

PRIMARY FREQUENCY SUPPLY J68775U (PFS-1)
64-KHZ OUTPUT POWER TESTS
LMX-1 CARRIER AND PILOT SUPPLY
ANALOG MULTIPLEX TERMINAL EQUIPMENT

The purpose of this test is to measure the 64-kHz output power of the 4-kHz primary frequency supply (Fig. 1).

This section is reissued to clarify and expand the test procedure. Arrows are used to indicate significant changes. *Equipment Test Lists are not affected.*

The 4-kHz primary frequency supply includes a 128-kHz crystal-controlled, bridge-stabilized oscillator and five stages of submultiple generators which provide outputs at 64 and 4 kHz. The bridge network has two opposing resistive arms, a crystal network for frequency control, and a tungsten switchboard lamp for amplitude control. The output power of the oscillator may be manually adjusted by restrapping resistors in the amplitude control network.

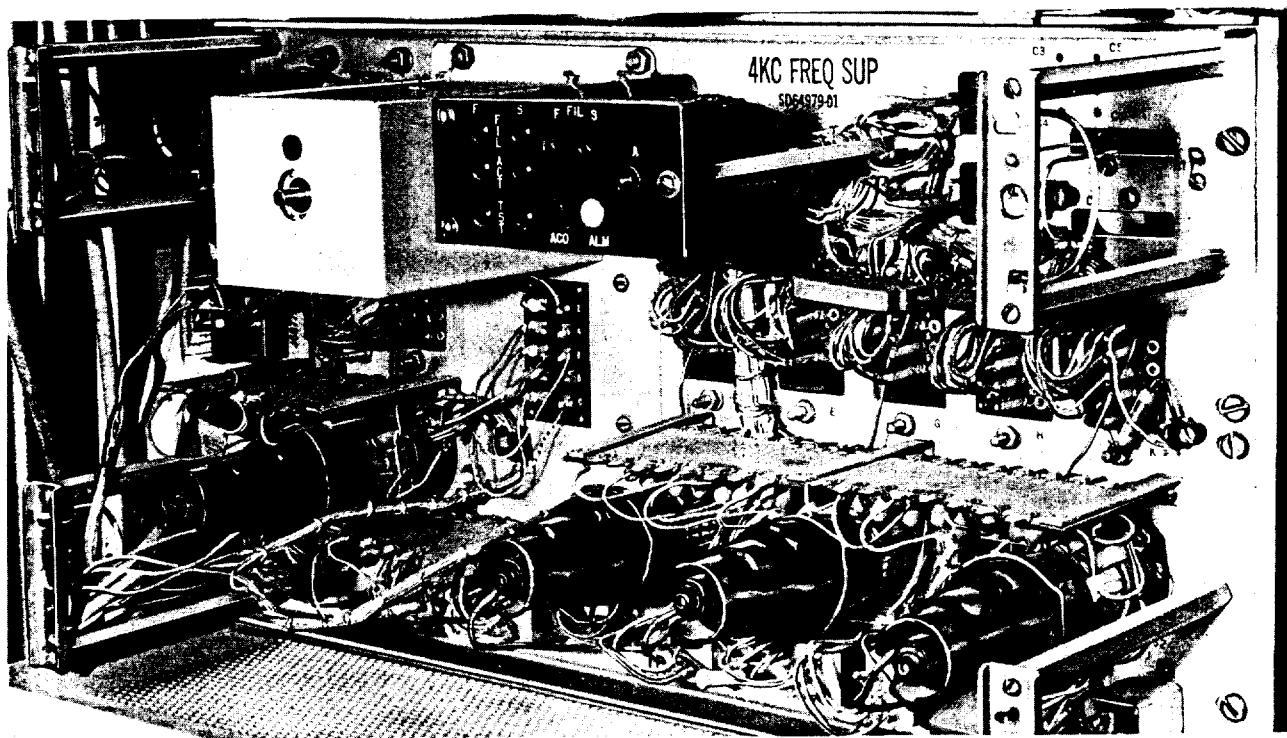


Fig. 1—4-kHz Primary Frequency Supply J68775U

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

APPARATUS:

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

Receiving test equipment (RTE) capable of detecting, from 135-ohm circuits, signals at 64 kHz at powers between +12 and +15 dBm

2W24A Cord, two-conductor cord with 464C plug on one end and two alligator clips on other end

305A Plugs as required, double two-conductor open plugs.

