L MULTIPLEX TERMINALS
MMX-1
RECEIVING MASTERGROUPS
PATCHING PROCEDURES

This section provides patching procedures whereby regular equipment (receiving mastergroups) is removed from or restored to service. Because of the numerous configurations applicable to the equipment involved, only typical receiving mastergroup configurations are depicted by these procedures. Each office must determine its own equipment configuration 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 must establish 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)

Input:

Frequency: 315.92 kHz

Power: −48 dBm

Impedance: 75 ohms

Test Cords and Plugs as required

STEP	PROCEDURE
	Caution: Since some patches may affect transmission levels, patching should be kept to a minimum. Before attempting any patches, read and understand the entire procedure.
	Monitoring
1	At the supergroup high frequency patch bay (HFPB) perform the following steps:

STEP	PROCEDURE
	(a) Connect the receiving test equipment (RTE) to the SG CAL jack (GRP & SG PIL MEAS panel). Calibrate the RTE for 315.92 kHz (SG pilot) at −48 dBm. (b) Disconnect the RTE from the SG CAL jack and connect it to the SG DEM OUT B jack.
2	On the scanner control panel, (a) Set the MG and SG selector switches to the appropriate settings. (b) Depress the SELECT pushbutton.
	Patching
3	To remove regular equipment from service, proceed to Step 4. To restore regular equipment to service, proceed to Step 6.
	Removing Regular Equipment From Service
4	Locate the jacks associated with the regular and spare equipment to be patched (Fig. 1). At the receiving tandem patch panel, perform the following steps: (a) Remove the 358B plug (75-ohm termination) from the REC HYB OUT MG( ) B jack [patch (1), Fig. 2]. *Note:* Jack designations may vary between offices. The new designations (Table A) are used in this procedure.

