L MULTIPLEX TERMINALS

LMX-1

RECEIVING SUBMASTERGROUPS

PATCHING PROCEDURES

This section provides patching procedures whereby regular equipment (receiving submastergroups) is removed from or restored to service. Because of the numerous configurations applicable to the equipment involved, only typical receiving submastergroup 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 submastergroup 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 Range: 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:
	(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 for 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 10.
	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 REG MG ( ) OUT B jack [patch (1), Fig. 2].
	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 REG MG( ) OUT B and the SP SM BK IN jacks [patch (2), Fig. 2].
	(c) Insert 372A plugs into:
	REG SG BK1 IN TRK and SP SM1 OUT A jacks [patch (3), Fig. 2].
	REG SG BK2 IN TRK and SP SM2 OUT A jacks [patch (4), Fig. 2].
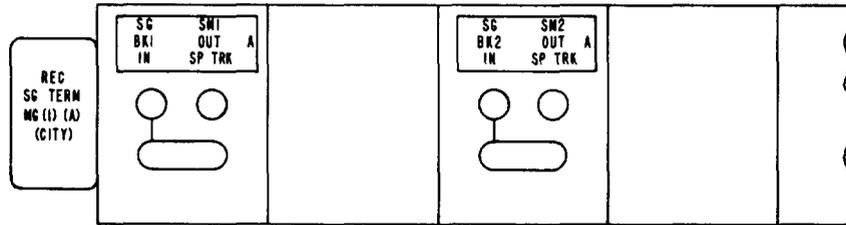
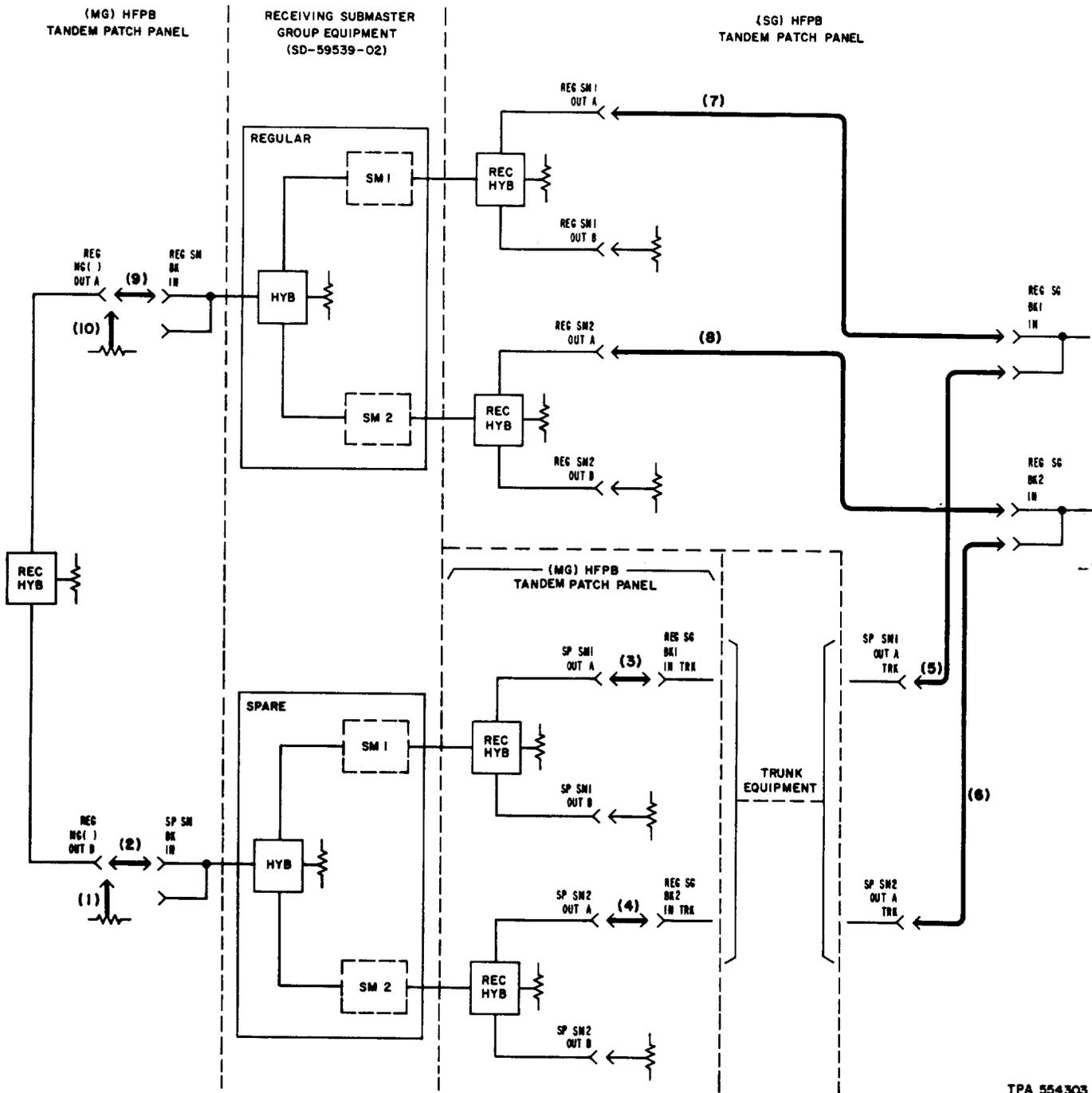(A) SUBMASTERGROUP OUT AND SUPERGROUP BANK IN JACKS-SUPERGROUP HFPB
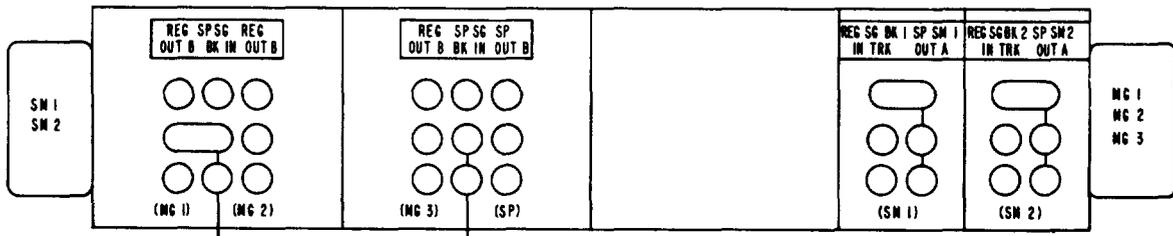
(B) PART OF TANDEM PATCH PANEL-SUPERGROUP HFPB
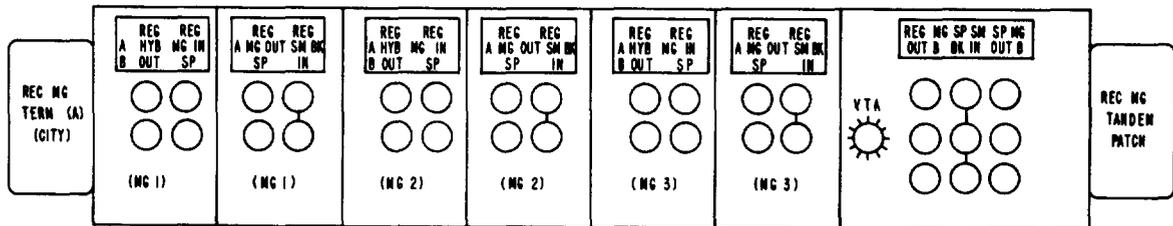
(C) PART OF TANDEM PATCH PANEL-MASTERGROUP HFPB

