

# Troubleshooting Manual

# 25 KV AC THREE PHASE INDIGENOUS PROPULSION & OTHER EQUIPMENTS FOR MEMUS

## TYPE MEMU



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# INTRODUCTION

Conventional MEMUs use DC traction motors which are directly connected to the rectifier. The current trend for last decade is moved from DC traction motors to AC traction motors, which offer better control, better reliability and are less prone to breakdown and repair.

In this regard, RDSO has released specification no.RDSO/ PE/ SPEC/ EMU/ 0096-2008 (Rev. 04) (DECEMBER 2009) for producing 3-phase drive propulsion equipment for MEMUs. The specification calls for design, development, manufacture, supply, testing, and commissioning of 25 kV AC three phase indigenous complete propulsion system including, transformer, traction converter, and traction motors. The specification also calls for the design of TCMS, auxiliary converter along with other auxiliary equipment.

## 1.1 List of Abbreviations used

Abbreviation	Description
AC	Alternating Current
ACU	Auxiliary converter Unit
ADC	Analog to Digital Converter
AIP	Analog Input
ATC	Auxiliary Traction Converter
ВС	Brake Cylinder
ВСР	Brake Cylinder Pressure
BE	Braking effort
CAN	Controlled Area Network
DC	Direct Current
DCS Key	Driver control Switch Key
DE	Driving End
DIP	Digital Input
DOP	Digital Output
DPRAM	Dual Port Random Access Memory
DMC	Driver Motor Coach
DSP	Digital Signal Processor
DTC	Driving trailer coach
EBL	Emergency Brake Loop
ECN	Ethernet Consist Network
ED	Electro Dynamic
EEPROM	Electrically Erasable and Programmable Read Only Memory

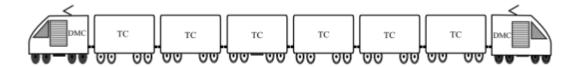
Abbreviation	Description
EMU	Electrical Multiple Unit
EOL	Emergency Off Loop
EP	Electro Pneumatic
ETB	Ethernet Train Backbone
FDP	Fault Data Pack
HWTL	Hard Wired Train Line
ВСР	Brake Cylinder Pressure
BE	Braking effort
CAN	Controlled Area Network
DC	Direct Current
DCS Key	Driver control Switch Key
DE	Driving End
DIP	Digital Input
DOP	Digital Output
DPRAM DMC	Dual Port Random Access Memory  Driver Motor Coach
DIVIC	Digital Signal Processor
DTC	Driving trailer coach
EBL	Emergency Brake Loop
ECN	Ethernet Consist Network
ED	Electro Dynamic
EEPROM	Electrically Erasable and Programmable Read Only Memory
LC	Line Converter
LIC	Line Inverter Computer
MCB	Miniature Circuit Breaker
MCH	Master Control Handle
MCC	Main Control Computer
MCU	Main Control Unit
MEMU	Main Line Electrical Multiple Unit
MU	Multiple Unit
NVRAM	Non Volatile Random Access Memory
PCC	Passenger comfort computer
PLL PS	Phase Locked Loop
PWM	Power Supply Pulse Width Modulation
RAM	Random Access Memory
RDM	Rescue Drive Mode
RMS	Remote Monitoring System
RPM	Revolution per Minute
SRAM	Static Random Access Memory
TC	Trailer Coach
TE	Tractive Effort
TI	Traction Inverter
TIC	Traction Inverter Computer
TM	Traction Motor
USB	Universal Serial Bus

# SYSTEM OVERVIEW

One basic unit of 4-car unit is the building block for MEMU rake formation. Each basic unit consists of one Driver Motor Coach (DMC) at the end and remaining 3 coaches are Trailer Coach (TC).



Two to three such basic units can be coupled together to form MEMU rakes of 8 and 12 cars.



## 2.1 Driving Motor Coach (DMC)

Driving Motor Coach (DMC) is a powered vehicle with one Traction Motor driving each axle. High Tension (HT) Compartment (for propulsion equipment) and Driver cab at one end and passenger saloon area is at other side. Driver cab is furnished with a pre-fabricated driver desk. All driving operations are possible from this driver desk, and feedback from all systems in all the coaches/ basic units is available for viewing by the loco pilot on the driver desk. In this regard MCU aggregates all the information from all coaches and a 10.4" Touch Based TFT display is provided for showing this information to the driver. Further an illuminated indication panel is provided for important driving related information for easy viewing by the driver. Various gauges are also provided for driver viewing. The driver will also be able to control the Passenger Information System from the Driver Desk. The HT compartment consists of Traction Converter, Auxiliary Converter and other ancillary equipment. On the roof of the HT compartment, there is a pantograph, Vacuum Circuit Breaker and other ancillary equipment. Traction Transformer is under-slung mounted on the Motor Coach. Battery box and compressor are also mounted underslung. Rest of the DMC apart from the Driver cab, HT compartment is Passenger saloon area. The Passenger saloon area will be similar to Trailer Coach except for the space occupied by Driver Cab, HT compartment.

## 2.2 Trailer Coach (TC)

Trailer Coach (TC) is a non-powered vehicle with only a Passenger saloon area. The Passenger saloon area will have lights, fans, emergency lights and Passenger Information System consisting of LED displays, and speakers (for announcements).

## 3.1 EOL 1 Loop Triggered

Fault Code: 1

Fault Description: EOL 1 Loop Triggered

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, and ED 1202 for DMC2

Functional group- 9 Sub Functional group-1

#### Check:

1. Check the emergency off switch in both DMC cabs

2. Check the EOL1 feedback input signal to MCC

3. Check the EOL1 relay and EOL2 relays

## 3.2 EOL 2 Loop Triggered

Fault Code: 2

Fault Description: EOL 2 Loop Triggered

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, and ED 1202 for DMC2

Functional group- 9 Sub Functional group-1

#### Check:

1. Check the emergency off switch in both DMC cabs

2.Check the EOL2 feedback input signal to MCC

3. Check the EOL2 relay and EOL1 relays

## 3.3 Direction Setup Fault in RDM Mode

Fault Code: 7

Fault Description: Direction Setup Fault in RDM Mode

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, and ED 1202 for DMC2

Functional group- 2
Sub Functional group-1

#### Check:

Check the wiring of forward and reverse digital inputs to MCC(Corresponding basic unit)

## 3.4 EOL 3 Loop Triggered

Fault Code: 8

Fault Description: EOL 3 Loop Triggered

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, and ED 1202 for DMC2

Functional group- 9 Sub Functional group-1

#### Check:

1. Check all the sources of emergency off application.

2. Check Driving status of EOL3 channel at MCC. and EOL3 relay feed back on DIP card.

In case of mis match check the wiring.

## 3.5 EOL 123 Triggered

Fault Code: 9

Fault Description: EOL 123 Triggered Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, and ED 1202 for DMC2

Functional group- 9 Sub Functional group-1

#### Check:

1. Compare EOL1, EOL2, EOL3 inputs with EOL123 relay feed back. In case of mismatch check the wiring.

2. If wiring is OK check the LEDs, in case of mismatch change the card.

## 3.6 Illegal Direction Change in RDM while Rake is moving

Fault Code: 10

Fault Description: Illegal Direction Change in RDM while Rake is moving

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, and ED 1202 for DMC2

Functional group- 2 Sub Functional group-1

#### Check:

Check the wiring of forward and reverse digital inputs to MCC(Corresponding basic unit)

## 3.7 Emergency Brake applied due to Key removed in RDM

Fault Code: 13

Fault Description: Emergency Brake applied due to Key removed in RDM

Location: Driver desk

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

1. Check the wiring of key on input to MCC

2.If wiring is ok check LED of corresponding channel on DIP card. If not matching change the DIP card.

## 3.8 MCH Faulty detected in RDM Mode

Fault Code: 14

Fault Description: MCH Faulty detected in RDM Mode

Location: Driver desk

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

Informative message only.

Verify the wiring of Drive, Brake and Coast from handle to MCC.

#### 3.9 EP Stuck Brake detected in RDM Mode

Fault Code: 15

Fault Description: EP Stuck Brake detected in RDM Mode

Location: Driver desk

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

- 1. Check the Wiring of the EP Valves
- Check the Corresponding DO Channel at Corresponding PCC or DMC-RIO unit.
   If still problem persists replace DO Card.

#### 3.10 PB Stuck Brake detected in RDM Mode

Fault Code: 16

Fault Description: PB Stuck Brake detected in RDM Mode

Location: Driver desk

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

- 1. Check the Wiring of the PB Valves
- 2. Check the Corresponding DO Channel at MCC
- 3. If still problem persists replace DO Card.

## 3.11 BP Dropped while in RDM Mode

Fault Code: 17

Fault Description: BP Dropped while in RDM Mode

Location: Driver desk

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

Informative message only.

Check Isolation cock handle after cab occupation.

## 3.12 EBL 3 Relay failed to pickup

Fault Code: 512

Fault Description: EBL 3 Relay failed to pickup

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

#### Check:

- 1. Check the wiring of EBL3 relay from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of EBL3 relay feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

## 3.13 EOL 3 Relay failed to pickup

Fault Code: 514

Fault Description: EOL 3 Relay failed to pickup

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

#### Check:

- 1. Check the wiring of EOL3 relay from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of EOL3 relay feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

## 3.14 VCB Driving Relay failed to pickup

Fault Code: 518

Fault Description: VCB Driving Relay failed to pickup

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

#### Check:

- 1. Check the wiring of VCB driving relay from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of VCB driving relay feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

## 3.15 Transformer Blower 1 low speed contactor failed to pickup

Fault Code: 519

Fault Description: Transformer Blower 1 low speed contactor failed to pickup

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

#### Check:

- 1. Check the wiring of Transformer blower1 contactor from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Transformer blower1 contactor feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

## 3.16 Transformer Blower 2 low speed contactor failed to pickup

Fault Code: 520

Fault Description: Transformer Blower 2 low speed contactor failed to pickup

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

#### Check:

- 1. Check the wiring of Transformer blower2 contactor from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Transformer blower2 contactor feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

## 3.17 Transformer Blower 1 low speed contactor failed to dropout

Fault Code: 521

Fault Description: Transformer Blower 1 low speed contactor failed to dropout

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

#### Check:

- 1. Check the wiring of Transformer blower1 contactor from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Transformer blower1 contactor feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.18 Transformer Blower 2 low speed contactor failed to dropout

Fault Code: 522

Fault Description: Transformer Blower 2 low speed contactor failed to dropout

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

#### Check:

- 1. Check the wiring of Transformer blower2 contactor from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Transformer blower2 contactor feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

## 3.19 Transformer Oil Pump contactor failed to pickup

Fault Code: 523

Fault Description: Transformer Oil Pump contactor failed to pickup

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

#### Check:

- 1. Check the wiring of Transformer oil pump contactor from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Transformer oil pump contactor feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

## 3.20 Transformer Oil Pump contactor failed to dropout

Fault Code: 524

Fault Description: Transformer Oil Pump contactor failed to dropout

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

#### Check:

- 1. Check the wiring of Transformer oil pump contactor from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Transformer oil pump contactor feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

## 3.21 ACU 3 Phase Contactor Faulty

Fault Code: 525

Fault Description: ACU 3 Phase Contactor Faulty

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 8 Sub Functional group-1

#### Check:

- 1.Check the input on MCC DI card.
- 2.If Input is not available then check whether the contactor is in pick up condition. If contactor is in drop condition then check the supply across the coil.
- 3.If supply available then replace the contactor.
- 4. If supply not available then check the wiring at ACU. corresponding channel on DIP card. If not matching change the DIP card.

## 3.22 ACU 1 Phase Line 1 Contactor Faulty

Fault Code: 526

Fault Description: ACU 1 Phase Line 1 Contactor Faulty

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 8 Sub Functional group-1

#### Check:

- 1. Check the input on MCC DI card.
- 2. If Input is not available then check whether the contactor is in pick up condition.
- 3. If contactor is in drop condition then check the supply across the coil. If supply available then replace the contactor.
- 4. If supply not available then check the wiring at ACU.

## 3.23 ACU 1 Phase Line 2 Contactor Faulty

Fault Code: 527

Fault Description: ACU 1 Phase Line 2 Contactor Faulty

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 8 Sub Functional group-1

#### Check:

- 1. Check the input on MCC DI card.
- 2. If Input is not available then check whether the contactor is in pick up condition.
- 3. If contactor is in drop condition then check the supply across the coil. If supply available then replace the contactor.
- 4. If supply not available then check the wiring at ACU.

## 3.24 EBL 3 Relay failed to dropout

Fault Code: 528

Fault Description: EBL 3 Relay failed to dropout

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group-9
Sub Functional group-2

#### Check:

- 1. Check the wiring of EBL3 relay from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of EBL3 relay feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

## 3.25 EOL 3 Relay failed to dropout

Fault Code: 530

Fault Description: EOL 3 Relay failed to dropout

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group-9
Sub Functional group-1

#### Check:

- 1. Check the wiring of EOL3 relay from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of EOL3 relay feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

## 3.26 VCB Driving Relay failed to dropout

Fault Code: 534

Fault Description: VCB Driving Relay failed to dropout

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group-1 Sub Functional group-2

#### Check:

- 1. Check the wiring of VCB driving relay from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of VCB driving relay feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

## 3.27 ACU 3 Phase Load contactor failed to pickup

Fault Code: 535

Fault Description: ACU 3 Phase Load contactor failed to pickup

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group-8
Sub Functional group-1

#### Check:

- 1. Check the input on MCC DI card.
- 2. If Input is not available then check whether the contactor is in pick up condition.
- 3. If contactor is in drop condition then check the supply across the coil.
- 4. If supply available then replace the contactor. If supply not available then check the wiring at ACU.

## 3.28 Transformer Blower 1 high speed contactor failed to pickup

Fault Code: 536

Fault Description: Transformer Blower 1 high speed contactor failed to pickup

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

#### Check:

- 1. Check the wiring of Transformer blower1 contactor from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Transformer blower1 contactor feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

## 3.29 Transformer Blower 1 high speed contactor failed to dropout

Fault Code: 537

Fault Description: Transformer Blower 1 high speed contactor failed to dropout

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

#### Check:

- 1. Check the wiring of Transformer blower1 contactor from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Transformer blower1 contactor feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

## 3.30 Emergency Activation Relay failed to pickup

Fault Code: 538

Fault Description: Emergency Activation Relay failed to pickup

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

#### Check:

- 1. Check the wiring of Emergency activation relay from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Emergency activation relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

## 3.31 Emergency Activation Relay failed to dropout

Fault Code: 539

Fault Description: Emergency Activation Relay failed to dropout

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

#### Check:

- 1. Check the wiring of Emergency activation relay from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Emergency activation relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

## 3.32 AAC Relay failed to pickup

Fault Code: 540

Fault Description: AAC Relay failed to pickup

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-1

#### Check:

- 1. Check the wiring of AAC ON relay from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of AAC ON relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

## 3.33 AAC Relay failed to dropout

Fault Code: 541

Fault Description: AAC Relay failed to dropout

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-1

#### Check:

- 1. Check the wiring of AAC ON relay from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of AAC ON relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

## 3.34 ACU 1 Phase Line 3 Contactor Faulty

Fault Code: 542

Fault Description: ACU 1 Phase Line 3 Contactor Faulty

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 8 Sub Functional group-1

#### Check:

- 1. Check the input on MCC DI card.
- 2. If Input is not available then check whether the contactor is in pick up condition.
- 3. If contactor is in drop condition then check the supply across the coil. If supply available then replace the contactor.
- 4. If supply not available then check the wiring at ACU.

## 3.35 ACU BN Contactor Faulty

Fault Code: 543

Fault Description: ACU BN Contactor Faulty

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 8 Sub Functional group-1

#### Check:

- 1. Check the input on MCC DI card.
- 2. If Input is not available then check whether the contactor is in pick up condition.
- 3. If conatctor is in drop condition then check the supply across the coil.
- 4. If supply available then replace the contactor. If supply not available then check the wiring at ACU.

## 3.36 ACU 1 Phase Line 1 Load Contactor failed to pickup

Fault Code: 544

Fault Description: ACU 1 Phase Line 1 Load Contactor failed to pickup

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 8 Sub Functional group-1

#### Check:

- 1. Check the input on MCC DI card.
- 2. If Input is not available then check whether the contactor is in pick up condition.
- 3. If contactor is in drop condition then check the supply across the coil. If supply available then replace the contactor
- 4. If supply not available then check the wiring at ACU.

## 3.37 ACU 1 Phase Line 2 Load Contactor failed to pickup

Fault Code: 545

Fault Description: ACU 1 Phase Line 2 Load Contactor failed to pickup

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 8 Sub Functional group-1

#### Check:

- 1. Check the input on MCC DI card.
- 2. If Input is not available then check whether the contactor is in pick up condition.
- 3. If contactor is in drop condition then check the supply across the coil. If supply available then replace the contactor.
- 4. If supply not available then check the wiring at ACU.

## 3.38 ACU 1 Phase Line 3 Load Contactor failed to pickup

Fault Code: 549

Fault Description: ACU 1 Phase Line 3 Load Contactor failed to pickup

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 8 Sub Functional group-1

#### Check:

- 1. Check the input on MCC DI card.
- 2. If Input is not available then check whether the contactor is in pick up condition.
- 3. If contactor is in drop condition then check the supply across the coil. If supply available then replace the contactor.
- 4. If supply not available then check the wiring at ACU.

## 3.39 ACU 3 Phase Load contactor failed to dropout

Fault Code: 550

Fault Description: ACU 3 Phase Load contactor failed to dropout

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group-8
Sub Functional group-1

#### Check:

- 1. Check the input on MCC DI card.
- 2. If Input is not available then check whether the contactor is in pick up condition.
- 3. If contactor is in drop condition then check the supply across the coil.
- 4. If supply available then replace the contactor. If supply not available then check the wiring at ACU.

## 3.40 ACU 1 Phase Line 1 Load Contactor failed to dropout

Fault Code: 551

Fault Description: ACU 1 Phase Line 1 Load Contactor failed to dropout

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 8 Sub Functional group-1

#### Check:

- 1. Check the input on MCC DI card.
- 2. If Input is not available then check whether the contactor is in pick up condition.
- 3. If contactor is in drop condition then check the supply across the coil. If supply available then replace the contactor.
- 4. If supply not available then check the wiring at ACU.

