU1)lo_ets_tc2rstotdrr1 = 1.0 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10020 | A | Force [TT] (MPU1)lo_ets_tc2rstotdrr2 = 1.0 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10021 | R | OTDR is OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10022 | I | During OTDR reset, the driver receives a warning about a loss in the OTDR. | | OK | | Alleta Sekgololo - 417407 | Train |
| 10023 | A | Release [TT] (MPU1)lo_ets_tc2rstotdrr1 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10024 | A | Release [TT] (MPU1)lo_ets_tc2rstotdrr2 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10025 | I | OTDR is ON and reset | | OK | | Alleta Sekgololo - 417407 | Train |
| 10026 | I | Data Recording | | OK | | Alleta Sekgololo - 417407 | Train |
| 10027 | I | Please note the time one the DDU screen before performing the actions below | | OK | | Alleta Sekgololo - 417407 | Train |
| 10028 | A | Put the Traction Interlock Switch 31S1 in OVERRIDE position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10029 | A | Put the Traction Interlock Switch 31S1 in NORMAL position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10030 | A | Pull any PEA on train | | OK | | Alleta Sekgololo - 417407 | Train |
| 10031 | A | Acknowledge the PEA using the button 54S3 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10032 | A | Reset PEA using Switch 44S6 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10033 | A | Put the emergency brake loop override switch 44S2 in BYPASS position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10034 | A | Put the emergency brake loop override switch 44S2 in NORMAL position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10035 | A | Open HSCB using 22S12 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10036 | A | Put the Direction Selector Switch in FORWARD position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10037 | A | Put the Direction Selector Switch in NEUTRAL position | | OK | | Alleta Sekgololo - 417407 | Train |

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|-------|---|---|--|----|--|---------------------------|-------|
| 10038 | A | Put the Direction Selector Switch in REVERSE position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10039 | A | Put the Driving Mode Switch to COUPLE/WASH mode | | OK | | Alleta Sekgololo - 417407 | Train |
| 10040 | A | Before the next step verify that the HSCB is OPEN on the DDU - There is a risk of train movement | | OK | | Alleta Sekgololo - 417407 | Train |
| 10041 | A | Put the Master Controller in TRACTION position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10042 | A | Put the Master Controller in BRAKE position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10043 | A | Put the Master Controller in OFF position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10044 | A | Put the Direction Selector Switch in NEUTRAL position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10045 | A | Push the RED Emergency brake button 44S1 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10046 | A | Release Emergency brake button | | OK | | Alleta Sekgololo - 417407 | Train |
| 10047 | A | Put the Door authorization Selector Switch 50S7 in DRIVER position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10048 | A | Press the right door authorization button 50S6 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10049 | A | Press the right door open button 50S2 again and then close the door the right doors using button 50S4 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10050 | A | Press the left door authorization button 50S5 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10051 | A | Press the left door open button 50S1 again and then close the door the left doors using button 50S3 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10052 | A | Put the Door authorization Selector Switch 50S7 in ERTMS position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10053 | A | Put the ERTMS isolation switch 62S1 in ISOLATION position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10054 | A | Put the ERTMS isolation switch 62S1 in NORMAL position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10055 | A | Note the time on the DDU | | OK | | Alleta Sekgololo - 417407 | Train |

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|-------|---|---|---|----|--|---------------------------|-------|
| 10056 | A | Put the backup mode switch 27S1 in BACKUP position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10057 | A | Switch OFF the train on TC1 cab | | OK | | Alleta Sekgololo - 417407 | Train |
| 10058 | A | Put the backup Mode switch in NORMAL position | | OK | | Alleta Sekgololo - 417407 | Train |
| 10059 | A | Switch active cab to TC2 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10060 | I | Events download | | OK | | Alleta Sekgololo - 417407 | Train |
| 10061 | A | Switch ON the train from TC2 side | | OK | | Alleta Sekgololo - 417407 | Train |
| 10062 | A | Note the time on the DDU | | OK | | Alleta Sekgololo - 417407 | Train |
| 10063 | I | Use the time noted down before and after recording the data to check the events | | OK | | Alleta Sekgololo - 417407 | Train |
| 10064 | A | Connect to the OTDR via TCMS network and download the two latest events files. See the manual below |  | OK | | Alleta Sekgololo - 417407 | Train |
| 10065 | A | Connect to the CPM front face RJ45 port and download the latest events file. See the manual below |  | OK | | Alleta Sekgololo - 417407 | Train |
| 10066 | I | Data Recorded Reading | | OK | | Alleta Sekgololo - 417407 | Train |
| 10067 | A | Use SAM5 build 81 software to read data recorded from the OTDR. For the CPM use SAM5 build 88 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10068 | I | The recorded data must be in the sequence as logged above. NB time for activation and deactivation of each input must be within the time at which the test was performed. See example below for recorded data |  | OK | | Alleta Sekgololo - 417407 | Train |
| 10069 | R | CAB TC1 ACTIVE: ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10070 | R | CAB TC2 ACTIVE: OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10071 | R | TRACTION INTERLOCK BYPASS: ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10072 | R | TRACTION INTERLOCK BYPASS: OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10073 | R | BRAKE APPLIED: ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10074 | R | PEA LOOP(OTDR): OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10075 | R | PEA LOOP(OTDR): ON | | OK | | Alleta Sekgololo - 417407 | Train |

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|-------|---|--|--|----|--|---------------------------|-------|
| 10076 | R | EMERGENCY BRAKE LOOP OVERRIDE: OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10077 | R | EMERGENCY BRAKE LOOP OVERRIDE: ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10078 | R | FORWARD: ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10079 | R | TRACTION: ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10080 | R | BRAKE APPLIED: OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10081 | R | NO BRAKE: ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10082 | R | NO BRAKE: OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10083 | R | FORWARD: OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10084 | R | TRACTION: OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10085 | R | REVERSE: OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10086 | R | REVERSE: ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10087 | R | EMERGENCY BRAKE TRAINLINE: OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10088 | R | EMERGENCY BRAKE TRAINLINE: ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10089 | R | DOOR AUTH LEFT TRAINLINE: OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10090 | R | DOOR AUTH LEFT TRAINLINE: ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10091 | R | DOOR AUTH RIGHT TRAINLINE: ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10092 | R | DOOR AUTH RIGHT TRAINLINE: OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10093 | R | ERTMS BYPASS: OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10094 | R | ERTMS BYPASS: ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10095 | R | BACKUP MODE: OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10096 | R | BACKUP MODE: ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10097 | R | CAB TC1 ACTIVE: OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10098 | R | CAB TC2 ACTIVE: ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10099 | A | Save all the downloaded files from CPM and OTDR and put them in a folder named "TSXXX_OTDR." Then save the folder to "teams" channel (shift reports) under a | | OK | | Alleta Sekgololo - 417407 | Train |

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|-------|---|--|--|----|--|---------------------------|-------|
| | | specific trainset folder. | | | | | |
| 10100 | I | Speedometer Test TC2 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10101 | A | Remove active cab on TC2 and activate it again | | OK | | Alleta Sekgololo - 417407 | Train |
| 10102 | R | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s | | OK | | Alleta Sekgololo - 417407 | Train |
| 10103 | R | Speedometer lamp is ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10104 | A | Force [TT] (MPU1)lo_rec_tc2speedindtest = 1.0 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10105 | R | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s | | OK | | Alleta Sekgololo - 417407 | Train |
| 10106 | R | Speedometer lamp is ON | | OK | | Alleta Sekgololo - 417407 | Train |
| 10107 | A | Release [TT] (MPU1)lo_rec_tc2speedindtest | | OK | | Alleta Sekgololo - 417407 | Train |
| 10108 | I | OTDR settings | | OK | | Alleta Sekgololo - 417407 | Train |
| 10109 | A | Force [TT] (MPU2)_REC_TravelledDistanceKm = 10.0 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10110 | A | Force [TT] (MPU1)_REC_TravelledDistanceKm = 10.0 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10111 | R | The total distance on the odometer of the DDU screen is 10km | | OK | | Alleta Sekgololo - 417407 | Train |
| 10112 | A | Release [TT] (MPU1)_REC_TravelledDistanceKm | | OK | | Alleta Sekgololo - 417407 | Train |
| 10113 | A | Release [TT] (MPU2)_REC_TravelledDistanceKm | | OK | | Alleta Sekgololo - 417407 | Train |
| 10114 | A | Configure the OTDR and Data plug according to the settings in the file below  | | OK | | Alleta Sekgololo - 417407 | Train |
| 10115 | R | Train UIC is set to 0120XXX | | OK | | Alleta Sekgololo - 417407 | Train |
| 10116 | R | The Wheel diameter is set to 840mm on the DDU Driver screen | | OK | | Alleta Sekgololo - 417407 | Train |
| 10117 | I | End of Test | | OK | | Alleta Sekgololo - 417407 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 24 – External lights and Signaling

24.3 Instructions list

24.3.1 072_SGL-External Visibility

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|---|---------------|--------------|------------------------------|---------|
| 10001 | I | External Visibility SPP=072 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10002 | I | Initial Conditions | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10003 | I | The air in the main should be at least 7.5bar | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10004 | I | Start of Test | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10005 | I | Windscreen wiper TC1 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10006 | A | Active cab on TC1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10007 | A | Load the software on the TC1 wiper |  | OK | | Thandanani Makhanya - 463827 | Train |
| 10008 | I | Washer tank is empty | | OK | | Thandanani Makhanya - 463827 | Train |
| 10009 | R | The IOS for low level on water tank appears on the Driver's event list | | OK | | Thandanani Makhanya - 463827 | Train |
| 10010 | R | Read Defined Variable [TT] (MPU1)li_sgl_tc1washerlevel = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10011 | A | Fill up the washer tank with clean water | | OK | | Thandanani Makhanya - 463827 | Train |
| 10012 | R | Read Defined Variable [TT] (MPU1)li_sgl_tc1washerlevel = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10013 | R | No IOS regarding low water level on Driver's event list | | OK | | Thandanani Makhanya - 463827 | Train |
| 10014 | I | This test is to verify that the Wiper is centred |  | OK | | Thandanani Makhanya - 463827 | Train |
| 10015 | A | Put the wiper switch on Wash position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10016 | R | Water is spraying on the windscreen; the wiper is cleaning the windscreen | | OK | | Thandanani Makhanya - 463827 | Train |
| 10017 | A | Put the wiper switch to intermittent position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10018 | R | The wiper is operating properly on intermittent position | | OK | | Thandanani Makhanya - 463827 | Train |

