

L MULTIPLEX TERMINALS
LMX-1
CARRIER AND PILOT SUPPLY
CHANNEL CARRIER DISTRIBUTION BUS
OUTPUT POWER TESTS

The purpose of this test is to verify the correct output power of the channel carrier distribution bus (Fig. 1).

This section is reissued to delete the A, B, C, and D adjustment resistors as test connections. Arrows have been used to indicate significant changes. *Equipment Test Lists are not affected.*

This test pertains to the J68775AJ channel carrier distributing circuit and to the J68734D and AB units which have been rated "MFR DISC" but which may still be in service at some locations. The filters and distribution buses for the 12 channel carrier frequencies (Fig. 1) are mounted in the same carrier supply bay as the A and B 4-kHz harmonic generators and the carrier supply transfer panel.

Odd and even harmonics from each 4-kHz harmonic generator (A and B) are fed through odd and even hybrid coils to individual filters which select the 12 channel carrier frequencies in the range of 64 to 108 kHz.

Each channel carrier bus contains an attenuator network designated ADJ. The ADJ resistors are strapped, as required, to adjust the output power to the required level. When changes in strapping are made, the output power of other channel carrier frequencies may be affected. Therefore, it may be necessary to repeat tests until *all* distribution buses meet the requirement.

APPARATUS

Receiving Test Equipment (RTE) having the following characteristics (Section 356-010-500):