## 3.41 Unexpected Neutral Section Detected

Fault Code: 555

Fault Description: Unexpected Neutral Section Detected

Location: NA

Schematic:

NA

Check:

Informative message only

#### 3.42 DIP 1 Card Missed in Main MCC

Fault Code: 556

Fault Description: DIP 1 Card Missed in Main MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other DIP card.

Note: This is not a severe problem, if there is no functional problem(All the dips are responding properly).

## 3.43 DIP 2 Card Missed in Main MCC

Fault Code: 557

Fault Description: DIP 2 Card Missed in Main MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

1. Check for Card presence or loose contact.

2. If card is present and inserted properly, interchange with other DIP card.

Note: This is not a severe problem, if there is no functional problem(All the dips are responding properly).

#### 3.44 DIP 3 Card Missed in Main MCC

Fault Code: 558

Fault Description: DIP 3 Card Missed in Main MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other DIP card.

Note: This is not a severe problem, if there is no functional problem(All the dips are responding properly).

#### 3.45 DIP 4 Card Missed in Main MCC

Fault Code: 559

Fault Description: DIP 4 Card Missed in Main MCC

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other DIP card.

Note: This is not a severe problem, if there is no functional problem(All the dips are responding properly).

## 3.46 AFIP Card Missed in Main MCC

Fault Code: 560

Fault Description: AFIP Card Missed in Main MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

1. Check for Card presence or loose contact.

2. If card is present and inserted properly, interchange with other AIP card.

Note: This is not a severe problem, if there is no functional problem(All the dips are responding properly).

## 3.47 Panto Auto Drop Down detected

Fault Code: 561

Fault Description: Panto Auto Drop Down detected

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 1 Sub Functional group-1

#### Check:

- 1. Check the Panto carbon plate.
- 2. If it is OK then check the Panto pneumatics for any leakage.
- 3. If there is no leakage then check the pressure switch and its wiring.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

#### 3.48 DOP 1 Card Missed in Main MCC

Fault Code: 563

Fault Description: DOP 1 Card Missed in Main MCC

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other DOP card.

Note: This is not a severe problem, if there is no functional problem(All the digital outputs are driving properly).

## 3.49 DOP 2 Card Missed in Main MCC

Fault Code: 564

Fault Description: DOP 2 Card Missed in Main MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

1. Check for Card presence or loose contact.

2. If card is present and inserted properly, interchange with other DOP card.

Note: This is not a severe problem, if there is no functional problem(All the digital outputs are driving properly).

#### 3.50 DOP 3 Card Missed in Main MCC

Fault Code: 566

Fault Description: DOP 3 Card Missed in Main MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other DOP card.

Note: This is not a severe problem, if there is no functional problem(All the digital outputs are driving properly).

#### 3.51 DOP 3 Card Missed in Redundant MCC

Fault Code: 567

Fault Description: DOP 3 Card Missed in Redundant MCC

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other DOP card.

Note: This is not a severe problem, if there is no functional problem(All the digital outputs are driving properly).

## 3.52 Transformer Oil Temperature Sensor 1 Faulty

Fault Code: 568

Fault Description: Transformer Oil Temperature Sensor 1 Faulty

Location: Transformer under frame/DMC1/DMC2-CRW Panel, HT Compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-4

#### Check:

1. Check the wiring from sensor to AIP card.

2. If it is OK check the sensor. If it is not OK replace the sensor with new one.

## 3.53 Transformer Oil Temperature Sensor 2 Faulty

Fault Code: 569

Fault Description: Transformer Oil Temperature Sensor 2 Faulty

Location: Transformer under frame/DMC1/DMC2-CRW Panel, HT Compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-4

#### Check:

1. Check the wiring from sensor to AIP card.

2.If it is OK check the sensor. If it is not OK replace the sensor with new one.

#### 3.54 ETB Index failed at Main MCC

Fault Code: 570

Fault Description: ETB Index failed at Main MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 14 Sub Functional group-1

#### Check:

1.Check whether the ETB unit present or not

2.If it is ok Check the main and redundant M12 connectors at ETB

## 3.55 ECN Index failed at Main MCC from ACU

Fault Code: 571

Fault Description: ECN Index failed at Main MCC from ACU

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 14 Sub Functional group-1

#### Check:

1. Check main and redundant M12 connectors at ACU and ECN units

#### 3.56 MCC to MCCR ECN Communication Failed

Fault Code: 572

Fault Description: MCC to MCCR ECN Communication Failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 14 Sub Functional group-1

#### Check:

1. Check CAN connectors at MCC and MCCR units

2. If it is ok change the control card

#### 3.57 ECN Index failed at Main MCC from PCC1

Fault Code: 573

Fault Description: ECN Index failed at Main MCC from PCC1

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 14 Sub Functional group-1

Check:

1. Check main and redundant M12 connectors at PCC1 and ECN units

#### 3.58 ECN Index failed at Main MCC from PCC3

Fault Code: 574

Fault Description: ECN Index failed at Main MCC from PCC3

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 14 Sub Functional group-1

#### Check:

1. Check main and redundant M12 connectors at PCC3 ECN units

## 3.59 PB Applied Relay failed to pickup

Fault Code: 575

Fault Description: PB Applied Relay failed to pickup

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7
Sub Functional group-4

#### Check:

- 1. Check the wiring of PB Applied relay.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of PB Applied relay feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching, change the DIP card.

## 3.60 MAC Air Dryer is Faulty

Fault Code: 577

Fault Description: MAC Air Dryer is Faulty

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7
Sub Functional group-3

#### Check:

- 1. Check MAC and Air Dryer status whether on/off
- 2. Check the MAC Air Dryer input at MCC and its wiring.
- 3. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching, change the DIP card. When MAC is running normally, Air Dryer has to purge for every two minutes to indicate its healthiness. If the Wiring is corrected, then press "Fault Reset" from Driver desk to recover the fault.

# 3.61 Demand Deration due to LC1 U Ph Heat Sink temperature exceeds

Fault Code: 581
Fault Description: Demand Deration due to LC1 U Ph Heat Sink temperature exceeds set limit
Location: LTC Unit-HT compartment
Schematic:
Not Applicable
Check:
Check LTC Unit Blower running status.
2. If it is running OK, then check/ clean the inlet section & cyclonic filter section.

# 3.62 Demand Zero due to LC1 U Ph Heat Sink temperature exceeds Max

Fault Code: 582
Fault Description: Demand Zero due to LC1 U Ph Heat Sink temperature exceeds Max limit
Location: LTC Unit-HT compartment
Schematic: Not Applicable
Check:  1. Check LTC Unit Blower running status.  2. If it is running OK, then check/ clean the inlet section & cyclonic filter section.

3.63 Demand Deration due to LC1 V Ph Heat Sink temperature exceeds
Fault Code: 583
Fault Description: Demand Deration due to LC1 V Ph Heat Sink temperature exceeds set limit
Location: LTC Unit-HT compartment
Schematic:
Not Applicable
Check:
Check LTC Unit Blower running status.
2. If it is running OK, then check/ clean the inlet section & cyclonic filter section.

## 3.64 Demand Zero due to LC1 V Ph Heat Sink temperature exceeds Max

Fault Code: 584

Fault Description: Demand Zero due to LC1 V Ph Heat Sink temperature exceeds Max limit

Location: LTC Unit-HT

compartment Schematic: Not Applicable

#### Check:

- 1. Check LTC Unit Blower running status.
- 2. If it is running OK, then check/ clean the inlet section & cyclonic filter section.

## 3.65 ACU 1 Phase Line 2 Load Contactor failed to dropout

Fault Code: 585

Fault Description: ACU 1 Phase Line 2 Load Contactor failed to dropout

Location: DMC1/DMC2-CRW Panel, HT

Compartment Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 8 Sub Functional group-1

#### Check:

- 1. Check the input on MCC DI card.
- 2. If Input is not available then check whether the contactor is in pick up condition.
- 3. If contactor is in drop condition then check the supply across the coil. If supply available then replace the contactor.
- 4. If supply not available then check the wiring at ACU.

## 3.66 ACU 1 Phase Line 3 Load Contactor failed to dropout

Fault Code: 586

Fault Description: ACU 1 Phase Line 3 Load Contactor failed to dropout

Location: DMC1/DMC2-CRW Panel, HT Compartment

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 8 Sub Functional group-1

#### Check:

- 1. Check the input on MCC DI card.
- 2. If Input is not available then check whether the contactor is in pick up condition.
- 3. If contactor is in drop condition then check the supply across the coil. If supply available then replace the contactor
- 4. If supply not available then check the wiring at ACU.

# 3.67 Demand Deration due to LC2 U Ph Heat Sink temperature exceeds

Fault Code: 587
Fault Description: Demand Deration due to LC2 U Ph Heat Sink temperature exceeds set limit
Location: LTC Unit-HT compartment
Schematic: Not Applicable
Check:  1. Check LTC Unit Blower running status.  2. If it is running OK, then check/ clean the inlet section & cyclonic filter section.
3.68 Demand Zero due to LC2 U Ph Heat Sink temperature exceeds Max

Fault Code: 588 Fault Description: Demand Zero due to LC2 U Ph Heat Sink temperature exceeds Max limit Location: LTC Unit-HT compartment Schematic: Not Applicable Check:
1. Check LTC Unit Blower running status.
2. If it is running OK, then check/ clean the inlet section & cyclonic filter section.

3.69	Demand Deration due to LC2 V Ph Heat Sink temperature exceeds		
Fault C	Code: 589		
Fault D	Fault Description: Demand Deration due to LC2 V Ph Heat Sink temperature exceeds set limit		
Location	on: LTC Unit-HT compartment		
Schem Not App	natic: plicable		
	: ck LTC Unit Blower running status. s running OK, then check/ clean the inlet section & cyclonic filter section.		

## 3.70 Demand Zero due to LC2 V Ph Heat Sink temperature exceeds Max

Fault Code: 590

Fault Description: Demand Zero due to LC2 V Ph Heat Sink temperature exceeds Max limit

Location: LTC Unit-HT compartment

Schematic: Not Applicable

#### Check:

1. Check LTC Unit Blower running status.

2. If it is running OK, then check/ clean the inlet section & cyclonic filter section.

## 3.71 Demand Deration due to Transformer Temperature exceeds Set limit

Fault Code: 593

Fault Description: Demand Deration due to Transformer Temperature exceeds Set limit

Location: Transformer under frameDMC1/DMC2-CRW Panel, HT Compartment

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-4

#### Check:

- 1. Check the oil level of transformer. Oil level should be healthy.
- 2. Check PRV Valve Open status. It should not be in open state.
- 3. Check the transformer blower running (low, high speed) status.
- Check/ Clean the cooling blower inlet section.

## 3.72 Demand Zero due to Transformer Temperature exceeds Max limit

Fault Code: 594

Fault Description: Demand Zero due to Transformer Temperature exceeds Max limit

Location: Transformer under frameDMC1/DMC2-CRW Panel,HT Compartment

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-4

#### Check:

- 1. Check the oil level of transformer. Oil level should be healthy.
- Check PRV Valve Open status. It should not be in open state.
   Check the transformer blower running (low, high speed) status.
- 4. Check/ Clean the cooling blower inlet section.

Fault Code: 595

## 3.73 Line Frequency Out of Limit

Fault Description: Line Frequency Out of Limit

Location: Transformer under frameDMC1/DMC2-CRW Panel,HT Compartment Schematic: SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2. Functional group- 2 Sub Functional group-4 Check: Informative message only. 3.74 Demand Zero Since Train Crossed Max Speed Limit Fault Code: 596 Fault Description: Demand Zero Since Train Crossed Max Speed Limit Location: DMC1/DMC2-CRW Panel, HT Compartment Schematic: Not Applicable Check: Informative message only. 3.75 Low OHE Detected Fault Code: 602 Fault Description: Low OHE Detected Location: DMC1/DMC2-CRW Panel, HT Compartment Schematic: SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2. MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2. Functional group- 3 Sub Functional group-1 Check: Informative message only.

## 3.76 High OHE Detected

Fault Code: 603

Fault Description: High OHE Detected

Location: DMC1/DMC2-CRW Panel, HT Compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

Check:

Informative message only.

#### 3.77 **MAC** Relay failed to dropout

Fault Code: 604

Fault Description: MAC Relay failed to dropout

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-3

#### Check:

- 1. Check the wiring of MAC relay.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of MAC relay feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching, change the DIP card.

## 3.78 MAC Relay failed to pickup

Fault Code: 605

Fault Description: MAC Relay failed to pickup

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR

MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-2

#### Check:

- 1. Check the wiring of MAC relay.
- If wiring is OK, Check the relay.
   Check the wiring of MAC relay feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching, change the DIP card.

Fault Code: 606

## 3.79 ECN Index failed at Main MCC from DMC-RIO

Fault Description: ECN Index failed at Main MCC from DMC-RIO Location: DMC1/DMC2-CRW Panel Schematic: SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2. Functional group- 14 Sub Functional group-1 Check: 1. Check main and redundant M12 connectors at ACU and ECN units 3.80 VCB Opened due to ACU External Fault Fault Code: 607 Fault Description: VCB Opened due to ACU External Fault Location: NA Schematic: NA Check: 1.first switch off all 415 v loads then switch on 415 v loads one by one and observe in which load problem occurred. 2 check the wiring of respective load 3.81 Torque Deration at INV 1 due to UV Ph IGBT Heat Sink Temp Fault Code: 608 Fault Description: Torque Deration at INV 1 due to UV Ph IGBT Heat Sink Temp exceeds set limit Location: LTC Unit-HT compartment Schematic: NA

Check:

1. Check LTC Unit Blower running status.

2. If it is running OK, then check/ clean the inlet section & cyclonic filter section.

# 3.82 Torque Zero at INV 1 due to UV Ph IGBT Heat Sink Temp exceeds

Fault Code: 609
Fault Description: Torque Zero at INV 1 due to UV Ph IGBT Heat Sink Temp exceeds Max limit
Location: LTC Unit-HT compartment
Schematic: NA
Check:  1. Check LTC Unit Blower running status.  2. If it is running OK, then check/ clean the inlet section & cyclonic filter section.
3.83 Torque Deration at INV 1 due to W Ph IGBT Heat Sink Temp exceeds
Fault Code: 610
Fault Description: Torque Deration at INV 1 due to W Ph IGBT Heat Sink Temp exceeds set limit
Location: LTC Unit-HT compartment
Schematic: NA
Check:  1. Check LTC Unit Blower running status.  2. If it is running OK, then check/ clean the inlet section & cyclonic filter section.
3.84 Torque Zero at INV 1 due to W Ph IGBT Heat Sink Temp exceeds Max
Fault Code: 611
Fault Description: Torque Zero at INV 1 due to W Ph IGBT Heat Sink Temp exceeds Max limit
Location: LTC Unit-HT compartment
Schematic: NA Check:
Check LTC Unit Blower running status.     If it is running OK, then check/ clean the inlet section & cyclonic filter section.
2

#### 3.85 CAN Communication between Main MCC and DOP 3 failed

Fault Code: 612

Fault Description: CAN Communication between Main MCC and DOP 3 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

1. Check for Card presence or loose contact.

2. If card is present and inserted properly, interchange with other DOP card.

Note: This is not a severe problem, if there is no functional problem(All the digital outputs are driving properly).

# 3.86 CAN Communication between Redundant MCC and DOP 3 failed

Fault Code: 613

Fault Description: CAN Communication between Redundant MCC and DOP 3 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other DOP card.

Note: This is not a severe problem, if there is no functional problem(All the digital outputs are driving properly).

# 3.87 Torque Deration at INV 1 TM 1 due to Stator Temperature exceeds

Fault Code: 614

Fault Description: Torque Deration at INV 1 TM 1 due to Stator Temperature exceeds set limit

Location: LTC Unit-HT compartment

Schematic:

NA

Check:

Check/ Clean DMC Coach TM Blower Inlet filter.

Fault Code: 615

# 3.88 Torque Zero at INV 1 TM 1 due to Stator Temperature exceeds Max

Fault Description: Torque Zero at INV 1 TM 1 due to Stator Temperature exceeds Max limit
Location: LTC Unit-HT compartment
Schematic: NA
Check:
Check/ Clean DMC Coach TM Blower Inlet filter.
3.89 Torque Deration at INV 1 TM 2 due to Stator Temperature exceeds
Fault Code: 616
Fault Description: Torque Deration at INV 1 TM 2 due to Stator Temperature exceeds set limit
Location: LTC Unit-HT compartment
Schematic: NA
Check/ Clean DMC Coach TM Blower Inlet filter.
3.90 Torque Zero at INV 1 TM 2 due to Stator Temperature exceeds Max
Fault Code: 617
Fault Description: Torque Zero at INV 1 TM 2 due to Stator Temperature exceeds Max limit  Location: LTC Unit-HT compartment
Location. LTC Offic-111 compartment
Schematic: NA
Check:
Check/ Clean DMC Coach TM Blower Inlet filter.

# 3.91 Torque Deration at INV 2 due to UV Ph IGBT Heat Sink Temp

Fault Code: 618
Fault Description: Torque Deration at INV 2 due to UV Ph IGBT Heat Sink Temp exceeds set limit
Location: LTC Unit-HT compartment
Schematic: NA
Check:  I. Check LTC Unit Blower running status.  2. If it is running OK, then check/ clean the inlet section & cyclonic filter section.
3.92 Torque Zero at INV 2 due to UV Ph IGBT Heat Sink Temp exceeds
Fault Code: 619
Fault Description: Torque Zero at INV 2 due to UV Ph IGBT Heat Sink Temp exceeds Max limit
Location: LTC Unit-HT compartment
Schematic: NA

- Check:
  1. Check LTC Unit Blower running status.
  2. If it is running OK, then check/ clean the inlet section & cyclonic filter section.

3.93	Torque Deration at INV 2 due to W Ph IGBT Heat Sink Temp exceeds
Fault	Code: 620
Fault	Description: Torque Deration at INV 2 due to W Ph IGBT Heat Sink Temp exceeds set limit
Locat	ion: LTC Unit-HT compartment
Schen NA	natic:
	c: eck LTC Unit Blower running status. is running OK, then check/ clean the inlet section & cyclonic filter section.

# 3.94 Torque Zero at INV 2 due to W Ph IGBT Heat Sink Temp exceeds

Fault Code: 621

Fault Description: Torque Zero at INV 2 due to W Ph IGBT Heat Sink Temp exceeds Max limit

Location: LTC Unit-HT compartment

Schematic:

NA

#### Check:

- 1. Check LTC Unit Blower running status.
- 2. If it is running OK, then check/ clean the inlet section & cyclonic filter section.

