

Initialisation / Mode Selection

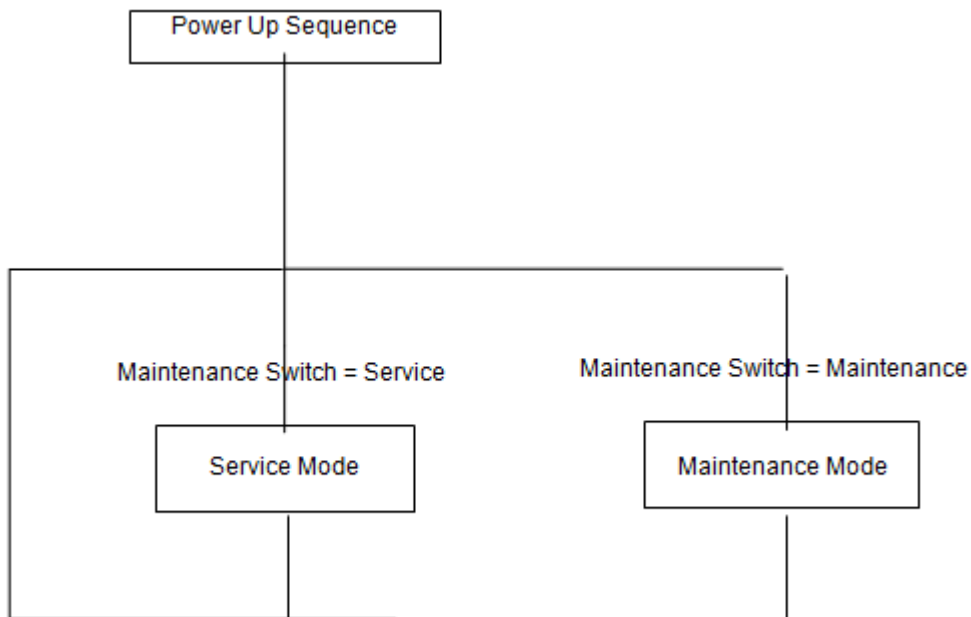


Figure 2: Service Mode Menu Structure

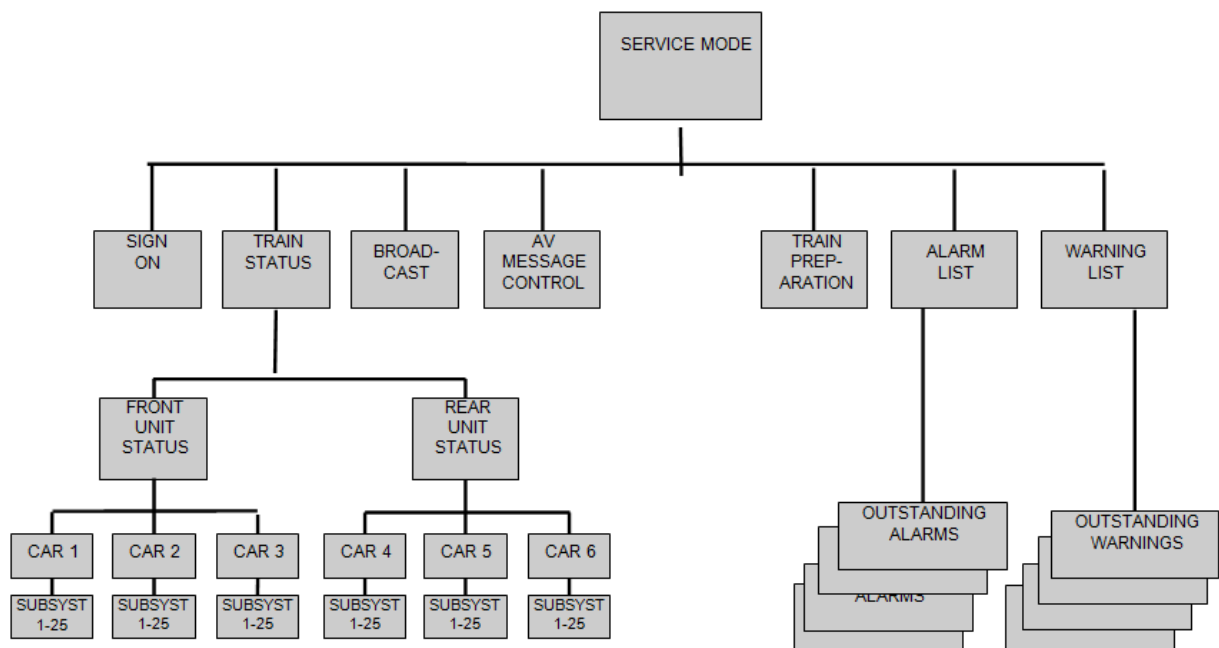


