SERIES 24 - PPM5 DRIVER CIRCUIT

The PPM driver circuit used on the MBI SERIES 24 PPM version meter modules is the PPM5 hybrid from Surrey Electronics. This is mounted on the Surrey Motherboard 1 PCB modified to include meter zero adjustment. One card is fitted per meter movement.

These circuits are supplied factory calibrated by MBI and should not normally require further adjustment.

Should calibration be necessary proceed as follows:

These adjustments should be made with the meter module positioned on a steel plate simulating the SERIES 24 console meterbridge support. This is because the TWIN PPM movements are affected by any steel in close proximity to its magnets.

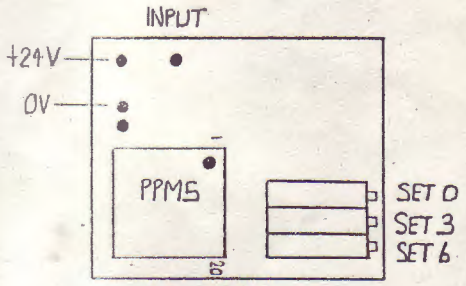
1. Where the meter has an accessible mechanical zero adjustment set this before switching power on.

2. Switch power on and allow circuit to settle for a few minutes. Adjust the SET ZERO preset for meter zero position.

3. Apply a 1kHz -4dBu (ref 0.775Vrms) sinewave to the input and adjust the SET 3 preset for a reading of MARK 3.

4. Apply +8dBu and adjust the SET 6 preset for a reading of MARK 6.

5. Repeat and then check MARK 4 = 0dBu. Check that all divisions 1 to 7 are 4dB.



PPM5 CARD SPECIFICATION:

Complies with IEC268-10A and BS5428-9 and meets BBC and IBA requirements.

INPUT IMPEDANCE = 8kΩ unbalanced
SENSITIVITY for PPM4 = -13dBu (170mV) set for 0dBu
MARKS 2,4,6 ±0.2dB, MARKS 3,5 ±0.3dB, MARKS 1,7 ±0.5dB
FREQUENCY RESPONSE = ±0.3dB from 31.5Hz to 16kHz
RISE TIME - 100ms of 5kHz = 0 ±0.5dB
10ms of 5kHz = -2.5 ±0.5dB
5ms of 5kHz = -4.0 ±0.75dB
1.5ms of 5kHz = -9.0 ±1.0dB
FALLBACK TIME - MARK 7 to MARK 1 = 2.5 to 3.0s matched within 0.5%

Connections:
pin 7 = meter -
pin 11 = meter +
pin 12 = +24VDC
pin 9 = earth
pin 20 = input