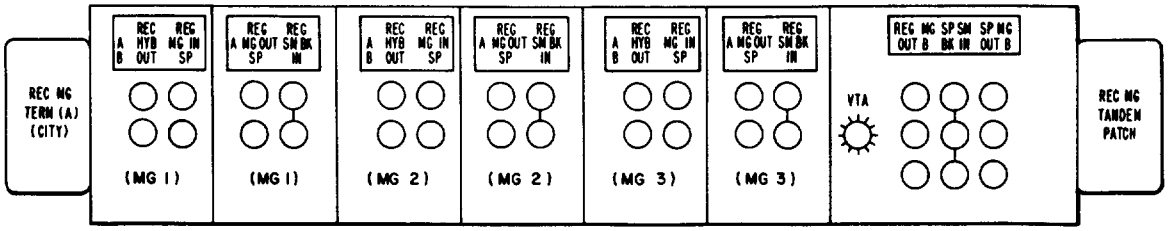

Fig. 1—Part of Tandem Patch Panel

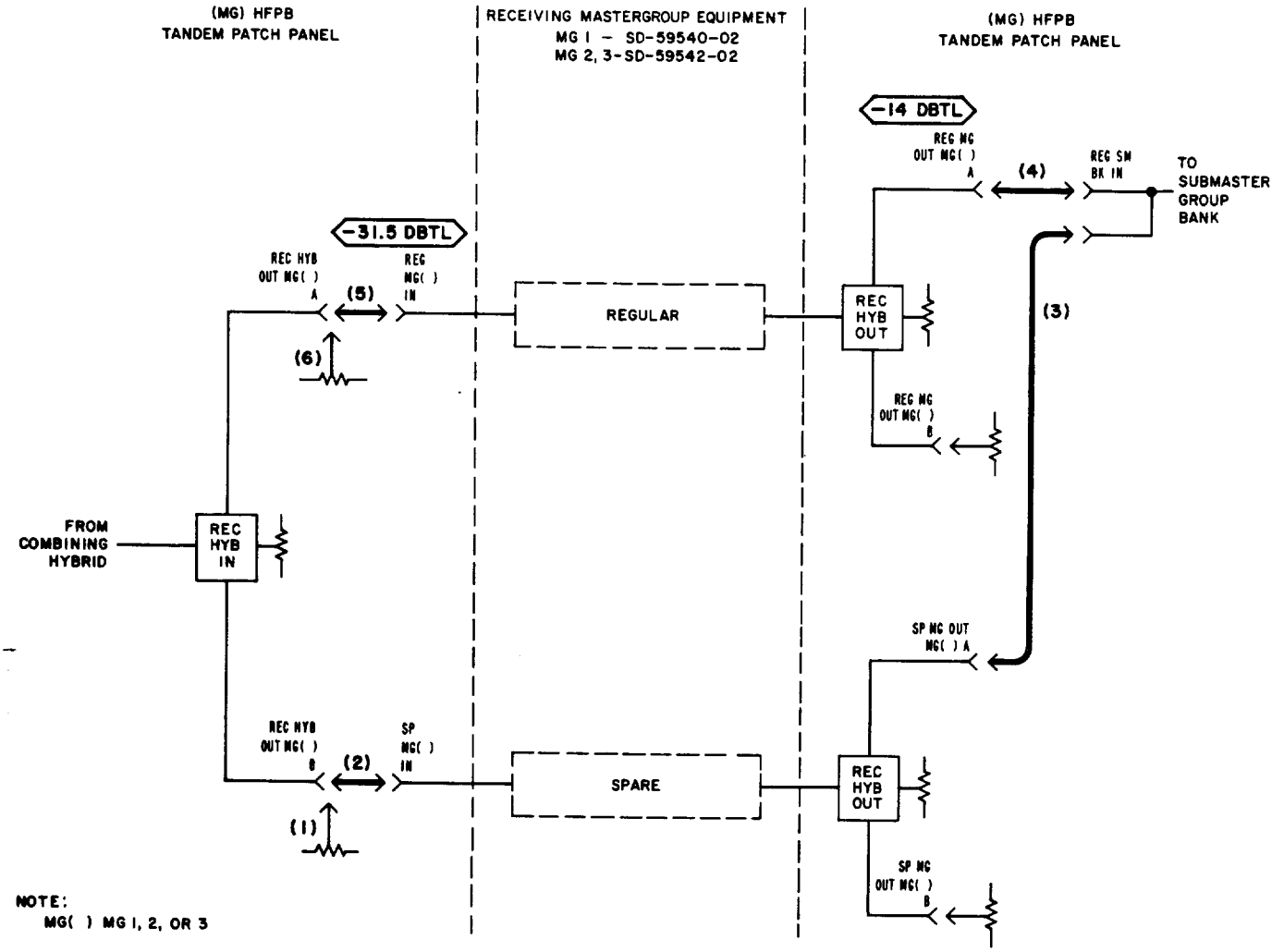

Fig. 2—Removing Regular Equipment From Service—Patching Procedure

STEP	PROCEDURE

TABLE A

OLD DESIGNATION	NEW DESIGNATION
REG SM IN SP SM IN	REG SM BK IN SP SM BK IN
REG OP SP MG (1) OUT LG A REG OP SP MG (1) OUT LG B	REG OR SP MG (1) OUT A REG OR SP MG (1) OUT B
REG OR SP REC HYB OUT MG 1 LG A REG OR SP REC HYB OUT MG 1 LG B	REG OR SP REC HYB OUT MG 1 A REG OR SP REC HYB OUT MG 1 B
REG OR SP REC HYB OUT MG 2 LG A REG OR SP REC HYB OUT MG 2 LG B	REG OR SP REC HYB OUT MG 2 A REG OR SP REC HYB OUT MG 2 B
REG OR SP REC HYB OUT MG 3 LG A REG OR SP REC HYB OUT MG 3 LG B	REG OR SP REC HYB OUT MG 3 A REG OR SP REC HYB OUT MG 3 B

(b) Insert a 372A plug (through connection) into the REC HYB OUT MG( ) B and the SP MG( ) IN jacks [patch (2), Fig. 2].

Note: If trunking is necessary, select appropriate trunking jacks.

(c) Insert a 372A plug into the SP MG OUT MG( ) A and the multiple REG SM BK IN jacks [patch (3), Fig. 2]. Observe the RTE indication.

Requirement: Approximately a 3-dB increase in power

(d) Remove the 372A plug from the REG MG OUT MG( ) A and the multiple REG SM BK IN jacks [patch (4), Fig. 2].

(e) Observe the RTE indication.

Requirement: −48 dBm (nominal pilot level)

(f) Remove the 372A plug from the REC HYB OUT MG( ) A and the REG MG( ) IN jacks [patch (5), Fig. 2].

(g) Insert a 358B plug into the REC HYB OUT MG( ) A jack [patch (6), Fig. 2].

(h) Where possible, identify all patches.

