

**L MULTIPLEX TERMINALS
TERMINAL CIRCUITS
MASTERGROUP TRUNKS
PATCHING PROCEDURE**

This section describes patching procedures whereby regular equipment (mastergroup trunks) is removed from or restored to service. Because of the numerous configurations applicable to the equipment involved, only an MMX-2 transmitting trunk and an MMX-2 receiving trunk are depicted by these procedures. Each office must determine the mastergroup trunk configurations for its particular office and establish applicable patching procedures.

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 pilot. 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.

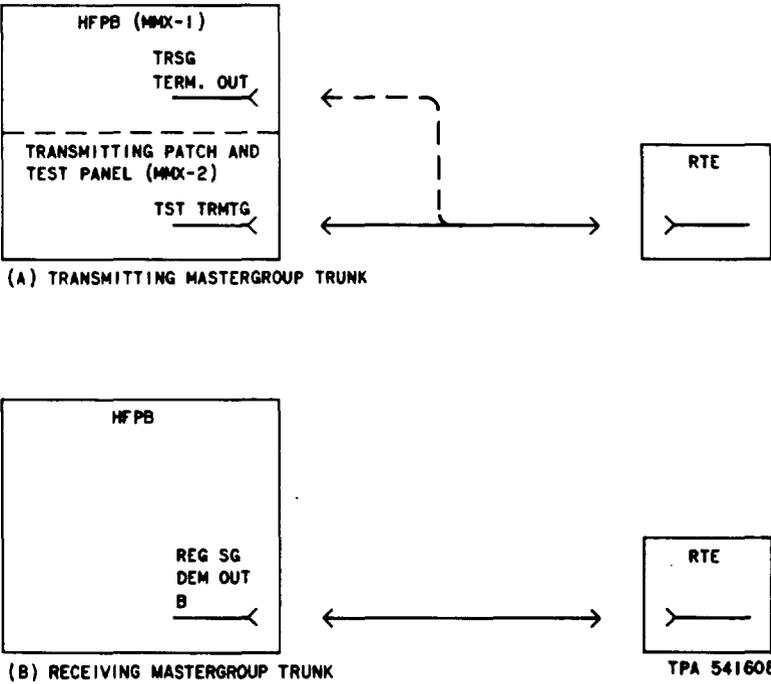
Transmission requirements must be met for the equipment involved before proceeding.

