

**L MULTIPLEX TERMINALS  
MASTERGROUP CONNECTORS  
J68829K (MMX-1 TO MMX-1)  
PATCHING PROCEDURES**

This section describes patching procedures whereby regular equipment (mastergroup connectors) is removed from or restored to service.

To prevent service interruptions while patching mastergroup equipment, effective monitoring procedures should be used. Three types of signals are available for monitoring purposes: test tone, conversation, and pilots. The most effective signal is a 1-kHz tone on a voice channel. However, local policy establishes monitoring and verification procedures to keep service interruptions to a minimum.

Transmission requirements must be met for the equipment involved before proceeding.

**APPARATUS**

*Receiving Test Equipment* (Section 356-010-500) capable of measuring the power of the signal to be monitored

*Test Cords and Plugs* as required

STEP	PROCEDURE
1	<p><i>Caution: Some patches may affect transmission levels; therefore, patching should be kept to a minimum. Before attempting any patches, read and understand the entire procedure.</i></p> <p><i>Note:</i> To prevent service interruptions due to patching errors, the craftsman must:</p> <ul style="list-style-type: none"><li>(a) Have a thorough understanding of the transmission circuits involved.</li><li>(b) Be familiar with local equipment and jack designations.</li><li>(c) Be familiar with local policy regarding minimum monitoring requirements.</li></ul> <p><b>Monitoring</b></p> <p>Determine the monitoring procedures to be used (established by local policy).</p> <p><i>Caution: Always monitor at a point in the circuit path which is beyond the final patch point.</i></p>

STEP	PROCEDURE
2	<p>Prepare the receiving test equipment (RTE) to measure the signal (determined in Step 1) at the correct power.</p> <p><b>Note:</b> See Section 359-080-501 for level diagrams and frequency charts.</p>
3	<p>Connect the RTE to the monitoring point determined in Step 1.</p> <p><b>Patching</b></p>
4	<p><i>To remove regular equipment from service, proceed to Step 5.</i></p> <p><i>To restore regular equipment to service, proceed to Step 12.</i></p> <p><b>Removing Regular Equipment From Service</b></p>
5	<p>At the transmitting and receiving high-frequency patch bays (HFPPB), locate the jacks associated with the regular and spare equipment to be patched. At the receiving MG-HFPPB,</p> <ul style="list-style-type: none"> <li>(a) Remove the 358B plug (75-ohm termination) from the REG MG( ) OUT B jack [patch (1), Fig. 1].</li> <li>(b) Insert a 372A plug (through connection) into the REG MG( ) OUT B and SP MG( ) CONN IN A jacks [patch (2), Fig. 1].</li> </ul>
6	<p>At the transmitting MG-HFPPB,</p> <ul style="list-style-type: none"> <li>(a) Remove the 358B plug from the REG MG( ) IN B jack [patch (3), Fig. 1].</li> <li>(b) Insert a 372A plug into the REG MG( ) IN B and SP MG( ) CONN OUT A jacks [patch (4), Fig. 1].</li> </ul>
7	<p>Observe the RTE indication.</p> <p><b>Requirement:</b> Approximately a 3-dB increase in power</p>
8	<p>At the transmitting MG-HFPPB,</p> <ul style="list-style-type: none"> <li>(a) Remove the 372A plug from the REG MG( ) IN A and REG MG( ) CONN OUT A jacks [patch (5), Fig. 1].</li> <li>(b) Insert a 358B plug into the REG MG( ) IN A jack [patch (6), Fig. 1].</li> </ul>
9	<p>At the receiving MG-HFPPB,</p> <ul style="list-style-type: none"> <li>(a) Remove the 372A plug from the REG MG( ) CONN IN A and REG MG( ) OUT A jacks [patch (7), Fig. 1].</li> <li>(b) Insert a 358B plug into the REG MG( ) OUT A jack [patch (8), Fig. 1].</li> </ul>