# 3.95 Transformer Blower 2 high speed contactor failed to pickup

Fault Code: 622

Fault Description: Transformer Blower 2 high speed contactor failed to pickup

Location: DMC1/DMC2-CRW Panel, HT Compartment

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

#### Check:

- 1. Check the wiring of Transformer blower2 contactor from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Transformer blower2 contactor feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

# 3.96 Transformer Blower 2 high speed contactor failed to dropout

Fault Code: 623

Fault Description: Transformer Blower 2 high speed contactor failed to dropout

Location: DMC1/DMC2-CRW Panel, HT Compartment

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

#### Check:

- 1. Check the wiring of Transformer blower2 contactor from MCC.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Transformer blower2 contactor feed back digital I/p to MCC.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching change the DIP card.

Fault Code: 624

# 3.97 Torque Deration at INV 2 TM 3 due to Stator Temperature exceeds

Fault Description: Torque Deration at INV 2 TM 3 due to Stator Temperature exceeds set limit
Location: LTC Unit-HT compartment
Schematic: NA
Check:
Check/ Clean MC Coach TM Blower Inlet filter.
3.98 Torque Zero at INV 2 TM 3 due to Stator Temperature exceeds Max
Fault Code: 625
Fault Description: Torque Zero at INV 2 TM 3 due to Stator Temperature exceeds Max limit
Location: LTC Unit-HT compartment
Schematic: NA
Check: Check/ Clean MC Coach TM Blower Inlet filter.
3.99 Torque Deration at INV 2 TM 4 due to Stator Temperature exceeds
Fault Code: 626
Fault Description: Torque Deration at INV 2 TM 4 due to Stator Temperature exceeds set limit
Location: LTC Unit-HT compartment
Schematic: NA
Check:
Check/ Clean MC Coach TM Blower Inlet filter.

# 3.100 Torque Zero at INV 2 TM 4 due to Stator Temperature exceeds Max

Fault Code: 627
Fault Description: Torque Zero at INV 2 TM 4 due to Stator Temperature exceeds Max limit
Location: LTC Unit-HT compartment
Schematic:
NA

Check:
Check:
Check/ Clean MC Coach TM Blower Inlet filter.

## 3.101 Main CAN Comm failed between Main MCC and TIC 1

Fault Code: 628

Fault Description: Main CAN Comm failed between Main MCC and TIC 1

Location: DMC1/DMC2-CRW Panel/ LTC Unit-HT compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that all the Modules are placed properly at ATC. If still problem persists replace the CC card of Corresponding Computer. Also Check the OFC cables connections on ATC.

#### 3.102 Main CAN Comm failed between Main MCC and TIC 2

Fault Code: 629

Fault Description: Main CAN Comm failed between Main MCC and TIC 2

Location: DMC1/DMC2-CRW Panel/ LTC Unit-HT compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that all the Modules are placed properly at ATC. If still problem persists replace the CC card of Corresponding Computer. Also Check the OFC cables connections on ATC.

# 3.103 Main CAN Comm failed between Main MCC and LIC 1

Fault Code: 630

Fault Description: Main CAN Comm failed between Main MCC and LIC 1

Location: DMC1/DMC2-CRW Panel/ LTC Unit-HT compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that all the Modules are placed properly at ALC. If still problem persists replace the CC card of Corresponding Computer. Also Check the OFC cables connections on ALC.

## 3.104 Main CAN Comm failed between Main MCC and LIC 2

Fault Code: 631

Fault Description: Main CAN Comm failed between Main MCC and LIC 2

Location: DMC1/DMC2-CRW Panel/ LTC Unit-HT compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that all the Modules are placed properly at ALC. If still problem persists replace the CC card of Corresponding Computer. Also Check the OFC cables connections on ALC.

#### 3.105 Rednt CAN Comm failed between Main MCC and TIC 1

Fault Code: 632

Fault Description: Rednt CAN Comm failed between Main MCC and TIC 1

Location: DMC1/DMC2-CRW Panel/ LTC Unit-HT compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that all the Modules are placed properly at ATC. If still problem persists replace the CC card of Corresponding Computer. Also Check the OFC cables connections on ATC.

## 3.106 Rednt CAN Comm failed between Main MCC and TIC 2

Fault Code: 633

Fault Description: Rednt CAN Comm failed between Main MCC and TIC 2

Location: DMC1/DMC2-CRW Panel/ LTC Unit-HT compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that all the Modules are placed properly at ATC. If still problem persists replace the CC card of Corresponding Computer. Also Check the OFC cables connections on ATC.

## 3.107 Rednt CAN Comm failed between Main MCC and LIC 1

Fault Code: 634

Fault Description: Rednt CAN Comm failed between Main MCC and LIC 1

Location: DMC1/DMC2-CRW Panel/ LTC Unit-HT compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that all the Modules are placed properly at ALC. If still problem persists replace the CC card of Corresponding Computer. Also Check the OFC cables connections on ALC.

#### 3.108 Rednt CAN Comm failed between Main MCC and LIC 2

Fault Code: 635

Fault Description: Rednt CAN Comm failed between Main MCC and LIC 2

Location: DMC1/DMC2-CRW Panel/ LTC Unit-HT compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that all the Modules are placed properly at ALC. If still problem persists replace the CC card of Corresponding Computer. Also Check the OFC cables connections on ALC.

#### 3.109 Rednt CAN Comm between Main MCC and DIP 4 failed

Fault Code: 636

Fault Description: Rednt CAN Comm between Main MCC and DIP 4 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

1. Check for Card presence or loose contact.

2. If card is present and inserted properly, interchange with other DIP card.

Note: This is not a severe problem, if there is no functional problem

## 3.110 Rednt CAN Comm between Redundant MCC and DIP 4 failed

Fault Code: 637

Fault Description: Rednt CAN Comm between Redundant MCC and DIP 4 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other DIP card.

Note: This is not a severe problem, if there is no functional problem

#### 3.111 PB Release Failed

Fault Code: 638

Fault Description: PB Release Failed Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

- 1. Check the driving of DOP for PB Release.
- 2. Check the PB pressure sw FB on DIP module of MCC.
- 3. Check the pressure sw by operating the valve manually.
- 4. if still problem persist then check the wiring or replace the pressure sw or replace the Valve..

#### 3.112 Panto Over Reach Detected

Fault Code: 639

Fault Description: Panto Over Reach Detected

Location: Panto HT roof / Partition Wall HT Compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 1 Sub Functional group-1

#### Check:

1. Visually Ensure that Panto is over reached or not.

- 2. If Panto is not over reached then check the pressure sw at panto control box.
- 3. If still problem persists then check the corresponding input at MCC module. If input is available then check the wiring.

Some times, if the problem perisits more, it is better to leak the AAC pressre and try to again make the Pantorise.

## 3.113 AAC under Manual ON

Fault Code: 684

Fault Description: AAC under Manual ON

Location: DMC1/DMC2-CRW Panel/HT compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-1

#### Check:

Ensure that AAC Sw is in Manual Mode ON Mode.

IF it is not in ON Mode then Check the wiring.If still problem perists, check the corresponding DIP card of MCC module .

#### 3.114 Main CAN Comm between Main MCC and DOP 3 failed

Fault Code: 686

Fault Description: Main CAN Comm between Main MCC and DOP 3 failed

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other DOP card.

Note: This is not a severe problem, if there is no functional problem(All the digital outputs are driving properly).

# 3.115 Main CAN Comm between Redundant MCC and DOP 3 failed

Fault Code: 687

Fault Description: Main CAN Comm between Redundant MCC and DOP 3 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

1. Check for Card presence or loose contact.

2. If card is present and inserted properly, interchange with other DOP card.

Note: This is not a severe problem, if there is no functional problem(All the digital outputs are driving properly).

## 3.116 ECN Index failed at Main MCC from PCC2

Fault Code: 688

Fault Description: ECN Index failed at Main MCC from PCC2

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

1. Check main and redundant M12 connectors at PCC2 and ECN units

#### 3.117 Main CAN Comm between Main MCC and DIP 1 failed

Fault Code: 689

Fault Description: Main CAN Comm between Main MCC and DIP 1 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DIP Modules are placed properly at MCC. If still problem persists replace the DIP card of Corresponding Computer.

## 3.118 Main CAN Comm between Main MCC and DIP 2 failed

Fault Code: 690

Fault Description: Main CAN Comm between Main MCC and DIP 2 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DIP Modules are placed properly at MCC. If still problem persists replace the DIP card of Corresponding Computer.

## 3.119 Main CAN Comm between Main MCC and DIP 3 failed

Fault Code: 691

Fault Description: Main CAN Comm between Main MCC and DIP 3 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DIP Modules are placed properly at MCC. If still problem persists replace the DIP card of Corresponding Computer.

#### 3.120 Main CAN Comm between Main MCC and DOP 1 failed

Fault Code: 692

Fault Description: Main CAN Comm between Main MCC and DOP 1 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DOP Modules are placed properly at MCC. If still problem persists replace the DOP card of Corresponding Computer.

#### 3.121 Main CAN Comm between Main MCC and DOP 1 failed

Fault Code: 693

Fault Description: Main CAN Comm between Main MCC and DOP 1 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DOP Modules are placed properly at MCC. If still problem persists replace the DOP card of Corresponding Computer.

## 3.122 Main CAN Comm between Main MCC and AFIP failed

Fault Code: 694

Fault Description: Main CAN Comm between Main MCC and AFIP failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that AFIP Modules are placed properly at MCC. If still problem persists replace the AFIP card of Corresponding Computer.

#### 3.123 Rednt CAN Comm between Main MCC and DIP 1 failed

Fault Code: 695

Fault Description: Rednt CAN Comm between Main MCC and DIP 1 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DIP Modules are placed properly at MCC. If still problem persists replace the DIP card of Corresponding Computer.

## 3.124 Rednt CAN Comm between Main MCC and DIP 2 failed

Fault Code: 696

Fault Description: Rednt CAN Comm between Main MCC and DIP 2 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DIP Modules are placed properly at MCC. If still problem persists replace the DIP card of Corresponding Computer.

## 3.125 Rednt CAN Comm between Main MCC and DIP 3 failed

Fault Code: 697

Fault Description: Rednt CAN Comm between Main MCC and DIP 3 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DIP Modules are placed properly at MCC. If still problem persists replace the DIP card of Corresponding Computer.

#### 3.126 Rednt CAN Comm between Main MCC and DOP 1 failed

Fault Code: 698

Fault Description: Rednt CAN Comm between Main MCC and DOP 1 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DOP Modules are placed properly at MCC. If still problem persists replace the DOP card of Corresponding Computer.

## 3.127 Rednt CAN Comm between Main MCC and DOP 2 failed

Fault Code: 699

Fault Description: Rednt CAN Comm between Main MCC and DOP 2 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DOP Modules are placed properly at MCC. If still problem persists replace the DOP card of Corresponding Computer.

## 3.128 Rednt CAN Comm between Main MCC and AFIP failed

Fault Code: 700

Fault Description: Rednt CAN Comm between Main MCC and AFIP failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that AFIP Modules are placed properly at MCC. If still problem persists replace the AFIP card of Corresponding Computer.

#### 3.129 Main CAN Comm between Main MCC and DIP 4 failed

Fault Code: 701

Fault Description: Main CAN Comm between Main MCC and DIP 4 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DIP Modules are placed properly at MCC. If still problem persists replace the DIP card of Corresponding Computer.

# 3.130 Main CAN Comm between Redundant MCC and DIP 4 failed

Fault Code: 702

Fault Description: Main CAN Comm between Redundant MCC and DIP 4 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DIP Modules are placed properly at MCCR. If still problem persists replace the DIP card of Corresponding Computer.

# 3.131 BP Sensor is Faulty

Fault Code: 703

Fault Description: BP Sensor is Faulty Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

1. Check the wiring to AFIP card; if found ok Replace BP Sensor

2.If the problem still exists, then replace AFIP card.

#### 3.132 Main CAN Comm failed between Rednt MCC and TIC 1

Fault Code: 736

Fault Description: Main CAN Comm failed between Rednt MCC and TIC 1

Location: DMC1/DMC2-CRW Pane/ LTC Unit-HT compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

- 1. Check that all the connector connections on MCCR and ATC are properly locked.
- 2. If problem still persists, replace the CC of MCCR and ATC.3. If still problem persists then inform Workshop

## 3.133 Main CAN Comm failed between Rednt MCC and TIC 2

Fault Code: 737

Fault Description: Main CAN Comm failed between Rednt MCC and TIC 2

Location: DMC1/DMC2-CRW Pane/ LTC Unit-HT compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

- 1. Check that all the connector connections on MCCR and ATC are properly locked.
- 2. If problem still persists, replace the CC of MCCR and ATC.
- 3. If still problem persists then inform Workshop

## 3.134 Main CAN Comm failed between Rednt MCC and LIC 1

Fault Code: 738

Fault Description: Main CAN Comm failed between Rednt MCC and LIC 1

Location: DMC1/DMC2-CRW Pane/ LTC Unit-HT compartment

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

- 1. Check that all the connector connections on MCCR and LTC/ALC are properly locked.
- 2. If problem still persists, replace the CC of MCCR and LTC/ALC.
- 3. If still problem persists then inform Workshop

#### 3.135 Main CAN Comm failed between Rednt MCC and LIC 2

Fault Code: 739

Fault Description: Main CAN Comm failed between Rednt MCC and LIC 2

Location: DMC1/DMC2-CRW Pane/ LTC Unit-HT compartment

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

- 1. Check that all the connector connections on MCCR and LTC/ALC are properly locked.
- 2. If problem still persists, replace the CC of MCCR and LTC/ALC.3. If still problem persists then inform Workshop

# 3.136 Rednt CAN Comm failed between Rednt MCC and TIC 1

Fault Code: 740

Fault Description: Rednt CAN Comm failed between Rednt MCC and TIC 1

Location: DMC1/DMC2-CRW Pane/ LTC Unit-HT compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

- 1. Check that all the connector connections on MCCR and ATC are properly locked.
- 2. If problem still persists, replace the CC of MCCR and ATC.
- 3. If still problem persists then inform Workshop

## 3.137 Rednt CAN Comm failed between Rednt MCC and TIC 2

Fault Code: 741

Fault Description: Rednt CAN Comm failed between Rednt MCC and TIC 2

Location: DMC1/DMC2-CRW Pane/ LTC Unit-HT compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

- 1. Check that all the connector connections on MCCR and ATC are properly locked.
- 2. If problem still persists, replace the CC of MCCR and ATC.
- 3. If still problem persists then inform Workshop

#### 3.138 Rednt CAN Comm failed between Rednt MCC and LIC 1

Fault Code: 742

Fault Description: Rednt CAN Comm failed between Rednt MCC and LIC 1

Location: DMC1/DMC2-CRW Pane/ LTC Unit-HT compartment

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

- 1. Check that all the connector connections on MCCR and ALC/LTC are properly locked.
- 2. If problem still persists, replace the CC of MCCR and ALC/LTC.3. If still problem persists then inform Workshop

#### 3.139 Rednt CAN Comm failed between Rednt MCC and LIC 2

Fault Code: 743

Fault Description: Rednt CAN Comm failed between Rednt MCC and LIC 2

Location: DMC1/DMC2-CRW Pane/ LTC Unit-HT compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

- 1. Check that all the connector connections on MCCR and ALC/LTC are properly locked.
- 2. If problem still persists, replace the CC of MCCR and ALC/LTC.
- 3. If still problem persists then inform Workshop

## 3.140 Main CAN Comm between Redundant MCC and DIP 1 failed

Fault Code: 744

Fault Description: Main CAN Comm between Redundant MCC and DIP 1 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DIP Modules are placed properly at MCCR. If still problem persists replace the DIP card of Corresponding Computer.

#### 3.141 Main CAN Comm between Redundant MCC and DIP 2 failed

Fault Code: 745

Fault Description: Main CAN Comm between Redundant MCC and DIP 2 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DIP Modules are placed properly at MCCR. If still problem persists replace the DIP card of Corresponding Computer.

#### 3.142 Main CAN Comm between Redundant MCC and DIP 3 failed

Fault Code: 746

Fault Description: Main CAN Comm between Redundant MCC and DIP 3 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DIP Modules are placed properly at MCCR. If still problem persists replace the DIP card of Corresponding Computer.

## 3.143 Main CAN Comm between Redundant MCC and DOP 1 failed

Fault Code: 747

Fault Description: Main CAN Comm between Redundant MCC and DOP 1 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DOP Modules are placed properly at MCCR. If still problem persists replace the DOP card of Corresponding Computer.

#### 3.144 Main CAN Comm between Redundant MCC and DOP 2 failed

Fault Code: 748

Fault Description: Main CAN Comm between Redundant MCC and DOP 2 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DOP Modules are placed properly at MCCR. If still problem persists replace the DOP card of Corresponding Computer.

#### 3.145 Main CAN Comm between Redundant MCC and AFIP failed

Fault Code: 749

Fault Description: Main CAN Comm between Redundant MCC and AFIP failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that AFIP Modules are placed properly at MCCR. If still problem persists replace the AFIP card of Corresponding Computer.

## 3.146 Rednt CAN Comm between Redundant MCC and DIP 1 failed

Fault Code: 750

Fault Description: Rednt CAN Comm between Redundant MCC and DIP 1 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DIP Modules are placed properly at MCCR. If still problem persists replace the DIP card of Corresponding Computer.

#### 3.147 Rednt CAN Comm between Redundant MCC and DIP 2 failed

Fault Code: 751

Fault Description: Rednt CAN Comm between Redundant MCC and DIP 2 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DIP Modules are placed properly at MCCR. If still problem persists replace the DIP card of Corresponding Computer.

#### 3.148 Rednt CAN Comm between Redundant MCC and DIP 3 failed

Fault Code: 752

Fault Description: Rednt CAN Comm between Redundant MCC and DIP 3 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DIP Modules are placed properly at MCCR. If still problem persists replace the DIP card of Corresponding Computer.

## 3.149 Rednt CAN Comm between Redundant MCC and DOP 1 failed

Fault Code: 753

Fault Description: Rednt CAN Comm between Redundant MCC and DOP 1 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DOP Modules are placed properly at MCCR. If still problem persists replace the DOP card of Corresponding Computer.