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|-------|---|---|---|----|---|---------------------------------|-------|
| 10019 | A | Put the wiper switch to low speed position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10020 | R | The wiper is operating properly on low speed | | OK | | Thandanani Makhanya - 463827 | Train |
| 10021 | A | Put the wiper switch to high speed position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10022 | R | Verify that the wiper does not lie too much on the left or right | | OK | | Thandanani Makhanya - 463827 | Train |
| 10023 | A | Verify that the area wiped is at least as shown in the image attached |  | OK | | Thandanani Makhanya - 463827 | Train |
| 10024 | A | Put the swiper switch on OFF position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10025 | R | Wiper stops, no water is spraying on windscreen | | OK | | Thandanani Makhanya - 463827 | Train |
| 10026 | I | Mirrors TC1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10027 | A | Login as a Maintainer ID: 70979080 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10028 | I | It is necessary to open and close each mirror several times to ensure that it is working properly | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10029 | A | Press the DOOR AUTH left button 50S5 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10030 | A | Turn the switch 70S10 to the left to open the left mirror | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc1LeftMirror = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10032 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc1RightMirror = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10033 | A | Check visually that the mirror is open wide enough to show the whole platform and image is not blurry when sitting on the driver's seat | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10034 | R | Verify that there is no leak on the mirror's pneumatic piping | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10035 | A | Press 50S3 left door close button | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10036 | R | The mirror is properly closed | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10037 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc1LeftMirror = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |

| | | | | | | | |
|-------|---|--|--|----|---|-------------------------------|-------|
| 10038 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc1RightMirror = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10039 | A | Press the DOOR AUTH right button 50S6 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10040 | A | Turn the switch 70S10 to the right to open the right mirror | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10041 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc1LeftMirror = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10042 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc1RightMirror = 1.0 | | OK | 1 | Mpumelelo Sithole - 529980 | Train |
| 10043 | A | Check visually that the mirror is open wide enough to show the whole platform and image is not blurry when sitting on the driver's seat | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10044 | R | Verify that there is no leak on the mirror's pneumatic piping | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10045 | A | Press 50S4 right door close button | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10046 | R | The mirror is properly closed | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10047 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc1LeftMirror = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc1RightMirror = 0.0 | | OK | 0 | Mpumelelo Sithole - 529980 | Train |
| 10049 | A | Press the DOOR AUTH left button 50S5 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10050 | A | Force [TT] (MPU1)lo_sgl_tc1leftmirror = 1.0 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10051 | R | Left mirror is open | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10052 | A | Force [TT] (MPU1)lo_sgl_tc1leftmirror = 0.0 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10053 | R | Left mirror closes | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10054 | A | Press the DOOR AUTH right button 50S6 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10055 | A | Force [TT] (MPU1)lo_sgl_tc1rightmirror = 1.0 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10056 | R | Right mirror opens | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10057 | A | Force [TT] (MPU1)lo_sgl_tc1rightmirror = 0.0 | | OK | | Mpumelelo Sithole - 529980 | Train |

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|-------|---|--|---|----|--|------------------------------|-------|
| 10058 | R | Right mirror closes | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10059 | A | Press the button 50S3 and 50S4 to reset door authorization | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10060 | A | Release [TT] (MPU1)lo_sgl_tc1leftmirror | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10061 | A | Release [TT] (MPU1)lo_sgl_tc1rightmirror | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10062 | A | Isolate the valve H1.5/1 and H1.5/2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10063 | R | Check that the left and right mirrors can be folded manually | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10064 | A | Normalise the valve H1.5/1 and H1.5/2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10065 | A | Login on the DDU screen using the driver's code 70787878 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10066 | A | Go to Command Screen | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10067 | A | Authorise OPEN DOOR LEFT and RIGHT using the button 50S5 and 50S6 respectively | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10068 | A | On the DDU Command screen, open the left mirror using the virtual button |  | OK | | Mpumelelo Sithole - 529980 | Train |
| 10069 | R | Left mirror opens | | OK | | Thandanani Makhanya - 463827 | Train |
| 10070 | A | Press virtual button to open right mirror |  | OK | | Thandanani Makhanya - 463827 | Train |
| 10071 | R | Right mirror opens | | OK | | Thandanani Makhanya - 463827 | Train |
| 10072 | A | Press the button 50S3 and 50S4 to reset door authorization | | OK | | Thandanani Makhanya - 463827 | Train |
| 10073 | R | Both mirrors close | | OK | | Thandanani Makhanya - 463827 | Train |
| 10074 | A | Remove active cab on TC1 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10075 | I | External visibility TC2 | | OK | | Mpumelelo Sithole - 529980 | Train |
| 10076 | I | Windscreen wiper TC2 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10077 | A | Active cab on TC2 | | OK | | Thandanani Makhanya - 463827 | Train |
| 10078 | I | Load the software on the TC2 wiper |  | OK | | Thandanani Makhanya - 463827 | Train |
| 10079 | I | Washer tank is empty | | OK | | Thandanani Makhanya - 463827 | Train |

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|-------|---|--|---|----|---|------------------------------|-------|
| 10080 | R | The IOS for low level on water tank appears on the Driver's event list | | OK | | Thandanani Makhanya - 463827 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1) Li_SGL_Tc2WasherLevel = 0.0 | | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10082 | A | Fill up the washer tank with clean water | | OK | | Thandanani Makhanya - 463827 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1) Li_SGL_Tc2WasherLevel = 1.0 | | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10084 | R | No IOS regarding low water level on Driver's event list | | OK | | Thandanani Makhanya - 463827 | Train |
| 10085 | I | This test is to verify that the Wiper is centred |  | OK | | Thandanani Makhanya - 463827 | Train |
| 10086 | A | Put the swiper switch on Wash position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10087 | R | Water is spraying on the windscreen, the wiper is cleaning the windscreen | | OK | | Thandanani Makhanya - 463827 | Train |
| 10088 | A | Put the wiper switch to intermittent position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10089 | R | The wiper is operating properly on intermittent position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10090 | A | Put the wiper switch to low speed position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10091 | R | The wiper is operating properly on low speed | | OK | | Thandanani Makhanya - 463827 | Train |
| 10092 | A | Put the wiper switch to high speed position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10093 | A | Verify that the wiper does not lie too much on the left or right |  | OK | | Thandanani Makhanya - 463827 | Train |
| 10094 | R | Verify that the area wiped is at least as shown in the image above | | OK | | Thandanani Makhanya - 463827 | Train |
| 10095 | A | Put the wiper switch on OFF position | | OK | | Thandanani Makhanya - 463827 | Train |
| 10096 | R | Wiper stops, no water is spraying on windscreen | | OK | | Thandanani Makhanya - 463827 | Train |
| 10097 | I | Mirrors TC2 | | OK | | Mphato Mphahlele - 480716 | Train |
| 10098 | A | Login as a Driver. ID:70787878 | | OK | | Mphato Mphahlele - 480716 | Train |
| 10099 | I | It is necessary to open and close each mirror several times to ensure that it is | | OK | | Mphato Mphahlele - 480716 | Train |

| | | | | | | | |
|-------|---|---|--|----|---|---------------------------|-------|
| | | working properly | | | | | |
| 10100 | A | Press the DOOR AUTH left button 50S5 | | OK | | Mphato Mphahlele - 480716 | Train |
| 10101 | A | Turn the switch 70S10 to the left to open the left mirror | | OK | | Mphato Mphahlele - 480716 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc2LeftMirror = 1.0 | | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10103 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc2RightMirror = 0.0 | | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10104 | A | Check visually that the mirror is open wide enough to show the whole platform and image is not blurry when sitting on the driver's seat | | OK | | Mphato Mphahlele - 480716 | Train |
| 10105 | R | Verify that there is no leak on the mirror's pneumatic piping | | OK | | Mphato Mphahlele - 480716 | Train |
| 10106 | A | Press 50S3 left door close button | | OK | | Mphato Mphahlele - 480716 | Train |
| 10107 | R | The mirror is properly closed | | OK | | Mphato Mphahlele - 480716 | Train |
| 10108 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc2LeftMirror = 0.0 | | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10109 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc2RightMirror = 0.0 | | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10110 | A | Press the DOOR AUTH right button 50S6 | | OK | | Mphato Mphahlele - 480716 | Train |
| 10111 | A | Turn the switch 70S10 to the right to open the right mirror | | OK | | Mphato Mphahlele - 480716 | Train |
| 10112 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc2LeftMirror = 0.0 | | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10113 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc2RightMirror = 1.0 | | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10114 | A | Check visually that the mirror is open wide enough to show the whole platform and image is not blurry when sitting on the driver's seat | | OK | | Mphato Mphahlele - 480716 | Train |
| 10115 | R | Verify that there is no leak on the mirror's pneumatic piping | | OK | | Mphato Mphahlele - 480716 | Train |
| 10116 | A | Press 50S4 right door close button | | OK | | Mphato Mphahlele - 480716 | Train |
| 10117 | R | The mirror is properly closed | | OK | | Mphato Mphahlele - 480716 | Train |

| | | | | | | | |
|-------|---|---|--|----|---|---------------------------------|-------|
| 10118 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc2LeftMirror = 0.0 | | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10119 | R | Read Defined Variable [TT] (MPU1)Li_SGL_Tc2RightMirror = 0.0 | | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10120 | A | Press the DOOR AUTH left button 50S5 | | OK | | Thandanani Makhanya - 463827 | Train |





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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 25 – Train Ground Communication