Frequency: 64 to 108 kHz

Input Power: 0 dBm

Impedance: 135 ohms

2W24A Cord

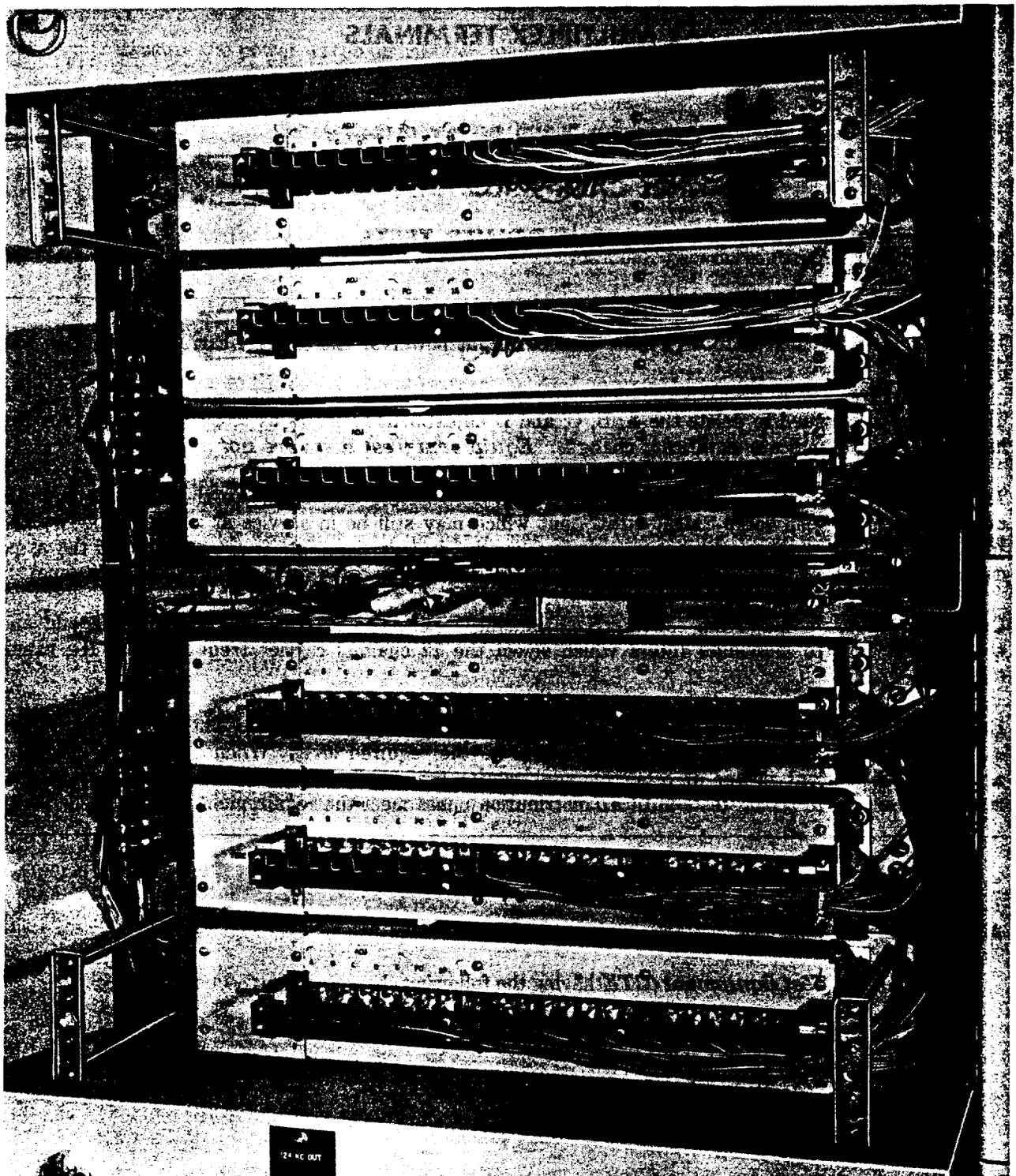


Fig. 1—J68775AJ Channel Carrier Distribution Circuit—Front Cover Removed

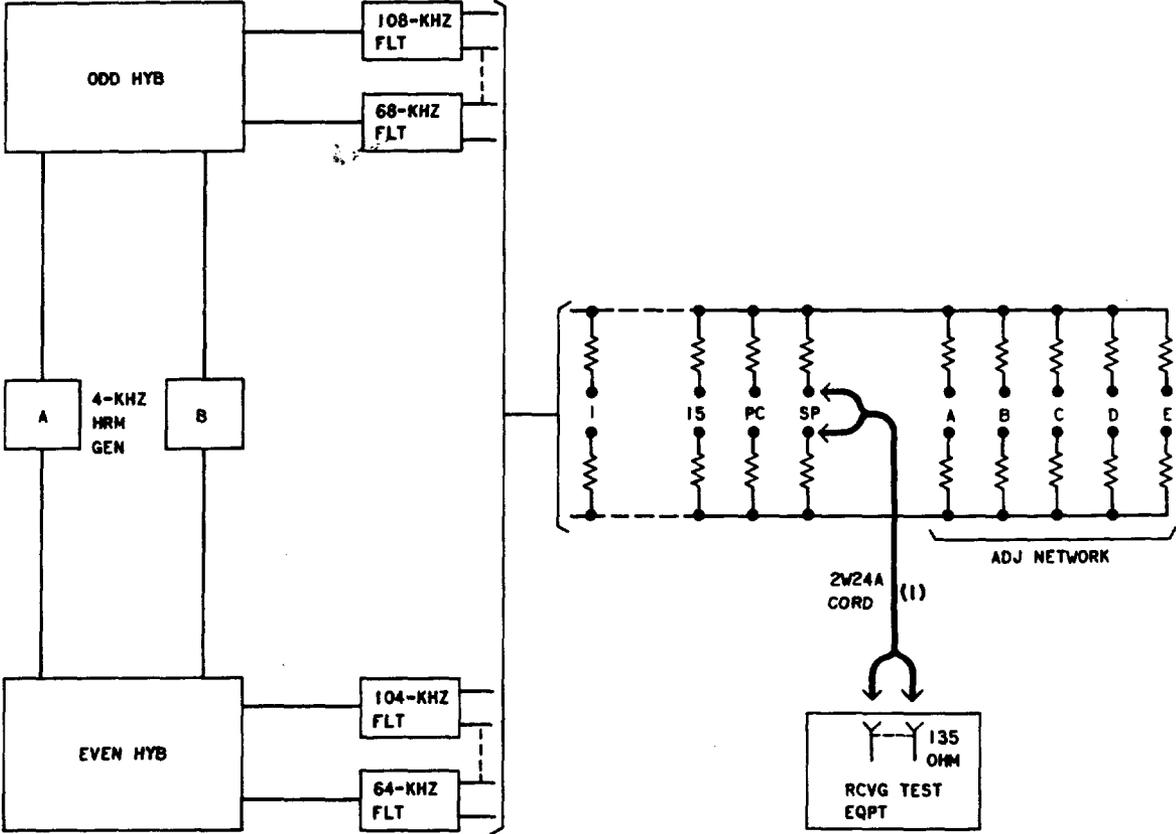
| STEP | PROCEDURE | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---------|-----|----|----|----|----|----|----|----|----|----|----|----|-----------------|-----|-----|-----|----|----|----|----|----|----|----|----|----|
| 1 | <p>Caution: <i>Transfer of the carrier supply will cause hits on data and telegraph service; therefore, the number of transfers should be limited to minimize service interruptions.</i></p> <p>Prepare the RTE for a 135-ohm measurement of the carrier frequency to the tested (Table A) at approximately 0 dBm.</p> <p style="text-align: center;">TABLE A CHANNEL CARRIER FREQUENCIES</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>CHANNEL</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> <th>9</th> <th>10</th> <th>11</th> <th>12</th> </tr> </thead> <tbody> <tr> <td>FREQUENCY (kHz)</td> <td>108</td> <td>104</td> <td>100</td> <td>96</td> <td>92</td> <td>88</td> <td>84</td> <td>80</td> <td>76</td> <td>72</td> <td>68</td> <td>64</td> </tr> </tbody> </table> | CHANNEL | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | FREQUENCY (kHz) | 108 | 104 | 100 | 96 | 92 | 88 | 84 | 80 | 76 | 72 | 68 | 64 |
| CHANNEL | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | | | | | | | | | | | | | |
| FREQUENCY (kHz) | 108 | 104 | 100 | 96 | 92 | 88 | 84 | 80 | 76 | 72 | 68 | 64 | | | | | | | | | | | | | | | |
