

**L MULTIPLEX TERMINAL  
COMMON EQUIPMENT  
TERMINAL CIRCUITS  
LOSS MEASUREMENTS  
RECEIVING AND TRANSMITTING BRANCH HYBRIDS**

Two repeater bays are used to terminate the receiving and transmitting coaxial cables of one coaxial line, one bay for each direction. When the terminal is employed as a branch point, branch hybrids, pads, and trunks are included in the branching circuitry. Transmission loss tests must be performed through this circuitry to determine that the proper power levels exist.

The information in this section was formerly contained in Section 356-118-503 and is renumbered to place it in a more proper classification.

The equipment must be removed from service to perform this test.

The purpose of this test is to check the transmission losses through the receiving and transmitting branch hybrids, pads, and trunks at the branching point.

**APPARATUS:**

The test(s) in this section require suitable transmission test equipment. Refer to Section 356-010-500 and select, from available equipment, sending and/or receiving units having the following capabilities:

*Sending test equipment* capable of delivering, into 75-ohm circuits, a 421-kHz signal at a power level between -10 dBm and -50 dBm.

*Receiving test equipment* capable of detecting, from 75-ohm circuits, a 421-kHz signal at power levels between -15 dBm and -55 dBm.

In addition to the above, the following is required:

1—368A Terminating Plug

3—P2BJ Cords

STEP	PROCEDURE
	<b>A. Receiving Branch Hybrid</b>
1	Check that the equipment to be tested is removed from service.
2	In the repeater bay jack field, terminate the REC BR B HYB jack with a 368A termination plug (see Fig. 1).
3	Set up and calibrate the receiving test equipment for a 75-ohm terminated measurement of 421 kHz at a power level of -18.0 dBm.
4	Set up and calibrate the sending test equipment for an output of 421 kHz at -10.0 dBm.
5	In the repeater bay jack field, make patches designated (1), (2), and (3) in Fig. 1.
6	Measure the power at the REC TERM TRK OUT jack.  <i>Requirement:</i> -18.0 dBm $\pm$ 0.3 dB.
7	Make patches designated (1), (4), and (5) in Fig. 1.
8	Measure the power at the SP REC TERM TRK jack.  <i>Requirement:</i> -18.0 dBm $\pm$ 0.3 dB.
9	Remove the patches and termination plug and restore the service to normal.
	<b>B. Transmitting Branch Hybrid</b>
10	Check that the equipment to be tested is removed from service.
11	In the repeater bay jack field, terminate the TRSG BR B HYB jack with a 368A termination plug (see Fig. 2).
12	Set up and calibrate the receiving test equipment for a 75-ohm terminated measurement of 421 kHz at a power level of -50.0 dBm.
13	Set up and calibrate the sending test equipment for an output of 421 kHz at -46.7 dBm.
14	In the repeater bay jack field, make patches designated (1), (2) and (3) in Fig. 2.
15	Measure the power at the TRSG BR HYB OUT jack.  <i>Requirement:</i> -50.0 dBm $\pm$ 0.3 dB.
16	Make patches designated (1), (4) and (5) in Fig. 2.
17	Measure the power at the TRSG BR HYB OUT jack.  <i>Requirement:</i> -50.0 dBm $\pm$ 0.3 dB.
18	Remove the patches and termination plug and restore the service to normal.

