

L4 CARRIER LINE CONNECTING EQUIPMENT TESTS RECEIVING AMPLIFIER

An adjustable receiving amplifier is provided for each L4 receive line. The amplifier is mounted at the front of receiving jack and hybrid panel ED-51424 (Fig. 1) provided in later L4 line receiving bays and in L4S line bays. In earlier L4 line receiving bays, the amplifier is mounted at the rear of receiving jack and hybrid panel ED-50711 (MD). Figure 2 shows the receiving amplifier circuit.

This section is reissued to add references to the L4S (short L4) system, to include additional test procedures, and to show later equipment arrangements. Arrows are used to indicate significant changes. *Equipment Test Lists are not affected.*

APPARATUS

The tests in this section require suitable transmission measuring equipment. Refer to Section 356-010-500 and select, from available equipment, sending and receiving units having the following capabilities:

Sending test equipment capable of delivering, into 75-ohm circuits, signals at 11.648 MHz at powers between -45 and -35 dBm

Receiving test equipment capable of detecting, from 75-ohm circuits, signals at 11.648 MHz at powers between -45 and -35 dBm.

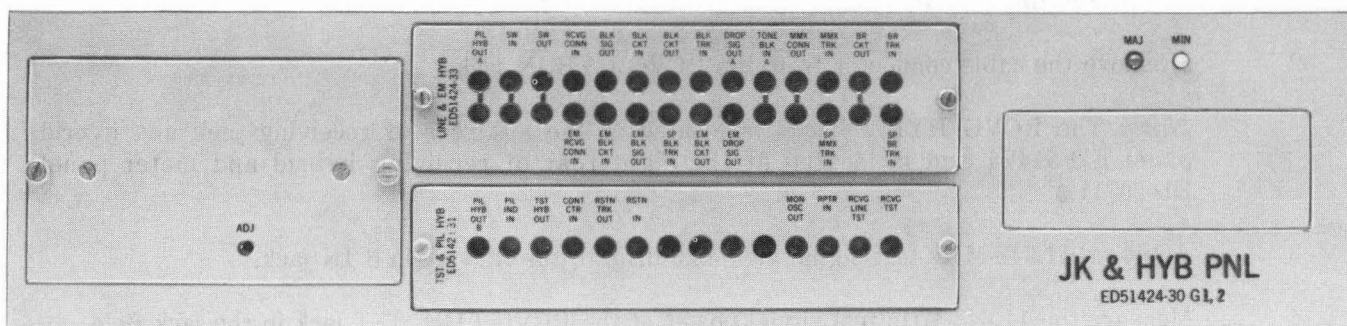


Fig. 1—Receiving Jack and Hybrid Panel ED-51424

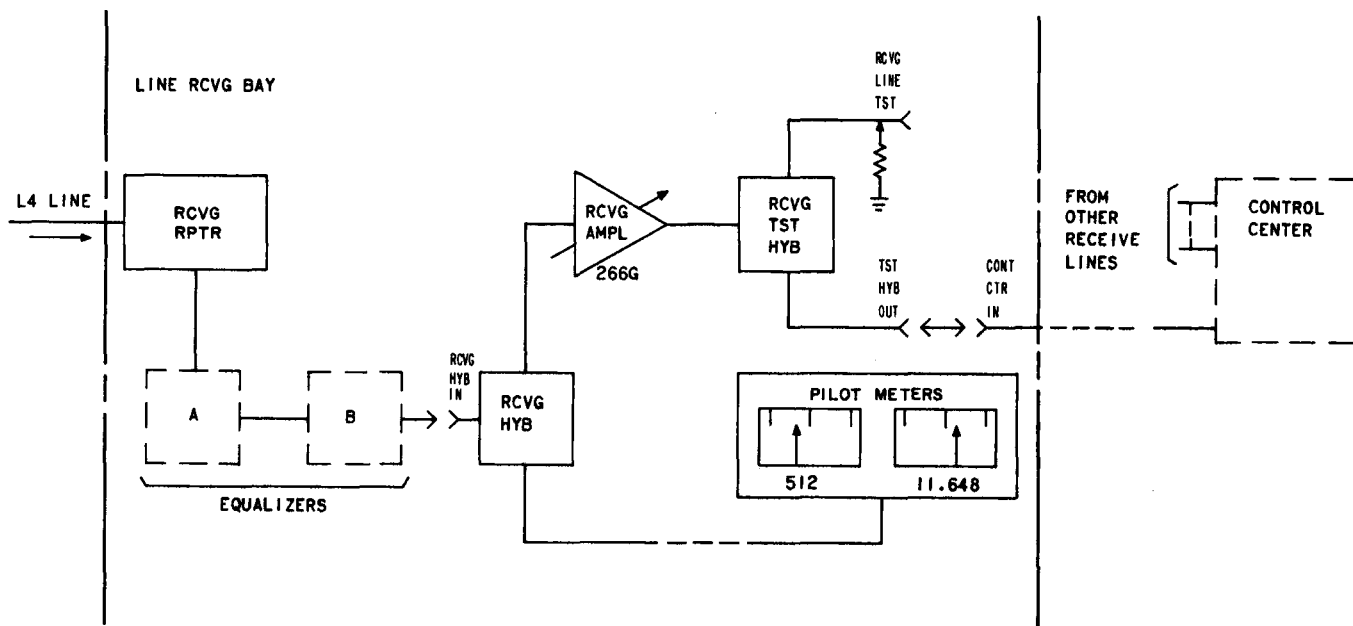


Fig. 2—Receiving Amplifier Circuit

STEP

PROCEDURE

At line receiving bay,

- 1 Check that a patch plug is in place between the TST HYB OUT and CONT CTR IN jacks in the jack field *if* a control center is provided in this main station. Otherwise, insert a 75-ohm terminating plug in the TST HYB OUT jack.

Out-of-Service Adjustment

Note: For *in-service* adjustment, proceed to Step 8.

- 2 Remove the cable connector from the RCVG HYB IN jack.