Figure 3: Maintenance Mode Menu Structure (1)

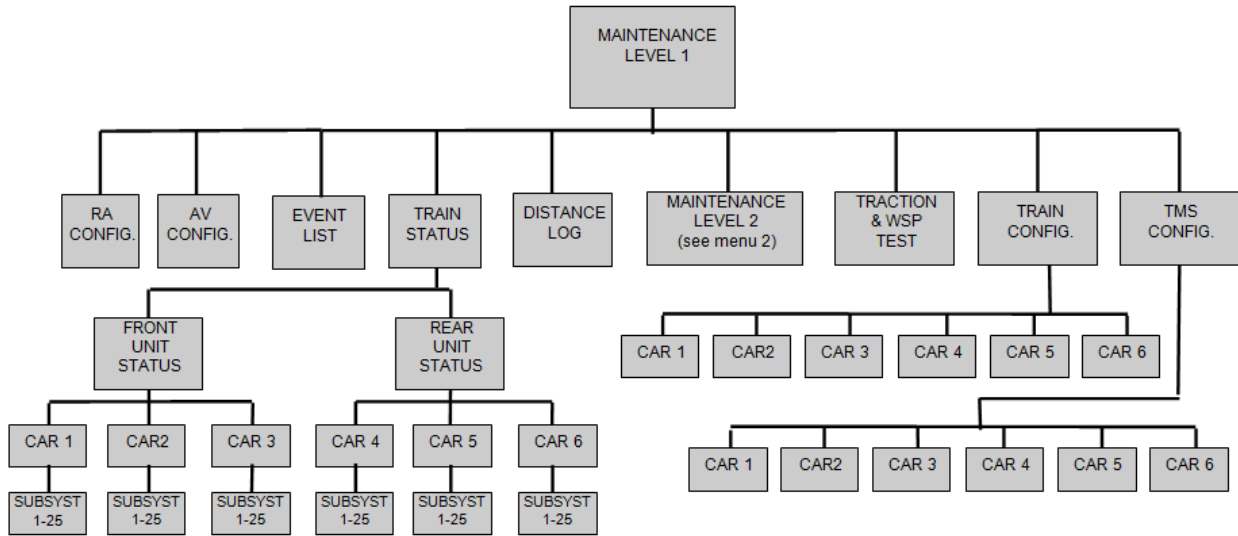


Figure 4: Maintenance Mode Menu Structure (2)