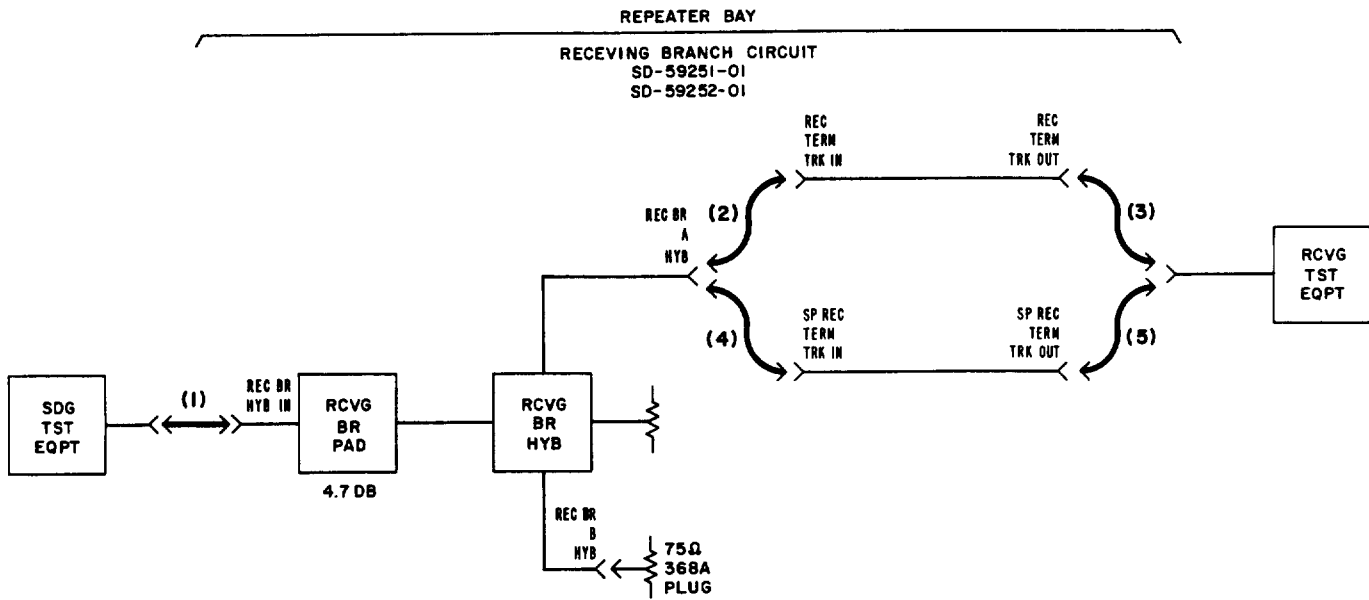


Fig. 1—Transmission Test of Receiving Branch Hybrid Equipment

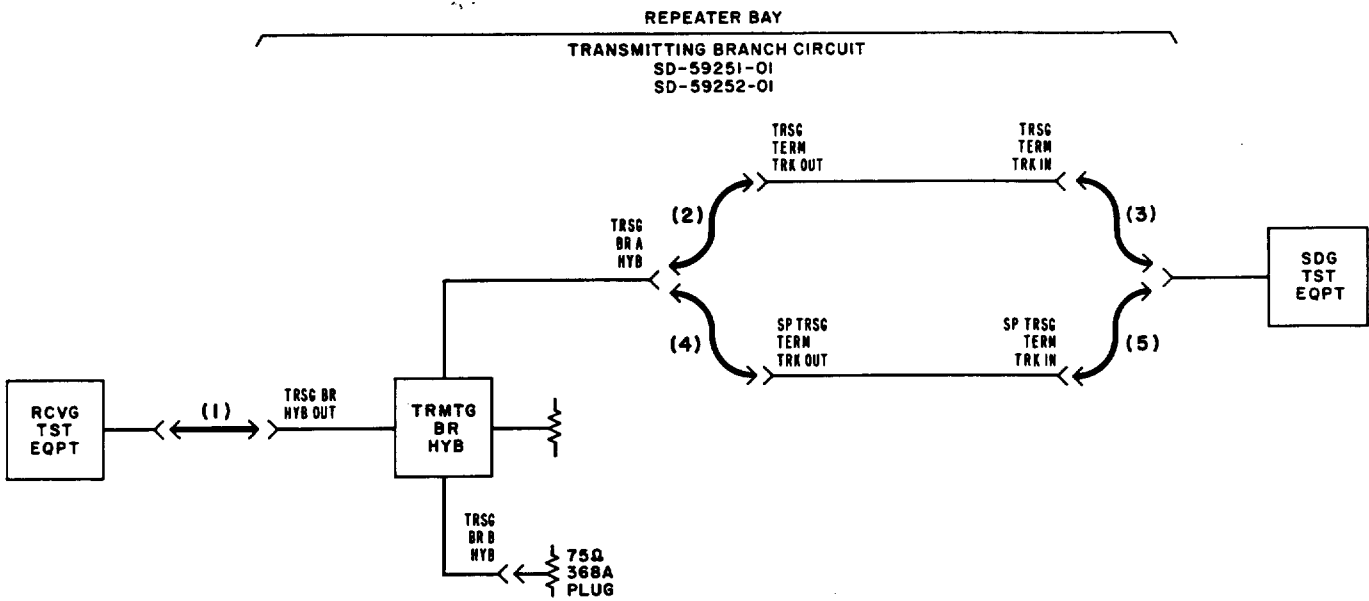


Fig. 2—Transmission Test of Transmitting Branch Hybrid Equipment