General Data

Power Supplies

Amplifiers	24 volts 52 mA d.c., positive to PLB2/6, negative to PLB2/5
	12 volts 280 mA (minimum) d.c., positive to PLB2/2, negative to PLB2/1

*Impedances**

Source	600 ohms or less
Input	about 15 kilohms balanced
Load	about 20 ohms
Output	1200 ohms

*Programme Volumes**

Input	0 dB
Output with fader at maximum	−17 dB from 1200 ohms unterminated

*Line-up Tone Levels**

Input	−3 dB
Corresponding output	adjusted by preset control to −20 dB from 1200 ohms unterminated
Output on load	−42.6 ±0.2 dB into 100 ohms

*Frequency Response**

100 Hz to 10 kHz	±0.1 dB relative to 1 kHz

Direct Prehear Output

With preset controls adjusted for correct output level

(a) Measured at PLA2 pins 15,16 and 19,20 into a high impedance.

Output level −12.8 ±0.2 dB (equal within 0.2 dB)

(b) Measured at PLA2 pins 1, 2 and 3, 4 into 75 Ω ±0.1 % with the fader on 0 and the prehear key operated.

Output Level 55.4 ±0.2 dB (equal within 0.2 dB)

*Each channel

Tests and Adjustments

Alignment of Gain and Balance Controls

If either the preset gain control, R7, or the balance control, R13, has been replaced, the following procedure is necessary to ensure that precisely correct gain and balance are obtained at both main and prehear outputs when the knobs are each set with the pointer at the engraved spot.

1. Remove R17, if previously fitted.
2. Set R7 fully clockwise.
3. Strap PLA1 pin 5 to PLA2 pin 21,
   PLA1 pin 6 to PLA2 pin 22,
   PLA1 pin 11 to PLA2 pin 23,
   and PLA1 pin 12 to PLA2 pin 24.
4. Apply 1-kHz tone at a level of precisely −3 dB to both inputs (PLA1 pins 1,2 and 8,9).
5. All measurements must be made using a high-impedance test meter, e.g., an ATM/1. Connect this meter to PLA2 pins 13,14.
6. Check that the full working range of R13 is 5.5 ±1 dB, with output decreasing clockwise.
7. Fix the knob on R13 so that the pointer is on the spot at mid rotation.
8. Set R7 so that the output level is precisely −13 dB, and secure the knob with the pointer at the spot on the panel.
9. Transfer the meter to PLA2 pins 17,18. Connect a resistance box† across pins 126,127 on printed board No. 1 and adjust this to give an output level of −13 dB precisely. (The approximate value should be 1200 ohms.) In position R17, fit a resistor of the nearest 2 per cent standard value to the resistance box setting.
10. Turn R7 fully clockwise and check that the output levels at PLA2 pins 13, 14 and 17, 18 are each −4.4 ±1 dB.

Further Checks

If other parts of the circuit have been disturbed, make further checks, as follows.

1. Apply 1-kHz tone at −3 dB to both inputs.
2. Additionally strap PLA2 pins 13,14 to 9,10, and PLA2 pins 17,18 to 11,12.
3. Set the fader at '30'. Apply 50 volts to PLB2 pin 14 (positive) and pin 24 (negative) to operate relay CPH.
4. Terminate the prehear outputs (PLA2 pins 1, 2 and 3, 4) with 75 Ω ±0.1 % resistors.
5. Adjust R7 and R13 so that the level at the prehear outputs (PLA2 pins 1, 2 and 3, 4) is precisely −55.4 dB on both.
6. Measure the levels at the main outputs into a 600-ohm amp-det (PLA1 pins 15, 16 and 19, 20) which should now be −29.5 ±0.2 dB and should be equal within 0.2 dB.

†If a resistance box is not available, try ±2 per cent resistors with values in the region of 1200 ohms until an output level of −13 dB within 0.5 dB is obtained.