

M3 MIXER CALIBRATION PROCEDURE.

The test signal is always a 1kHz Sinewave, default level is 0dBu.

Start test with all push buttons out on the front and rear of the unit, Gains pots in mid-position, faders set to '0' point.

1. POWER SUPPLY **WARNING!!! HIGH VOLTAGES EXIST ON THE PCB.**
To verify these voltages the PSU top cover must be removed.
Check the following voltages while the PSU is connected to the M3.
V+ = +15.75vdc \pm 0.1vdc, adjust via RV1 on PC180.
V- = -15.75vdc \pm 0.1vdc, adjust via RV2 on PC180.
HT = 210vdc \pm 5vdc, adjust via RV3 on PC180.
Phantom Power = +48vdc \pm 1vdc, adjust using RV4 on PC180
+5V = 5.0vdc \pm 0.3vdc.

Note: DO NOT SET THESE POTS WHILE THE M3 IS NOT CONNECTED TO THE PSU.

2. BALANCE Connect a signal to Channel 1 LINE input and check the + & - outputs on the DIRECT OUT jack socket are about the same amplitude. (RV9)
Repeat this for all Modules. (RV9)
Repeat for Master section Left & Right XLR outputs. (RV1 / RV2)
Repeat for Master section MONITOR outputs. (RV4 / RV6)
Repeat for Master section AUX outputs. (RV1 / RV3)

Note: TO ADJUST THE BALANCE REQUIRES REMOVAL OF THE REAR PANEL AND SHOULD ONLY BE CARRIED OUT AS A MATTER OF NECESSITY AND NOT PART OF ROUTINE CALIBRATION.

3. MODULE GAIN Connect a signal to Channel 1 LINE input socket. (0 dBu)
Connect Output to Channel DIRECT OUT socket.
Set Channel 1 fader to maximum and vary the '+10dB' trim pot at the rear of the Module for +10 dBu \pm 0.1dBu.
Set Channel 1 fader to line up with the '0' position on fader scale and vary the '0dB' trim pot at the rear of the Module for 0.0 dBu \pm 0.1 dBu.
Repeat for Channels 2 to 8.
4. MASTER GAIN Connect a signal to Channel 1 LINE input socket. (0 dBu)
Connect Output to Master LEFT/RIGHT XLR Outputs as instructed.
Set Master Fader to maximum and measure Output on Left XLR, vary 'L+10dB' trim pot at the rear of the Master panel for +10 dBu \pm 0.1 dBu.
Set Master Fader to '0' position on fader scale and vary 'L 0dB' trim pot at the rear of the Master panel for 0.0 dBu \pm 0.1 dBu.
Repeat by using Right XLR output and Right trim pots.
5. METER CAL Change the input level to +4 dBu, still using Channel 1.
Verify that the Left & Right XLR outputs read +4.0 dBu, if not adjust the Master fader.
Adjust 'METER L' & 'METER R' rear panel trim pots so the Left and Right Meters read 0VU.
6. PFL GAIN While viewing the Left & Right Meters press Channel 1 PFL button, check for less than 0.3 dB change in meter reading. If an error needs to be corrected then RV9 and RV10 will require adjustment on PC 178. As this requires removal of the rear panel it should only be undertaken when absolutely necessary.

THIS PROCEDURE IS INTENDED FOR USE BY A QUALIFIED TECHNICIAN ONLY.
WARNING!!! HIGH VOLTAGES CAN EXIST ON THE PCB's.