25.3 Instructions list

25.3.2 064_NBX-Netbox

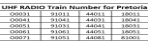
I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|---|---------------|--------------|------------------------------|---------|
| 10001 | I | 064 Netbox | | OK | | Sithembile Xulu - 416253 | Train |
| 10002 | I | Software upload | | OK | | Sithembile Xulu - 416253 | Train |
| 10003 | I | Use the below procedure to install the software on the Netbox(M1) | | OK | | Sithembile Xulu - 416253 | Train |
| 10004 | A | -Open the NBX (64Q1) circuit breaker -Insert the programmed USB into the slot -Close the NBX (64Q1) circuit breaker -Device is on and software upload begins Upload is complete when all LEDs on rows A and C are steady, on and green as the image attached |  | OK | | Sithembile Xulu - 416253 | Train |
| 10005 | I | Netbox configuration check | | OK | | Sithembile Xulu - 416253 | Train |
| 10006 | A | Perform the attached procedure to configure the Netbox (M1) |  | OK | | Thandanani Makhanya - 463827 | Train |
| 10007 | R | The Netbox is configured correctly | | OK | | Thandanani Makhanya - 463827 | Train |
| 10008 | R | The time and date on the DDU is correct - if not restart the train and verify again | | OK | | Thandanani Makhanya - 463827 | Train |

25.3.1 063_UHF_065_GSM-UHF and GSM Radio

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|--|------|---------------|----------------------|--------------------------|---------|
| 10001 | I | GSMR Radio SPP=065 | | OK | | Sithembile Xulu - 416253 | Train |
| 10002 | I | GSMR - Functional Test TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10003 | R | Record the serial number of the sim card and install the sim card on GSMR radio Result Min : 99999<= x () | | OK | 89260420160520003877 | Sithembile Xulu - 416253 | Train |
| 10004 | A | Insert the SIM card into the GSMR Radio | | OK | | Sithembile Xulu - 416253 | Train |
| 10005 | R | Ensure the GSM Sim card has been inserted into the GSMR Radio, and there is no red flashing light close to the sim card slot | | OK | | Sithembile Xulu - 416253 | Train |
| 10006 | A | On the GSMR HMI, verify radio is not faulty | | OK | | Sithembile Xulu - 416253 | Train |
| 10007 | A | Active cab in TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10008 | I | DDU-HMI Connection | | OK | | Sithembile Xulu - 416253 | Train |
| 10009 | A | Check if TCMS DDU and GSMR-HMI times are automatically synchronised - do not manually set the time | | OK | | Sithembile Xulu - 416253 | Train |
| 10010 | R | The time is the same (allowable difference of <10s) | | OK | | Sithembile Xulu - 416253 | Train |
| 10011 | I | PACIS-HMI Connection | | OK | | Nqobile Chirwa - 484648 | Train |
| 10012 | A | Lift the GSMR handset | | OK | | Nqobile Chirwa - 484648 | Train |
| 10013 | A | Press the PA button on the GSMR HMI | | OK | | Nqobile Chirwa - 484648 | Train |
| 10014 | R | On the GSMR module PAI card, the Red and Ack LEDs light green | | OK | | Nqobile Chirwa - 484648 | Train |
| 10015 | R | The PA indication alarm sounds in all cars | | OK | | Nqobile Chirwa - 484648 | Train |
| 10016 | A | Press the PTT on the handset and speak into the handset microphone | | OK | | Nqobile Chirwa - 484648 | Train |

| | | | | | | | |
|-------|---|--|---|----|----------------------|--------------------------|-------|
| 10017 | R | Text displayed on the HMI: "Talk!" | | OK | | Nqobile Chirwa - 484648 | Train |
| 10018 | R | Your voice can be heard clearly in all the cars | | OK | | Nqobile Chirwa - 484648 | Train |
| 10019 | I | UHF Radio Test TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10020 | A | Enter each mission number below on the attached picture and press select on the UHF handheld |  | OK | | Sithembile Xulu - 416253 | Train |
| 10021 | R | The Radio displays the selected number eg "D 9104" and the network bars are visible | | OK | | Sithembile Xulu - 416253 | Train |
| 10022 | A | To test the next number, press and hold the off button to switch off the handheld and switch on the handheld again, then enter the new number. | | OK | | Sithembile Xulu - 416253 | Train |
| 10023 | R | All mission numbers on the above picture are tested ok | | OK | | Sithembile Xulu - 416253 | Train |
| 10024 | I | GSMR - Functional Test TC2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10025 | A | Active Cab in TC2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10026 | R | Record the serial number of the sim card and install the sim card on GSMR radio Result Min : 99999<= x () | | OK | 89260420160520003891 | Sithembile Xulu - 416253 | Train |
| 10027 | A | Insert the SIM card into the GSMR Radio | | OK | | Sithembile Xulu - 416253 | Train |
| 10028 | R | Ensure the GSM Sim card has been inserted into the GSMR Radio, and there is no red flashing light close to the sim card slot | | OK | | Sithembile Xulu - 416253 | Train |
| 10029 | A | On the GSMR HMI, verify radio is not faulty | | OK | | Sithembile Xulu - 416253 | Train |
| 10030 | I | DDU-HMI Connection | | OK | | Sithembile Xulu - 416253 | Train |
| 10031 | A | Check if TCMS DDU and GSMR-HMI times are automatically synchronised - do not manually set the time | | OK | | Sithembile Xulu - 416253 | Train |
| 10032 | R | The time is the same (allowable difference of <10s) | | OK | | Sithembile Xulu - 416253 | Train |
| 10033 | I | PACIS-HMI Connection | | OK | | Nqobile Chirwa - 484648 | Train |
| 10034 | A | Lift the GSMR handset | | OK | | Nqobile Chirwa - 484648 | Train |

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|-------|---|--|---|----|--|--------------------------|-------|
| 10035 | A | Press the PA button on the GSMR HMI | | OK | | Nqobile Chirwa - 484648 | Train |
| 10036 | R | On the GSMR module PAI card, the Red and Ack LEDs light green | | OK | | Nqobile Chirwa - 484648 | Train |
| 10037 | R | The PA indication alarm sounds in all cars | | OK | | Nqobile Chirwa - 484648 | Train |
| 10038 | A | Press the PTT on the handset and speak into the handset microphone | | OK | | Nqobile Chirwa - 484648 | Train |
| 10039 | R | Text displayed on the HMI: "Talk!" | | OK | | Nqobile Chirwa - 484648 | Train |
| 10040 | R | Your voice can be heard clearly in all the cars | | OK | | Nqobile Chirwa - 484648 | Train |
| 10041 | I | UHF Radio Test TC2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10042 | A | Enter each mission number below on the attached picture and press select on the UHF handheld |  | OK | | Sithembile Xulu - 416253 | Train |
| 10043 | R | The Radio displays the selected number eg "D 9104" and the network bars are visible | | OK | | Sithembile Xulu - 416253 | Train |
| 10044 | A | To test the next number, press and hold the off button to switch off the handheld and switch on the handheld again, then enter the new number. | | OK | | Sithembile Xulu - 416253 | Train |
| 10045 | R | All mission numbers on the above picture are tested ok | | OK | | Nqobile Chirwa - 484648 | Train |



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Section 26 – Traction Converter

26.3 Instructions list

26.3.1 033_TRC-Traction Converter

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|---|---------------|--------------|--------------------------|---------|
| 10001 | I | Traction and Electric braking SPP=033 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10002 | I | Initial Conditions | | OK | | Anthonia Mabowa - 494131 | Train |
| 10003 | I | Train is prepared with High voltage | | OK | | Anthonia Mabowa - 494131 | Train |
| 10004 | I | Master controller is in OFF position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10005 | I | All traction units are in black colour on the DDU maintenance screen | | OK | | Anthonia Mabowa - 494131 | Train |
| 10006 | I | Start of Test | | OK | | Anthonia Mabowa - 494131 | Train |
| 10007 | A | Put the driving selector switch in FORWARD position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10008 | R | Check on the DDU that all traction units are in FWD position |  | OK | | Anthonia Mabowa - 494131 | Train |
| 10009 | A | Put the driving selector switch in REVERSE position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10010 | R | Check on the DDU that all traction units are in REV position |  | OK | | Anthonia Mabowa - 494131 | Train |
| 10011 | A | Put the driving selector switch in NEUTRAL position | | OK | | Anthonia Mabowa - 494131 | Train |
| 10012 | I | Traction Fault and reset | | OK | | Anthonia Mabowa - 494131 | Train |
| 10013 | A | Open HSCB using button 22S12 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10014 | A | Open the circuit breaker 33Q3 in M4 car | | OK | | Anthonia Mabowa - 494131 | Train |
| 10015 | R | Traction unit of M4 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK | | Anthonia Mabowa - 494131 | Train |
| 10016 | A | Close the circuit breaker 33Q3 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10017 | A | Press the DDU virtual button RESET TRACTION FAULTS | | OK | | Anthonia Mabowa - 494131 | Train |
| 10018 | R | Traction unit for M4 is back in service, the IOS generated above has disappeared | | OK | | Anthonia Mabowa - 494131 | Train |

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|-------|---|---|---|----|--|--------------------------|-------|
| 10019 | A | Open the circuit breaker 33Q3 in M1 car | | OK | | Anthonia Mabowa - 494131 | Train |
| 10020 | R | Traction unit of M1 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK | | Anthonia Mabowa - 494131 | Train |
| 10021 | A | Close circuit breaker 33Q3 in M1 car | | OK | | Anthonia Mabowa - 494131 | Train |
| 10022 | A | Press the DDU virtual button RESET TRACTION FAULTS | | OK | | Anthonia Mabowa - 494131 | Train |
| 10023 | R | Traction unit for M1 is back in service, the IOS generated above has disappeared | | OK | | Anthonia Mabowa - 494131 | Train |
| 10024 | A | Open the circuit breaker 33Q3 in M2 car | | OK | | Anthonia Mabowa - 494131 | Train |
| 10025 | R | Traction unit of M2 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK | | Anthonia Mabowa - 494131 | Train |
| 10026 | A | Close the circuit breaker 33Q3 in M2 car | | OK | | Anthonia Mabowa - 494131 | Train |
| 10027 | A | Press the DDU virtual button RESET TRACTION FAULTS | | OK | | Anthonia Mabowa - 494131 | Train |
| 10028 | R | Traction unit for M2 is back in service, the IOS generated above has disappeared | | OK | | Anthonia Mabowa - 494131 | Train |
| 10029 | A | Open the circuit breaker 33Q3 in M3 car | | OK | | Anthonia Mabowa - 494131 | Train |
| 10030 | R | Traction unit of M3 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK | | Anthonia Mabowa - 494131 | Train |
| 10031 | A | Close the circuit breaker 33Q3 in M3 car | | OK | | Anthonia Mabowa - 494131 | Train |
| 10032 | A | Press the DDU virtual button RESET TRACTION FAULTS | | OK | | Anthonia Mabowa - 494131 | Train |
| 10033 | R | Traction unit for M3 is back in service, the IOS generated above has disappeared | | OK | | Anthonia Mabowa - 494131 | Train |
| 10034 | A | Close HSCBs using button 22S11 | | OK | | Anthonia Mabowa - 494131 | Train |
| 10035 | I | End of Test | | OK | | Anthonia Mabowa - 494131 | Train |