#### 3.150 Rednt CAN Comm between Redundant MCC and DOP 2 failed

Fault Code: 754

Fault Description: Rednt CAN Comm between Redundant MCC and DOP 2 failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that DOP Modules are placed properly at MCCR. If still problem persists replace the DOP card of Corresponding Computer.

#### 3.151 Rednt CAN Comm between Redundant MCC and AFIP failed

Fault Code: 755

Fault Description: Rednt CAN Comm between Redundant MCC and AFIP failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

#### Check:

Verify that AFIP Modules are placed properly at MCCR. If still problem persists replace the AFIP card of Corresponding Computer.

## 3.152 ETB Index Failed at Redundant MCC

Fault Code: 756

Fault Description: ETB Index Failed at Redundant MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 14 Sub Functional group-1

#### Check:

1. Check main and redundant M12 connectors at MCCR and ETB units

#### 3.153 ECN Index failed at Redundant MCC from ACU

Fault Code: 757

Fault Description: ECN Index failed at Redundant MCC from ACU

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 14 Sub Functional group-1

## Check:

1. Check main and redundant M12 connectors at ACU and ECN units

# 3.154 ECN Index failed at Redundant MCC from PCC1

Fault Code: 758

Fault Description: ECN Index failed at Redundant MCC from PCC1

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 14 Sub Functional group-1

Check:

1. Check main and redundant M12 connectors at PCC1 and ECN units

## 3.155 ECN Index failed at Redundant MCC from PCC3

Fault Code: 759

Fault Description: ECN Index failed at Redundant MCC from PCC3

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 14 Sub Functional group-1

Check:

1. Check main and redundant M12 connectors at PCC3 and ECN units

#### 3.156 ECN Index failed at Redundant MCC from DMC-RIO

Fault Code: 760

Fault Description: ECN Index failed at Redundant MCC from DMC-RIO

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 14 Sub Functional group-1

Check:

1. Check main and redundant M12 connectors at MCRIO and ECN units

## 3.157 ECN Index failed at Redundant MCC from PCC2

Fault Code: 761

Fault Description: ECN Index failed at Redundant MCC from PCC2

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 14 Sub Functional group-1

#### Check:

1. Check main and redundant M12 connectors at PCC2 and ECN units

## 3.158 DIP 1 Card Missed at Redundant MCC

Fault Code: 762

Fault Description: DIP 1 Card Missed at Redundant MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other DIP card.

Note: This is not a severe problem, if there is no functional problem(All the dips are responding properly).

#### 3.159 DIP 2 Card Missed at Redundant MCC

Fault Code: 763

Fault Description: DIP 2 Card Missed at Redundant MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other DIP card.

Note: This is not a severe problem, if there is no functional problem(All the dips are responding properly).

## 3.160 DIP 3 Card Missed at Redundant MCC

Fault Code: 764

Fault Description: DIP 3 Card Missed at Redundant MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

1. Check for Card presence or loose contact.

2. If card is present and inserted properly, interchange with other DIP card.

Note: This is not a severe problem, if there is no functional problem(All the dips are responding properly).

## 3.161 DIP 4 Card Missed at Redundant MCC

Fault Code: 765

Fault Description: DIP 4 Card Missed at Redundant MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other DIP card.

Note: This is not a severe problem, if there is no functional problem(All the dips are responding properly).

#### 3.162 DOP 1 Card Missed at Redundant MCC

Fault Code: 766

Fault Description: DOP 1 Card Missed at Redundant MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other DOP card.

Note: This is not a severe problem, if there is no functional problem(All the digital outputs are driving properly).

#### 3.163 DOP 2 Card Missed at Redundant MCC

Fault Code: 767

Fault Description: DOP 2 Card Missed at Redundant MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

1. Check for Card presence or loose contact.

2. If card is present and inserted properly, interchange with other DOP card.

Note: This is not a severe problem, if there is no functional problem(All the digital outputs are driving properly).

## 3.164 AFIP Card Missed at Redundant MCC

Fault Code: 768

Fault Description: AFIP Card Missed at Redundant MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-2

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other AFIP card.

Note: This is not a severe problem, if there is no functional problem(All the inputs are responding properly).

# 3.165 PB Apply Failed

Fault Code: 773

Fault Description: PB Apply Failed Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-4

#### Check:

- 1. Check the driving of DOP for PB apply.
- 2. Check the PB pressure sw FB on DIP module of MCC.
- 3. Check the pressure sw by operating the valve manually.
- 4. if still problem persist then check the wiring or replace the pressure sw or replace the valve..

# 3.166 VCB is Closed

Fault Code: 1038
Fault Description: VCB is Closed
Location: HT ROOF VCB /LTC Unit-HT Compartment
Schematic: SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2. Functional group- 1 Sub
Functional group-2
Check:
Informative message only.
3.167 VCB is Opened
Fault Code: 1039
Fault Description: VCB is Opened
Location: DMC1/DMC2-CRW Panel/LTC Unit-HT compartment
Schematic: SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2. Functional group- 1 Sub Functional group-1
Check: Informative message only.
3.168 Fault Reset Command is Activated
Fault Code: 1040
Fault Description: Fault Reset Command is Activated
Location: NA
Schematic: NA
Check: Informative message only.

# 3.169 AAC Pressure Low Detected

Fault Code: 1042

Fault Description: AAC Pressure Low Detected

Location: DMC1/DMC2-CRW Panel, HT Compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-1

#### Check:

1. Check for any leakage in AAC pressure.

2. If No leakage found then check the pressure sw input on MCC module and also contactor for stuck at High. If still problem persist then check the wiring or replace the contactor if it stuck at high.

In vcb close condition check valve b/w MR and AAC pressure pipe

# 3.170 AAC is Running too Long

Fault Code: 1043

Fault Description: AAC is Running too Long

Location: DMC1/DMC2-CRW Panel, HT Compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-1

#### Check:

Check for any leakage in AAC pressure

If No leakage found then check the pressure sw input on MCC module and also contactor for stuck at High If still problem persist then check the wiring or replace the contactor if it stuck at high In vcb close condition check valve b/w MR and AAC pressure pipe

# 3.171 BP Low Pressure is Detected

Fault Code: 1052

Fault Description: BP Low Pressure is Detected

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-3

#### Check:

- 1. Ensure that there is no BP leakage through out the rake.
- 2. Check the BP Pressure switch input at all MCC.
- 3. If Input is high then check the pressure sw mal-function
- 4. Still if problem persists check the wiring of BP pressure sw.

# 3.172 Demand Deration due to Slip Detected

Fault Code: 1054
Fault Description: Demand Deration due to Slip Detected
Location: NA
Schematic: NA
Check: Informative message only
3.173 AAC Pressure OK Switch Stuck at LOW
Fault Code: 1059
Fault Description: AAC Pressure OK Switch Stuck at LOW

Location: DMC1/DMC2-CRW Panel, HT Compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-1

- Check:

  1. Check AAC Presure SW for stuck at LOW.

  1. Check AAC Presure SW for stuck at LOW, then che
- If Presure SW is not stuck at LOW then check the wiring.
   If wiring is OK then check the DIP module of MCC.

3.174 AAC OFF in Non OHE Case
Fault Code: 1060
Fault Description: AAC OFF in Non OHE Case
Location: NA
Schematic: NA
Check: Informative message only

# 3.175 Brake Applied Isolation Switch is Activated

Fault Code: 1066

Fault Description: Brake Applied Isolation Switch is Activated

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group - 9 Sub Functional group -3

#### Check:

- 1. Check the Sw physically it should be in normal mode.
- If problem still persist check the wiring .
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

# 3.176 Earth Switch Input is Detected

Fault Code: 1069

Fault Description: Earth Switch Input is Detected

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group – 3 Sub Functional group -3

#### Check:

- 1. Check the Sw physically it should be in normal mode.
- 2. If problem still persist check the wiring .
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

# 3.177 Battery Selector MPCB is OFF

Fault Code: 1073

Fault Description: Battery Selector MPCB is OFF

Location: DMC1/DMC2-CRW Panel

# Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group – 8
Sub Functional group -1

#### Check:

- 1. Ensure that MPCB should be ON. If MPCB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.
- 4. If still problem persist then replace the Aux Block of Corresponding MPCB.

# 3.178 BN OFF Requested Event

Fault Code: 1074
Fault Description: BN OFF Requested Event
Location: NA
Schematic:
NA .
Check:
Informative message only

# 3.179 HTC Fans are Switched ON in DMC

Fault Code: 1079
Fault Description: HTC Fans are Switched ON in DMC
Location: NA
Schematic:
NA NA
Check:
Informative message only

3.180 AAC Pressure Switch is Stuck at HIGH

Fault Code: 1080

Fault Description: AAC Pressure Switch is Stuck at HIGH

Location: DMC1/DMC2-CRW Panel,HT Compartment

Schematic:
SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub
Functional group-1

Check:
1. Check AAC Presure SW for stuck at HIGH.
2. If Presure SW is not stuck at high then check the wiring.
3. If wiring is OK then check the DIP module of MCC.

# 3.181 Panto DOWN Request from Display

Fault Code: 1082
Fault Description: Panto DOWN Request from Display  Location: NA
Schematic: NA
Check:
Informative message only
3.182 VCB OPEN Request from Display
Fault Code: 1083
Fault Description: VCB OPEN Request from Display
Location: NA
Schematic: NA
Check: Informative message only
3.183 Bogie 1 Isolation Request from Display
Fault Code: 1084
Fault Description: Bogie 1 Isolation Request from Display  Location: NA
Schematic: NA
Check: Informative message only

# 3.184 Bogie 2 Isolation Request from Display

Fault Code: 1085
Fault Description: Bogie 2 Isolation Request from Display
Location: NA
Schematic: NA
Check:
Informative message only
3.185 Basic Unit Isolation Request from Display
Fault Code: 1086
Fault Description: Basic Unit Isolation Request from Display
Location: NA
Schematic: NA
Check: Informative message only
3.186 MAC ON Request from Display
Fault Code: 1087
Fault Description: MAC ON Request from Display
Location: NA
Schematic: NA
Check: Informative message only

# 3.187 MAC OFF Request from Display

Fault Code: 1088
Fault Description: MAC OFF Request from Display
Location: NA
Schematic: NA
Check:
Informative message only
3.188 Transformer Oil Flow Sensor Self Check Started
Fault Code: 1089
Fault Description: Transformer Oil Flow Sensor Self Check Started
Location: NA
Schematic: NA
Check: Informative message only
3.189 Transformer Oil Flow Sensor Self Check Aborted
Fault Code: 1090
Fault Description: Transformer Oil Flow Sensor Self Check Aborted
Location: NA
Schematic: NA
Check: Informative message only

# 3.190 Transformer Oil Flow Sensor Self Check is Success

Fault Code: 1091
Fault Description: Transformer Oil Flow Sensor Self Check is Success
Location: NA
Schematic:
NA
Check:
Informative message only
informative message only
3.191 Transformer Oil Flow Sensor Self Check has failed

Fault Code: 1092
Fault Description: Transformer Oil Flow Sensor Self Check has failed
Location: NA
Schematic:
NA NA
Check:
Informative message only

3.192 Transformer Oil Pressure HIGH Detected
Fault Code: 1112
Fault Description: Transformer Oil Pressure HIGH Detected
Location: Transformer under frameDMC1/DMC2-CRW Panel,HT Compartment
Schematic: SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.  Functional group- 3 Sub Functional group-1
Check:  1.Check whether transformer oil pressure is within the limits  2.Check Presure SW for stuck at HIGH.  3. If Presure SW is not stuck at high then check the wiring.  4. If wiring is OK then check the DIP module of MCC.

### 3.193 Transformer Oil Level LOW Detected

Fault Code: 1113

Fault Description: Transformer Oil Level LOW Detected

Location: Transformer under frameDMC1/DMC2-CRW Panel,HT Compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

#### Check:

1. Visually check the transformer oil level and if oil level is ok then check the wiring

2.If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.194 Transformer Oil Flow OFF Detected

Fault Code: 1114

Fault Description: Transformer Oil Flow OFF Detected

Location: Transformer under frameDMC1/DMC2-CRW Panel,HT Compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

### Check:

Visually check transformer oil pump status and oil flow, if found ok check the wiring

If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.195 Single Unit Mode Detected

Fault Code: 1116

Fault Description: Single Unit Mode Detected

Location: NA

Schematic:

NA

Check:

Informative message only

Fault Code: 1126

# 3.196 PB Isolation Request from Display

Fault Description: PB Isolation Request from Display

Location: NA
Schematic: NA
Check:
Informative message only
3.197 DMC Air Suspension Override Request from Display
Fault Code: 1136
Fault Description: DMC Air Suspension Override Request from Display  Location: NA
Location. NA
Schematic: NA
Check:
Informative message only
3.198 TC 1 Air Suspension Override Request from Display
Fault Code: 1137
Fault Description: TC 1 Air Suspension Override Request from Display  Location: NA
Location: NA
Schematic: NA
Check:
Informative message only

### 3.199 TC 2 Air Suspension Override Request from Display

Fault Code: 1138
Fault Description: TC 2 Air Suspension Override Request from Display
Location: NA
Schematic:
NA

Check:
Informative message only

### 3.200 Transformer Oil Level LOW Warning

Fault Code: 1139

Fault Description: Transformer Oil Level LOW Warning

Location: Transformer under frameDMC1/DMC2-CRW Panel,HT Compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

### Check:

1. Visually check the transformer oil level and if oil level is ok, check the wiring

2.If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.201 Water Detected in Transformer Secondary Terminals

Fault Code: 1140

Fault Description: Water Detected in Transformer Secondary Terminals

Location: Transformer under frameDMC1/DMC2-CRW Panel,HT Compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

### Check:

1. Visually check whether water entered into marshalling box and if no water is present then, check the wiring 2. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card. 3. still problem exists change the water sensing sensor.

Fault Code: 1141

### 3.202 Transformer Marshalling Box Water Detected

Fault Description: Transformer Marshalling Box Water Detected

Location: Transformer under frameDMC1/DMC2-CRW Panel,HT Compartment Schematic: SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2. Functional group- 3 Sub Functional group-1 Check: 1. Visually check whether water entered into marshalling box and if no water is present then, check the wiring 2.If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card. 3.still problem exists change the water sensing sensor. 3.203 TC 3 Air Suspension Override Request from Display Fault Code: 1142 Fault Description: TC 3 Air Suspension Override Request from Display Location: NA Schematic: NA Check: Informative message only 3.204 Main MCC is Master Fault Code: 1144 Fault Description: Main MCC is Master Location: NA Schematic: NA Check: Informative message only

### 3.205 Main MCC is Slave

Fault Code: 1145 Fault Description: Main MCC is Slave

Location: NA

Schematic: NA

Check:

Informative message only

### 3.206 Redundant MCC Power CB is OFF

Fault Code: 1146

Fault Description: Redundant MCC Power CB is OFF

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-1

### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.207 Main MCC power CB is OFF

Fault Code: 1148

Fault Description: Main MCC power CB is OFF

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-1

### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- If still problem persist check the wiring.
   If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

# 3.208 BP Isolation Request from Display

Fault Code: 1150
Fault Description: BP Isolation Request from Display
Location: NA
Schematic: NA
Check: Informative message only
3.209 Redundant MCC is Master
Fault Code: 1157
Fault Description: Redundant MCC is Master Location: NA
Schematic: NA
Check: Informative message only
3.210 Redundant MCC is Slave
Fault Code: 1158
Fault Description: Redundant MCC is Slave
Location: NA
Schematic: NA
Check: Informative message only

# 3.211 Panto UP Train Line is not matching with command

Fault Code: 1536
Fault Description: Panto UP Train Line is not matching with command
Location:
Schematic:
Check: Check the panto up hardware train line input wiring at the MCC unit which is showing LOW (LED OFF) when Panto is raised successfully. If the wiring is found correct, change the input card in that MCC module and check again.
3.212 Panto DOWN Train Line is not matching with command
Fault Code: 1537
Fault Description: Panto DOWN Train Line is not matching with command
Location:
Schematic:
Check: Check the panto down hardware train line input wiring at the MCC unit which is showing LOW (LED OFF) when Panto is lowered successfully.  If the wiring is found correct, change the input card in that MCC module and check again.
3.213 VCB ON Train Line is not matching with command
Fault Code: 1538
Fault Description: VCB ON Train Line is not matching with command
Location:
Schematic:
Check: Check the VCB on hardware train line input wiring at the MCC unit which is showing LOW (LED OFF) when VCB is closed successfully. If the wiring is found correct, change the input card in that MCC module and check again.

# 3.214 VCB OFF Train Line is not matching with command

Fault Code: 1539
Fault Description: VCB OFF Train Line is not matching with command
Location:
Schematic:
Check: Check the VCB off hardware train line input wiring at the MCC unit which is showing LOW (LED OFF) when VCB is opened successfully. If the wiring is found correct, change the input card in that MCC module and check again.
3.215 Panto UP Position is Faulty
Fault Code: 1540
Fault Description: Panto UP Position is Faulty
Location:
Schematic:
Check: OHE is less than 16 KV and Panto is raised. In such cases, lower the panto and wait for sufficient OHE.
3.216 Panto DOWN Position is Faulty
Fault Code: 1541
Fault Description: Panto DOWN Position is Faulty
Location:
Schematic:
Check: Informative message only. It comes when MCC is driving Panto DOWN output when OHE is above 16 KV.