STEP	PROCEDURE
5	Disconnect the RTE. On the scanner control panel, depress the SCAN pushbutton.
	Restoring Regular Equipment To Service
6	Locate the jacks associated with the regular and spare equipment to be patched (Fig. 1). At the receiving tandem patch panel, perform the following steps: (a) Remove the 358B plug (75-ohm termination) from the REC HYB OUT MG( ) A jack [patch (1), Fig. 3]. ***Note:*** Jack designations may vary between offices. The new designations (Table A) are used in this procedure. (b) Insert a 372A plug (through connection) into the REC HYB OUT MG( ) A and the REG MG( ) IN jacks [patch (2), Fig. 3]. ***Note:*** If trunking was used, select appropriate trunking jacks. (c) Insert a 372A plug into the REG MG OUT MG( ) A and the multiple REG SM BK IN jacks [patch (3), Fig. 3]. Observe the RTE indication. ***Requirement:*** Approximately a 3-dB increase in power (d) Remove the 372A plug from the SP MG OUT MG( ) A and the multiple REG SM BK IN jacks [patch (4), Fig. 3]. (e) Observe the RTE indication. ***Requirement:*** −48 dBm (nominal pilot level) (f) Remove the 372A plug from the REC HYB OUT MG( ) B and the SP MG( ) IN jacks [patch (5), Fig. 3]. (g) Insert a 358B plug into the REC HYB OUT MG( ) B jack [patch (6), Fig. 3].
7	Disconnect the RTE. On the scanner control panel, depress the SCAN pushbutton.

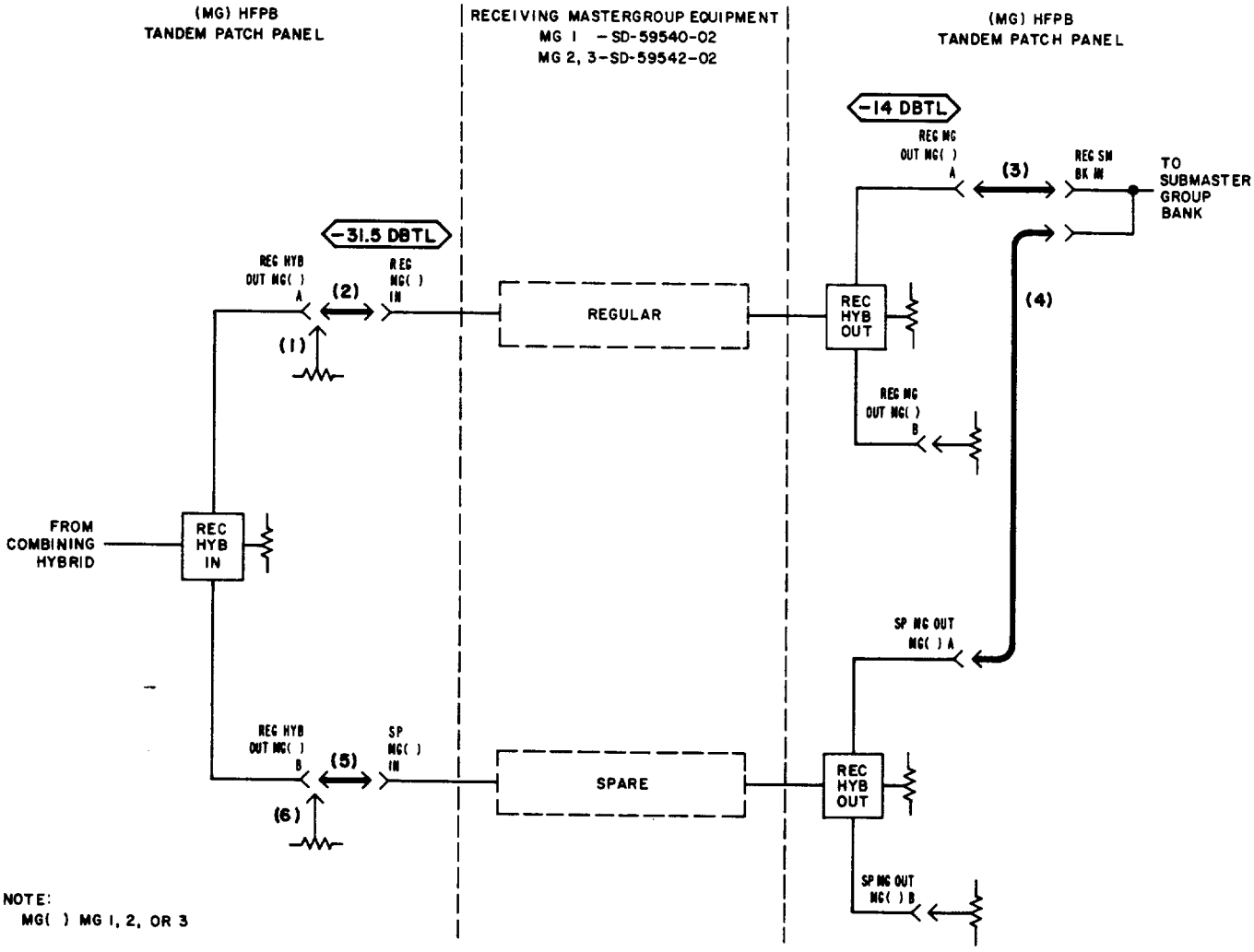

Fig. 3—Restoring Regular Equipment to Service—Patching Procedure