STEP	PROCEDURE
10	Observe the RTE indication. <b>Requirement:</b> Normal power indication for the monitoring point
11	Disconnect the RTE. Where possible, identify all patches.
	<b>Restoring Regular Equipment To Service</b>
12	At the transmitting and receiving high-frequency patch bays, locate the jacks associated with the regular and spare equipment to be patched. At the transmitting MG-HFPB, <ol style="list-style-type: none"> <li>(a) Remove the 358B plug (75-ohm termination) from the REG MG( ) IN A jack [patch (1), Fig. 2].</li> <li>(b) Insert a 372A plug (through connection) into the REG MG( ) IN A and REG MG( ) CONN OUT A jacks [patch (2), Fig. 2].</li> </ol>
13	At the receiving MG-HFPB, <ol style="list-style-type: none"> <li>(a) Remove the 358B plug from the REG MG( ) OUT A jack [patch (3), Fig. 2].</li> <li>(b) Insert a 372A plug into the REG MG( ) OUT A and REG MG( ) CONN IN A jacks [patch (4), Fig. 2].</li> </ol>

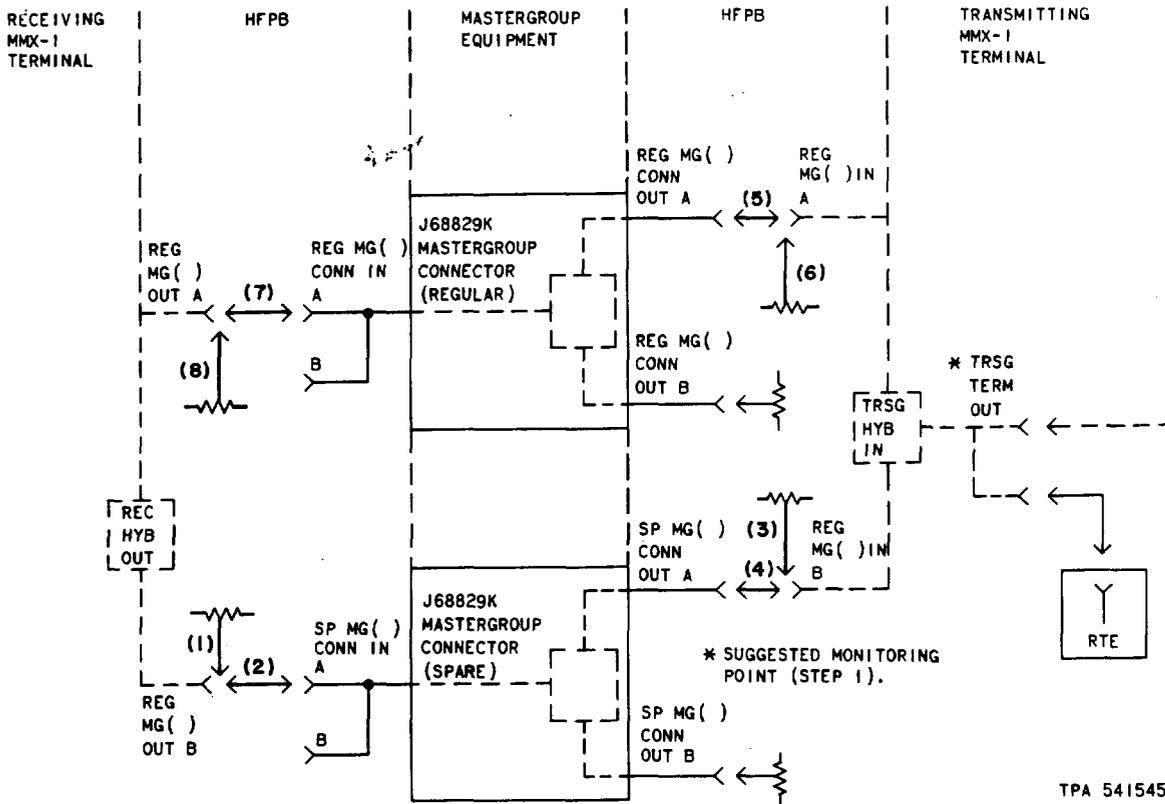


Fig. 1—Removing Regular Equipment From Service—Patching Procedure

STEP	PROCEDURE
14	Observe the RTE indication.
15	<p><b>Requirement:</b> Approximately a 3-dB increase in power</p> <p>At the receiving MG-HFPB,</p> <p>(a) Remove the 372A plug from the REG MG( ) OUT B and the SP MG( ) CONN IN A jacks [patch (5), Fig. 2].</p> <p>(b) Insert a 358B plug into the REG MG( ) OUT B jack [patch (6), Fig. 2].</p>
16	<p>At the transmitting MG-HFPB,</p> <p>(a) Remove the 372A plug from the REG MG( ) IN B and SP MG( ) CONN OUT A jacks [patch (7), Fig. 2].</p> <p>(b) Insert a 358B plug into the REG MG( ) IN B jack [patch (8), Fig. 2].</p>
17	Observe the RTE indication.
18	<p><b>Requirement:</b> Normal power indication for the monitoring point</p> <p>Disconnect the RTE.</p>

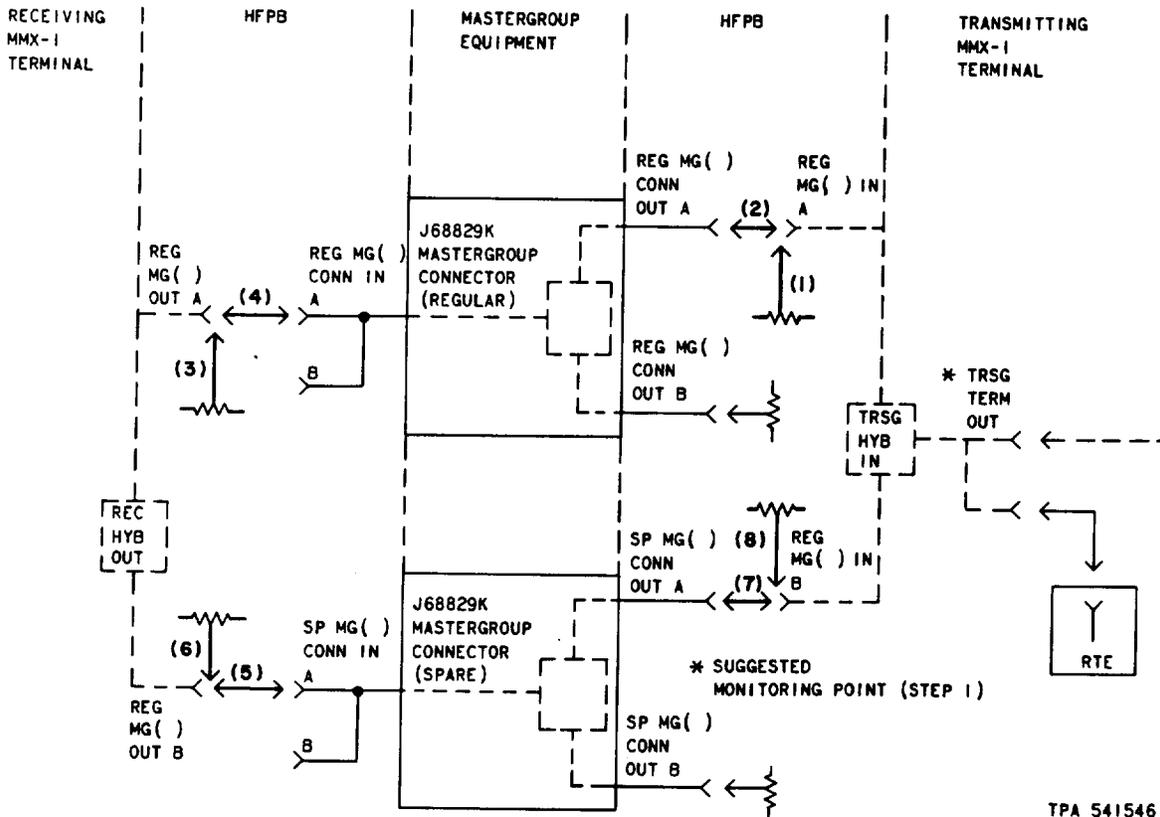


Fig. 2—Restoring Regular Equipment to Service—Patching Procedure