

MULTIPLEX TERMINALS
LMX-2
CARRIER AND PILOT SUPPLY
64-KHZ PILOT SUPPLY
STABILIZER AND SWITCH CONTROL OUTPUT TESTS

PURPOSE OF TESTS

- (a) To measure and, if necessary, adjust the power output of the 64-kHz stabilizer
- (b) To measure and, if necessary, adjust the stabilizer switch control output voltage.

This is an in-service test.

REASON FOR ISSUE

The information in this section was previously in Section 356-253-501. It is renumbered in the process of reorganizing the 356- division of practices. *Equipment Test Lists are affected.*

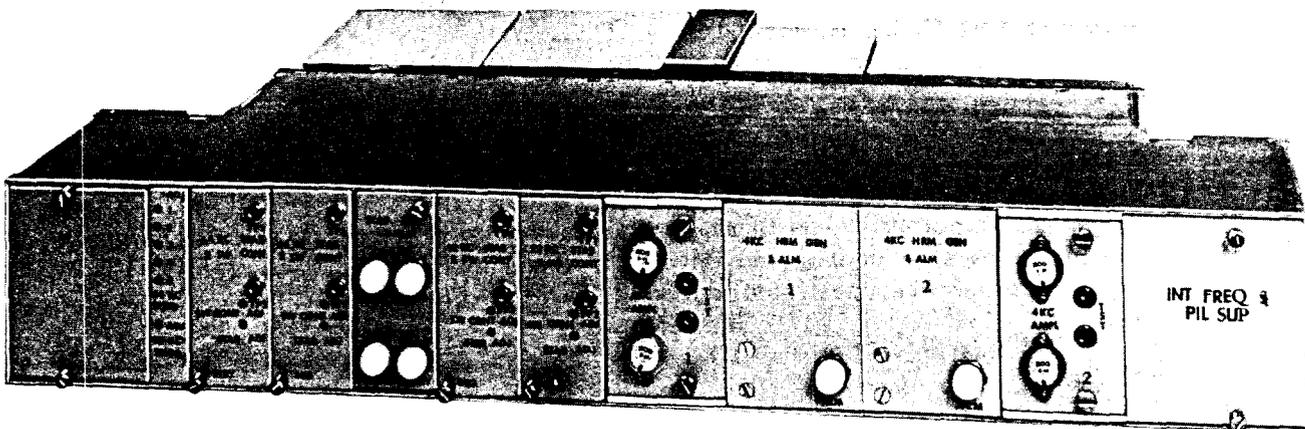


Fig. 1—J68857 Intermediate Frequency Supply Unit

SYNOPSIS

The carrier frequency supplies at a transmitting LMX-2 terminal feeding either a coaxial line facility or radio channel must be synchronized. A highly stabilized 64-kHz line pilot is used for automatic synchronization of the 4-kHz primary frequency supply circuits and for regulating, switching, and alarm functions. The stabilized pilot supply circuit receives a 64-kHz signal from the intermediate frequency supply and maintains a constant output power over a wide range of temperature, voltage, and input amplitude variations.

Two stabilizer and switch control units are provided for protective purposes. If a working stabilizer fails, an automatic switch circuit will transfer the load to the idle stabilizer and will provide an alarm indication.

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, from 135-ohm circuits, a 64-kHz signal at a power level of 0 dBm.

In addition to the above, the following are required:

KS-14510() Volt-Ohm-Milliammeter (VOM) or other dc voltmeter with a sensitivity of at least 20,000 ohms per volt

3P20B Cord

Voltmeter Test Cords, as required

STEP	PROCEDURE
1	<p><i>Note 1:</i> The requirements in these tests are based upon the assumption that the power level of the 64-kHz input signal is correct. The 64-kHz signal from the intermediate frequency supply may be tested as prescribed in Section 356-260-501 (currently Section 356-250-502).</p> <p><i>Note 2:</i> If the requirements in these tests cannot be met after performing the prescribed adjustments, replace the 64-kHz stabilizer and switch control unit under test.</p> <p><i>Caution: The simultaneous removal of both stabilizer units will cause a service interruption.</i></p> <p>Stabilizer</p> <p>Prepare the receiving test equipment for a 135-ohm terminated measurement of 64 kHz at a power of 0 dBm.</p>

STEP	PROCEDURE
2	<p>At the carrier supply test panel, make patch (1) in Fig. 2.</p> <p>Note: Side contacts on the 64 KC TST REG jacks will cause automatic switching from REG (regular) to STBY (standby) stabilizer units. Transfer is indicated by the 64 KC BUS ON STBY lamp.</p> <p style="text-align: center;">LMX-2 TRANSMITTING BAY</p> <p style="text-align: center;">TO AUTO SW AND ALM CKT SD-50106-01</p>

Fig. 2—64-kHz Stabilizer and Switch Control Output Tests

STEP	PROCEDURE
3	<p>Measure the 64-kHz signal power at the 64 KC TST REG jack.</p> <p>Requirement: 0.0 dBm \pm0.05 dB.</p>
4	<p>If the requirement of Step 3 is met, proceed to Step 5. If it is not met, adjust the STAB ADJ control on the REG 64 KC STAB AND SW CONT unit to meet the requirement.</p>
5	<p>Remove patch (1) in Fig. 2.</p>
6	<p>Make patch (2) in Fig. 2.</p> <p>Note: The automatic switch circuit will switch to the REG 64 KC STAB AND SW CONT unit. Transfer is indicated by the 64 KC BUS ON REG lamp.</p>
7	<p>Repeat Steps 3 and 4, as required, for the STBY 64 KC STAB AND SW CONT unit.</p>
8	<p>Remove patch (2) in Fig. 2.</p> <p>Switch Control</p>
9	<p>Operate the VOM selector switch to the 12 DC VOLTS position.</p>
10	<p>Make patch (3) in Fig. 2.</p> <p>Note: Observe and maintain correct polarity of the VOM test leads.</p>
11	<p>Measure the voltage at the TP1 and TP2 pin jacks.</p> <p>Requirement: 8.3 \pm0.1 volts dc.</p>
12	<p>If the requirement of Step 11 is met, proceed to Step 13. If it is not met, adjust the SW CONT ADJ control on the REG 64 KC STAB AND SW CONT unit to meet the requirement.</p>
13	<p>Remove patch (3) in Fig. 2.</p>
14	<p>Make patch (4) in Fig. 2.</p>
15	<p>Repeat Steps 11 and 12, as required, for the STBY 64 KC STAB AND SW CONT unit.</p>
16	<p>Remove patch (4) in Fig. 2.</p>
17	<p>Observe the 64 KC BUS ON REG and BUS ON STBY lamps at the carrier supply test panel.</p> <p>Requirement: For the normal in-service function, the 64 KC BUS ON REG lamp is lighted and the BUS ON STBY lamp is extinguished.</p>