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Section 27 – CCTV Video Information

27.3 Instructions list

27.3.1 055_CCTV-Video Information

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|---|---------------|--------------|---------------------|---------|
| 10001 | I | CCTV SPP=066 | | OK | | Vuma Mlaba - 435642 | Train |
| 10002 | I | Front camera footage TC1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10003 | A | Active Cab on TC1 and Login as Driver: 70787878 | | OK | | Vuma Mlaba - 435642 | Train |
| 10004 | A | Press and hold the FRONT EVENT BUTTON 66S1 on TC1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10005 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc1CctvEventPbR1 = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10006 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc1CctvEventPbR2 = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10007 | R | The FRONT EVENT button lamp 66S1 is ON | | OK | | Vuma Mlaba - 435642 | Train |
| 10008 | A | Release the button 66S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10009 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc1CctvEventPbR1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10010 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc1CctvEventPbR2 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10011 | R | The FRONT EVENT button lamp 66S1 is OFF | | OK | | Vuma Mlaba - 435642 | Train |
| 10012 | A | On the DDU screen, check if the Camera is correctly adjusted | | OK | | Vuma Mlaba - 435642 | Train |
| 10013 | A | The picture on the DDU should be as the picture attached. |  | OK | | Vuma Mlaba - 435642 | Train |
| 10014 | I | Reverse direction front camera functional test TC1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10015 | A | Put the direction selector switch in REVERSE position | | OK | | Vuma Mlaba - 435642 | Train |
| 10016 | R | CCTV footage of TC2 front camera appears on the DDU | | OK | | Vuma Mlaba - 435642 | Train |

| | | | | | | | |
|-------|---|---|---|----|---|---------------------|-------|
| 10017 | A | Put the direction selector switch in NEUTRAL position | | OK | | Vuma Mlaba - 435642 | Train |
| 10018 | R | CCTV footage of TC2 front camera does not appear on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10019 | A | Remove active cab on TC1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10020 | I | Front camera footage TC2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10021 | A | Active cab on TC2 and Login as Driver: 70787878 | | OK | | Vuma Mlaba - 435642 | Train |
| 10022 | A | Press and hold the FRONT EVENT BUTTON 66S1 on TC2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc2CctvEventPbR1 = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc2CctvEventPbR2 = 1.0 | | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10025 | R | The FRONT EVENT button lamp 66S1 is ON | | OK | | Vuma Mlaba - 435642 | Train |
| 10026 | A | Release the button 66S1 | | OK | | Vuma Mlaba - 435642 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc1CctvEventPbR1 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc1CctvEventPbR2 = 0.0 | | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10029 | R | The FRONT EVENT button lamp 66S1 is OFF | | OK | | Vuma Mlaba - 435642 | Train |
| 10030 | A | On the DDU screen, check if the Camera is correctly adjusted | | OK | | Vuma Mlaba - 435642 | Train |
| 10031 | A | The picture on the DDU should be as the picture attached. |  | OK | | Vuma Mlaba - 435642 | Train |
| 10032 | I | Reverse direction front camera functional test TC2 | | OK | | Vuma Mlaba - 435642 | Train |
| 10033 | A | Put the direction selector switch in REVERSE position | | OK | | Vuma Mlaba - 435642 | Train |
| 10034 | R | CCTV footage of TC1 front camera appears on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10035 | A | Put the direction selector switch in NEUTRAL position | | OK | | Vuma Mlaba - 435642 | Train |

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|-------|---|--|---|----|--|---------------------------|-------|
| 10036 | R | CCTV footage of TC1 front camera does not appear on the DDU | | OK | | Vuma Mlaba - 435642 | Train |
| 10037 | I | NVR Recording | | OK | | Alleta Sekgololo - 417407 | Train |
| 10038 | A | Ensure that the NVR in both TC1 and TC2 is locked according to the image below (the black box representing the direction of the key). A locked NVR has an OFF HD LED - After locking the NVR it will take some time for the HD LED to switch OFF |  | OK | | Alleta Sekgololo - 417407 | Train |
| 10039 | R | The TC1 NVR is locked, and the HD LED is OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10040 | R | The TC2 NVR is locked, and the HD LED is OFF | | OK | | Alleta Sekgololo - 417407 | Train |
| 10041 | A | Using the procedure attached, confirm that both NVRs are recording video data |  | OK | | Alleta Sekgololo - 417407 | Train |
| 10042 | A | Take a screenshot of the CCTV console live stream to indicate the recorder is working for NVR1 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10043 | R | save the screenshot as TSXX_NVR1 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10044 | A | Take a screenshot of the CCTV console live stream to indicate the recorder is working for NVR2 | | OK | | Alleta Sekgololo - 417407 | Train |
| 10045 | R | Save the screenshot as TSXX_NVR2 | | OK | | Alleta Sekgololo - 417407 | Train |



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Section 28 – PACIS

28.3 Instructions list

28.3.1 054_PIS-Passenger Information System

I - Information A - Action R - Result NE - Not Executed


| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|---|---------------|--------------|--------------------------|---------|
| 10001 | I | Pacis system = SPP 054 PIS | | OK | | Sithembile Xulu - 416253 | Train |
| 10002 | I | Software Upload | | OK | | Sithembile Xulu - 416253 | Train |
| 10003 | A | |  | OK | | Sithembile Xulu - 416253 | Train |
| 10004 | A | |  | OK | | Sithembile Xulu - 416253 | Train |
| 10005 | A | |  | OK | | Sithembile Xulu - 416253 | Train |
| 10006 | R | Verify on the DDU, referring to the baseline spreadsheet, that all Pacis devices are updated with the latest software versions | | OK | | Sithembile Xulu - 416253 | Train |
| 10007 | I | Camera Orientation | | OK | | Sithembile Xulu - 416253 | Train |
| 10008 | I | The camera should show at least the complete gangway between two cars, luggage racks, the Interior display as well as the dead zones on the left and right of the doors. | | OK | | Sithembile Xulu - 416253 | Train |
| 10009 | A | Adjust the saloon cameras according to the image shown below. The Interior display should appear fully on the image as well as up to at least the first 2 doors of the neighbouring car |  | OK | | Sithembile Xulu - 416253 | Train |
| 10010 | A | Please note any cameras showing green strips or unclear images should be updated settings using the attached procedure |  | OK | | Sithembile Xulu - 416253 | Train |
| 10011 | R | The Saloon cameras on TC1 have been adjusted according to image above. | | OK | | Mvelo Mthembu - 425564 | Train |
| 10012 | R | The Saloon cameras on M4 have been adjusted according to image above. | | OK | | Mvelo Mthembu - 425564 | Train |
| 10013 | R | The Saloon cameras on M1 have been adjusted according to image above. | | OK | | Mvelo Mthembu - 425564 | Train |
| 10014 | R | The Saloon cameras on M2 have been adjusted according to image above. | | OK | | Mvelo Mthembu - 425564 | Train |