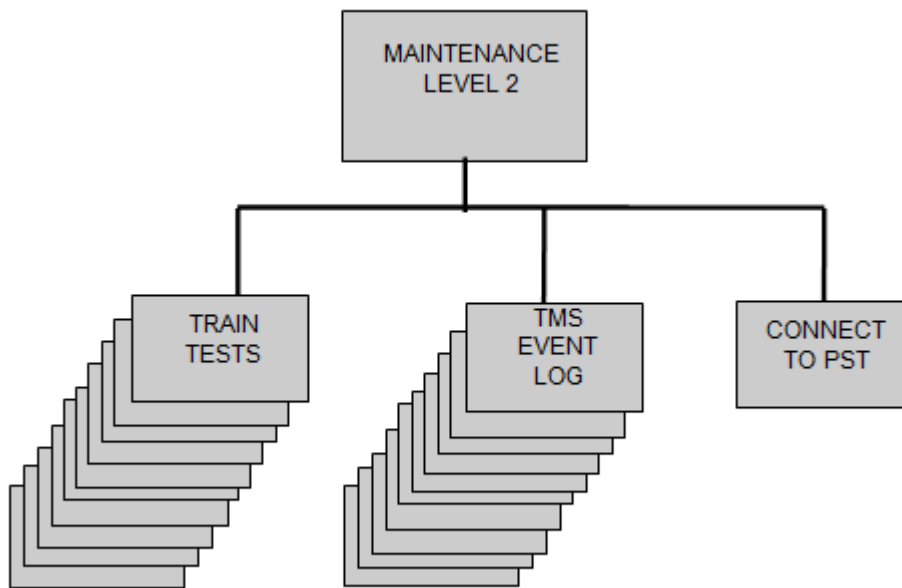


Figure 5: Service Mode Menu Display

NORTHERN LINE SERVICE MODE		
Sign On		
Train Status		
Broadcast		
AV Message Control		
Train Preparation		
Alarm List (2 Alarms)		
Warning List (No Warnings)		
15:36:42	EDGWARE	160

Figure 6: Sign On Display

NORTHERN LINE SIGN ON	
Crew Number	000
Destination	003
Train Running Number	160
Operator ID	12345
Crew Identity Number	1234567
Press ENT to Accept	
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Figure 6: Train Level Status Display

NORTHERN LINE TRAIN STATUS	
Front Unit Fault	
Rear Unit OK	
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Figure 7: Unit Level Status Display

NORTHERN LINE FRONT UNIT STATUS	
Car 1 Car Number	XXXXX OK
Car 2 Car Number	XXXXX OK
Car 3 Car Number	XXXXX FAULT
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Figure 8: Car Level Status Display

NORTHERN LINE CAR 3 STATUS		
Air Suspension	OK	
Audio Visual Communications	OK	
Auxiliary Converter	Fault	
Auxiliary Distribution	OK	
Compressor and Air Distribution	OK	
Door Control	OK	
Heating and Ventilation	OK	
Interior Doors and Cabinets	OK	
Safety Proving Circuit	OK	MORE
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Table 1: List of sub systems present in each car

Text to Display on 'CAR n STATUS' Menu	TMS Ident	Car 1	Car 2	Car 3
Air Suspension	AS	X	X	X
Audio Visual Communications	AV	X	X	X
Auxiliary Converter	AC	-	-	X
Auxiliary Distribution	AD	X	X	X
Compressor and Air Distribution	AI	X	X	X
Cab Air Conditioning	CA	X	-	-
De-icing and Sleet Brush	DI	X	X	-
Door Control	DR	X	X	X
Heating and Ventilation	HV	X	X	X
Incident recorder	IR	X	-	-
Interior Doors and Cabinets	DC	X	X	X
Platform CCTV	VP	X	-	-
Safety Proving Circuit	SC	X	X	X
Saloon CCTV	VS	-	X	-
Saloon Lighting	LT	X	X	X
Shunting Control Position	SP	X	X	X
Track to Train Data Link	TT	X	X	-
Traction Control	TR	X	X	X
Train Control	TC	X	-	X
Train Management System	TM	X	X	X
Traction Inverter	TI	X	-	X
Train Radio	RA	X	-	-
VOBC	AT	X	-	-
Uncoupler	UC	X	-	X
Wheel Slide Protection	WS	X	X	X

Figure 9: Broadcast - Special Message Selection

NORTHERN LINE SPECIAL MESSAGE SELECTION		
No Smoking		
Evacuate Train		
Leave the Train		
Train Technical Defect		
Safety Announcement		
Emergency Alarm		
Next Station Closed		
Destination Morden		
Terminate at Kennington		MORE
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NORTHERN LINE SPECIAL MESSAGE SELECTION		
Train Technical Defect		
Safety Announcement		
Emergency Alarm		
Next Station Closed		
Destination Morden		
Terminate at Kennington		
Train about to Depart		
Stand Clear of the Doors		
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Figure 10: AV Message Control

NORTHERN LINE SPECIAL MESSAGE SELECTION		
* Enable all Messages		
Disable all Messages		
Disable all Messages for 1 Station		
Disable Next Station Audio Message		
Disable Messages except TERM & INT		
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Figure 11: Train Preparation Tests