### 3.217 VCB ON is Faulty

Fault Code: 1544

Fault Description: VCB ON is Faulty Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 1 Sub Functional group-2

#### Check:

1.VCB should be /closedon. Check vcb fb inputs wiring

2.If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.218 VCB OFF is Faulty

Fault Code: 1545

Fault Description: VCB OFF is Faulty Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 1 Sub Functional group-2

### Check:

1.VCB should off/opend. Check vcb fb inputs wiring

2.If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.219 VCB Feedback's are Not Plausible

Fault Code: 1546

Fault Description: VCB Feedback's are Not Plausible

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 1 Sub Functional group-2

### Check:

1. Check vcb fb inputs wiring

2.If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

Fault Code: 1547

# 3.220 AAC has been running since 20 minutes

Fault Description: AAC has been running since 20 minutes
Location: DMC1/DMC2-CRW Pane/HT compartment
Oak amadia:
Schematic: SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.
Functional group- 7 Sub
Functional group-1
Check:
1Check the status of AAC switch. It should be in off position. If found OK then, check the wiring
2.If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.
3.221 Wheel Dia Calibration is Successful
Fault Code: 1573
Fault Description: Wheel Dia Calibration is Successful
Location: NA
Schematic:
NA NA
Check:
Informative message only
3.222 VCB ON Faulty Lockout
Fault Code: 1576
Fault Description: VCB ON Faulty Lockout
Location: NA
Schematic:
NA NA
Check:
Informative message only

Fault Code: 1589

# 3.223 PC Sent Configuration is Out of Range

Fault Description: PC Sent Configuration is Out of Range
Location: NA
Schematic: NA
Check:
Informative message only
3.224 PC Sent Configuration Checksum has failed
Fault Code: 1590
Fault Description: PC Sent Configuration Checksum has failed
Location: NA
Schematic: NA
Check: Informative message only
3.225 PC Sent Configuration Checksum is OK
Fault Code: 1591
Fault Description: PC Sent Configuration Checksum is OK
Location: NA
Schematic: NA
Check: Informative message only

### 3.226 Forward Train Line is not matching with command

Fault Code: 1882

Fault Description: Forward Train Line is not matching with command

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

1.check the FORWARD train line wiring

2. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.227 Reverse Train Line is not matching with command

Fault Code: 1883

Fault Description: Reverse Train Line is not matching with command

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

### Check:

1.check the REVERSE train line wiring

2. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.228 Drive Train Line is not matching with command

Fault Code: 1884

Fault Description: Drive Train Line is not matching with command

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

1.check the DRIVE train line wiring

If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.229 Brake Train Line is not matching with command

Fault Code: 1885

Fault Description: Brake Train Line is not matching with command

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

1.check the BRAKE train line wiring

2. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.230 Coast Train Line is not matching with command

Fault Code: 1886

Fault Description: Coast Train Line is not matching with command

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

### Check:

1.check the COAST train line wiring

2. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.231 RDM Train Line is not matching with command

Fault Code: 1887

Fault Description: RDM Train Line is not matching with command

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

### Check:

1.check the RDM train line wiring

If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.232 ACU External Fault due to Transformer Low Speed Blower

Fault Code: 1893

Fault Description: ACU External Fault due to Transformer Low Speed Blower

Location: DMC1/DMC2-Under frame

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-3

#### Check:

check the power connections of Transformer Low Speed Blower whether there is any short circuit or eathing.

### 3.233 ACU External Fault due to Transformer High Speed Blower

Fault Code: 1894

Fault Description: ACU External Fault due to Transformer High Speed Blower

Location: DMC1/DMC2-Under frame

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-3

### Check:

check the power connections of Transformer High Speed Blower whether there is any short circuit or eathing.

### 3.234 ACU External Fault due to Transformer Oil Pump

Fault Code: 1895

Fault Description: ACU External Fault due to Transformer Oil Pump

Location: DMC1/DMC2-Under frame

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-3

#### Check:

check the power connections of Transformer oil pump whether there is any short circuit or eathing.

### 3.235 ACU External Fault due to LTC Blowers

Fault Code: 1896

Fault Description: ACU External Fault due to LTC Blowers

Location: DMC1/DMC2-HT Compartment

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-1

#### Check:

check the power connections of LTC Blowers whether there is any short circuit or eathing.

### 3.236 ACU External Fault due to MAC

Fault Code: 1897

Fault Description: ACU External Fault due to MAC

Location: DMC1/DMC2-Under frame

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-2

### Check:

check the power connections of Main Air compressor(MAC) whether there is any short circuit or eathing.

### 3.237 ACU 3 Phase Load Test Started

Fault Code: 1898

Fault Description: ACU 3 Phase Load Test Started

Location: NA

Schematic:

NA

Check:

Informative message only

## 3.238 ACU 3 Phase Load Test Timeout

Fault Code: 1899
Fault Description: ACU 3 Phase Load Test Timeout
Location: NA
Schematic: NA
Check: Informative message only
3.239 ACU 3 Phase Load Test End
Fault Code: 1900
Fault Description: ACU 3 Phase Load Test End
Location: NA
Schematic: NA
Check: Informative message only
3.240 DIP Channel not Plaussible
Fault Code: 1920 Fault Description: DIP Channel not Plaussible Location: NA
Schematic: NA Check:
Informative message only

### 3.241 Lights Line 1 Contactor Failed to dropout

Fault Code: 4608

Fault Description: Lights Line 1 Contactor Failed to dropout

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3

Functional group- 10 Sub Functional group-2

#### Check:

- 1. Ensure that Lights Line1 MCB is in ON condition.
- Check the wiring of Lights Line1 contactor.
- 3. If wiring is OK, Check the Contactor.
- 4. Check the wiring of Lights Line1 contactor feed back digital I/p to PCC/DMC-RIO.
- 5. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.242 Lights Line 1 Contactor Failed to pickup

Fault Code: 4609

Fault Description: Lights Line 1 Contactor Failed to pickup

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3

Functional group- 10 Sub Functional group-2

### Check:

- 1. Ensure that Lights Line1 MCB is in ON condition.
- 2. Check the wiring of Lights Line1 contactor.
- 3. If wiring is OK, Check the Contactor.
- 4. Check the wiring of Lights Line1 contactor feed back digital I/p to PCC/DMC-RIO.
- 5. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.243 Lights Line 2 Contactor Failed to dropout

Fault Code: 4610

Fault Description: Lights Line 2 Contactor Failed to dropout Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 10 Sub Functional group-2

### Check:

- 1. Ensure that Lights Line2 MCB is in ON condition.
- 2. Check the wiring of Lights Line2 contactor.3. If wiring is OK, Check the Contactor.
- 4. Check the wiring of Lights Line2 contactor feed back digital I/p to PCC/DMC-RIO.
- 5. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.244 Lights Line 2 Contactor Failed to pickup

Fault Code: 4611

Fault Description: Lights Line 2 Contactor Failed to pickup

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 10 Sub Functional group-2

#### Check:

- 1. Ensure that Lights Line2 MCB is in ON condition.
- Check the wiring of Lights Line2 contactor.
- 3. If wiring is OK, Check the Contactor.
- 4. Check the wiring of Lights Line2 contactor feed back digital I/p to PCC/DMC-RIO.
- 5. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.245 Fans Line 1 Contactor Failed to dropout

Fault Code: 4612

Fault Description: Fans Line 1 Contactor Failed to dropout

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 11 Sub Functional group-1

### Check:

- 1. Ensure that Fans Line 1 MCB is in ON condition.
- 2. Check the wiring of Fans Line 1 contactor.
- 3. If wiring is OK, Check the Contactor.
- 4. Check the wiring of Fans Line1 contactor feed back digital I/p to PCC/DMC-RIO.
- 5. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.246 Fans Line 1 Contactor Failed to pickup

Fault Code: 4613

Fault Description: Fans Line 1 Contactor Failed to pickup

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 11 Sub Functional group-1

#### Check:

- 1. Ensure that Fans Line 1 MCB is in ON condition.
- 2. Check the wiring of Fans Line 1 contactor .3. If wiring is OK, Check the Contactor.
- 4. Check the wiring of Fans Line1 contactor feed back digital I/p to PCC/DMC-RIO.
- 5. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.247 Fans Line 2 Contactor Failed to dropout

Fault Code: 4614

Fault Description: Fans Line 2 Contactor Failed to dropout

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 11 Sub Functional group-1

#### Check:

- 1. Ensure that Fans Line2 MCB is in ON condition.
- Check the wiring of Fans Line2 contactor .
- 3. If wiring is OK, Check the Contactor.
- 4. Check the wiring of Fans Line2 contactor feed back digital I/p to PCC/DMC-RIO.
- 5. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.248 Fans Line 2 Contactor Failed to pickup

Fault Code: 4615

Fault Description: Fans Line 2 Contactor Failed to pickup

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 11 Sub Functional group-1

### Check:

- 1. Ensure that Fans Line2 MCB is in ON condition.
- 2. Check the wiring of Fans Line2 contactor.
- 3. If wiring is OK, Check the Contactor.
- 4. Check the wiring of Fans Line2 contactor feed back digital I/p to PCC/DMC-RIO.
- 5. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.249 Lights Line 3 Contactor Failed to dropout

Fault Code: 4616

Fault Description: Lights Line 3 Contactor Failed to dropout Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 10 Sub Functional group-2

### Check:

- 1. Ensure that Lights Line3 MCB is in ON condition.
- 2. Check the wiring of Lights Line3 contactor.3. If wiring is OK, Check the Contactor.
- 4. Check the wiring of Lights Line3 contactor feed back digital I/p to PCC/DMC-RIO.
- 5. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.250 Lights Line 3 Contactor Failed to pickup

Fault Code: 4617

Fault Description: Lights Line 3 Contactor Failed to pickup

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 10 Sub Functional group-2

#### Check:

- 1. Ensure that Lights Line1 MCB is in ON condition.
- Check the wiring of Lights Line1 contactor.
- 3. If wiring is OK, Check the Contactor.
- 4. Check the wiring of Lights Line1 contactor feed back digital I/p to PCC/DMC-RIO.
- 5. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

## 3.251 Fans Line 3 Contactor Failed to dropout

Fault Code: 4618

Fault Description: Fans Line 3 Contactor Failed to dropout

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 11 Sub Functional group-1

### Check:

- 1. Ensure that Fans Line3 MCB is in ON condition.
- 2. Check the wiring of Fans Line3 contactor.
- 3. If wiring is OK, Check the Contactor.
- 4. Check the wiring of Fans Line3 contactor feed back digital I/p to PCC/DMC-RIO.
- 5. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.252 Fans Line 3 Contactor Failed to pickup

Fault Code: 4619

Fault Description: Fans Line 3 Contactor Failed to pickup

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 11 Sub Functional group-1

#### Check:

- 1. Ensure that Fans Line3 MCB is in ON condition.
- 2. Check the wiring of Fans Line3 contactor .3. If wiring is OK, Check the Contactor.
- 4. Check the wiring of Fans Line3 contactor feed back digital I/p to PCC/DMC-RIO.
- 5. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.253 Emergency Lights Line 1 Contactor Failed to dropout

Fault Code: 4624

Fault Description: Emergency Lights Line 1 Contactor Failed to dropout

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 10 Sub Functional group-2

#### Check:

- 1. Ensure that EMGY LIGHT L1 MCB is in ON condition.
- 2. Check the wiring of EMGY LIGHT L1 contactor.
- 3. If wiring is OK, Check the Contactor.
- 4. Check the wiring of EMGY LIGHT L1 contactor feed back digital I/p to PCC/DMC-RIO.
- If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.254 Emergency Lights Line 1 Contactor Failed to pickup

Fault Code: 4625

Fault Description: Emergency Lights Line 1 Contactor Failed to pickup

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 10 Sub Functional group-2

### Check:

- 1. Ensure that EMGY LIGHT L1 MCB is in ON condition.
- 2. Check the wiring of EMGY LIGHT L1 contactor .
- 3. If wiring is OK, Check the Contactor.
- 4. Check the wiring of EMGY LIGHT L1 contactor feed back digital I/p to PCC/DMC-RIO.
- 5. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.255 ACU 1 Phase changeover contactor failed to dropout

Fault Code: 4626

Fault Description: ACU 1 Phase changeover contactor failed to dropout

Location: Driver Desk for DMC1/DMC2, EWP1 NAE for TC3, EWP2 AE for TC2

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1204 for TC2 and ED 1205 for TC3

Functional group- 10 Sub Functional group-2

### Check:

- 1. Check the wiring of 110V CHANGE OVER contactor.
- 2. If wiring is OK, Check the Contactor.
- 3. Check the wiring of 110V CHANGE OVER contactor feedback digital I/p to PCC3/DMC-RIO.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.256 ACU 1 Phase changeover contactor failed to pickup

Fault Code: 4627

Fault Description: ACU 1 Phase changeover contactor failed to pickup

Location: Driver Desk for DMC1/DMC2, EWP1 NAE for TC3, EWP2 AE for TC2

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1204 for

TC2 and ED 1205 for TC3

Functional group- 10 Sub Functional group-2

#### Check:

- 1. Check the wiring of 110V CHANGE OVER contactor.
- If wiring is OK, Check the Contactor.
- 3. Check the wiring of 110V CHANGE OVER contactor feedback digital I/p to PCC3/DMC-RIO.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

## 3.257 ACU 3 Phase changeover contactor failed to dropout

Fault Code: 4628

Fault Description: ACU 3 Phase changeover contactor failed to dropout

Location: Driver Desk for DMC1/DMC2, EWP1 NAE for TC3, EWP2 AE for TC2

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) ED 1201 for DMC1, ED 1202 for DMC2, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 10 Sub Functional group-2

### Check:

- 1. Check the wiring of 415V CHANGE OVER contactor.
- 2. If wiring is OK, Check the Contactor.
- 3. Check the wiring of 415V CHANGE OVER contactor feedback digital I/p to PCC3/DMC-RIO.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.258 ACU 3 Phase changeover contactor failed to pickup

Fault Code: 4629

Fault Description: ACU 3 Phase changeover contactor failed to pickup

Location: Driver Desk for DMC1/DMC2, EWP1 NAE for TC3, EWP2 AE for TC2

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1204 for TC2 and ED 1205 for TC3

Functional group- 10 Sub Functional group-2

### Check:

- 1. Check the wiring of 415V CHANGE OVER contactor.
- 2. If wiring is OK, Check the Contactor.
- 3. Check the wiring of 415V CHANGE OVER contactor feedback digital I/p to PCC3/DMC-RIO.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.259 DIP 1 Card Missed

Fault Code: 4632

Fault Description: DIP 1 Card Missed Location: EWP1 NAE TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 6 Sub Functional group-4

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other card.

### 3.260 DIP 2 Card Missed

Fault Code: 4633

Fault Description: DIP 2 Card Missed Location: EWP1 NAE TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 6 Sub Functional group-4

### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly,interchange with other card.

### 3.261 DOP 1 Card Missed

Fault Code: 4634

Fault Description: DOP 1 Card Missed Location: EWP1 NAE TC1/TC2/TC3

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 6 Sub Functional group-4

### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other card.

### 3.262 DOP 2 Card Missed

Fault Code: 4635

Fault Description: DOP 2 Card Missed Location: EWP1 NAE TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 6 Sub Functional group-4

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly interchange with other card.

### 3.263 DOP 3 Card Missed

Fault Code: 4636

Fault Description: DOP 3 Card Missed Location: EWP1 NAE TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 6 Sub Functional group-4

### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other card.

### 3.264 DIP 3 Card Missed

Fault Code: 4637

Fault Description: DIP 3 Card Missed Location: EWP1 NAE TC1/TC2/TC3

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 6 Sub Functional group-4

### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other card.

### 3.265 ECN Index Failed

Fault Code: 4638 Fault Description: ECN Index Failed

Location: NA

Schematic:

NA

#### Check:

Informative message only

## 3.266 Bogie 1A Suspension Sensor Faulty

Fault Code: 4643

Fault Description: Bogie 1A Suspension Sensor Faulty

Location: Bogie1 under frame

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

### Check:

- 1. Check the load sensor
- 2. Check the wiring to AIP module from corresponding load sensor
- 3. If problem persist replace the AIP module with new one.

### 3.267 Bogie 1B Suspension Sensor Faulty

Fault Code: 4644

Fault Description: Bogie 1B Suspension Sensor Faulty

Location: Bogie1 under frame

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

### Check:

- 1. Check the load sensor
- 2. Check the wiring to AIP module from corresponding load sensor3. If problem persist replace the AIP module with new one.

### 3.268 Bogie 2A Suspension Sensor Faulty

Fault Code: 4645

Fault Description: Bogie 2A Suspension Sensor Faulty

Location: Bogie2 under frame

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

- 1. Check the load sensor
- 2. Check the wiring to AIP module from corresponding load sensor
- 3. If problem persist replace the AIP module with new one.

### 3.269 Bogie 2B Suspension Sensor Faulty

Fault Code: 4646

Fault Description: Bogie 2B Suspension Sensor Faulty

Location: Bogie2 under frame

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

### Check:

- 1. Check the load sensor
- 2. Check the wiring to AIP module from corresponding load sensor
- 3. If problem persist replace the AIP module with new one.

### 3.270 Suspension Overload in Bogie 1A

Fault Code: 4647

Fault Description: Suspension Overload in Bogie 1A

Location: Bogie1 under frame

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

### Check:

- 1. Check the load sensor it should be healthy
- 2. Check bellow pressure value should not be more than 4.5 bar.
- 3. Inspect the Bellow of corresponding bogie. If Bellow is broken inform to workshop.
- 4. If bellow is not broken then verify the isolating valves of air suspension.

### 3.271 Suspension Overload in Bogie 1B

Fault Code: 4648

Fault Description: Suspension Overload in Bogie 1B

Location: Bogie1 under frame

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

- 1. Check the load sensor it should be healthy
- 2. Check bellow pressure value should not be more than 4.5 bar.
- 3. Inspect the Bellow of corresponding bogie. If Bellow is broken inform to workshop.
- 4. If bellow is not broken then verify the isolating valves of air suspension.

### 3.272 Suspension Overload in Bogie 2A

Fault Code: 4649

Fault Description: Suspension Overload in Bogie 2A

Location: Bogie2 under frame

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

### Check:

- 1. Check the load sensor it should be healthy
- 2. Check bellow pressure value should not be more than 4.5 bar.
- 3. Inspect the Bellow of corresponding bogie. If Bellow is broken inform to workshop.
- 4. If bellow is not broken then verify the isolating valves of air suspension.

### 3.273 Suspension Overload in Bogie 2B

Fault Code: 4650

Fault Description: Suspension Overload in Bogie 2B

Location: Bogie2 under frame

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

- 1. Check the load sensor it should be healthy
- 2. Check bellow pressure value should not be more than 4.5 bar.
- 3. Inspect the Bellow of corresponding bogie. If Bellow is broken inform to workshop.
- 4. If bellow is not broken then verify the isolating valves of air suspension.

### 3.274 AFIP Card Missed

Fault Code: 4651

Fault Description: AFIP Card Missed Location: EWP1 NAE TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M) MEMU (MAE675M) ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 6 Sub Functional group-4

#### Check:

- 1. Check for Card presence or loose contact.
- 2. If card is present and inserted properly, interchange with other card.

### 3.275 PAS MCB Tripped

Fault Code: 4653

Fault Description: PAS MCB Tripped

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 9 Sub Functional group-2

### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.
- 4. If still problem persist then replace the Aux Block of Corresponding MCB.

