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**L MULTIPLEX TERMINALS**  
**LMX-1**  
**CARRIER AND PILOT SUPPLY**  
**SUPERGROUP CARRIER**  
**124-KHZ HARMONIC GENERATOR TEST**

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The purpose of this test is to verify the correct total output power of the 124-kHz harmonic generators (Fig. 1). The working 124-kHz harmonic generator (A or B) receives its input via an associated 124-kHz filter located in the channel carrier supply bay. The output of the working harmonic generator is connected to filters which select the individual supergroup carrier frequencies. In the event of failure, the standby 124-kHz harmonic generator will be switched into service. Switching logic permits out-of-service testing of the 124-kHz supply when plugs are inserted in the TST ODD and TST EVEN jacks of the standby 4-kHz harmonic generator and the test equipment (a power meter) is connected to the OUT jack of the standby 124-kHz harmonic generator. The standby generators are indicated by a lighted green A lamp.

This section is reissued to change the receiving test equipment to a thermocouple-type wideband power meter, and to make other minor changes. Change arrows are not used. *Equipment Test Lists are affected.*

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**APPARATUS**

*Wideband Power Meter (J64070B or equivalent)*

*323A Plugs (2)*

*W2CU Cord*

*22-dB Attenuator (75 ohms)*

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**STEP**

**PROCEDURE**

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*Caution: Transfer of the carrier supplies will cause hits on data and telegraph service; therefore, the number of transfers should be limited to minimize service interruptions.*

- 1 At the carrier generator transfer panel, manually transfer the associated 4-kHz harmonic generator out of service per Section 356-150-300.

STEP

PROCEDURE

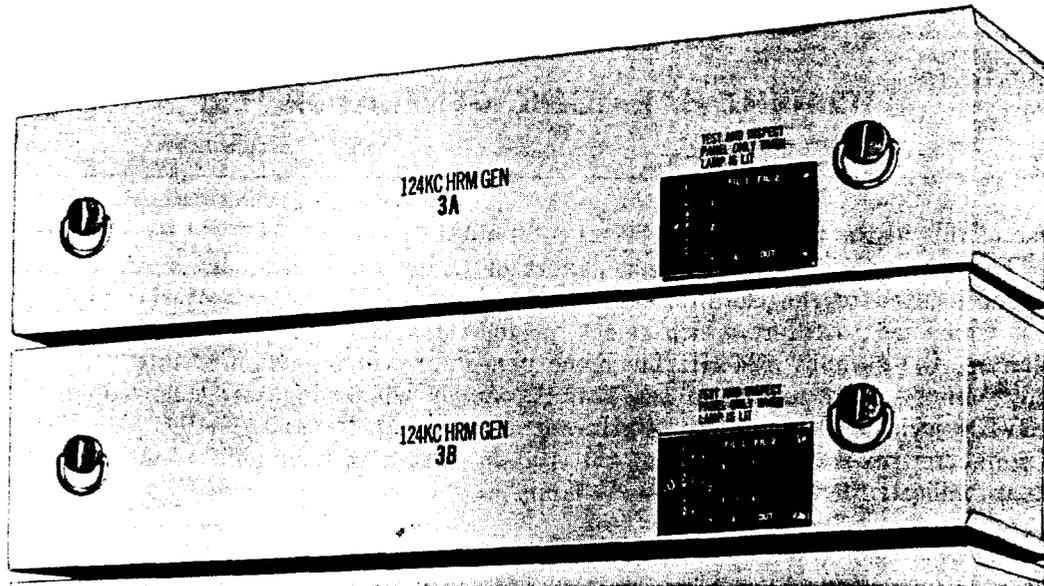


Fig. 1—Supergroup Carrier Supply—124-kHz Harmonic Generator

**Caution:** Do not proceed with this test until the green A lamps on the associated 4-kHz harmonic generator and 124-kHz harmonic generator under test are lighted.