| | | | | | | | |
|-------|---|---|--|----|---|--------------------------|-------|
| 10015 | R | The Saloon cameras on M3 have been adjusted according to image above. | | OK | | Mvelo Mthembu - 425564 | Train |
| 10016 | R | The Saloon cameras on TC2 have been adjusted according to image above. | | OK | | Mvelo Mthembu - 425564 | Train |
| 10017 | I | Mission Number Display | | OK | | Sithembile Xulu - 416253 | Train |
| 10018 | A | Active Cab in TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10019 | A | Login as a driver, ID: 70787878 | | OK | | Sithembile Xulu - 416253 | Train |
| 10020 | A | Enter the mission 8100 | | OK | | Sithembile Xulu - 416253 | Train |
| 10021 | R | Check that the TC1 and TC2 front external displays are showing the mission number 8100. | | OK | | Sithembile Xulu - 416253 | Train |
| 10022 | I | Public Announcements TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR1 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR2 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10025 | A | Pulse the switch 54S1 to the right to activate PA announcement | | OK | | Sithembile Xulu - 416253 | Train |
| 10026 | R | Green lamp 54H2 is ON | | OK | | Sithembile Xulu - 416253 | Train |
| 10027 | R | A beep sound can be heard in all saloon speakers | | OK | | Sithembile Xulu - 416253 | Train |
| 10028 | R | On Driver's screen (Home Page), PA activation message is displayed | | OK | | Sithembile Xulu - 416253 | Train |
| 10029 | A | Press the button 54S4 and hold it while talking via the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10030 | I | It is necessary to go to each and every speaker to verify sound is coming out | | OK | | Sithembile Xulu - 416253 | Train |
| 10031 | R | Announcement can be heard in saloon speakers of TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10032 | R | Announcement can be heard in saloon speakers of M4 | | OK | | Sithembile Xulu - 416253 | Train |
| 10033 | R | Announcement can be heard in saloon speakers of M1 | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|---|----|---|--------------------------|-------|
| 10034 | R | Announcement can be heard in saloon speakers of M2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10035 | R | Announcement can be heard in saloon speakers of M3 | | OK | | Sithembile Xulu - 416253 | Train |
| 10036 | R | Announcement can be heard in saloon speakers of TC2 | | OK | | Mvelo Mthembu - 425564 | Train |
| 10037 | A | Release the button 54S4 | | OK | | Sithembile Xulu - 416253 | Train |
| 10038 | A | Talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10039 | R | No sound can be heard in all cars | | OK | | Sithembile Xulu - 416253 | Train |
| 10040 | A | Pulse the switch 54S1 to the right to de-activate PA announcement | | OK | | Sithembile Xulu - 416253 | Train |
| 10041 | R | Green lamp 54H2 is OFF | | OK | | Sithembile Xulu - 416253 | Train |
| 10042 | A | On the driver's screen (Image attached) select the "Public Address" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) |  | OK | | Sithembile Xulu - 416253 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR1 = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR2 = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10045 | R | Green lamp 54H2 is ON | | OK | | Sithembile Xulu - 416253 | Train |
| 10046 | R | PA announcement is activated | | OK | | Sithembile Xulu - 416253 | Train |
| 10047 | A | On the driver's screen (Home Page) select the "Public Address" virtual button to end communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR1 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR2 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10050 | R | Green lamp 54H2 is OFF | | OK | | Sithembile Xulu - 416253 | Train |
| 10051 | I | PA announcement is de-activated | | OK | | Sithembile Xulu - 416253 | Train |
| 10052 | A | Press the button 54S4 and hold it while talking on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10053 | R | Sound cannot be heard in all speakers | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|---|--|----|---|--------------------------|-------|
| 10054 | A | Release the button 54S4 | | OK | | Sithembile Xulu - 416253 | Train |
| 10055 | A | Remove active cab on TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10056 | A | Pulse the switch 54S1 to the right to activate PA announcement | | OK | | Sithembile Xulu - 416253 | Train |
| 10057 | R | Green lamp 54H2 is OFF | | OK | | Sithembile Xulu - 416253 | Train |
| 10058 | R | No PA announcement activation showing on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10059 | I | Cab to Cab Communication TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10060 | I | It is not necessary to have an active cab in order to initiate cab to cab communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10061 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10062 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10063 | A | Pulse the switch 54S1 to the left to activate cab to cab communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10064 | R | Green lamp 54H1 is blinking | | OK | | Sithembile Xulu - 416253 | Train |
| 10065 | R | A beep can be heard in TC2 cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10066 | R | Green lamp 54H1 is blinking in TC2 cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10067 | R | Cab to Cab communication is Active on DDU driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10068 | A | Accept Cab to cab communication request in TC2 by pulsing switch 54S1 to the left | | OK | | Sithembile Xulu - 416253 | Train |
| 10069 | R | Green lamp 54H1 is ON (steady) on TC2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10070 | A | Press and hold button 54S4 to initiate communication in TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10071 | R | Sound can be heard on TC2 cab speakers | | OK | | Sithembile Xulu - 416253 | Train |
| 10072 | A | Press and hold button 54S4 in TC2 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10073 | R | Sound can be heard on TC1 cab speakers | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|---|----|---|--------------------------|-------|
| 10074 | A | Pulse the switch 54S1 to the left on TC1 to de-activate cab to cab communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10075 | R | Green lamp 54H1 is OFF on both TC1 and TC2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10076 | A | On the driver's screen (image attached) select the "Public Address" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) |  | OK | | Sithembile Xulu - 416253 | Train |
| 10077 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR1 = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10078 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10079 | R | Cab-Cab is activated | | OK | | Sithembile Xulu - 416253 | Train |
| 10080 | A | On the driver's screen select the "Public Address" virtual button to end communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10083 | R | Cab-Cab is de-activated | | OK | | Sithembile Xulu - 416253 | Train |
| 10084 | I | Cab to Cab Communication TC2 | | OK | | Mvelo Mthembu - 425564 | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 0.0 | | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 0.0 | | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10087 | A | Pulse the switch 54S1 to the left to activate cab to cab communication | | OK | | Mvelo Mthembu - 425564 | Train |
| 10088 | R | Green lamp 54H1 is blinking | | OK | | Mvelo Mthembu - 425564 | Train |
| 10089 | R | A beep can be heard in TC1 cab | | OK | | Mvelo Mthembu - 425564 | Train |
| 10090 | R | Green lamp 54H1 is blinking in TC1 cab | | OK | | Mvelo Mthembu - 425564 | Train |

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|-------|---|--|---|----|---|------------------------|-------|
| 10091 | R | Cab to Cab communication is Active on DDU driver's screen | | OK | | Mvelo Mthembu - 425564 | Train |
| 10092 | A | Accept Cab to cab communication request in TC1 by pulsing switch 54S1 to the left | | OK | | Mvelo Mthembu - 425564 | Train |
| 10093 | R | Green lamp 54H1 is ON (steady) on TC1 | | OK | | Mvelo Mthembu - 425564 | Train |
| 10094 | A | Press and hold button 54S4 to initiate communication in TC2 and talk on the microphone | | OK | | Mvelo Mthembu - 425564 | Train |
| 10095 | R | Sound can be heard on TC1 cab speakers | | OK | | Mvelo Mthembu - 425564 | Train |
| 10096 | A | Press and hold button 54S4 in TC1 and talk on the microphone | | OK | | Mvelo Mthembu - 425564 | Train |
| 10097 | R | Sound can be heard on TC2 cab speakers | | OK | | Mvelo Mthembu - 425564 | Train |
| 10098 | A | Pulse the switch 54S1 to the left on TC2 to de-activate cab to cab communication | | OK | | Mvelo Mthembu - 425564 | Train |
| 10099 | R | Green lamp 54H1 is OFF on both TC1 and TC2 | | OK | | Mvelo Mthembu - 425564 | Train |
| 10100 | A | On the driver's screen (image attached) select the "Public Address" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) |  | OK | | Mvelo Mthembu - 425564 | Train |
| 10101 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 1.0 | | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 1.0 | | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10103 | R | Cab-Cab is activated | | OK | | Mvelo Mthembu - 425564 | Train |
| 10104 | A | On the driver's screen select the "Public Address" virtual button to end communication | | OK | | Mvelo Mthembu - 425564 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 0.0 | | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10106 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 0.0 | | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10107 | R | Cab-Cab is de-activated | | OK | | Mvelo Mthembu - 425564 | Train |

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|-------|---|---|---|----|---|--------------------------|-------|
| 10108 | I | Ventilation Rack TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10109 | A | Follow the instruction below o how to test the ventilation rack |  | OK | | Sithembile Xulu - 416253 | Train |
| 10110 | R | All three fans of the ventilation rack are working | | OK | | Sithembile Xulu - 416253 | Train |
| 10111 | I | PEA Functional Test |  | OK | | Sithembile Xulu - 416253 | Train |
| 10112 | I | All PEAs are normalized on Train | | OK | | Sithembile Xulu - 416253 | Train |
| 10113 | I | All doors should be closed | | OK | | Sithembile Xulu - 416253 | Train |
| 10114 | I | Lamp 44H1 is OFF | | OK | | Sithembile Xulu - 416253 | Train |
| 10115 | I | PEI auto test passed in all cars, only one green led can be seen in all PEIs | | OK | | Sithembile Xulu - 416253 | Train |
| 10116 | A | Active cab on TC1 and login as driver: 70787878 | | OK | | Sithembile Xulu - 416253 | Train |
| 10117 | I | All Cameras should be working and properly adjusted | | OK | | Sithembile Xulu - 416253 | Train |
| 10118 | I | Passenger Emergency Alarm 1 (PEA 44S11) on TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10119 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10120 | R | Lamp 44H1 is ON |  | OK | | Sithembile Xulu - 416253 | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc1pealop = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10122 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10123 | R | A Beed can be heard in TC1 cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10124 | R | Button lamp 54S3 is BLINKING | | OK | | Sithembile Xulu - 416253 | Train |
| 10125 | R | An emergency alarm announcement can be heard in all saloon speakers | | OK | | Sithembile Xulu - 416253 | Train |
| 10126 | R | Displays INT1 and INT2 indicate "Passenger Alarm" in all saloon cars | | OK | | Sithembile Xulu - 416253 | Train |
| 10127 | R | Lateral displays LAT1 and LAT2 indicate "Passenger Alarm" on the affected car | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|---|--|----|---|--------------------------|-------|
| 10128 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10129 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10130 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10131 | R | Message stops broadcasting in all saloon speakers | | OK | | Sithembile Xulu - 416253 | Train |
| 10132 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10133 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10134 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10135 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10136 | A | Reset PEA using switch 44S6 | | OK | | Sithembile Xulu - 416253 | Train |
| 10137 | R | PEA is reset and a click sound can be heard while PEA returns to its normal state | | OK | | Sithembile Xulu - 416253 | Train |
| 10138 | A | Open and close doors using buttons on driver desk | | OK | | Sithembile Xulu - 416253 | Train |
| 10139 | R | All doors are closed and in blue colour on DDU | | OK | | Sithembile Xulu - 416253 | Train |
| 10140 | R | Lamp 44H1 is OFF | | OK | | Sithembile Xulu - 416253 | Train |
| 10141 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc1pealoop = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10142 | R | No CCTV footage showing on Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10143 | R | Button lamp 54S3 is OFF | | OK | | Sithembile Xulu - 416253 | Train |
| 10144 | R | No message on Pacis displays | | OK | | Sithembile Xulu - 416253 | Train |
| 10145 | I | Passenger Emergency Alarm 2 (PEA 44S12) on TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10146 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |

