

1. HISTORY SHEET. Each unit must be accompanied by an INSTRUMENT HISTORY SHEET. Ensure the History Sheet has been completed satisfactorily.
2. MAINS VOLTAGE. Check the setting of the Internal Voltage Setting Links.(230/115)
3. EARTH CONTINUITY. Check the earth connection from the IEC connector to the rear panel. Check the tightness of the Rear Panel Earth connection. It must be tight. Check that an Earth Symbol has been placed adjacent to the Earth Terminal.
4. VISUAL INSPECTION. Inspect the unit, paying particular attention to the following:
  - 4.1 PSU Capacitors and Diodes. Value and orientation.
  - 4.2 Intergrated circuits. Type and orientation.
  - 4.3 Transformer Wiring. Wired as per PCB silk screen. Check insulation of wires.
  - 4.4 Soldered Joints. Check for solder shorts, dry or unsoldered joints.
  - 4.5 Internal Fuses. Check fuses are seated correctly. Check values as stated on the PCB Silk Screen.
  - 4.6 External Finish. Check front and rear panel silk screening for legibility. Check all external surfaces for marks and blemishes. Check that all screw heads are undamaged, check screws are tight.
  - 4.7 Knobs and Switches. Check that Knobs and Switches move freely. Check they are correctly aligned with their legends. Check they are uniformly spaced from the front panel.
  - 4.8 LED Alignment. Check that all LED's are equally spaced from the front panel.
5. FIT VALVES Check the valve bases for splayed pins. Perform corrective action as necessary. All valves are ECC83/12AX7A unless otherwise stated. Plug valve in each socket, ensure valve is a tight fit. Do not wiggle valve in socket.
6. SWITCH ON. Check Mains Switch moves freely. Leave in OFF position. Set DVM to DC Voltage and connect between Ground & +15 volt point on PCB. Connect the IEC Mains Cord to the Mains Inlet. (Ensure correct Mains Voltage) Switch unit On. Check each supply in turn as quickly as possible. Switch OFF if a supply is not present.
  - 6.1 +15 volt rail. +15.00 volts +/- 0.25v.
  - 6.2 -15 volt rail. -15.00 volts +/- 0.25v.
  - 6.3 HT voltage 150 volts +/- 8.0v.
  - 6.4 Heater voltages +6.3 volts & -6.3 volts +/- 1.0v.
  - 6.5 Phantom Power. +48 volts +1.0v/-4.0v.
7. LED CHECK. Using the appropriate controls check all LED's illuminate together. The LED Bargraphs may be excluded from this test.

Revision History	Issue 1	From Serial Number: 540001	To Serial Number:

- 8. INITIAL SETTINGS. Set all Front panel switches to the OUT position.  
 Set INPUT GAIN pot to mid-position.  
 Set OUTPUT GAIN pot fully clockwise
  
- 9. TEST EQUIPMENT. To perform the tests to this procedure use:  
 A calibrated Signal Generator.(Sinewave) 0.0 dBu @ 1 kHz unless stated.  
 A calibrated Signal Analyser.(dBu/THD+N%) With 22-22k Filter set to On.  
 An Oscilloscope.  
 A Digital Voltmeter.  
 A metal film 150R resistor in shielded XLR connector.(Pins 2 & 3)
  
- 9.1 REFERENCES All unit settings are on the Front Panel unless stated otherwise.  
 All Settings(RVun) are on the Main PCB unless stated otherwise.
  
- 9.2 HISTORY SHEET. All faults/rework must be logged on the History Sheet.  
 Where practical show the operator/assembler the nature of the problem.  
 Serious/Repetitive faults must be reported to the Production Manager.  
 After the unit has been succesfully tested Sign & Date the History Sheet.  
 The History Sheet must remain with the unit at all times.  
 After the unit is dispatched the History Sheet must be filed for analysis.

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10. INITIAL TESTS.
- 10.1 PHANTOM POWER. Set INPUT switch to MIC position.  
 Connect DVM to XLR pin 2 and Ground.  
 Set +48V to ON.  
 Check for +48 volt reading. (+1v/-4v)  
 Repeat test for XLR pin 3 and Ground.  
 Leave +48V switch in the OFF position.
- 10.2 COMPRESSOR OFFSET. Connect DVM to R109 & Ground.  
 Adjust RV3 for a reading of -400 mVolts DC.
- 11.0 CALIBRATION. Signal In = 0.0 dBu to Rear Panel LINE JACK. Signal Out from Output JACK.  
 Set Analyser Filter to ON.  
 Set MIC/LINE switch to LINE(IN)  
 Set COMP BYPASS switch IN. (LED Off)
- 11.1 LINE INPUT GAIN. Set OUTPUT GAIN pot to mid-position.  
 Check for 0.0 dBu +/- 0.5 dBu.  
 If reading is >0.5 dBu then select R119 value.
- 11.2 COMPRESSOR GAIN. Select COMP BYPASS OUT. (LED On)  
 Set RV5 for 0.0 dBu.
- 11.3 HUM & NOISE. MUTE the Output of the Signal Generator.  
 The output value should read -80 dBu or better.
- 11.4 MIC INPUT. Signal In = -60 dBu to MIC XLR. MIC/LINE Switch to MIC.  
 Set INPUT GAIN control to Maximum.  
 Check for 0.0 dBu +/- 2.0 dBu.
- 11.5 MIC NOISE. Return Signal In to LINE JACK.  
 Connect 150R resistor across MIC XLR pins 2 & 3.  
 Check for a change in value of -67 dBu or better.
- 11.6 INSTRUMENT INPUT. Signal In = -20 dBu to Front Panel Jack Socket. (Single Pole)  
 Set INPUT GAIN to mid-position.  
 Check for a reading between 1 - 3 dBu.
- 11.7 90Hz Filter. Signal In = 0.0 dBu to Rear Panel LINE JACK. Signal Out from Output JACK.  
 Note value with 90Hz switch OUT.  
 Press 90Hz switch IN. Value should drop by -3 dBu.  
 Leave 90Hz switch OUT.

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- 11.8 DISTORTION Set Signal In to 1kHz.  
 Set Analyser to read THD+N(%).  
 Check for a value better than 0.2%.  
 Set Signal In to 100 Hz.  
 Set THRESHOLD & RATIO controls Clockwise.  
 Check for a value better than 2.0%.  
 Return Analyser to read dBu.
- 11.9 COMPRESSOR THRESHOLD. Signal In = +4.0 dBu.  
 Set THRESHOLD & RATIO controls clockwise.  
 Set RV4 for -9.0 dBu.
- 11.10 METER CALIBRATION. Set THRESHOLD control anti-clockwise.  
 Set RV2 on Front Panel PCB for Zero dBu on Right Hand Meter.  
 Set THRESHOLD control clockwise. Set RATIO until reading is -2.0 dBu.  
 Set RV1 on Front Panel PCB for -6 dBu on Left Hand Meter.
- 11.11 GAIN MAKE-UP. Set THRESHOLD anti-clockwise and GMU clockwise.  
 Check reading is 22.0 dBu +/- 2.0 dBu.
- 11.12 METER SEGMENTS. Set all Front Panel pots clockwise and check that all LED segments illuminate in sequence.

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