- 2 At the standby 4-kHz harmonic generator (A or B), insert 323A plugs into the TST ODD and TST EVEN jacks.
- 3 Prepare the wideband power meter for a 75-ohm measurement of the total power at the output of the 124-kHz harmonic generator.

**Note:** If measurement is made with selective detector type Receiving Test Equipment (RTE), the reading will be erroneous, indicating trouble where none exists.

- 4 Connect the wideband power meter, through the 22.0 dB attenuator, to the OUT jack of the standby 124-kHz harmonic generator [patch (1), Fig. 2].
- 5 Observe the wideband power meter indication.

**Note:** This step measures the total output power of the 124-kHz harmonic generator.

**Requirement:** +20 dBm minimum

- 6 If the requirement of Step 5 is **not** met, measure the output power of the 124-kHz filter per Section 356-155-501.

## STEP

## PROCEDURE

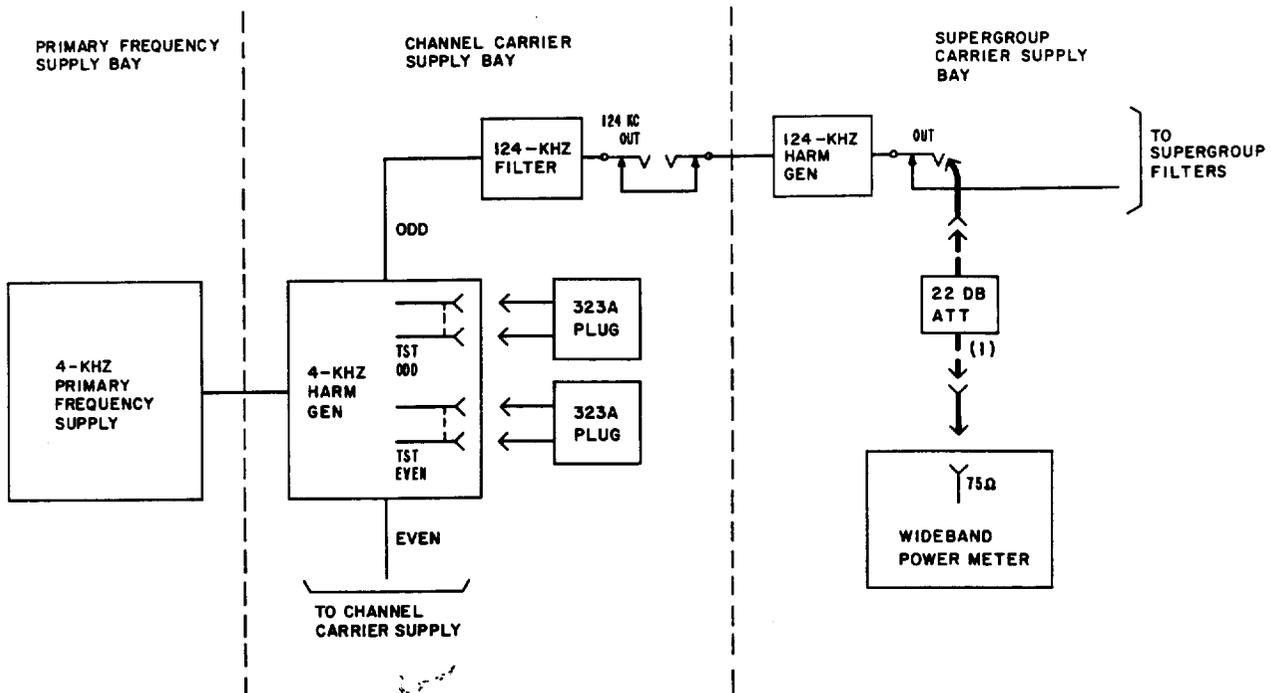


Fig. 2—Supergroup Carrier Supply—Measurement of 124-kHz Harmonic Generator Output Power

- 7 Remove all test equipment and 323A plugs.
- 8 Restore the carrier generator transfer switch to NORM.