### 3.276 Emergency Lights Line 2 Contactor Failed to dropout

Fault Code: 4654

Fault Description: Emergency Lights Line 2 Contactor Failed to dropout

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 10 Sub Functional group-2

### Check:

- 1. Check the wiring of EMY LIGHTS line 2 contactor.
- 2. If wiring is OK, Check the Relay.
- 3. Check the wiring of EMY LIGHTS line 2 contactor feed back digital I/p to PCC/DMC-RIO.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card

### 3.277 Emergency Lights Line 2 Contactor Failed to pickup

Fault Code: 4655

Fault Description: Emergency Lights Line 2 Contactor Failed to pickup

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 10 Sub Functional group-2

#### Check:

- 1. Check the wiring of EMY LIGHTS line 2 contactor.
- 2. If wiring is OK, Check the Relay.
- 3. Check the wiring of EMY LIGHTS line 2 contactor. feed back digital I/p to PCC/DMC-RIO.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card

### 3.278 Broken Suspension in Bogie 1A

Fault Code: 4656

Fault Description: Broken Suspension in Bogie 1A

Location: Bogie 1 under frame

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

### Check:

- 1. Check the load sensor it should be healthy
- 2. Check bellow pressure value should be more than 0.9 bar
- 3. Inspect the Bellow of corresponding bogie. If Bellow is broken inform to workshop.
- 4. If bellow is not broken then verify the isolating valves of air suspension.

### 3.279 Broken Suspension in Bogie 1B

Fault Code: 4657

Fault Description: Broken Suspension in Bogie 1B

Location: Bogie 1 under frame

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

- 1. Check the load sensor it should be healthy
- 2. Check bellow pressure value should be more than 0.9 bar
- 3. Inspect the Bellow of corresponding bogie. If Bellow is broken inform to workshop.
- 4. If bellow is not broken then verify the isolating valves of air suspension.

### 3.280 Broken Suspension in Bogie 2A

Fault Code: 4658

Fault Description: Broken Suspension in Bogie 2A

Location: Bogie 2 under frame

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

- 1. Check the load sensor it should be healthy
- 2. Check bellow pressure value should be more than 0.9 bar
- 3. Inspect the Bellow of corresponding bogie. If Bellow is broken inform to workshop.
- 4. If bellow is not broken then verify the isolating valves of air suspension.

### 3.281 Broken Suspension in Bogie 2B

Fault Code: 4659

Fault Description: Broken Suspension in Bogie 2B

Location: Bogie 2 under frame

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

### Check:

- 1. Check the load sensor it should be healthy
- 2. Check bellow pressure value should be more than 0.9 bar
- 3. Inspect the Bellow of corresponding bogie. If Bellow is broken inform to workshop.
- 4. If bellow is not broken then verify the isolating valves of air suspension.

### 3.282 Suspension Pressure LOW in Bogie 1A

Fault Code: 4660

Fault Description: Suspension Pressure LOW in Bogie 1A

Location: Bogie 1 under frame

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

- 1. Check the load sensor it should be healthy
- 2..Check bellow pressure value should be more than 1.4 bar (Tare load)
- 3. Check the wiring to AIP module from corresponding load sensor
- 4. If problem persist replace the AIP module with new one.

### 3.283 Suspension Pressure LOW in Bogie 1B

Fault Code: 4661

Fault Description: Suspension Pressure LOW in Bogie 1B

Location: Bogie 1 under frame

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

- 1. Check the load sensor it should be healthy
- 2...Check bellow pressure value should be more than 1.4 bar (Tare load)
- 3. Check the wiring to AIP module from corresponding load sensor
- 4. If problem persist replace the AIP module with new one.

### 3.284 Suspension Pressure LOW in Bogie 2A

Fault Code: 4662

Fault Description: Suspension Pressure LOW in Bogie 2A

Location: Bogie 2 under frame

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

### Check:

- 1. Check the load sensor it should be healthy
- 2.. Check bellow pressure value should be more than 1.4 bar (Tare load)
- 3. Check the wiring to AIP module from corresponding load sensor
- 4. If problem persist replace the AIP module with new one.

### 3.285 Suspension Pressure LOW in Bogie 2B

Fault Code: 4663

Fault Description: Suspension Pressure LOW in Bogie 2B

Location: Bogie 2 under frame

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

- 1. Check the load sensor it should be healthy
- Check bellow pressure value should be more than 1.4 bar (Tare load)
- 3. Check the wiring to AIP module from corresponding load sensor
- 4. If problem persist replace the AIP module with new one.

### 3.286 Suspension Pressure Out of Range in Bogie 1A

Fault Code: 4664

Fault Description: Suspension Pressure Out of Range in Bogie 1A

Location: Bogie 1 under frame

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

- 1. Check the load sensor it should be healthy
- 2.. Check bellow pressure value should be less than 4.9 bar
- 3. Check the wiring to AIP module from corresponding load sensor
- 4. If problem persist replace the AIP module with new one.

### 3.287 Suspension Pressure Out of Range in Bogie 1B

Fault Code: 4665

Fault Description: Suspension Pressure Out of Range in Bogie 1B

Location: Bogie 1 under frame

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

### Check:

- 1. Check the load sensor it should be healthy
- 2.. Check bellow pressure value should be less than 4.9 bar
- 3. Check the wiring to AIP module from corresponding load sensor
- 4. If problem persist replace the AIP module with new one.

### 3.288 Suspension Pressure Out of Range in Bogie 2A

Fault Code: 4666

Fault Description: Suspension Pressure Out of Range in Bogie 2A

Location: Bogie 2 under frame

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

- 1. Check the load sensor it should be healthy
- 2..Check bellow pressure value should be less than 4.9 bar
- 3. Check the wiring to AIP module from corresponding load sensor
- 4. If problem persist replace the AIP module with new one.

### 3.289 Suspension Pressure Out of Range in Bogie 2B

Fault Code: 4667

Fault Description: Suspension Pressure Out of Range in Bogie 2B

Location: Bogie 2 under frame

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

- 1. Check the load sensor it should be healthy
- 2.. Check bellow pressure value should be less than 4.9 bar
- 3. Check the wiring to AIP module from corresponding load sensor
- 4. If problem persist replace the AIP module with new one.

### 3.290 Broken Suspension in Bogie 1A (Differential Mode)

Fault Code: 4668

Fault Description: Broken Suspension in Bogie 1A (Differential Mode)

Location: Bogie 1 under frame

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

### Check:

- 1. Check the load sensor. It should be healthy
- 2. Check Bogie1 and Bogie 2 pressure Difference value should be less than 40 pecent
- 3. Check the wiring to AIP module from corresponding load sensor
- 4. If problem persist replace the AIP module with new one.

### 3.291 Broken Suspension in Bogie 1B (Differential Mode)

Fault Code: 4669

Fault Description: Broken Suspension in Bogie 1B (Differential Mode)

Location: Bogie 1 under frame

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

- 1. Check the load sensor. It should be healthy
- 2. Check Bogie1 and Bogie 2 pressure Difference value should be less than 40 pecent
- 3. Check the wiring to AIP module from corresponding load sensor
- 4. If problem persist replace the AIP module with new one.

### 3.292 Broken Suspension in Bogie 2A (Differential Mode)

Fault Code: 4670

Fault Description: Broken Suspension in Bogie 2A (Differential Mode)

Location: Bogie 2 under frame

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

- 1. Check the load sensor. It should be healthy
- 2. Check Bogie1 and Bogie 2 pressure Difference value should be less than 40 pecent
- 3. Check the wiring to AIP module from corresponding load sensor
- 4. If problem persist replace the AIP module with new one.

### 3.293 Broken Suspension in Bogie 2B (Differential Mode)

Fault Code: 4671

Fault Description: Broken Suspension in Bogie 2B (Differential Mode)

Location: Bogie 2 under frame

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

### Check:

- 1. Check the load sensor. It should be healthy
- 2. Check Bogie1 and Bogie 2 pressure Difference value should be less than 40 pecent
- 3. Check the wiring to AIP module from corresponding load sensor
- 4. If problem persist replace the AIP module with new one.

### 3.294 Suspension Pressure Difference is too HIGH between the Bogies

Fault Code: 4672

Fault Description: Suspension Pressure Difference is too HIGH between the Bogies

Location: Bogie 2 under frame

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

See to it that the pressure difference between the bogies is less than 40 percent and none of the sensors in Any bogie is faulty.

### 3.295 Bogie 1A Suspension Sensor is Isolated

Fault Code: 4673

Fault Description: Bogie 1A Suspension Sensor is Isolated

Location: Bogie 1 under frame

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

Check:

this fault logged only one of the following conditions is satisfied

1. Sensor faulty fault logged more than three times in thirty

Minutes of time or

2. Pressure too high fault logged more than three times in thirty

Minutes of time

TO reset the fault give FAULT RESET command

### 3.296 Bogie 1B Suspension Sensor is Isolated

Fault Code: 4674

Fault Description: Bogie 1B Suspension Sensor is Isolated

Location: Bogie 1 under frame

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

Check:

this fault logged only one of the following conditions is satisfied

1. Sensor faulty fault logged more than three times in thirty

Minutes of time or

2. Pressure too high fault logged more than three times in thirty

Minutes of time

TO reset the fault give FAULT RESET command

### 3.297 Bogie 2A Suspension Sensor is Isolated

Fault Code: 4675

Fault Description: Bogie 2A Suspension Sensor is Isolated

Location: Bogie 2 under frame

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

Check:

this fault logged only one of the following conditions is satisfied

1. Sensor faulty fault logged more than three times in thirty

Minutes of time or

2. Pressure too high fault logged more than three times in thirty

Minutes of time

TO reset the fault give FAULT RESET command

### 3.298 Bogie 2B Suspension Sensor is Isolated

Fault Code: 4676

Fault Description: Bogie 2B Suspension Sensor is Isolated

Location: Bogie 2 under frame

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for

TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

Check:

this fault logged only one of the following conditions is satisfied

1. Sensor faulty fault logged more than three times in thirty

Minutes of time or

2. Pressure too high fault logged more than three times in thirty

Minutes of time

TO reset the fault give FAULT RESET command

### 3.299 Main CAN Communication Failed with DIP 1

Fault Code: 4677

Fault Description: Main CAN Communication Failed with DIP 1

Location: EWP1 NAE TC1/TC2/TC3

Schematic: Not Applicable

### Check:

Verify that DIP Modules are placed properly at PCC/DMC-RIO. If still problem persists replace the DIP card of Corresponding Computer.

### 3.300 Main CAN Communication Failed with DIP 2

Fault Code: 4678

Fault Description: Main CAN Communication Failed with DIP 2

Location: EWP1 NAE TC1/TC2/TC3

Schematic:

Not Applicable

#### Check:

Verify that DIP Modules are placed properly at PCC/DMC-RIO. If still problem persists replace the DIP card of Corresponding Computer.

### 3.301 Main CAN Communication Failed with DIP 3

Fault Code: 4679
Fault Description: Main CAN Communication Failed with DIP 3
Location: EWP1 NAE TC1/TC2/TC3
Schematic:
Not Applicable

Check:
Verify that DIP Modules are placed properly at PCC/DMC-RIO. If still problem persists replace the DIP card of Corresponding Computer.

### 3.302 Main CAN Communication Failed with DOP 1

Fault Code: 4680

Fault Description: Main CAN Communication Failed with DOP 1

Location: EWP1 NAE TC1/TC2/TC3

Schematic: Not Applicable

### Check:

Verify that DOP Modules are placed properly at PCC/DMC-RIO. If still problem persists replace the DOP card of Corresponding Computer.

### 3.303 Main CAN Communication Failed with DOP 2

Fault Code: 4681
Fault Description: Main CAN Communication Failed with DOP 2

Location: EWP1 NAE TC1/TC2/TC3

Schematic: Not Applicable

### Check:

Verify that DOP Modules are placed properly at PCC/DMC-RIO. If still problem persists replace the DOP card of Corresponding Computer.

### 3.304 Main CAN Communication Failed with AFIP

Fault Code: 4682

Fault Description: Main CAN Communication Failed with AFIP

Location: EWP1 NAE TC1/TC2/TC3

Schematic:
Not Applicable

Check:
Verify that AFIP Modules are placed properly at PCC/DMC-RIO. If still problem persists replace the AFIP card of Corresponding Computer.

### 3.305 Redundant CAN Communication Failed with DIP 1

Fault Code: 4683

Fault Description: Redundant CAN Communication Failed with DIP 1

Location: EWP1 NAE TC1/TC2/TC3

Schematic: Not Applicable

### Check:

Verify that DIP Modules are placed properly at PCC/DMC-RIO. If still problem persists replace the DIP card of Corresponding Computer.

### 3.306 Redundant CAN Communication Failed with DIP 2

Fault Code: 4684

Fault Description: Redundant CAN Communication Failed with DIP 2

Location: EWP1 NAE TC1/TC2/TC3

Schematic: Not Applicable

### Check:

Verify that DIP Modules are placed properly at PCC/DMC-RIO. If still problem persists replace the DIP card of Corresponding Computer. .

### 3.307 Redundant CAN Communication Failed with DIP 3

Fault Code: 4685
Fault Description: Redundant CAN Communication Failed with DIP 3
Location: EWP1 NAE TC1/TC2/TC3
Schematic:
Not Applicable

Check:
Verify that DIP Modules are placed properly at PCC/DMC-RIO. If still problem persists replace the DIP card of Corresponding Computer.

### 3.308 Redundant CAN Communication Failed with DOP 1

Fault Code: 4686

Fault Description: Redundant CAN Communication Failed with DOP 1

Location: EWP1 NAE TC1/TC2/TC3

Schematic: Not Applicable

### Check:

Verify that DOP Modules are placed properly at PCC/DMC-RIO. If still problem persists replace the DOP card of Corresponding Computer.

### 3.309 Redundant CAN Communication Failed with DOP 2

Fault Code: 4687

Fault Description: Redundant CAN Communication Failed with DOP 2

Location: EWP1 NAE TC1/TC2/TC3

Schematic: Not Applicable

### Check:

Verify that DOP Modules are placed properly at PCC/DMC-RIO. If still problem persists replace the DOP card of Corresponding Computer.

### 3.310 Redundant CAN Communication Failed with AFIP

Fault Code: 4688

Fault Description: Redundant CAN Communication Failed with AFIP

Location: EWP1 NAE TC1/TC2/TC3

Schematic: Not Applicable

#### Check:

Verify that AFIP Modules are placed properly at PCC/DMC-RIO. If still problem persists replace the AFIP card of Corresponding Computer.

### 3.311 CC to CC Communication Failed

Fault Code: 4690

Fault Description: CC to CC Communication Failed

Location: EWP1 NAE TC1/TC2/TC3

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for

TC3.

Functional group- 14 Sub Functional group-1

### Check:

Check the Ethernet communication between PCC1 and DMC-RIO (OR) PCC2 and PCC3 depending upon the Coach in which it occurs.

If Still problem persists.replace the Ethernet switch.

# 3.312 Own Coach BC Sensor is Faulty

Fault Code: 4693

Fault Description: Own Coach BC Sensor is Faulty

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

### Check:

Replace BC Sensor

### 3.313 Own Coach EP Live Contactor has failed to pickup

Fault Code: 4694

Fault Description: Own Coach EP Live Contactor has failed to pickup

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 7 Sub Functional group-3

#### Check:

- 1. Check the wiring of EP Live Contactor.
- 2. If wiring is OK, Check the Contactor.
- 3. Check the wiring of EP Live Contactor feed back digital I/p to PCC/DMC-RIO.
- 4. If wiring is OK, check the LEDs of corresponding channel on DIP card. If not matching, change the DIP card.

# 3.314 Own Coach EP Unit is Faulty

Fault Code: 4695

Fault Description: Own Coach EP Unit is Faulty

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 7 Sub Functional group-3

#### Check:

- 1. Check the Wiring of EP Valves
- 2. Check the Corresponding DO Channel at PCC/DMC-RIO
- 3. If still problem persists replace DO Card.

### 3.315 Own Coach EP Unit Lockout has Occurred

Fault Code: 4696

**Fault Description:** Own Coach EP Unit Lockout has Occurred **Location:** CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 7 Sub Functional group-3

#### Check:

This fault logged if "EP UNIT FAULTY" fault logged more than two times.

Either press "Fault Reset" at Driver Desk or wait for the fault to recover automatically after an hour.

### 3.316 Own Coach EP Aux Contactor is Faulty

Fault Code: 4701

Fault Description: Own Coach EP Aux Contactor is Faulty

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 7 Sub Functional group-3

#### Check:

1. Check the Coil supply of EP Relay. If Supply is available check the relay visually for any contact Weld symptoms.

2. If contact are OK , then check the wiring and continuity of all individual contacts of the relay

# 3.317 Other Coach BC Sensor is Faulty

Fault Code: 4703

Fault Description: Other Coach BC Sensor is Faulty

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

Replace BC Sensor of adjacent coach

(NOTE:for DMC adjacent coach is TC1, For TC2 adjacent coach is TC3 and vice versa)

# 3.318 EP Unit of Adjacent Coach is Faulty

Fault Code: 4704

Fault Description: EP Unit of Adjacent Coach is Faulty

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

### Check:

- 1. Check the Wiring of EP Valves
- 2. Check the Corresponding DO Channel at PCC
- 3. If still problem persists replace DO Card.

(NOTE:for DMC adjacent coach TC1, For TC2 adjacent coach TC3 and vice versa)

### 3.319 EP Unit of Adjacent Coach Lockout has occurred

Fault Code: 4705

Fault Description: EP Unit of Adjacent Coach Lockout has occurred

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

#### Check:

This fault logged if "EP UNIT CONTROL OF ADJACENT COACH IS FAULTY" fault logged more than two times. Either press "Fault Reset" from Driver desk or wait for an hour for the fault to get recovered automatically.