NORTHERN LINE TRAIN PREPARATION TESTS		
Emergency Brake Test - Safety Circuit A		
Emergency Brake Test - Safety Circuit B		
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Figure 12: Outstanding Alarm List

NORTHERN LINE OUTSTANDING ALARMS		
A Passenger Alarm Operated Car 1		
B Passenger Alarm Cut-Out Car 1		
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Figure 13: Outstanding Alarm Help Text

NORTHERN LINE PASSENGER ALARM CUT-OUT CAR 1		
PEA operation will be Alarm/Talkback only. Reset when safe. Follow safety procedures		
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Figure 14: Outstanding Warnings List

NORTHERN LINE OUTSTANDING WARNINGS		
W Saloon Audio Visual Fault Car 1		
W Saloon Display Fault Car 2		
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Figure 15: Outstanding Warning Help Text

NORTHERN LINE SALOON DISPLAY FAULT CAR 2.		
Note on defect log		
15:36:42	EDGWARE	160

Figure 16: Unacknowledged Category A Alarm

NORTHERN LINE CATEGORY A ALARM		
Passenger Alarm Cut-Out Operated Car 1		
Press Alarm Acknowledge		
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Figure 17: Unacknowledged Category B Alarm

NORTHERN LINE CATEGORY B ALARM		
Traction Fault Car 1		
Press Alarm Acknowledge		
15:36:42	EDGWARE	160

Figure 17: Unacknowledged Warning

NORTHERN LINE WARNING		
Cab Air Conditioning Fault		
Press ENT to Acknowledge		
15:36:42	EDGWARE	160

Figure 18: Acknowledged Warning

NORTHERN LINE WARNING		
Slip/Slide System Fault car 1		
Press CLR		
15:36:42	EDGWARE	160

Figure 22: Example Maintenance Text Screen

NORTHERN LINE SALOON DISPLAY FAULT CAR 2.		
Perform walk through test. If saloon display fault car 2 is identified replace saloon display. LRU Code <u>wxyz</u>		
15:36:42	EDGWARE	160

Figure 23: Train Configuration Display

NORTHERN LINE TRAIN CONFIGURATION		
Car 1	Car Number	XXXXX
Car 2	Car Number	XXXXX
Car 3	Car Number	XXXXX
Car 4	Car Number	XXXXX
Car 5	Car Number	XXXXX
Car 6	Car Number	XXXXX
15:36:42	EDGWARE	160

Figure 24: Subsystem Configuration Display

NORTHERN LINE CAR 1 CAR NUMBER.XXXXX CONFIGURATION		
Equipment	Serial No	S/W Ver
Cab Air Conditioning	XXXXXXXX	XX:XX:XX
Incident Recorder	XXXXXXXX	XX:XX:XX
Saloon Heating	XXXXXXXX	XX:XX:XX
Track to Train	XXXXXXXX	XX:XX:XX
Traction Inverter	XXXXXXXX	XX:XX:XX
TBTC VOBC	XXXXXXXX	XX:XX:XX
TBTC OTP	XXXXXXXX	XX:XX:XX
TBTC TWR	XXXXXXXX	XX:XX:XX
15:36:42	EDGWARE	160

Figure 25: TMS Configuration Menu

NORTHERN LINE TMS CONFIGURATION		
Car 1	Car Number	XXXXX
Car 2	Car Number	XXXXX
Car 3	Car Number	XXXXX
Car 4	Car Number	XXXXX
Car 5	Car Number	XXXXX
Car 6	Car Number	XXXXX
15:36:42	EDGWARE	160

Figure 26: TMS Configuration Details

NORTHERN LINE			
CAR 1 CAR NO.XXXXXX CONFIGURATION			
Equipment	Serial No	S/W Vers	C/Sum
TMCC XG7	XXXXXXXX	XX:XX:XX	1234
TMCC AET	XXXXXXXX	XX:XX:XX	1234
TMDD EXE	XXXXXXXX	XX:XX:XX	1234
TMDD SEARCH	XXXXXXXX	DD:MM:YY	1234
TMDD MINDGAP	XXXXXXXX	DD:MM:YY	1234
TMCU GP1	XXXXXXXX	XX:XX	1234
TMCU GP2	XXXXXXXX	XX:XX	1234
TMRT-1	XXXXXXXX	XX:XX	MORE
15:36:42	EDGWARE		160