| 2 | <p>At the carrier supply transfer panel, manually switch to the A 4-kHz harmonic generator.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | <p>Connect the RTE across the SP tap, PC tap, or any available unused tap of the associated distribution bus [patch (1), Fig. 2].</p>  | | | | | | | | | | | | | | | | | | | | | | | | | | |

Fig. 2—Channel Carrier Distribution Circuit—Measurement of Output Power

SECTION 356-153-502

| STEP | PROCEDURE |
|------|--|
| 4 | <p>Measure the power at the distribution bus.</p> <p>Requirement: J68775AJ Bus: -2.0 to +0.75 dBm J68735D or AB Bus: -1.5 to +0.5 dBm</p> |
| 5 | <p>If the requirement of Step 4 is met, proceed to Step 6. If it is not met, perform the following steps (in the order listed), as necessary, to meet the requirement:</p> <ul style="list-style-type: none"> (a) Verify the correct output from the 4-kHz harmonic generator using Section 356-152-501. (b) Verify the correct equalization of the input signals to the distribution bus using Section 356-153-501. (c) Refer to SD-64984-02 and restrap the ADJ network to meet the requirement. (d) If adjustments were made on the ADJ network, check the output power at all remaining distribution buses and readjust, if necessary, until all buses meet the requirement. |
| 6 | <p>At the carrier generator transfer panel, manually switch to the B 4-kHz harmonic generator.</p> |
| 7 | <p>Repeat Steps 1 through 6 with the B 4-kHz harmonic generator in-service, and proceed to Step 8.</p> |
| 8 | <p>Remove patch (1), Fig. 2.</p> |
| 9 | <p>At the carrier generator transfer panel, restore the transfer switch to NORM.</p> |