

CALIBRATION

CR1 = Silicon Diode, 100PIV @ .5AMP
 R1 = 100 Meg
 R2 = 270K
 R3 = 1K, 1%

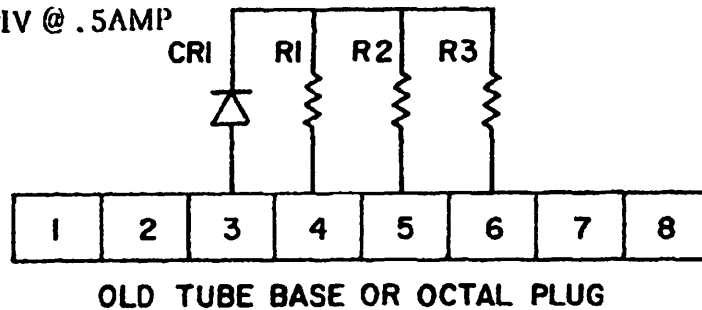


Fig. 13 Calibration Module

The TC28 Hybrider should seldom need calibration. However, should you desire to periodically check the TC28 calibration accuracy, thereby insuring its top performance, the calibration module described above in Figure 13, is recommended. The module can be constructed on an octal plug or discarded octal tube base and is to be inserted into the socket 1 on the TC28 socket panel.

Some of the calibration adjustments for the TC28 interact and for this reason the following adjustment procedure must be followed:

There are six calibration controls located on the printed-circuit board in the TC28. Refer to Figure 14 for the location of these controls. The first three adjustments have to do only with the tube test functions of the TC28. The remaining three adjustments pertain to the transistor test portion of the TC28.

1. To begin the calibration procedure, remove the TC28 from its cabinet and, with the unit in its normal operating position, adjust the mechanical-zero adjust on the meter of the TC28 for a "0" indication.
2. Apply 105 - 125 VAC power to the unit and turn the TUBES/TRANSISTORS Function Switch to the NPN LEAKAGE position. Connect the positive terminal of a DC milliammeter to the red test lead. Connect a 2000 ohm variable resistor between the negative terminal of the meter and the yellow test lead. Press TEST button No. 1 and adjust the external resistor until the external meter indicates 3.0mA. Adjust R101, the Leakage Cal. Control, for a full scale indication on the TC28 meter.
3. Insert the calibration module into socket 1 and make the following setup on the front panel selectors:

A	B	C	D	SKT
ALL UP	1	D	4	1

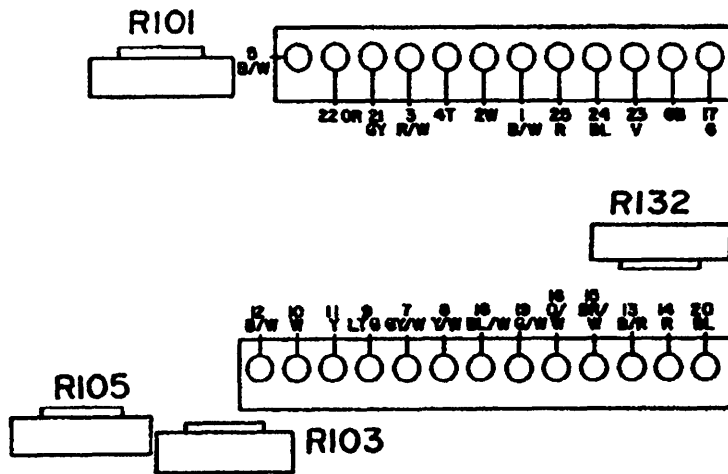


Fig. 14 Circuit Board Layout

4. Set the TUBES/TRANSISTORS Function Switch to SHORTS and adjust the meter to zero with the front panel METER ZERO control.
5. Switch to the GRID—LEAKAGE position on the Function switch and adjust R132, the Grid Leakage Cal. Control until the meter reads between the "?" and BAD on the GRID LEAKAGE scale on the meter.
6. Switch back to SHORTS and recheck the meter zero. Adjust front panel METER ZERO control if necessary.
7. Repeat steps 4 and 5 as required to achieve continuity.
8. Change the setting of the SETUP or "D" switch from position 4 to position 3.
9. Set the TUBES/TRANSISTORS Function Switch to EMISSION and adjust R103, the Emission Cal. Control until the meter indicates "?" on the EMISSION/GAIN scale of the meter.
10. Switch back to the SHORTS position and recheck the meter zero. Adjust front panel METER ZERO control if necessary.
11. Repeat steps 9 and 10 as required.
12. Change the setting of the SETUP or "D" switch from position 3 to position 5.
13. With the TUBES/TRANSISTORS Function Switch in the SHORTS position, adjust R105, the Short Cal. Control, so that the meter indicates on the line between GOOD and "?" on the GRID LEAKAGE - SHORTS scale of the meter.
14. Change the setting of the SETUP or "D" switch from position 5 to position 7 and observe that the meter indicates zero. Adjust the front panel METER ZERO if required.
15. Repeat steps 11 through 13 as required.