# 3.320 EP Active Relay has failed to dropout

Fault Code: 4731

Fault Description: EP Active Relay has failed to dropout

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-3

### Check:

- 1. Check the wiring of EP CONTROL relay.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of EP CONTROL relay feed back digital I/p to PCC/DMC-RIO.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.321 PAS Alarm Triggered

Fault Code: 5125

Fault Description: PAS Alarm Triggered

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 7 Sub Functional group-3

#### Check:

Informative message only

### 3.322 BU1 and BU2 1 Phase Changeover has connected

Fault Code: 5130

Fault Description: BU1 and BU2 1 Phase Changeover has connected

Location: Driver desk for DMC1/DMC2, EWP1 NAE for TC3, EWP2 AE for TC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1204 for TC2

and ED 1205 for TC3

Functional group- 8 Sub Functional group-4

Check:

Informative message only

# 3.323 BU2 and BU3 1 Phase Changeover has connected

Fault Code: 5131

Fault Description: BU2 and BU3 1 Phase Changeover has connected

Location: Driver desk for DMC1/DMC2, EWP1 NAE for TC3, EWP2 AE for TC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1204 for TC2

and ED 1205 for TC3

Functional group- 8 Sub Functional group-4

Check:

Informative message only

### 3.324 BU3 and BU4 1 Phase Changeover has connected

Fault Code: 5132

Fault Description: BU3 and BU4 1 Phase Changeover has connected

Location: Driver desk for DMC1/DMC2, EWP1 NAE for TC3, EWP2 AE for TC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1204 for TC2

and ED 1205 for TC3

Functional group- 8 Sub Functional group-4

Check:

Informative message only

### 3.325 BU1 and BU2 3 Phase Changeover has connected

Fault Code: 5134

Fault Description: BU1 and BU2 3 Phase Changeover has connected

Location: Driver desk for DMC1/DMC2, EWP1 NAE for TC3, EWP2 AE for TC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1204 for TC2

and ED 1205 for TC3

Functional group- 8 Sub Functional group-4

Check:

Informative message only

# 3.326 BU2 and BU3 3 Phase Changeover has connected

Fault Code: 5135

Fault Description: BU2 and BU3 3 Phase Changeover has connected

Location: Driver desk for DMC1/DMC2, EWP1 NAE for TC3, EWP2 AE for TC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1204 for TC2 and ED 1205 for TC3

una ED 1200 101 100

Functional group- 8 Sub Functional group-4

Check:

Informative message only

### 3.327 BU3 and BU4 3 Phase Changeover has connected

Fault Code: 5136

Fault Description: BU3 and BU4 3 Phase Changeover has connected

Location: Driver desk for DMC1/DMC2, EWP1 NAE for TC3, EWP2 AE for TC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1204 for TC2

and ED 1205 for TC3

Functional group- 8 Sub Functional group-4

Check:

Informative message only

# 3.328 EP MCB Tripped

Fault Code: 5159

Fault Description: EP MCB Tripped

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1204 for TC2

and ED 1205 for TC3.

Functional group- 8 Sub Functional group-4

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

# 3.329 Coach EP Isolation Request from Display

	•		
Fault Code: 5160			
Fault Description: Coach EP Isolation	n Request from Displa	ay	
Location: NA			
Schematic: NA			
Check: Informative message only			

3.330	Bogie 1 EP	Isolation Request from Display
Fault Co	<b>de:</b> 5161	
Fault De	scription: Bogie 1	EP Isolation Request from Display
Location	: NA	
Schemat NA	ic:	
Check: Informativ	e message only	

### 3.331 Bogie 2 EP Isolation Request from Display

Fault Code: 5162 Fault Description: Bogie 2 EP Isolation Request from Display Location: NA Schematic: NA Check: Informative message only

### 3.332 EBL MCB Tripped

Fault Code: 5163

Fault Description: EBL MCB Tripped

Location: CRW for DMC1/DMC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.333 Emergency Brake MCB Tripped

Fault Code: 5168

Fault Description: Emergency Brake MCB Tripped

Location: CRW for DMC1/DMC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- If still problem persist check the wiring.
   If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.334 PIS MCB Tripped

Fault Code: 5169

Fault Description: PIS MCB Tripped

Location: CRW for DMC1/DMC2, EWP2 AE for TC1/TC2/TC3

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M),

ED 1201 for DMC1, ED 1202 for DMC2, ED 1204 for TC2 and ED 1205 for TC3

Functional group- 9 Sub Functional group-1

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.335 Head Light MCB Tripped

Fault Code: 5170

Fault Description: Head Light MCB Tripped

Location: CRW for DMC1/DMC2

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 10 Sub Functional group-1

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.336 DMC MCB Tripped

Fault Code: 5171

Fault Description: DMC MCB Tripped

Location: CRW for DMC1/DMC2

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 6 Sub Functional group-1

### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- If still problem persist check the wiring.
   If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

# 3.337 Battery Control BD MCB Tripped

Fault Code: 5172

Fault Description: Battery Control BD MCB Tripped

Location: CRW for DMC1/DMC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 8 Sub Functional group-2

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.338 EOL MCB Tripped

Fault Code: 5173

Fault Description: EOL MCB Tripped

Location: CRW for DMC1/DMC2

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-1

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

# 3.339 Signal Bell 1 MCB Tripped

Fault Code: 5174

Fault Description: Signal Bell 1 MCB Tripped

Location: CRW for DMC1/DMC2

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-4

### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- If still problem persist check the wiring.
   If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.340 Speed Indicator MCB Tripped

Fault Code: 5175

Fault Description: Speed Indicator MCB Tripped

Location: CRW for DMC1/DMC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 13 Sub Functional group-4

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

# 3.341 Emergency Bell MCB Tripped

Fault Code: 5176

Fault Description: Emergency Bell MCB Tripped

Location: CRW for DMC1/DMC2

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-5

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

# 3.342 Cab Occupied Low Priority MCB Tripped

Fault Code: 5177

Fault Description: Cab Occupied Low Priority MCB Tripped

Location: CRW for DMC1/DMC2

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- If still problem persist check the wiring.
   If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.343 BAL MCB Tripped

Fault Code: 5178

Fault Description: BAL MCB Tripped

Location: CRW for DMC1/DMC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-3

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

# 3.344 Emergency Lights MCB Tripped

Fault Code: 5179

Fault Description: Emergency Lights MCB Tripped

Location: CRW for DMC1/DMC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 10 Sub Functional group-2

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.345 PB MCB Tripped

Fault Code: 5180

Fault Description: PB MCB Tripped Location: CRW for DMC1/DMC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-4

### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- If still problem persist check the wiring.
   If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.346 HTC Fans MCB Tripped

Fault Code: 5181

Fault Description: HTC Fans MCB Tripped

Location: CRW for DMC1/DMC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 11 Sub Functional group-2

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

# 3.347 Cab Occupied High Priority MCB Tripped

Fault Code: 5182

Fault Description: Cab Occupied High Priority MCB Tripped

Location: CRW for DMC1/DMC2

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.348 MAC MPCB Tripped

Fault Code: 5183

Fault Description: MAC MPCB Tripped

Location: CRW for DMC1/DMC2

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-2

### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- If still problem persist check the wiring.
   If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.349 Transformer Oil Pump MCB Tripped

Fault Code: 5184

Fault Description: Transformer Oil Pump MCB Tripped

Location: CRW for DMC1/DMC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-2

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

# 3.350 Tail Light MCB Tripped

Fault Code: 5185

Fault Description: Tail Light MCB Tripped

Location: CRW for DMC1/DMC2

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 10 Sub Functional group-1

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.351 DBC MCB Tripped

Fault Code: 5186

Fault Description: DBC MCB Tripped

Location: CRW for DMC1/DMC2

# Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- If still problem persist check the wiring.
   If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

# 3.352 Panto VCB MCB Tripped

Fault Code: 5187

Fault Description: Panto VCB MCB Tripped

Location: CRW for DMC1/DMC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 1 Sub Functional group-1

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.353 TCC Blower 1 MCB Tripped

Fault Code: 5188

Fault Description: TCC Blower 1 MCB Tripped

Location: CRW for DMC1/DMC2

### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-3

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

# 3.354 TCC Blower 2 MCB Tripped

Fault Code: 5189

Fault Description: TCC Blower 2 MCB Tripped

Location: CRW for DMC1/DMC2

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-3

### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- If still problem persist check the wiring.
   If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.355 TIC 1 MCB Tripped

Fault Code: 5190

Fault Description: TIC 1 MCB Tripped

Location: CRW for DMC1/DMC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-3

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.356 TIC 2 MCB Tripped

Fault Code: 5191

Fault Description: TIC 2 MCB Tripped

Location: CRW for DMC1/DMC2

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-3

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.357 LIC 1 MCB Tripped

Fault Code: 5192

Fault Description: LIC 1 MCB Tripped

Location: CRW for DMC1/DMC2

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-3

### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- If still problem persist check the wiring.
   If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.358 LIC 2 MCB Tripped

Fault Code: 5193

Fault Description: LIC 2 MCB Tripped

Location: CRW for DMC1/DMC2

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 3 Sub Functional group-3

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.359 ACU MCB Tripped

Fault Code: 5194

Fault Description: ACU MCB Tripped

Location: CRW for DMC1/DMC2

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 8 Sub Functional group-1

#### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- 2. If still problem persist check the wiring.
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.360 Flasher MCB Tripped

Fault Code: 5195

Fault Description: Flasher MCB Tripped

Location: CRW for DMC1/DMC2

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 10 Sub Functional group-1

### Check:

- 1. Ensure that CB should be ON. If CB is On condition the DIP status should be high.
- If still problem persist check the wiring.
   If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.361 Forward Train Line Not Plausible with ETB Command

Fault Code: 5667

Fault Description: Forward Train Line Not Plausible with ETB Command

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-1

#### Check:

1.check the FORWARD train line wiring

2. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.362 Reverse Train Line Not Plausible with ETB Command

Fault Code: 5668

Fault Description: Reverse Train Line Not Plausible with ETB Command

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-1

#### Check:

1.check the REVERSE train line wiring

2. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.363 Drive Train Line Not Plausible with ETB Command

Fault Code: 5669

Fault Description: Drive Train Line Not Plausible with ETB Command

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-1

#### Check:

1.check the DRIVE train line wiring

If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.364 Brake Train Line Not Plausible with ETB Command

Fault Code: 5670

Fault Description: Brake Train Line Not Plausible with ETB Command

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-1

#### Check:

1.check the BRAKE train line wiring

If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.365 Coast Train Line Not Plausible with ETB Command

Fault Code: 5671

Fault Description: Coast Train Line Not Plausible with ETB Command

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-1

#### Check:

1.check the COAST train line wiring

2. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.366 RDM Train Line Not Plausible with ETB Command

Fault Code: 5672

Fault Description: RDM Train Line Not Plausible with ETB Command

Location: CRW for DMC1/DMC2, EWP1 NAE for TC1/TC2/TC3

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3.

Functional group- 2 Sub Functional group-1

#### Check:

1.check the RDM train line wiring

2. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.367 EP Stuck brake detected

Fault Code: 12289

Fault Description: EP Stuck brake detected

Location: Not Applicable

Schematic: Not Applicable

Check:

Informative message only

# 3.368 EBL 1 Loop Triggered

Fault Code: 12290

Fault Description: EBL 1 Loop Triggered

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

### Check:

- 1. Check for emergency brake application through a Dead man/EB handle/Emergency brake switch operated in any of the cab
- 2. Check EBL1 Relay should be in Pick up condition.
- 3. If EBL1 Relay is in dropped condition Check the supply across the relay coil. If supply is available then replace the coil.
- 4. Check DIP status on MCC's.

### 3.369 EBL 2 Loop Triggered

Fault Code: 12291

Fault Description: EBL 2 Loop Triggered
Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

### Check:

- 1. Check for emergency brake application through a Dead man/ EB handle/ Emergency brake switch operated in any of the cab
- 2. Check the EBL2 Relay should be in Pick up condition.
- 3. If EBL2 Relay is in dropped condition Check the supply across the relay coil. If supply is available then replace the coil.
- 4. Check the DIP status on MCC's.

### 3.370 Emergency Brake Active Without Command

Fault Code: 12292

Fault Description: Emergency Brake Active Without Command

Location: Not Applicable

Schematic: Not Applicable

#### Check:

- 1. Check the Auto Brake is in release condition.
- 2. Check the master controller is in coast.
- 3. Check the guard A9 handle to be in released position.
- 4. If still problem persist then check the wiring.

# 3.371 Emergency Brake not applied in atleast 1 Coach

Fault Code: 12293

Fault Description: Emergency Brake not applied in atleast 1 Coach

Location:

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

#### Check:

Check the wiring of emergency valve.

### 3.372 Local EB1 Relay Fail to Pick Up

Fault Code: 12299

Fault Description: Local EB1 Relay Fail to Pick Up

Location: DMC1/DMC2-CRW Panel

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

### Check:

- 1. Check the wiring of Local EB1 relay.
- 2. If wiring is OK, Check the relay.3. Check the wiring of Local EB1 relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card

### 3.373 Local EB1 Relay Fail to Drop Out

Fault Code: 12300

Fault Description: Local EB1 Relay Fail to Drop Out

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

#### Check:

- 1. Check the wiring of Local EB1 relay.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Local EB1 relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card

# 3.374 Local EB2 Relay Fail to Pick Up

Fault Code: 12301

Fault Description: Local EB2 Relay Fail to Pick Up

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

#### Check:

- 1. Check the wiring of Local EB2 relay.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Local EB2 relay feed back digital I/p to MCC.
- If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

### 3.375 Local EB2 Relay Fail to Drop Out

Fault Code: 12302

Fault Description: Local EB2 Relay Fail to Drop Out

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

### Check:

- 1. Check the wiring of Local EB2 relay
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Local EB2 relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card

# 3.376 EBL1 Relay Fail to Pick Up

Fault Code: 12303

Fault Description: EBL1 Relay Fail to Pick Up

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

#### Check:

- 1. Check the wiring of EBL1 relay.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of EBL1 relay feed back digital I/p to MCC.
- If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

# 3.377 EBL1 Relay Fail to Drop Out

Fault Code: 12304

Fault Description: EBL1 Relay Fail to Drop Out

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

#### Check:

- 1. Check the wiring of EBL1 relay.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of EBL1 relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.378 EBL2 Relay Fail to Pick Up

Fault Code: 12305

Fault Description: EBL2 Relay Fail to Pick Up

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

### Check:

- 1. Check the wiring of EBL2 relay.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of EBL2 relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

### 3.379 EBL2 Relay Fail to Drop Out

Fault Code: 12306

Fault Description: EBL2 Relay Fail to Drop Out

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

#### Check:

- 1. Check the wiring of EBL2 relay.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of EBL2 relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card

# 3.380 Motoring Prohibited In Rake

Fault Code: 12307

Fault Description: Motoring Prohibited In Rake

Location: Not Applicable

Schematic: Not Applicable

Check:

Informative message only

### 3.381 Train Over Speed Detected

Fault Code: 12308

Fault Description: Train Over Speed Detected

Location: Not Applicable

Schematic: Not Applicable

### Check:

Informative message only. Ensure that you dont cross the Vmax speed limit.

# 3.382 Train Crossed 60 Kmph when minimum 1 Air Suspension failed

Fault Code: 12311

Fault Description: Train Crossed 60 Kmph when minimum 1 Air Suspension failed

Location: Not Applicable

Schematic: Not Applicable

#### Check:

- 1. Air suspension is considered as broken.
- 2. Do visual inspection of suspension at next halt.

# 3.383 Train Over Speed Detected in Reverse Motoring

Fault Code: 12314

Fault Description: Train Over Speed Detected in Reverse Motoring

Location: Driver Desk Driver Area

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

- 1. Check the train speed should be below 15 Kmph.
- 2. Bring MCH to coast and maintain train speed below 15 mph.

### 3.384 Emergency Brake detected due to Guard A9 Handle in CAB1

Fault Code: 12315

Fault Description: Emergency Brake detected due to Guard A9 Handle in CAB1

Location: Driver Desk Driver Area

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-4

### Check:

- 1. Check the Guard A9 handle should be in release condition in CAB1.
- 2. Check the wiring to MCC's
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

# 3.385 Emergency Brake detected due to Guard A9 Handle in CAB2

Fault Code: 12316

Fault Description: Emergency Brake detected due to Guard A9 Handle in CAB2

Location: Driver Desk Driver Area

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-4

#### Check:

- 1. Check the Guard A9 handle should be in release condition in CAB2.
- 2. Check the wiring to MCC's
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

# 3.386 Emergency Brake detected due to Driver A9 Handle in CAB1

Fault Code: 12317

Fault Description: Emergency Brake detected due to Driver A9 Handle in CAB1

Location: Driver Desk Driver Area

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-4

#### Check:

- 1. Check the Driver A9 handle should be in release condition in CAB1.
- 2. Check the wiring to MCC's
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

# 3.387 Emergency Brake detected due to Driver A9 Handle in CAB2

Fault Code: 12318

Fault Description: Emergency Brake detected due to Driver A9 Handle in CAB2

Location: Driver Desk Driver Area

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-4

### Check:

- 1. Check the Driver A9 handle should be in release condition in CAB2.
- 2. Check the wiring to MCC's
- 3. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

Fault Code: 12319

### 3.388 Driver Acknowledgment For Reverse Motoring Required

Fault Description: Driver Acknowledgment For Reverse Motoring Required
Location: NA
Schematic: NA
Check: Informative message only
3.389 Cab occupation failed due to ICS in Off condition
Fault Code: 12320
Fault Description: Cab occupation failed due to ICS in Off condition
Location: NA
Schematic: NA

### Check:

Informative message only. Need to close the ICS handle in occupied cab.

### 3.390 Illegal direction change while train is running

Fault Code: 12321 Fault Description: Illegal direction change while train is running

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

### Check:

- 1. Ensure that the train speed should be zero to change the direction.
- 2. Check the corresponding inputs on MCC's3. If inputs are illegal then check for wiring.

Location: DMC1/DMC2-CRW Panel

### 3.391 BP too low for operation

Fault Code: 12323
Fault Description: BP too low for operation

Location: Not Applicable

Schematic:

NA

#### Check:

- 1. Ensure that there is no BP leakage through out the rake.
- 2. Check the BP Pressure switch input at all the MCC's.
- 3. If Input is high then check the pressure sw mal-function.
- 4. Still if problem persists check the wiring of BP pressure sw.

### 3.392 ETB Network has failed

Fault Code: 12324

Fault Description: ETB Network has failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 5 Sub Functional group-2

### Check:

- 1. Check ETB Network with all MCC in Network Screen of DDU.
- 2. If the Network is not established check ETB Connectors

are properly connected on MCC.