STEP	PROCEDURE
	<p>Caution: <i>Transfer of the carrier supply will cause hits on data and telegraph service; therefore, the number of transfers should be limited to minimize service interruptions.</i></p>
1	<p>Transfer manually the 4-kHz frequency supply to be tested out of service per section 356-150-300.</p> <p>Caution: <i>Do not proceed with this test until the green lamp A is lighted on the 4-kHz frequency supply to be tested.</i></p> <p>◆At 104.08-kHz pilot supply J68857W</p>
2	<p>Insert an open-circuit 305A plug into the TST jack (REG or STBY) adjacent to the BUS ON REG or BUS ON STBY lamp which is not lighted.</p> <p>Note: This will prevent an accidental transfer of the 104.08-kHz pilot supply to an idle 4-kHz supply bus.</p>
3	<p>Insert a 305A plug into the 128-kHz PAD OUT jack on the primary frequency supply panel, if the 4-kHz frequency supply is feeding an L3 primary frequency converter.◆</p>
4	<p>Prepare the RTE for a 135-ohm measurement of 64 kHz at approximately +13.5 dBm.</p>
5	<p>Remove the front panel cover of the 4-kHz primary frequency supply.</p>
6	<p>Unsolder and remove the wires connected to terminals 1 and 2 of 64-kHz output transformer D.</p> <p>Note: ◆Transformer D is mounted near the center of the panel, directly above electron tube F2.◆</p>
7	<p>Connect the RTE through a suitable attenuator, if required, to terminals 1 and 2 of transformer D [patch (1), Fig. 2].</p>

STEP	PROCEDURE
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| 8 | Measure the 64-kHz output power.

<i>Note:</i> The attenuator value plus the RTE meter indication equals the output power.

<i>Requirement:</i> +13.5 dBm \pm 1.5 dB |
| 9 | Proceed to Step 13 if the requirement is met. Otherwise, perform the following steps in the order listed, as necessary, to meet the requirement. |
| 10 | ◆Perform electron tube tests per Section 356-150-501.◆ |
| 11 | Check the output power of the 128-kHz oscillator per Section 356-151-501. |
| 12 | ◆Perform the 4-kHz distribution circuit tests in Section 356-151-504.◆ |
| 13 | Remove patch (1), Fig. 2. |
| 14 | Reconnect the wires to terminals 1 and 2 of transformer D. |
| 15 | Replace the front panel cover of the 4-kHz primary frequency supply. |
| 16 | Remove the 305A plugs from the TST jack of the 104.08-kHz pilot supply and from the 128-kHz PAD OUT jack of the L3 primary frequency converter. |
| 17 | Transfer the 4-kHz primary frequency supply to normal service per Section 356-150-300. |

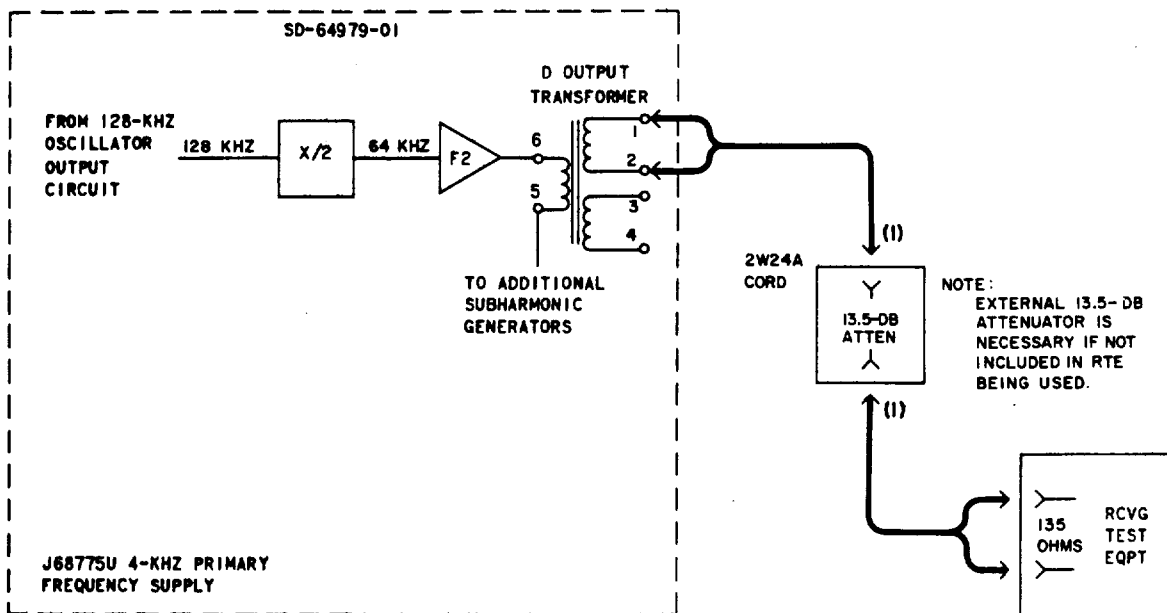


Fig. 2—Measurement of 64-kHz Output Power