

5	PANEL PROCESSOR MODULE (PPM)	1
5.1	Functional Description of Module	2
5.2	Module Details	2
5.3	Module Variants	5
5.3.1	BR Spec 1908 for MkI and 1908A for MkII	5
5.3.2	Memory Module & PPM Modification State Compatibility	6
5.3.3	Notes	7
5.4	Known Problems	9
5.4.1	Erroneous Panel/PMUX Inputs ("Post-Newton Mods.")	9
5.5	Solutions	10
5.6	Associated Documentation	11
5.7	List of Problems Solved By Program Changes	11
5.8	SSI4302 Panel Processor Module Program	12

.....

5.1 Functional Description of Module

In order to relieve the Interlocking Modules of the non-vital task of servicing the signaller's panel, PPMs are provided to communicate with the PMUX in the signaller's panel. The PPMs are duplicated for availability and are normally located in the same cubicle as the interlocking MPMs.

The PPMs also connect with the TT (Technicians Terminal) and the TD (Train Descriptor). All connections from the PPM to other equipment are made through a multi-pin connector.

The PPMs contain a general program and require preparation of specific geographic data for the signalled area in similar lines to the Interlocking Modules. Mk1 modules had the data contained on internal EPROMs whilst Mk2 modules have the program and geographic data on user changeable memory modules.

5.2 Module Details

The PPM is contained in a 3U height 19" rack mounted case. The front of the case has the slot for memory module and the System indicator. The power supply to the module is 110 Va.c.

The rear of the case has the power switch, power connector, manufacturers plate, power indicator, system indicator and multi-pin connector. Westinghouse and ALSTOM modules have different positioning of the indicators on the rear of the modules, the Westinghouse modules indicators being centrally positioned with the Power indicator uppermost and the ALSTOM modules indicators being positioned to the left, near the incoming power supply with the system indicator uppermost.



PPM Front View

Ref	NR/GN/SIG/19054-5
Issue	2
Date	01 December 2009



PPM Rear View

Memory modules are sealed by using wire seals (on ALSTOM modules) or plastic seals (on Westinghouse modules). Memory modules with missing or damaged seals are not to be used.

PPM Memory modules have a green front panel with White or Silver Lettering.



Westinghouse PPM Memory Module Front View

The lettering on the front of the module contains the following information:

Interlocking Name	In this case 'NEWTON B'
Interlocking Identity Number	In this case 'INTERLKNG 07'
Type of Memory Module	In this case 'PPM'
Signalling Centre	In this case 'MOTHERWELL SC'

The memory module is held in place with two securing screws. These can be seen either side of the module handles.

Ref	NR/GN/SIG/19054-5
Issue	2
Date	01 December 2009



PPM Manufacturers Plate



Westinghouse PPM Installed in cubicle