Note: The RCVG HYB IN jack is located at the left rear of receiving jack and hybrid panel ED-51424 and is located at the right rear of receiving hybrid and meter panel ED-50711.

- 3 Apply an 11.648-MHz test signal at -43.0 dBm to the RCVG HYB IN jack.
- 4 Measure the 11.648-MHz test signal power at the RCVG LINE TST jack in the jack field.

Requirement: -40.0 dBm

STEP**PROCEDURE**

- 5 Adjust the receiving amplifier gain control, if required, to meet the requirement.

◆**Note:** The receiving amplifier control, designated ADJ, is located on the front of receiving jack and hybrid panel ED-51424. The RCVG AMPL ADJ control is located on the rear of receiving hybrid and meter panel ED-50711.◆

- 6 Remove all test equipment.

- 7 Reconnect the cable connector to the RCVG HYB IN jack.

Note: This completes the test of the receiving amplifier.

In-Service Adjustment

Note: The out-of-service adjustment provides greater accuracy and should be used, if possible.

- 8 Check that the line pilot indicator circuit has been adjusted in accordance with Section 359-215-512.

At line receiving bay:

- 9 Observe the 11.648-MHz pilot meter on the meter panel.

Note: The meter continuously indicates the level of the received 11.648-MHz pilot.

- 10 Measure the 11.648-MHz pilot power at the RCVG LINE TST jack in the jack field.

Requirement: Pilot power shall be within ± 0.5 dB of -40.0 dBm *corrected* by the deviation indicated on the pilot meter.

Example: When the pilot meter indicates that the 11.648-MHz pilot is 0.2 dB *low*, the pilot power at the RCVG LINE TST jack should be -40.2 dBm ± 0.5 dB.

- 11 Adjust the receiving amplifier gain control, if required, to meet the requirement.

Note: See **Note** in Step 5.

- 12 Remove all test equipment.
-