



TRIM ADJUSTMENTS

Trim pots R73 and R76 serve to zero the meter and trim the IN/OUT gain, respectively. An audio signal generator and an AC VTVM are required to perform these adjustments. For both adjustments, connect the signal generator to the input of the GAIN-BRAIN to be adjusted. Set the frequency to 1 kHz and the input to -10dBm. Place the IN/OUT switch in the OUT position. Set controls and proceed as follows:

IN/OUT GAIN ADJUST

1. FUNCTION -- PEAK (FULL CCW)
 2. RELEASE -- .05 SEC (FULL CCW)
 3. OUTPUT -- MAXIMUM (FULL CW)
 4. INPUT -- ADJUST TO OBTAIN +5dBm OUTPUT.
- Switch IN/OUT to IN position and adjust R76 to obtain +5dBm output. Properly adjusted, there should be no difference in output when in either the IN or OUT positions, when GAIN-BRAIN is "not" limiting.

METER ZERO ADJUST

1. FUNCTION -- PEAK (FULL CCW)
2. RELEASE -- .05 SEC (FULL CCW)
3. OUTPUT -- MAXIMUM (FULL CW)
4. INPUT -- Increase INPUT control from minimum (FULL CCW) until output from GAIN-BRAIN just stops increasing. At this point peak limiting is happening and the output level should be between +10dBm and +12dBm.
5. Decrease OUTPUT control to obtain 0dBm output.
6. Switch IN/OUT to OUT position.
7. Decrease INPUT control to obtain 0dBm output.
8. Switch IN/OUT to IN.
9. Connect VTVM to input of GAIN-BRAIN and increase signal generator level 2dB (from -10dBm to -8dBm).
10. At this point, the -2 meter lamp should light. If not, adjust R73 until it just comes on. The meter is now zeroed.

- NOTES:**
- 1) THIS GAIN-BRAIN SCHEMATIC IS RE-DRAWN AS CLOSE TO IDENTICAL TO THE ORIGINAL AS POSSIBLE. SOME MINOR DIFFERENCES ARE INHERENT.
 - 2) REFERENCE DESIGNATORS AND COMPONENT VALUES ARE PLACED NEARLY IDENTICALLY AS THEY ARE IN THE ORIGINAL GAIN-BRAIN SCHEMATIC.
 - 3) ADDITIONAL INFORMATION IS INCLUDED WHERE DEEMED TO BE USEFUL TO THE USER THAT WASN'T IN THE ORIGINAL GAIN-BRAIN SCHEMATIC.
 - 4) RESISTORS ARE 1/4W, SURFACE-MOUNT SIZE 1206, EXCEPT AS NOTED. RESISTOR VALUES LESS THAN 1K ARE DESIGNATED WITH AN "R". RESISTOR VALUES 1K AND ABOVE ARE DESIGNATED WITH THE TYPICAL "K".
 - 5) CAPACITORS ARE IN MICRO-FARADS, EXCEPT AS NOTED.
 - 6) DIODES D1 - D19 ARE 1N914 OR EQUIV., EXCEPT D6 WHICH IS A TYPE 1N759A.
 - 7) DIODES D20 - D28 ARE RED LIGHT EMITTING DIODES (LED'S).