

L MULTIPLEX TERMINALS
LMX-2
CARRIER AND PILOT SUPPLY
64-KHZ PILOT SUPPLY
DISTRIBUTION CIRCUIT TESTS

PURPOSE OF TESTS

To measure and, if necessary, adjust the output signal level from each leg of the 64-kHz pilot supply distribution circuit.

Equipment Test Lists are affected.

SYNOPSIS

The 64-kHz pilot supply distribution circuit receives a signal at a level of 0 dBm from the automatic switch circuit. The distribution circuit, which has an input impedance of 135 ohms, provides five 75-ohm unbalanced outputs at -64 dBm. These pilot signals are inserted at the 75-ohm unbalanced input to transmitting wire-line entrance links or L1 coaxial lines.

METHOD OF TESTING

First, the level of the input signal to the distribution circuit is verified as being correct. Then the output level of each individual circuit leg is measured and adjusted.

APPARATUS:

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

Receiving test equipment capable of detecting a signal of 64 kHz, from 75-ohm circuits, at a power of -64 dBm and, from 135-ohm circuits, at a power of 0 dBm.

In addition to the above, the following are required:

3P20B Cord

W2DC Cord

STEP	PROCEDURE
1	<p>At the carrier supply test panel, visually check that the REG 64-kHz stabilizer and switch control unit is feeding the 64-kHz distribution bus.</p> <p>Note: A lighted 64 KC BUS ON REG lamp indicates the regular stabilizer unit is feeding the distribution bus.</p> <p>Input Signal Level</p> <p>2 Prepare the receiving test equipment for a 135-ohm terminated measurement of 64 kHz at a power of 0 dBm.</p> <p>3 Make patch (1) in Fig. 2.</p> <p>4 Measure the power of the 64-kHz signal at the 64 KC TST REG jacks.</p> <p>Requirement: 0 dBm \pm0.05 dB.</p> <p>5 If the requirement of Step 4 is met, proceed to Step 6. If it is not met, make tests as prescribed in Section 356-275-501.</p> <p>Output Signal Level</p> <p>6 Prepare the receiving test equipment for a 75-ohm terminated measurement of 64 kHz at a power of -64 dBm.</p> <p>7 At the intermediate frequency supply panel, remove the front coverplate by turning the two captive screws on the left-hand front coverplate (Fig. 1) counterclockwise until they are disengaged.</p>