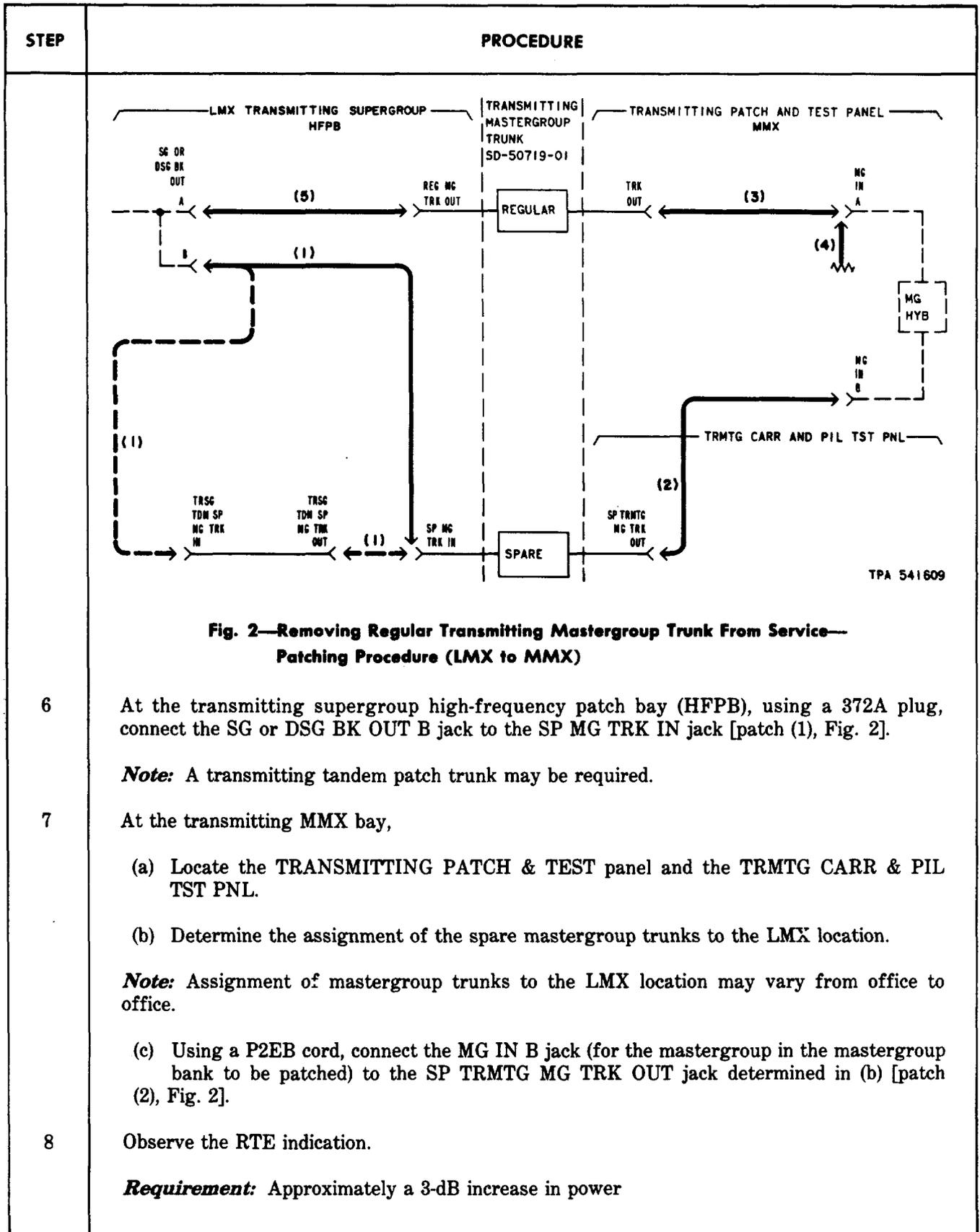
APPARATUS

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

Patch Cords and Plugs as required

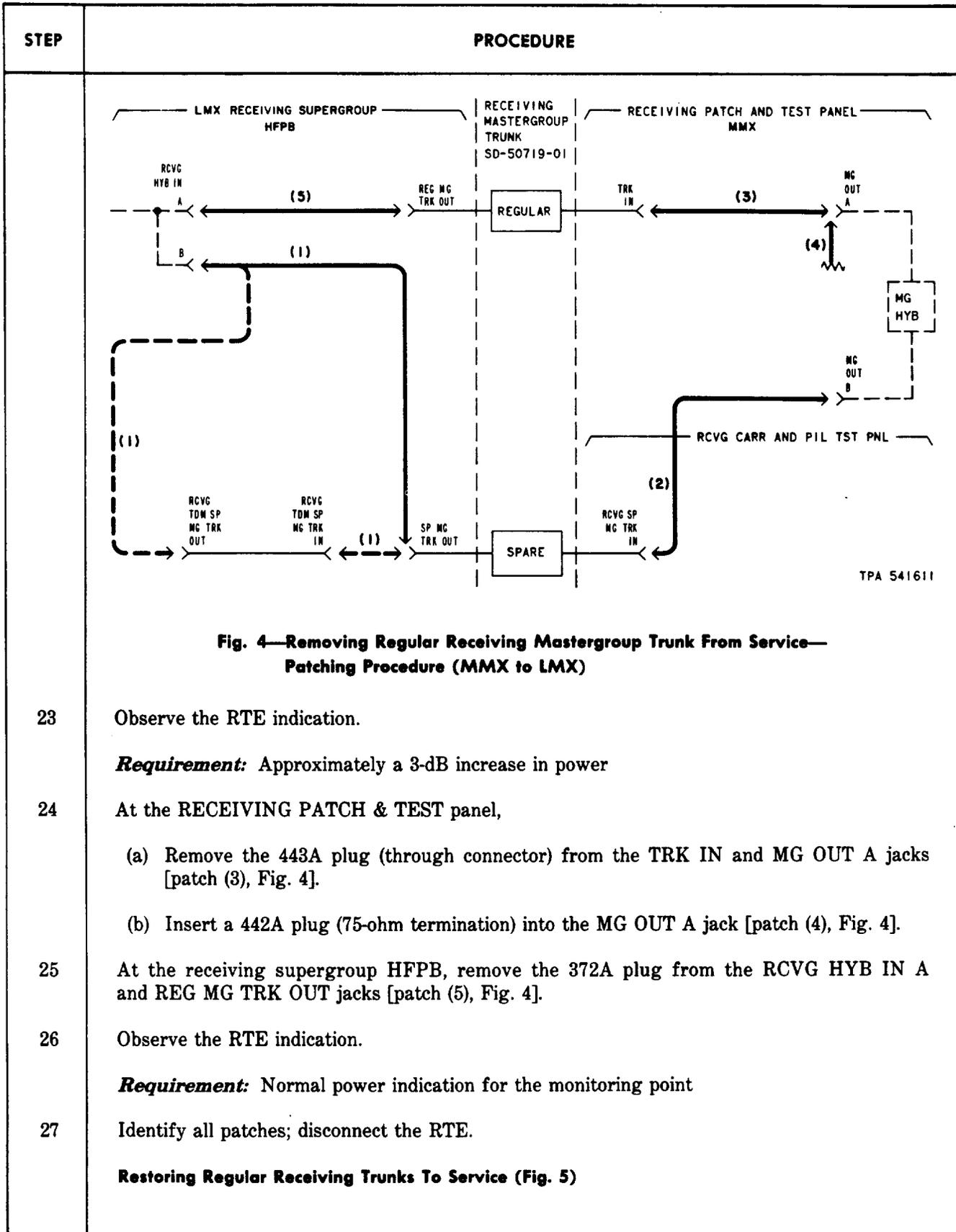
STEP	PROCEDURE
	<p>Caution: <i>Some patches may affect transmission levels; therefore, patching should be kept to a minimum. Before attempting any patches, read and understand the entire procedure.</i></p> <p>Note: To prevent service interruptions due to patching errors, the craftsman must:</p> <ul style="list-style-type: none"> (a) Have a thorough understanding of the transmission circuits involved (b) Be familiar with local equipment and jack designations (c) Be familiar with local policy regarding minimum monitoring requirements. <p>Monitoring (Fig. 1)</p>