NORTHERN LINE			
CAR 1 CAR NO.XXXXXX CONFIGURATION			
Equipment	Serial No	S/W Vers	C/Sum
TMRT-2	XXXXXXXX	XX:XX	1234
TMRT-3	XXXXXXXX	XX:XX	1234
TMRT-4	XXXXXXXX	XX:XX	1234
TMRT-5	XXXXXXXX	XX:XX	1234
TMRT-6	XXXXXXXX	XX:XX	1234
15:36:42	EDGWARE		160

Figure 27: AV Configuration

NORTHERN LINE			
AV CONFIGURATION			
Equipment	Ser No	Comms Vers	PIS Vers
Car 1 CAVU	efgh	OO:FF:TT	OO:FF:TT
Car 1 SAVU	efgh	OO:FF:TT	OO:FF:TT
Car 2 SAVU	efgh	OO:FF:TT	OO:FF:TT
Car 3 SAVU	efgh	OO:FF:TT	OO:FF:TT
Car 4 SAVU	efgh	OO:FF:TT	OO:FF:TT
Car 5 SAVU	efgh	OO:FF:TT	OO:FF:TT
Car 6 SAVU	efgh	OO:FF:TT	OO:FF:TT
Car 6 CAVU	efgh	OO:FF:TT	OO:FF:TT
15:36:42	EDGWARE		160

Figure 28: Radio Configuration

NORTHERN LINE		
RADIO CONFIGURATION		
Equipment	Serial No	S/W Ver
Car 1 TRU	12345678	112233445566
Car 1 MTM 700		112233
Car 1 Code Plug		1122
Car 1 Control H	12345678	112233445566
Car 6 TRU	12345678	112233445566
Car 6 MTM 700		112233
Car 6 Code Plug		1122
Car 6 Control H	12345678	112233445566
15:36:42	EDGWARE	160

Figure 29: Distance Log

NORTHERN LINE DISTANCE LOGS		
CAR 1 Distance Log	1234567 Km	
CAR 3 Distance Log	1234567 Km	
CAR 4 Distance Log	1234567 Km	
CAR 6 Distance Log	1234567 Km	
15:36:42	EDGWARE	160

Figure 30: Remote Communication Service Display Example

NORTHERN LINE RCS STATUS		
Local Unit 508	Remote Unit 702	
Healthy	Fault	
Enabled	Disabled	
Last Successful Tx:	06/12/01 07:46:23	
Messages Waiting Tx:	14	
Tx Attempts:	12340	
Successful Attempts:	11023	
Messages Rx:	2224	
15:36:42	EDGWARE	160

Figure 31: Maintenance Level 2 Menu

NORTHERN LINE MAINTENANCE LEVEL 2		
Train Tests		
TMS Event Log		
Connect to Portable System Tester		
15:36:42	EDGWARE	160

Figure 32: Maintenance Train Test Screen

NORTHERN LINE TRAIN TESTS		
Saloon Doors Cycle Test		
Door timing Test		
Saloon H & V Test		
H & V Boost Mode		
A-V Comms Walkthrough Test		
Cab Air Conditioning Test		
Saloon CCTV Test		
TMS Self Test		
Emergency Stop Button Test		MORE
15:36:42	EDGWARE	160

NORTHERN LINE TRAIN TESTS		
MLPS Brake Test		
Deadman`s Handle Test		
Emergency Stop Button Test		
MLPS Brake Test		
Deadman`s Handle Test		
Emergency Brake Test - Safety Circuit A		
Emergency Brake Test - Safety Circuit B		
Runback Protection Test		
15:36:42	EDGWARE	160

Figure 33: TMS Event Log Display

NORTHERN LINE VIEW EVENTS		
Local Unit		
Remote Unit		
15:36:42	EDGWARE	160

Figure 34: Event Log List Example

NORTHERN LINE LOCAL UNIT EVENT LOG		
ICMU1 continually tripping - Car 3		
Passenger Alarm Operated - Car 1		
De-Icer fluid low - Car 2		
15:36:42	EDGWARE	160