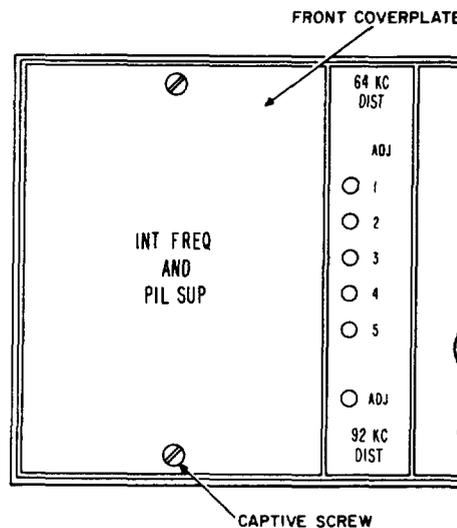


Fig. 1—Partial View—IF Supply Panel

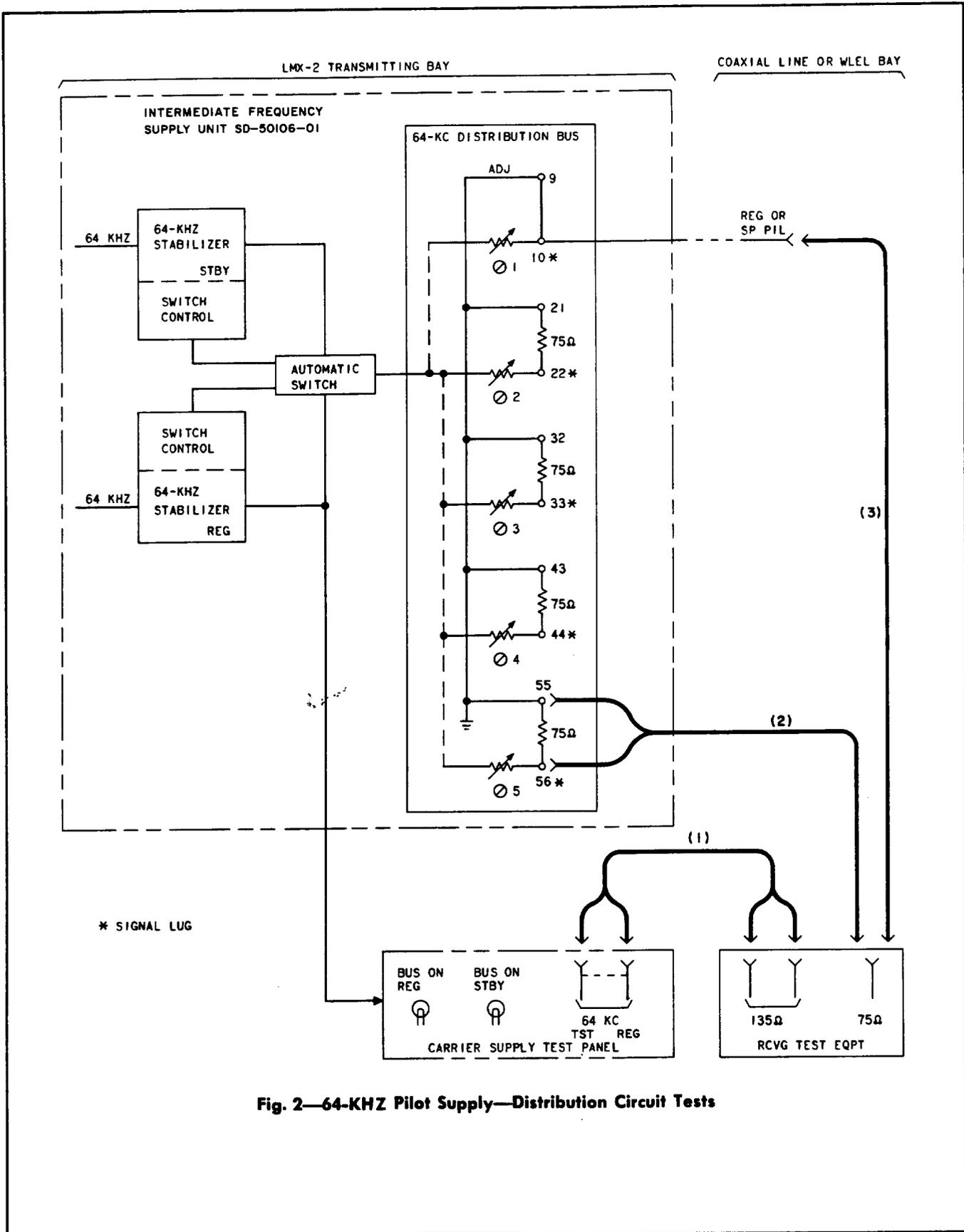


Fig. 2—64-KHZ Pilot Supply—Distribution Circuit Tests

STEP	PROCEDURE
8	Check that each of the five 64-kHz distribution taps is connected to a 75-ohm resistor or to a coaxial distribution cable.
9	<p>If the distribution tap is terminated by a 75-ohm resistor, proceed as follows.</p> <p>(a) Remove the 75-ohm resistor lead connected to the signal lug of the distributing tap to be tested (Fig. 2).</p> <p>(b) Make patch (2) in Fig. 2.</p> <p><i>Note:</i> Connect the inner conductor test clip of the W2DC test cord to the signal lug and the outer conductor test clip to the ground lug of the distribution tap under test.</p> <p>(c) Proceed to Step 11.</p>
10	<p>If the distribution tap is connected to a coaxial cable, proceed as follows.</p> <p>(a) Determine from office records the coaxial line or wire-line entrance link facility connected to the distribution tap to be tested.</p> <p>(b) Remove service from the coaxial line or wire-line entrance link facility.</p> <p>(c) Make patch (3) in Fig. 2.</p> <p>(d) Proceed to Step 11.</p>
11	<p>Measure the power of the 64-kHz signal.</p> <p><i>Requirement:</i> $-64 \text{ dBm} \pm 0.25 \text{ dB}$.</p>
12	If the requirement of Step 11 is met, proceed to Step 13. If it is not met, adjust the corresponding 64 KC DIST ADJ control to meet the requirement.
13	Remove patch (2) or (3) in Fig. 2.
14	Reconnect the 75-ohm terminating resistor (if removed in Step 9) to the signal source lug of the distribution tap.
15	Repeat Steps 9 through 14 as required for each distribution tap to be tested.
16	Replace the front coverplate. Turn the two captive screws clockwise until they are completely engaged.