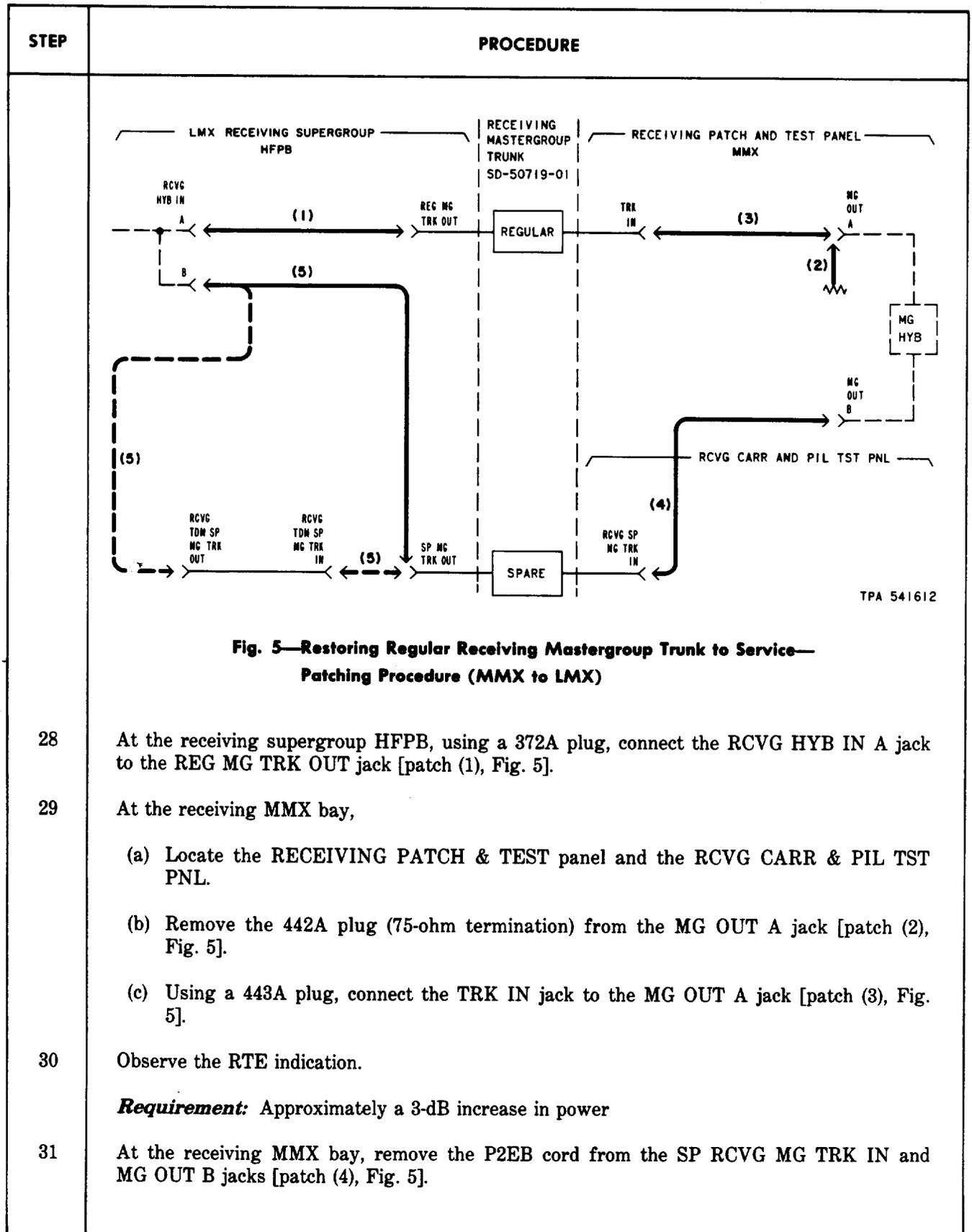
STEP	PROCEDURE
	<div style="text-align: center;">  <p>(A) TRANSMITTING MASTERGROUP TRUNK</p> <p>(B) RECEIVING MASTERGROUP TRUNK</p> <p>TPA 541608</p> </div> <p style="text-align: center;">Fig. 1—Suggested Monitoring Points</p> <ol style="list-style-type: none"> 1 Determine the monitoring procedure to be used (established by local policy). <ul style="list-style-type: none"> Caution: Always monitor at a point in the circuit path which is beyond the final patch point. 2 Prepare the receiving test equipment (RTE) to measure the signal (determined in Step 1) at the correct power. <ul style="list-style-type: none"> Note: Sections 359-080-501 and 359-200-520 provide level diagrams and frequency charts. 3 Connect the RTE to the monitoring point determined in Step 1 (Fig. 1). <p>Patching</p> 4 <i>To patch transmitting trunks</i>, proceed to Step 5. <i>To patch receiving trunks</i>, proceed to Step 20. 5 To remove regular transmitting trunks from service, proceed to Step 6. To restore regular transmitting trunks to service, proceed to Step 13. <p>Removing Regular Transmitting Trunks From Service (Fig. 2)</p>



