L MULTIPLEX TERMINALS
COMMON EQUIPMENT
TERMINAL CIRCUITS
TESTS
HYBRID COILS

In the carrier telephone terminals, turnover must be avoided. To prevent service interruption caused by wiring errors, the wiring of all hybrid coils must be checked to determine whether turnover exists. When the spare hybrid coil is used for return-loss measurements, balance tests should be made. Balance measurements are made at 64, 2064, and 3096 kHz.

This section includes information formerly contained in Sections 356-120-501 and 356-260-502 and is renumbered to place it in a more proper classification.

The purpose of this test is to provide a method of testing the transmitting, receiving, and spare hybrid coils used between supergroup equipment and transmitting and receiving pads.

APPARATUS:

The tests 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 signals between 64 kHz and 3096 kHz at power levels between 0 dBm and -30 dBm.

Receiving test equipment capable of detecting from 75-ohm circuits signals between 64 kHz and 3096 kHz at power levels between 0 dBm and -40 dBm.

In addition to the above, the following is required:

1—368A Termination Plug

4—P2BJ Cords

STEP	PROCEDURE
	A. Turnover Test
1	Check that the equipment to be tested is removed from service.
2	Set up and calibrate the receiving test equipment for a 75-ohm terminated measurement of 421 kHz at a power of -33.3 dBm.
3	Set up and calibrate the sending test equipment for an output of 421 kHz at -30 dBm.
4	Insert the 368A termination plug designated (1) in Fig. 1.
5	Make patches designated (2), (3), and (4) in Fig. 1.
6	Measure the power of the 421-kHz signal.
	Requirement: -33.3 dBm ±0.2 dB.
7	Remove the 368A termination plug.
8	Make patch designated (5) in Fig. 1.
9	Measure the power of the 421-kHz signal.
	Requirement: -31.0 dBm ±0.5 dB.
10	This completes the turnover test. Remove all plugs and patches and restore service to normal.
	B. Hybrid Balance Test
11	Check that the equipment to be tested is removed from service.
12	Set up and calibrate the receiving test equipment for a 75-ohm terminated measurement of 64 kHz at a power of -38.0 dBm.
13	Set up and calibrate the sending test equipment for an output of 64 kHz at 0 dBm.
14	Terminate the SP HYB LINE jack with the 368A termination plug designated (1) in Fig. 2.
15	Make patches designated (2) and (3) in Fig. 2.
16	Measure the power of the 64-kHz signal.
	Requirement: The power level shall be -38.0 dBm or less (-39.0 dBm is less than -38.0 dBm).
17	Set up and calibrate the receiving test equipment for a 75-ohm terminated measurement of 2064 kHz at a power of -28.0 dBm.

STEP	PROCEDURE
18	Set up and calibrate the sending test equipment for an output of 2064 kHz at 0 dBm.
19	Measure the power of the 2064-kHz signal. ***Requirement:*** The power level shall be -28.0 dBm or less (-29.0 dBm is less than -28.0 dBm).
20	Repeat Steps 17, 18, and 19 at a frequency of 3096 kHz.
21	This completes the balance test. Remove the plugs and patches and restore service to normal.

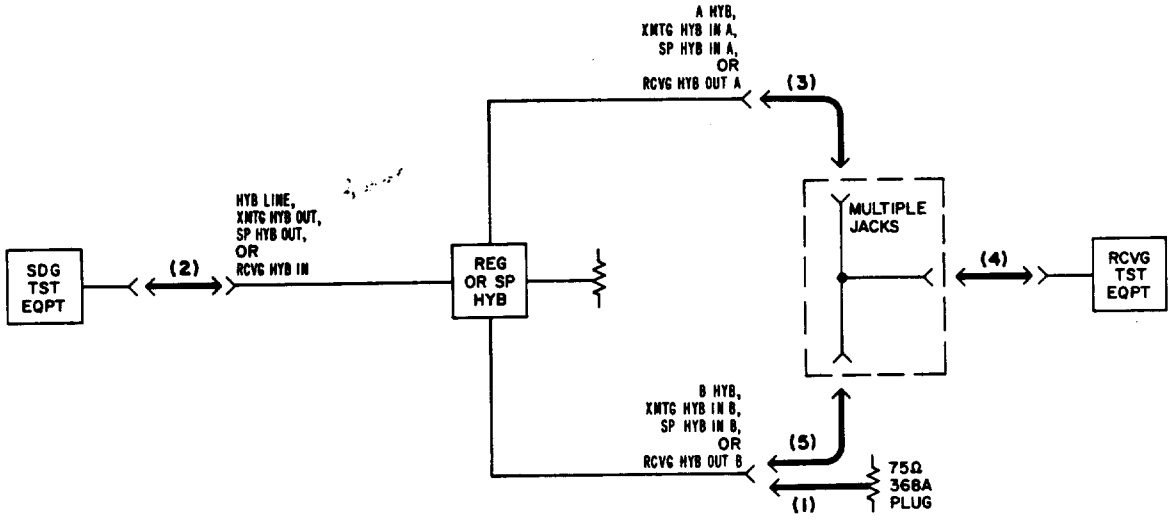

Fig. 1—Transmitting, Receiving, and Spare Hybrid Tests

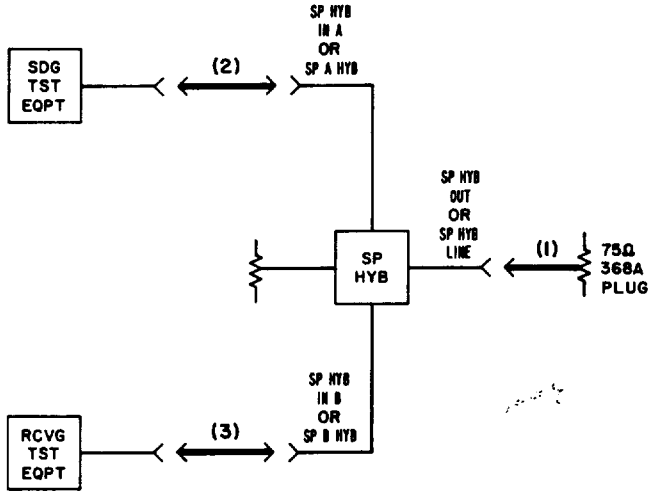

Fig. 2—Spare Hybrid Balance Test