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|-------|---|---|---|----|---|--------------------------|-------|
| 10147 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10148 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10149 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10150 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10151 | A | On the driver's screen (image attached) select the "Passenger Alarm" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) |  | OK | | Sithembile Xulu - 416253 | Train |
| 10152 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10153 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10154 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10155 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10156 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10157 | R | Communication is stabile between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10158 | A | On the driver's screen select the "Passenger Alarm" virtual button to end communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10159 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10160 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10161 | I | Passenger Emergency Alarm 3 (PEA 44S13) on TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10162 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|---|--|----|--|--------------------------|-------|
| 10163 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10164 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10165 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10166 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10167 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10168 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10169 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10170 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10171 | I | Passenger Emergency Alarm 4 (PEA 44S14) on TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10172 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10173 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10174 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10175 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10176 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10177 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10178 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10179 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10180 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10181 | I | Passenger Emergency Alarm 5 (PEA 44S15) on TC1 | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|---|--|----|--|--------------------------|-------|
| 10182 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10183 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10184 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10185 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10186 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10187 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10188 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10189 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10190 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10191 | I | Passenger Emergency Alarm 6 (PEA 44S16) on TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10192 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10193 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10194 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10195 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10196 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10197 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10198 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10199 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10200 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|---|--|----|--|--------------------------|-------|
| 10201 | I | Call for Aid (CFA 54S5) on TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10202 | A | Press the SOS button 54S5 | | OK | | Sithembile Xulu - 416253 | Train |
| 10203 | R | Button lamp 54S5 is ON | | OK | | Sithembile Xulu - 416253 | Train |
| 10204 | R | No sound can be heard in all saloon speakers | | OK | | Sithembile Xulu - 416253 | Train |
| 10205 | R | Displays INT1 and INT2 indicate "Call for AID" in all saloon cars | | OK | | Sithembile Xulu - 416253 | Train |
| 10206 | R | Lateral displays LAT1 and LAT2 indicate "Call for AID" on TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10207 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10208 | A | Press the button 54S3 to acknowledge SOS communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10209 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10210 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10211 | A | Respond by talking back via the PEI near 54S5 | | OK | | Sithembile Xulu - 416253 | Train |
| 10212 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10213 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10214 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M4 | | OK | | Sithembile Xulu - 416253 | Train |
| 10215 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10216 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10217 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10218 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10219 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|--|--------------------------|-------|
| 10220 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10221 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10222 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10223 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10224 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M4 | | OK | | Sithembile Xulu - 416253 | Train |
| 10225 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10226 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10227 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10228 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10229 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10230 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10231 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10232 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10233 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10234 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M4 | | OK | | Sithembile Xulu - 416253 | Train |
| 10235 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10236 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10237 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10238 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|--|--------------------------|-------|
| 10239 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10240 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10241 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10242 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10243 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10244 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M4 | | OK | | Sithembile Xulu - 416253 | Train |
| 10245 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10246 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10247 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10248 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10249 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10250 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10251 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10252 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10253 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10254 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M4 | | OK | | Sithembile Xulu - 416253 | Train |
| 10255 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10256 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10257 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|---|--------------------------|-------|
| 10258 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10259 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10260 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10261 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10262 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10263 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10264 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M4 | | OK | | Sithembile Xulu - 416253 | Train |
| 10265 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10266 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10267 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10268 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10269 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10270 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10271 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10272 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10273 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10274 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M4StateResetPea = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10275 | A | Reset PEA using switch 44S6 | | OK | | Sithembile Xulu - 416253 | Train |
| 10276 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M4StateResetPea = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|--|--------------------------|-------|
| 10277 | R | All M4 PEAs are reset | | OK | | Sithembile Xulu - 416253 | Train |
| 10278 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10279 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10280 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10281 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10282 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10283 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10284 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10285 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10286 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10287 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10288 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10289 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10290 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10291 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10292 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10293 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10294 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10295 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|--|--------------------------|-------|
| 10296 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10297 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10298 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10299 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10300 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10301 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10302 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10303 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10304 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10305 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10306 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10307 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10308 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10309 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10310 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10311 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10312 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10313 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10314 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|--|--------------------------|-------|
| 10315 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10316 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10317 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10318 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10319 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10320 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10321 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10322 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10323 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10324 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10325 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10326 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10327 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10328 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10329 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10330 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10331 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10332 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10333 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|---|--------------------------|-------|
| 10334 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10335 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10336 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10337 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10338 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M1StateResetPea = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10339 | A | Reset PEA using switch 44S6 | | OK | | Sithembile Xulu - 416253 | Train |
| 10340 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M1StateResetPea = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10341 | R | All M1 PEAs are reset | | OK | | Sithembile Xulu - 416253 | Train |
| 10342 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10343 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10344 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10345 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10346 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10347 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10348 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10349 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10350 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10351 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10352 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10353 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|--|--------------------------|-------|
| 10354 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10355 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10356 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10357 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10358 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10359 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10360 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10361 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10362 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10363 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10364 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10365 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10366 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10367 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10368 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10369 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10370 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10371 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10372 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M2 | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|--|--------------------------|-------|
| 10373 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10374 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10375 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10376 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10377 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10378 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10379 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10380 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10381 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10382 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10383 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10384 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10385 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10386 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10387 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10388 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10389 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10390 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10391 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|---|--------------------------|-------|
| 10392 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10393 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10394 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10395 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10396 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10397 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10398 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10399 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10400 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10401 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10402 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M2StateResetPea = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10403 | A | Reset PEA using switch 44S6 | | OK | | Sithembile Xulu - 416253 | Train |
| 10404 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M2StateResetPea = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10405 | R | All M2 PEAs are reset | | OK | | Sithembile Xulu - 416253 | Train |
| 10406 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M3 | | OK | | Sithembile Xulu - 416253 | Train |
| 10407 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10408 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10409 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10410 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|--|--------------------------|-------|
| 10411 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10412 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10413 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10414 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10415 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10416 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M3 | | OK | | Sithembile Xulu - 416253 | Train |
| 10417 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10418 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10419 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10420 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10421 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10422 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10423 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10424 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10425 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10426 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M3 | | OK | | Sithembile Xulu - 416253 | Train |
| 10427 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10428 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10429 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|--|--------------------------|-------|
| 10430 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10431 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10432 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10433 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10434 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10435 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10436 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M3 | | OK | | Sithembile Xulu - 416253 | Train |
| 10437 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10438 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10439 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10440 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10441 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10442 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10443 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10444 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10445 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10446 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M3 | | OK | | Sithembile Xulu - 416253 | Train |
| 10447 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10448 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|--|----|---|--------------------------|-------|
| 10449 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10450 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10451 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10452 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10453 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10454 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10455 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10456 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M3 | | OK | | Sithembile Xulu - 416253 | Train |
| 10457 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10458 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10459 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10460 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10461 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10462 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10463 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10464 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10465 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10466 | R | Read Defined Variable [TT] (MPU1) Li_UBK_M3StateResetPea = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10467 | A | Reset PEA using switch 44S6 | | OK | | Sithembile Xulu - 416253 | Train |






















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| 10468 | R | Read Defined Variable [TT] (MPU1) Li_UBK_M3StateResetPea = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10469 | R | All M3 PEAs are reset | | OK | | Sithembile Xulu - 416253 | Train |
| 10470 | I | Passenger Emergency Alarm 1 (PEA 44S11) on TC2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10471 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10472 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10473 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10474 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10475 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10476 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10477 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10478 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10479 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10480 | I | Passenger Emergency Alarm 2 (PEA 44S12) on TC2 | | OK | | Mvelo Mthembu - 425564 | Train |
| 10481 | A | Pull the PEA | | OK | | Mvelo Mthembu - 425564 | Train |
| 10482 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Mvelo Mthembu - 425564 | Train |
| 10483 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen | | OK | | Mvelo Mthembu - 425564 | Train |
| 10484 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Mvelo Mthembu - 425564 | Train |
| 10485 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Mvelo Mthembu - 425564 | Train |
| 10486 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Mvelo Mthembu - 425564 | Train |

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| 10487 | A | Respond by talking back via the PEI | | OK | | Mvelo Mthembu - 425564 | Train |
| 10488 | R | Communication is established between PEI and Driver cab | | OK | | Mvelo Mthembu - 425564 | Train |
| 10489 | A | Press the button 54S3 to end PEA communication | | OK | | Mvelo Mthembu - 425564 | Train |
| 10490 | I | Passenger Emergency Alarm 3 (PEA 44S13) on TC2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10491 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10492 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10493 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10494 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10495 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10496 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10497 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10498 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10499 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10500 | I | Passenger Emergency Alarm 4 (PEA 44S14) on TC2 | | OK | | Mvelo Mthembu - 425564 | Train |
| 10501 | A | Pull the PEA | | OK | | Mvelo Mthembu - 425564 | Train |
| 10502 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Mvelo Mthembu - 425564 | Train |
| 10503 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen | | OK | | Mvelo Mthembu - 425564 | Train |
| 10504 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Mvelo Mthembu - 425564 | Train |
| 10505 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Mvelo Mthembu - 425564 | Train |


| | | | | | | | |
|-------|---|---|--|----|--|--------------------------|-------|
| 10506 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Mvelo Mthembu - 425564 | Train |
| 10507 | A | Respond by talking back via the PEI | | OK | | Mvelo Mthembu - 425564 | Train |
| 10508 | R | Communication is established between PEI and Driver cab | | OK | | Mvelo Mthembu - 425564 | Train |
| 10509 | A | Press the button 54S3 to end PEA communication | | OK | | Mvelo Mthembu - 425564 | Train |
| 10510 | I | Passenger Emergency Alarm 5 (PEA 44S15) on TC2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10511 | A | Pull the PEA | | OK | | Sithembile Xulu - 416253 | Train |
| 10512 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10513 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10514 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Sithembile Xulu - 416253 | Train |
| 10515 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10516 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10517 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10518 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10519 | A | Press the button 54S3 to end PEA communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10520 | I | Passenger Emergency Alarm 6 (PEA 44S16) on TC2 | | OK | | Mvelo Mthembu - 425564 | Train |
| 10521 | A | Pull the PEA | | OK | | Mvelo Mthembu - 425564 | Train |
| 10522 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI | | OK | | Mvelo Mthembu - 425564 | Train |
| 10523 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen | | OK | | Mvelo Mthembu - 425564 | Train |
| 10524 | A | Press the button 54S3 to acknowledge PEA communication request | | OK | | Mvelo Mthembu - 425564 | Train |

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|-------|---|---|--|----|--|------------------------|-------|
| 10525 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Mvelo Mthembu - 425564 | Train |
| 10526 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Mvelo Mthembu - 425564 | Train |
| 10527 | A | Respond by talking back via the PEI | | OK | | Mvelo Mthembu - 425564 | Train |
| 10528 | R | Communication is established between PEI and Driver cab | | OK | | Mvelo Mthembu - 425564 | Train |
| 10529 | A | Press the button 54S3 to end PEA communication | | OK | | Mvelo Mthembu - 425564 | Train |
| 10530 | I | Call for Aid (CFA 54S5) on TC2 | | OK | | Mvelo Mthembu - 425564 | Train |
| 10531 | A | Press the SOS button 54S5 | | OK | | Mvelo Mthembu - 425564 | Train |
| 10532 | R | Button lamp 54S5 is ON | | OK | | Mvelo Mthembu - 425564 | Train |
| 10533 | R | No sound can be heard in all saloon speakers | | OK | | Mvelo Mthembu - 425564 | Train |
| 10534 | R | Displays INT1 and INT2 indicate "Call for AID" in all saloon cars | | OK | | Mvelo Mthembu - 425564 | Train |
| 10535 | R | Lateral displays LAT1 and LAT2 indicate "Call for AID" on TC2 | | OK | | Mvelo Mthembu - 425564 | Train |
| 10536 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen | | OK | | Mvelo Mthembu - 425564 | Train |
| 10537 | A | Press the button 54S3 to acknowledge SOS communication request | | OK | | Mvelo Mthembu - 425564 | Train |
| 10538 | A | Press and hold button 54S4 on TC1 and talk on the microphone | | OK | | Mvelo Mthembu - 425564 | Train |
| 10539 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Mvelo Mthembu - 425564 | Train |
| 10540 | A | Respond by talking back via the PEI near 54S5 | | OK | | Mvelo Mthembu - 425564 | Train |
| 10541 | R | Communication is established between PEI and Driver cab | | OK | | Mvelo Mthembu - 425564 | Train |
| 10542 | A | Press the button 54S3 to end PEA communication | | OK | | Mvelo Mthembu - 425564 | Train |
| 10543 | A | Open and close doors left and right doors | | OK | | Mvelo Mthembu - 425564 | Train |