STEP	PROCEDURE
9	<p>At the TRANSMITTING PATCH & TEST panel,</p> <p>(a) Remove the 443A plug (through connector) from the MG IN A and TRK OUT jacks for the mastergroup being patched [patch (3), Fig. 2].</p> <p>(b) Insert a 442A plug (75-ohm termination) into the MG IN A jack [patch (4), Fig. 2].</p>
10	<p>At the transmitting supergroup HFPB, remove the 372A plug from the SG or DSG BK OUT A and REG MG TRK IN jacks [patch (5), Fig. 2].</p>
11	<p>Observe the RTE indication.</p> <p>Requirement: Normal power indication for the monitoring point</p>
12	<p>Identify all patches; disconnect the RTE.</p> <p>Restoring Regular Transmitting Trunks To Service (Fig. 3)</p>
	<p style="text-align: right;">TPA 541610</p>
13	<p>At the transmitting supergroup HFPB, using a 372A plug, connect the SG or DSG BK OUT A jack to the REG MG TRK IN jack [patch (1), Fig. 3].</p>

STEP	PROCEDURE
14	<p>At the transmitting MMX bay,</p> <p>(a) Locate the TRANSMITTING PATCH & TEST panel and the TRMTG CARR & PIL TST PNL.</p> <p>(b) Remove the 442A plug (75-ohm termination) from the MG IN A jack of the mastergroup being restored to service [patch (2), Fig. 3].</p> <p>(c) Using a 443A plug (through connector) connect the TRK OUT jack to the MG IN A jack [patch (3), Fig. 3].</p>
15	<p>Observe the RTE indication.</p> <p>Requirement: Approximately a 3-dB increase in power</p>
16	<p>At the TRANSMITTING MMX bay, remove the P2EB cord which connects the MG IN B and SP TRMTG MG TRK OUT jacks [patch (4), Fig. 3].</p> <p>Note: A transmitting tandem patch trunk may have been used.</p>
17	<p>At the transmitting supergroup HFPB, remove the 372A plug from the SG or DSG BK OUT B and SP MG TRK IN jacks [patch (5), Fig. 3].</p>
18	<p>Observe the RTE indication.</p> <p>Requirement: Normal power indication for the monitoring point</p>
19	<p>Disconnect the RTE.</p>
20	<p>To remove regular receiving trunks from service, proceed to Step 21. To restore regular receiving trunks to service, proceed to Step 28.</p> <p>Removing Regular Receiving Trunks From Service (Fig. 4)</p>
21	<p>At the receiving supergroup HFPB, using a 372A plug, connect the RCVG HYB IN B jack to the SP MG TRK OUT jack [patch (1), Fig. 4].</p> <p>Note: A receiving tandem patch trunk may be required.</p>
22	<p>At the receiving MMX bay,</p> <p>(a) Locate the TRANSMITTING PATCH & TEST panel and the RCVG CARR & PIL TST PNL.</p> <p>(b) Determine the assignment of the spare mastergroup trunks to the LMX location.</p> <p>Note: Assignment of mastergroup trunks to the LMX location may vary from office to office.</p> <p>(c) Using a P2EB cord, connect the SP RCVG MG TRK IN jack to the MG OUT B jack [patch (2), Fig. 4].</p>





STEP	PROCEDURE
32	<p>At the receiving supergroup HFPB, remove the 372A plug from the RCVG HYB IN B and the SP MG TRK OUT jacks [patch (5), Fig. 5].</p> <p><i>Note:</i> A receiving tandem patch trunk may have been used.</p>
33	<p>Observe the RTE indication.</p> <p><i>Requirement:</i> Normal power indication for the monitoring point</p>
34	<p>Disconnect the RTE.</p>