3. If still problem still persist then check the wiring.

### 3.393 System entered into RAP3 mode

Fault Code: 12325

Fault Description: System entered into RAP3 mode

Location: NA

Schematic:

NA

Check:

Informative message only

### 3.394 Both cabs are occupied

Fault Code: 12330

Fault Description: Both cabs are occupied

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

- 1. Ensure that no cab is occupied through out the rake except 1 DMC.
- 2. Check the cab occupy input in DMC coach. It should be NOT BE zero.
- 3. Check the another cab occupy input in the other DMC coach. It should be zero.
- 4. If the inputs are high (in both DMC's) then check the cab occupy and another cab occupy wiring.
- 5. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card

### 3.395 Cab occupied regular circuit is failed

Fault Code: 12332

Fault Description: Cab occupied regular circuit is failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

- 1. Check the feed back of Cab Occupy regular loop relay on DIP module of MCC.
- 2. If still probelm persists then check the wiring and coils of cab occupy relay.

# 3.396 Cab occupied high priority circuit is failed

Fault Code: 12333

Fault Description: Cab occupied high priority circuit is failed

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

### Check:

- 1. Check the feed back of Cab Occupy High priority loop relay on DIP module of MCC.
- 2. If still probelm persists then check the wiring and coils of cab occupy relay.

### 3.397 Panto Overreach detected

Fault Code: 12334

Fault Description: Panto Overreach detected

Location: Not Applicable

Schematic: Not Applicable

#### Check:

1. Visually inspect pantographs and overhead line.

2. If overhead line and other pantographs are OK, raise pantographs again. The pantograph on which the overreach detection has tripped will not be raised again.

# 3.398 Key removed in Running

Fault Code: 12335

Fault Description: Key removed in Running

Location: Driver Desk Driver Area

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

- 1. Train speed should be made Zero.
- 2. Check the wiring of Master controller in case the fault is still not cleared.

### 3.399 MR too low for operation

Fault Code: 12336

Fault Description: MR too low for operation

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-2

### Check:

- 1. Check all 2 MAC status whether on/off
- 2. Ensure that there is no MR leakage through out the rake.
- 3. Check the MR Pressure switch input at all MCC.
- 4. If Input is high then check the pressure sw mal-function
- 5. Still if problem persists check the wiring of MR pressure sw.

# 3.400 ICS closed in un-occupied cab

Fault Code: 12337

Fault Description: ICS closed in un-occupied cab

Location: Driver Desk Driver Area

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

Check:

Ensure no ICS closed in all unoccup[ied cab

check ICS HANDLE I/P STATUS wiring, if found ok change dip card

### 3.401 PB Stuck brake detected

Fault Code: 12338

Fault Description: PB Stuck brake detected

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

Check:

Check the wiring of PB valve

### 3.402 Train Roll Back Detected

Fault Code: 12339

Fault Description: Train Roll Back Detected

Location: NA

Schematic:

NA

Check:

Informative message only. Increase the MCH percentage a little more to clear the fault.

# 3.403 Train Over Speed Detected in maintenance mode

Fault Code: 12341
Fault Description: Train Over Speed Detected in maintenance mode
Location: NA
Schematic: NA
Check:  1. Check the train speed should be below 15 Kmph.  2. Bring MCH to coast and maintain train speed below 15 Kmph.

# 3.404 Main Air Compressor is running too long

Fault Code: 12342

Fault Description: Main Air Compressor is running too long

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-2

Check:

Check MAC PRSW feedback wiring if

found ok change dip card

still problem exists change MAC driving DOP card

3.405	BP Difference between both the driving cabs is too High
Fault Co	e: 12348
Fault De	cription: BP Difference between both the driving cabs is too High
Location	NA
Schemat NA	;;
Check: check diff	rence between both cab BP sensor value. It should not be more than 0.2 bar.

# 3.406 EBL 3 Loop Triggered

Fault Code: 12349

Fault Description: EBL 3 Loop Triggered Location: DMC1/DMC2-CRW Panel

Eccation: Divio 17 Divio2-ORW 1 ai

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

#### Check:

1. Check all the sources of Emergency Brake application.

2. Check Driving status of EOL3 channel at MCC and EOL3 relay feed back on DIP card.

In case of mis match check the wiring.

# 3.407 MR sensor faulty

Fault Code: 12801

Fault Description: MR sensor faulty

Location: Driver desk

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

### Check:

1.Check the wiring to AFIP card and if found ok, replace MR Sensor

2.still problem exists replace AFIP card

# 3.408 Recorder communication faulty with Main MCC

Fault Code: 12816

Fault Description: Recorder communication faulty with Main MCC

Location: Driver desk

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 13 Sub Functional group-4

### Check:

Check communication cable wiring between MCC and speedometer.

# 3.409 Head Light Under Current

Fault Code: 12817

Fault Description: Head Light Under Current

Location: Driver desk

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 10 Sub Functional group-1

#### Check:

- 1. Visually check the Head Light whether both the filaments are working or not.
- 2. If any one filament is not glowing then replace the filament.
- 3. If still problem persists then check the setting of under current relay. If still problem is not solved then check the wiring

# 3.410 MCH Frequency failed at Main MCC

Fault Code: 12818

Fault Description: MCH Frequency failed at Main MCC

Location: Driver desk

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

- 1. Check the FGU unit through DDU frquency test mode.
- 2. Check all the connectors on FGU and MCC.
- 3. Check all the wring of FGU.
- 4. If still probelm presists replace the FIP card.

## 3.411 Min 1 brake applied relay failed to drop out

Fault Code: 12827

Fault Description: Min 1 brake applied relay failed to drop out

Location: DMC1/DMC2-CRW Panel

# Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

#### Check:

- 1. Check the wiring of Brake Applied relay.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Brake Applied relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card

# 3.412 Min 1 brake applied relay failed to pickup

Fault Code: 12828

Fault Description: Min 1 brake applied relay failed to pickup

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-2

#### Check:

- 1. Check the wiring of Brake Applied relay.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Brake Applied relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card

# 3.413 Cab occupied loop1 isolation relay failed to pickup

Fault Code: 12836

Fault Description: Cab occupied loop1 isolation relay failed to pickup

Location:

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

- 1. Check the wiring of Cab Occupy Loop1 ISO relay.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Cab Occupy Loop1 ISO relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change the DIP card.

# 3.414 Cab occupied loop1 isolation relay failed to drop out

Fault Code: 12837

Fault Description: Cab occupied loop1 isolation relay failed to drop out

Location:

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

- 1. Check the wiring of Cab Occupy Loop1 ISO relay.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Cab Occupy Loop1 ISO relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

# 3.415 Cab occupied loop2 isolation relay failed to pickup

Fault Code: 12838

Fault Description: Cab occupied loop2 isolation relay failed to pickup

Location:

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

- 1. Check the wiring of Cab Occupy Loop2 ISO relay.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Cab Occupy Loop2 ISO relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

# 3.416 Cab occupied loop2 isolation relay failed to drop out

Fault Code: 12839

Fault Description: Cab occupied loop2 isolation relay failed to drop out

Location:

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

- 1. Check the wiring of Cab Occupy Loop2 ISO relay.
- 2. If wiring is OK, Check the relay.
- 3. Check the wiring of Cab Occupy Loop2 ISO relay feed back digital I/p to MCC.
- 4. If wiring is OK, check LEDs of corresponding channel on DIP card. If not matching change DIP card.

#### 3.417 Maintenance ID entered

Fault Code: 12848

Fault Description: Maintenance ID entered

Location: NA

Schematic:

NA

Check:

Informative message only

## 3.418 Pop up for BN under voltage is acknowledged

Fault Code: 12849
Fault Description: Pop up for BN under voltage is acknowledged
Location: NA
Schematic:
NA

Check:
Informative message only

# 3.419 MCH Frequency failed at Redundant MCC

Fault Code: 13130

Fault Description: MCH Frequency failed at Redundant MCC

Location: Driver desk

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

- 1. Check the FGU unit through DDU frquency test mode.
- 2. Check all the connectors on FGU and MCC.
- Check all the wring of FGU.
- 4. If still probelm presists replace the FIP card.

## 3.420 Minimum 1 PB Train line Faulty

Fault Code: 13139

Fault Description: Minimum 1 PB Train line Faulty

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 9 Sub Functional group-3

Check:

Check PB apply trainline wiring

Fault Code: 13141

# 3.421 Speed Recorder Communication Failed with Redundant MCC

Fault Description: Speed Recorder Communication Failed with Redundant MCC

Location: Driver desk
Schematic: SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.
Functional group- 13 Sub Functional group-4
Check: Check communication cable wiring between MCCR and speedometer
3.422 Panto switch pushed up
Fault Code: 13312
Fault Description: Panto switch pushed up  Location: NA
Schematic: NA
Check: Informative message only
3.423 Vcb Switch pushed on
Fault Code: 13313
Fault Description: Vcb Switch pushed on Location: NA
Schematic: NA
Check: Informative message only

Fault Code: 13314

# 3.424 Neutral section mode entered

Fault Description: Neutral section mode entered
Location: NA
Schematic:
NA NA
Check:
Informative message only
3.425 Rescue Drive Mode (RDM) Entered
Fault Code: 13321
Fault Description: Rescue Drive Mode (RDM) Entered
Location: NA
Schematic:
NA
Check:
Informative message only
3.426 Master Key Switched On
Fault Code: 13322
Fault Description: Master Key Switched On
Location: NA
Outroma Co.
Schematic: NA
Check:
Informative message only

# 3.427 Cab Is Occupied

Fault Code: 13323
Fault Description: Cab Is Occupied
Location: NA
Schematic: NA
Check: Informative message only
3.428 Speed Governor Mode Requested
Fault Code: 13324
Fault Description: Speed Governor Mode Requested
Location: NA
Schematic: NA
Check: Informative message only
3.429 Emergency OFF switch at Driver pressed
Fault Code: 13325
Fault Description: Emergency OFF switch at Driver pressed
Location: NA
Schematic: NA
Check: Informative message only

# 3.430 Emergency OFF isolation switch is activated

# 3.433 Emergency Brake Triggered due to Deadman Release

Fault Code: 13330
Fault Description: Emergency Brake Triggered due to Deadman Release
Location: NA
Schematic: NA
Check: Informative message only
3.434 Emergency Brake Triggered due to PBC
Fault Code: 13331
Fault Description: Emergency Brake Triggered due to PBC
Location: NA
Schematic: NA
Check: Informative message only
3.435 Lights 100% Switch Operated
Fault Code: 13332
Fault Description: Lights 100% Switch Operated
Location: NA
Schematic: NA
Check: Informative message only

# 3.436 Lights 50% Switch Operated

Fault Code: 13333
Fault Description: Lights 50% Switch Operated
Location: NA
Schematic: NA
Check: Informative message only
3.437 Passenger Fans ON Switch is Pushed
Fault Code: 13334
Fault Description: Passenger Fans ON Switch is Pushed
Location: NA
Schematic: NA
Check: Informative message only
3.438 PB Release Pushed in DMC
Fault Code: 13336
Fault Description: PB Release Pushed in DMC
Location: NA
Schematic: NA
Check: Informative message only

# 3.439 ICS Bypass Switch is pushed on

Fault Code: 13344
Fault Description: ICS Bypass Switch is pushed on
Location: NA
Schematic: NA
Check: Informative message only
3.440 Single unit mode is activated
Fault Code: 13351
Fault Description: Single unit mode is activated
Location: NA
Schematic: NA
Check: Informative message only
3.441 BN Under voltage is detected
Fault Code: 13360
Fault Description: BN Under voltage is detected
Location: NA
Schematic: NA
Check: Informative message only

# 3.442 BN Under voltage is isolated

Fault Code: 13361
Fault Description: BN Under voltage is isolated
Location: NA
Schematic: NA
Check: Informative message only
3.443 All MAC ON switch is pressed
Fault Code: 13387
Fault Description: All MAC ON switch is pressed
Location: NA
Schematic: NA
Check: Informative message only
3.444 Cab occupied high priority loop is selected
Fault Code: 13389
Fault Description: Cab occupied high priority loop is selected
Location: NA
Schematic: NA
Check: Informative message only

# 3.445 Key inserted twice

Fault Code: 13390
Fault Description: Key inserted twice
Location: NA
Schematic: NA
Check:
Informative message only
3.446 Holding brake released from display
Fault Code: 13398
Fault Description: Holding brake released from display
Location: NA
Schematic: NA
Check: Informative message only
3.447 Parking brake released by TCMS
Fault Code: 13400
Fault Description: Parking brake released by TCMS  Location: NA
Schematic: NA
Check: Informative message only

Fault Code: 13824

# 3.448 Main MCC network master

Fault Description: Main MCC network master
Location: NA
Schematic:
NA
Check:
Informative message only
2 449 Main MCC active clave
3.449 Main MCC active slave
Fault Code: 13825
Fault Description: Main MCC active slave
Location: NA
Schematic:
NA NA
Check:
Informative message only
3.450 Main MCC Regular slave
Fault Code: 13826
Fault Description: Main MCC Regular slave
Location: NA
Out a most to
Schematic: NA
Chaoki
Check: Informative message only
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# 3.451 BU 1 MR pressure switch not inline with sensor

Fault Code: 13834

Fault Description: BU 1 MR pressure switch not inline with sensor

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-2

#### Check:

Check pressure sw feedback wiring check

PRSW calibration(cutin and cutoff)

compare corresponding channel LED status on DIP card and if there's a mismatch, then change card and If still problem exists, change sensor

## 3.452 BU 2 MR pressure switch not inline with sensor

Fault Code: 13835

Fault Description: BU 2 MR pressure switch not inline with sensor

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-2

#### Check:

Check pressure sw feedback wiring check

PRSW calibration(cutin and cutoff)

compare corresponding channel LED status on DIP card IF mismatch change card

still problem exists change sensor

## 3.453 BU 3 MR pressure switch not inline with sensor

Fault Code: 13836

Fault Description: BU 3 MR pressure switch not inline with sensor

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-2

#### Check:

Check pressure sw feedback wiring check

PRSW calibration(cutin and cutoff)

compare corresponding channel LED status on DIP card and if there's a mismatch, then change card and if still problem exists change sensor

# 3.454 BU 4 MR pressure switch not inline with sensor

Fault Code: 13837

Fault Description: BU 4 MR pressure switch not inline with sensor

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 7 Sub Functional group-2

#### Check:

Check pressure sw feedback wiring check

PRSW calibration(cutin and cutoff)

compare corresponding channel LED status on DIP card and if there's a mismatch, then change card and If still problem exists change sensor

# 3.455 MCH Frequency out of range at Main MCC

Fault Code: 13868

Fault Description: MCH Frequency out of range at Main MCC

Location: Driver desk

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

Check MCH frequency vale should be between 282 to 484 hertz. If is not, then check the wiring at FGU unit or change AFIP card.

# 3.456 MCH ADC Value out of range at Main MCC

Fault Code: 13869

Fault Description: MCH ADC Value out of range at Main MCC

Location: Driver desk

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

check MCH current sensor value should be between 4-20ma. If it is not, then change AFIP card before you verify the wiring.

## 3.457 Direction not plausible

Fault Code: 14255

Fault Description: Direction not plausible

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

check forward and reverse inputs, at a time both I/P should not be high. If they are, then check their wiring.

# 3.458 MCH Inputs faulty at Main MCC

Fault Code: 14256

Fault Description: MCH Inputs faulty at Main MCC

Location: DMC1/DMC2-CRW Panel

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1 ED 1202 for DMC2.

Functional group- 2 Sub Functional group-1

#### Check:

verify Drive Brake and Coast inputs as per MCH handle position.

#### 3.459 Audio Visual alarm on

Fault Code: 14257

Fault Description: Audio Visual alarm on

Location: NA

Schematic:

NA

Check:

Informative message only

## 3.460 Pop up for at least one air spring sensor faulty

Fault Code: 14258

Fault Description: Pop up for at least one air spring sensor faulty

Location: coach underframe

#### Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M),

ED 1201 for DMC1, ED 1202 for DMC2, ED 1203 for TC1, ED 1204 for TC2 and ED 1205 for TC3

Functional group- 2 Sub Functional group-3

#### Check:

- 1. Check the Wiring of the sensor.
- 2. Replace AIP card of particular coach control unit.
- 3. If still problem persists replace the sensor.

# 3.461 Pop up for at least one air spring suspension faulty

Fault Code: 14259

Fault Description: Pop up for at least one air spring suspension faulty

Location: coach underframe

#### Schematic:

NA

#### Check:

Inspect the Bellow of corresponding bogie. If Bellow is broken inform to workshop. If bellow is not broken then verify the isolating valves of air suspension.

# 3.462 Pop up for at least one air spring supervision overridden

Fault Code: 14260

Fault Description: Pop up for at least one air spring supervision overridden

Location: NA

Schematic:

NA

Check:

Informative message only

## 3.463 Head light current sensor faulty

Fault Code: 14261

Fault Description: Head light current sensor faulty

Location: Driver Desk

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, and ED 1202 for DMC2

Functional group- 10 Sub Functional group-1

#### Check:

- 1. Check the Wiring of the sensor.
- 2. Replace AFIP card of particular coach control unit.
- 3. If still problem persists replace the sensor.

# 3.464 MCH frequency out of range at Redundant MCC

Fault Code: 14263

Fault Description: MCH frequency out of range at Redundant MCC

Location: Driver desk

Schematic:

SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, and ED 1202 for DMC2

Functional group- 2 Sub Functional group-1

#### Check:

Check MCH frequency value to be between 282 to 484 hertz. If it is not, check the wiring at FGU unit and if the Problem still exists, change the FIP card.

#### 3.465 Redundant MCC network master

Fault Code: 14264

Fault Description: Redundant MCC network master

Location: NA

Schematic:

NA

Check:

Informative message only

### 3.466 Redundant MCC active slave

Fault Code: 14265
Fault Description: Redundant MCC active slave
Location: NA
Schematic:
NA
Check:
Informative message only
2 467 Padundent MCC Pagular alaya

## 3.467 Redundant MCC Regular slave

Fault Code: 14266
Fault Description: Redundant MCC Regular slave
Location: NA
Schematic:
NA

Check:
Informative message only

# 3.468 MCH Inputs faulty at Redundant MCC

Fault Code: 14267

Fault Description: MCH Inputs faulty at Redundant MCC

Location: DMC1/DMC2-CRW Panel

Schematic:
SCHEMATIC DIAGRAM FOR MEMU (MAE675M), ED 1201 for DMC1, and ED 1202 for DMC2

Functional group- 2 Sub
Functional group-1

#### Check

Verify Drive Brake and Coast inputs as per MCH handle position. If they are not indicating as per design, Check their wiring under FGU or change the AFIP card.

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# **Troubleshooting Manual**

# 25 KV AC THREE PHASE INDIGENOUS PROPULSION & OTHER EQUIPMENT FOR MEMUS

**TYPE MEMU** 



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