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|-------|---|---|---|----|---|--------------------------|-------|
| 10544 | R | All doors are closed and in blue colour on DDU | | OK | | Mvelo Mthembu - 425564 | Train |
| 10545 | I | PEAs functional Test from TC2 cab | | OK | | Mvelo Mthembu - 425564 | Train |
| 10546 | I | This is a quick test to verify that all PEAs work and can be reset from TC2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10547 | A | Insert Driver's Key and turn to ON position | | OK | | Sithembile Xulu - 416253 | Train |
| 10548 | A | Login as Driver using the code 70787878 | | OK | | Sithembile Xulu - 416253 | Train |
| 10549 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2alldoorsclosedr1 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10550 | R | |  | OK | | Sithembile Xulu - 416253 | Train |
| 10551 | A | Pull all the PEAs on Train | | OK | | Sithembile Xulu - 416253 | Train |
| 10552 | R | |  | OK | | Sithembile Xulu - 416253 | Train |
| 10553 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2alldoorsclosedr1 = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10554 | R | |  | OK | | Sithembile Xulu - 416253 | Train |
| 10555 | A | Press the button 54S3 to acknowledge PEA communication request, continue to press the button until all but one PEAs have been acknowledged. | | OK | | Sithembile Xulu - 416253 | Train |
| 10556 | R | Lamp 44H1 is ON |  | OK | | Sithembile Xulu - 416253 | Train |
| 10557 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc2pealoop = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10558 | A | Press and hold the button 54S4 while talking on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10559 | R | The person in the cabin can be heard from the PEI speaker | | OK | | Sithembile Xulu - 416253 | Train |
| 10560 | I | It is not necessary to perform step below for all PEAs, one PEA is sufficient | | OK | | Sithembile Xulu - 416253 | Train |
| 10561 | A | Respond by talking back via the PEI | | OK | | Sithembile Xulu - 416253 | Train |
| 10562 | R | Communication is established between PEI and Driver cab | | OK | | Sithembile Xulu - 416253 | Train |
| 10563 | A | Reset all PEAs at using switch 44S6 | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|---|----|---|------------------------------|-------|
| 10564 | R | All PEAs are reset, and a click sound can be heard while PEA returns to its normal state |  | OK | | Sithembile Xulu - 416253 | Train |
| 10565 | A | Open and close doors left and right doors |  | OK | | Sithembile Xulu - 416253 | Train |
| 10566 | R | All doors are closed and in blue colour on DDU |  | OK | | Sithembile Xulu - 416253 | Train |
| 10567 | R | Lamp 44H1 is OFF |  | OK | | Sithembile Xulu - 416253 | Train |
| 10568 | R | No message on Pacis displays |  | OK | | Sithembile Xulu - 416253 | Train |
| 10569 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc2pealoo = 0.0 |  | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10570 | R | No CCTV footage showing on Driver's screen |  | OK | | Sithembile Xulu - 416253 | Train |
| 10571 | A | On the Event screen, check that there are no IOS related to doors or PEAs recorded |  | OK | | Sithembile Xulu - 416253 | Train |
| 10572 | R | After test is completed, the DDU PEA screen should be as shown |  | OK | | Sithembile Xulu - 416253 | Train |
| 10573 | A | Repeat this test for 4 times |  | OK | | Sithembile Xulu - 416253 | Train |
| 10574 | R | 1st attempt passed |  | OK | | Thandanani Makhanya - 463827 | Train |
| 10575 | R | 2nd attempt passed |  | OK | | Thandanani Makhanya - 463827 | Train |
| 10576 | R | 3rd attempt passed |  | OK | | Thandanani Makhanya - 463827 | Train |
| 10577 | R | 4th attempt passed |  | OK | | Thandanani Makhanya - 463827 | Train |
| 10578 | I | Public Announcements TC2 |  | OK | | Thandanani Makhanya - 463827 | Train |
| 10579 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR1 = 0.0 |  | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10580 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0 |  | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10581 | A | Pulse the switch 54S1 to the right to activate PA announcement |  | OK | | Sithembile Xulu - 416253 | Train |
| 10582 | R | Green lamp 54H2 is ON |  | OK | | Mvelo Mthembu - 425564 | Train |
| 10583 | R | A beep sound can be heard in all saloon speakers |  | OK | | Sithembile Xulu - 416253 | Train |
| 10584 | R | On Driver's screen (Home Page), PA activation message is displayed |  | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|---|---|----|---|--------------------------|-------|
| 10585 | A | Press the button 54S4 and hold it while talking via the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10586 | R | Announcement can be heard in saloon speakers of all cars | | OK | | Sithembile Xulu - 416253 | Train |
| 10587 | A | Release the button 54S4 | | OK | | Sithembile Xulu - 416253 | Train |
| 10588 | A | Talk on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10589 | R | No sound can be heard in all cars | | OK | | Sithembile Xulu - 416253 | Train |
| 10590 | A | Pulse the switch 54S1 to the right to de-activate PA announcement | | OK | | Sithembile Xulu - 416253 | Train |
| 10591 | A | Green lamp 54H2 is OFF |  | OK | | Sithembile Xulu - 416253 | Train |
| 10592 | A | On the driver's screen (Image above) select the "Public Address" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) | | OK | | Sithembile Xulu - 416253 | Train |
| 10593 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR1 = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10594 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR2 = 1.0 | | OK | 1 | Sithembile Xulu - 416253 | Train |
| 10595 | R | Green lamp 54H2 is ON | | OK | | Sithembile Xulu - 416253 | Train |
| 10596 | R | PA announcement is activated | | OK | | Sithembile Xulu - 416253 | Train |
| 10597 | A | On the driver's screen (Home Page) select the "Public Address" virtual button to end communication | | OK | | Sithembile Xulu - 416253 | Train |
| 10598 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR1 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10599 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0 | | OK | 0 | Sithembile Xulu - 416253 | Train |
| 10600 | R | Green lamp 54H2 is OFF | | OK | | Sithembile Xulu - 416253 | Train |
| 10601 | I | PA announcement is de-activated | | OK | | Sithembile Xulu - 416253 | Train |
| 10602 | A | Press the button 54S4 and hold it while talking on the microphone | | OK | | Sithembile Xulu - 416253 | Train |
| 10603 | R | Sound cannot be heard in all speakers | | OK | | Sithembile Xulu - 416253 | Train |
| 10604 | A | Release the button 54S4 | | OK | | Sithembile Xulu - 416253 | Train |

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|-------|---|--|---|----|--|------------------------------|-------|
| 10605 | A | Remove active cab on TC1 | | OK | | Sithembile Xulu - 416253 | Train |
| 10606 | A | Pulse the switch 54S1 to the right to activate PA announcement | | OK | | Sithembile Xulu - 416253 | Train |
| 10607 | R | Green lamp 54H2 is OFF | | OK | | Sithembile Xulu - 416253 | Train |
| 10608 | R | No PA announcement activation showing on the Driver's screen | | OK | | Sithembile Xulu - 416253 | Train |
| 10609 | I | Ventilation Rack TC2 | | OK | | Sithembile Xulu - 416253 | Train |
| 10610 | A | Follow the instruction below o how to test the ventilation rack |  | OK | | Sithembile Xulu - 416253 | Train |
| 10611 | R | All three fans of the ventilation rack are working | | OK | | Sithembile Xulu - 416253 | Train |
| 10612 | I | Pacis audio and displays test | | OK | | Thandanani Makhanya - 463827 | Train |
| 10613 | I | This test is aimed at verifying that the Pacis system is working. This includes displays (all LEDs must be working in each display) and speakers | | OK | | Thandanani Makhanya - 463827 | Train |
| 10614 | A | Launch the Pacis Test from the DDU | | OK | | Thandanani Makhanya - 463827 | Train |
| 10615 | R | All saloon speakers and displays are working on train | | OK | | Thandanani Makhanya - 463827 | Train |
| 10616 | A | Stop the Pacis test | | OK | | Thandanani Makhanya - 463827 | Train |
| 10617 | I | End of Test | | OK | | Thandanani Makhanya - 463827 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 29 – Dynamic Pre-Test

29.3 Instructions list

29.3.1 Pre-DT-Pre-Test

I - Information A - Action R - Result NE - Not Executed

| N° | Type | Instruction | File | Result status | Result value | Operator | Vehicle |
|-------|------|---|------|---------------|--------------|-----------------------|---------|
| 10001 | I | Dynamic Pre-Test | | OK | | Amanda Ntuli - 526239 | Train |
| 10002 | I | Train Normalisation | | OK | | Amanda Ntuli - 526239 | Train |
| 10003 | A | Whilst checking the LV cubicles in each Car, also check the dataplug ground cables if they are secured and tightened | | OK | | Amanda Ntuli - 526239 | Train |
| 10004 | I | TC1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10005 | R | ALL LV1.1 connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10006 | R | ALL LV2.1 connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10007 | R | ALL LV7 connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10008 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10009 | R | ALL underframe connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10010 | R | ALL inter-car connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10011 | A | Take note of the sensor grades captured on HVAC web portal for TC1 and compare them with the ones on the HVAC name plate (ceiling) of Tc1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10012 | R | The values of the HVAC sensor grades are the same | | OK | | Amanda Ntuli - 526239 | Train |
| 10013 | I | M4 | | OK | | Amanda Ntuli - 526239 | Train |
| 10014 | R | ALL LV3 connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10015 | R | ALL LV6 connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |

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|-------|---|---|--|----|--|-----------------------|-------|
| 10016 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10017 | R | ALL underframe connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10018 | R | ALL inter-car connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10019 | A | Take note of the sensor grades captured on HVAC web portal for M4 and compare them with the ones on the HVAC name plate (ceiling) of M4 | | OK | | Amanda Ntuli - 526239 | Train |
| 10020 | R | The values of the HVAC sensor grades are the same | | OK | | Amanda Ntuli - 526239 | Train |
| 10021 | I | M1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10022 | R | ALL LV3 connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10023 | R | ALL LV6 connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10024 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10025 | R | ALL underframe connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10026 | R | ALL inter-car connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10027 | A | Take note of the sensor grades captured on HVAC web portal for M1 and compare them with the ones on the HVAC name plate (ceiling) of M1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10028 | R | The values of the HVAC sensor grades are the same | | OK | | Amanda Ntuli - 526239 | Train |
| 10029 | I | M2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10030 | R | ALL LV3 connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10031 | R | ALL LV4 connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10032 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |

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|-------|---|---|--|----|--|-----------------------|-------|
| 10033 | R | ALL underframe connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10034 | R | ALL inter-car connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10035 | A | Take note of the sensor grades captured on HVAC web portal for M2 and compare them with the ones on the HVAC name plate (ceiling) of M2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10036 | R | The values of the HVAC sensor grades are the same | | OK | | Amanda Ntuli - 526239 | Train |
| 10037 | I | M3 | | OK | | Amanda Ntuli - 526239 | Train |
| 10038 | R | ALL LV3 connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10039 | R | ALL LV6 connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10040 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10041 | R | ALL underframe connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10042 | R | ALL inter-car connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10043 | A | Take note of the sensor grades captured on HVAC web portal for M3 and compare them with the ones on the HVAC name plate (ceiling) of M3 | | OK | | Amanda Ntuli - 526239 | Train |
| 10044 | R | The values of the HVAC sensor grades are the same | | OK | | Amanda Ntuli - 526239 | Train |
| 10045 | I | TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10046 | R | ALL LV1.2 connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10047 | R | ALL LV2.2 connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10048 | R | ALL LV7 connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10049 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |

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|-------|---|---|--|----|--|-----------------------|-------|
| 10050 | R | ALL underframe connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10051 | R | ALL inter-car connectors are connected and tightly secured with screws | | OK | | Amanda Ntuli - 526239 | Train |
| 10052 | A | Take note of the sensor grades captured on HVAC web portal for TC2 and compare them with the ones on the HVAC name plate (ceiling) of TC2 | | OK | | Amanda Ntuli - 526239 | Train |
| 10053 | R | The values of the HVAC sensor grades are the same | | OK | | Amanda Ntuli - 526239 | Train |
| 10054 | I | Brake Test | | OK | | Amanda Ntuli - 526239 | Train |
| 10055 | A | Prepare the train in high voltage with active cab on TC1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10056 | A | On the DDU test screen, run the BRAKE TEST by following the instructions on the screen | | OK | | Amanda Ntuli - 526239 | Train |
| 10057 | R | After the BRAKE TEST is complete, all cars have passed | | OK | | Amanda Ntuli - 526239 | Train |
| 10058 | A | Shut down the train by putting the battery contactor 18S1 in OFF position | | OK | | Amanda Ntuli - 526239 | Train |
| 10059 | I | Reduced Power Test | | OK | | Amanda Ntuli - 526239 | Train |
| 10060 | A | Prepare the train in high voltage with active cab on TC1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10061 | A | Set the Driving Mode Switch (30S1) to "DEPOT" position. | | OK | | Amanda Ntuli - 526239 | Train |
| 10062 | A | Select the Reduced Power test on the DDU. (select one of the HV devices on the Home screen and access the Reduced Power Test) | | OK | | Amanda Ntuli - 526239 | Train |
| 10063 | A | Select a running direction (Forward or Reverse). | | OK | | Amanda Ntuli - 526239 | Train |
| 10064 | I | REMEMBER TO PRESS THE DEAD MAN BUTTON OCCASIONALLY | | OK | | Amanda Ntuli - 526239 | Train |
| 10065 | R | Check that all the conditions on the screen are satisfied (green box to the right of each condition) | | OK | | Amanda Ntuli - 526239 | Train |
| 10066 | A | Select RPT for M4 car | | OK | | Amanda Ntuli - 526239 | Train |

| | | | | | | | |
|-------|---|--|--|----|----------|-----------------------|-------|
| 10067 | R | RPT for M4 test successful | | OK | | Amanda Ntuli - 526239 | Train |
| 10068 | A | Close the HSCB | | OK | | Amanda Ntuli - 526239 | Train |
| 10069 | A | Select RPT for M1car | | OK | | Amanda Ntuli - 526239 | Train |
| 10070 | R | RPT for M1 test successful | | OK | | Amanda Ntuli - 526239 | Train |
| 10071 | A | Close the HSCB | | OK | | Amanda Ntuli - 526239 | Train |
| 10072 | A | Select RPT for M2 car | | OK | | Amanda Ntuli - 526239 | Train |
| 10073 | R | RPT for M2 test successful | | OK | | Amanda Ntuli - 526239 | Train |
| 10074 | A | Close the HSCB | | OK | | Amanda Ntuli - 526239 | Train |
| 10075 | A | Select RPT for M3 car | | OK | | Amanda Ntuli - 526239 | Train |
| 10076 | R | RPT for M3 test successful | | OK | | Amanda Ntuli - 526239 | Train |
| 10077 | A | Close the HSCB | | OK | | Amanda Ntuli - 526239 | Train |
| 10078 | I | Traction Test | | OK | | Amanda Ntuli - 526239 | Train |
| 10079 | A | WARNING: Do not perform TRACTION TEST when the Reduced Power Test has failed. | | OK | | Amanda Ntuli - 526239 | Train |
| 10080 | A | Prepare the train in high voltage with active cab on TC1 | | OK | | Amanda Ntuli - 526239 | Train |
| 10081 | A | On the DDU Test Screen, press the virtual button TRACTION TEST and ensure that all the requirements are met to execute the test. | | OK | | Amanda Ntuli - 526239 | Train |
| 10082 | R | After the Traction Test is complete, there are no traction faults logged on the DDU Event screen | | OK | | Amanda Ntuli - 526239 | Train |
| 10083 | I | Load requirements | | OK | | Amanda Ntuli - 526239 | Train |
| 10084 | R | Read Undefined Variable [TT] SBK_M1CarWeight | | OK | 36071.09 | Amanda Ntuli - 526239 | Train |
| 10085 | R | Read Undefined Variable [TT] SBK_M2CarWeight | | OK | 36819.14 | Amanda Ntuli - 526239 | Train |
| 10086 | R | Read Undefined Variable [TT] SBK_M3CarWeight | | OK | 36424.88 | Amanda Ntuli - 526239 | Train |
| 10087 | R | Read Undefined Variable [TT] SBK_M4CarWeight | | OK | 34451.89 | Amanda Ntuli - 526239 | Train |

| | | | | | | | |
|-------|---|---|--|----|----------|-----------------------|-------|
| 10088 | R | Read Undefined Variable [TT] SBK_Tc1CarWeight | | OK | 34299.69 | Amanda Ntuli - 526239 | Train |
| 10089 | R | Read Undefined Variable [TT] SBK_Tc2CarWeight | | OK | 34381.31 | Amanda Ntuli - 526239 | Train |
| 10090 | A | Calculate the sum of all cars | | OK | | Amanda Ntuli - 526239 | Train |
| 10091 | R | The sum of the weight for all cars Result Max : x <= 223740 (kg) | | OK | 212448 | Amanda Ntuli - 526239 | Train |
| 10092 | I | End of Test | | OK | | Amanda Ntuli - 526239 | Train |



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| Serial Tests Report TS228 – TFS RTR Train Functional Static Test Report | Document Reference GIB0000006574 Version: A0 | Emission date 18/06/2024 |
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Section 30 – Report summaries

30.2 Results status

| Test Instruction Sheet | Compliant | Incomplete | Non-compliant |
|---|-----------|------------|---------------|
| Train Ground Communication | X | | |
| Traction Interlock | X | | |
| Traction Converter | X | | |
| Service Brake | X | | |
| Rescue Mode and Emergency Disconnection | X | | |
| Passenger Doors | X | | |
| Pantograph | X | | |
| PACIS | X | | |
| On-board train data recorder | X | | |
| Monitoring Circuit Breakers | X | | |
| Main Circuit Breaker Control | X | | |
| Internal Lighting | X | | |
| HVAC Air Conditioning | X | | |
| Holding and Parking Brake | X | | |
| High Voltage Distribution | X | | |
| Fire Detection | X | | |
| External lights and Signaling | X | | |
| ERTMS | X | | |
| Energy Distribution 400V AC | X | | |
| Energy Distribution 110V | X | | |
| Emergency Brake Interlock | X | | |
| Dynamic Pre-Test | X | | |
| Driving Command | X | | |
| Deadman | X | | |
| Computer Network and DDU Screen | X | | |

| | | | |
|------------------------|---|--|--|
| CCTV Video Information | X | | |
| Cabin Control | X | | |
| Air Production | X | | |

30.3 Tools used

| Function | Tool name | Tool number | Next Calibration date |
|----------|------------------------|----------------------|-----------------------|
| 019_AIR | Manometer | Manometer | 7/31/2024 |
| 025_NET | Cable Analyser DSX5000 | Fluke machine_Ubunye | 6/23/2024 |
| 040_SBK | Manometer | Manometer | 7/31/2024 |
| 040_SUP | Manometer | Manometer | 7/31/2024 |
| 044_UBK | Manometer | Manometer | 7/31/2024 |
| 045_PBK | Manometer | Manometer | 7/31/2024 |
| 050_DOR | Pressure Meter | Pressure Meter 2 | 8/25/2024 |
| 072_SGL | Manometer | Manometer | 7/31/2024 |

| Vehicle | Equipment | Expected version | Version loaded |
|---------|-----------|------------------|----------------|
| Train | | | |