Fig. 1—Receiving Patch Jack—HFPB

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

STEP	PROCEDURE

TABLE A

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

5   At the supergroup HFPB,

(a) Insert 372A plugs into:

SP SM1 OUT A TRK and multiple REG SG BK1 IN jacks [patch (5), Fig. 2].

SP SM2 OUT A TRK and multiple REG SG BK2 IN jacks [patch (6), Fig. 2].

(b) Observe the RTE indication.

Requirement: Approximately a 3-dB increase in power

(c) Remove the 372A plugs from:

REG SM1 OUT A and multiple REG SG BK1 IN jacks [patch (7), Fig. 2].

REG SM2 OUT A and multiple REG SG BK2 IN jacks [patch (8), Fig. 2].

STEP	PROCEDURE
6	Observe the RTE indication.
	Requirement: −48 dBm (nominal pilot level)
7	At the receiving tandem patch panel,
	(a) Remove the 372A plug from the REG MG( ) OUT A and the REG SM BK IN jacks [patch (9), Fig. 2.].
	(b) Insert a 358B plug into the REG MG( ) OUT A jack [patch (10), Fig. 2].
8	Where possible, identify all patches.
9	Disconnect the RTE. On the scanner control panel, depress the SCAN pushbutton.
	Restoring Regular Equipment To Service
10	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 REG MG( ) OUT 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 REG MG( ) OUT A and REG SM BK IN jacks [patch (2), Fig. 3].
11	At the supergroup HFPB,
	(a) Insert 372A plugs into:
	REG SM1 OUT A and multiple REG SG BK1 IN jacks [patch (3), Fig. 3].
	REG SM2 OUT A and multiple REG SG BK2 IN jacks [patch (4), Fig. 3].
	(b) Observe the RTE indication.
	Requirement: Approximately a 3-dB increase in power
	(c) Remove the 372A plugs from:
	SP SM1 OUT A TRK and multiple REG SG BK1 IN jacks [patch (5), Fig. 3].
	SP SM2 OUT A TRK and multiple REG SG BK2 IN jacks [patch (6), Fig. 3].
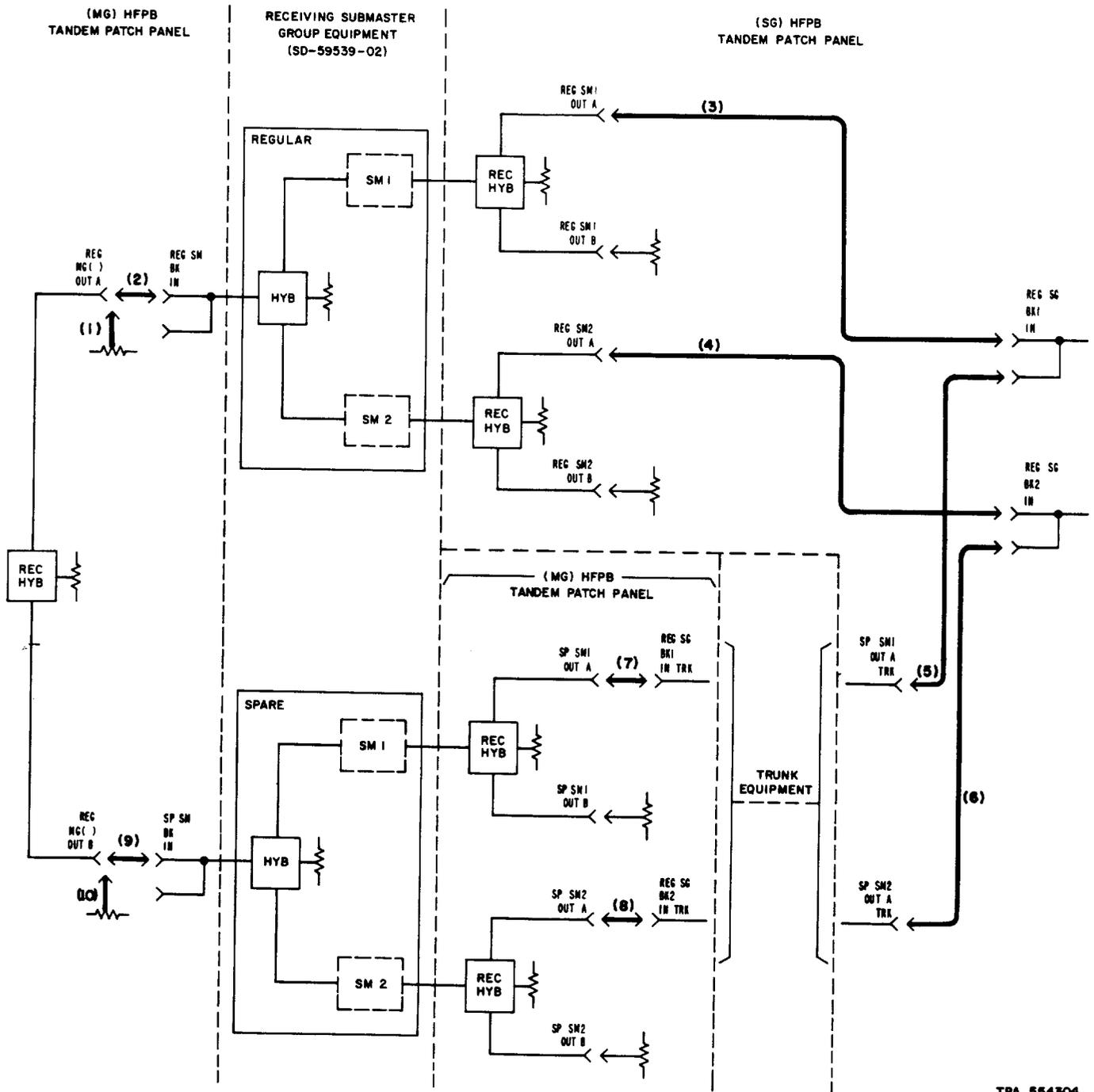
Fig. 3—Restoring Regular Equipment to Service—Patching Procedure

TPA 554304

STEP	PROCEDURE
12	Observe the RTE indication. *Requirement:* −48 dBm (nominal pilot level)
13	At the tandem patch panel, remove the 372A plugs from: SP SM1 OUT A and REG SG BK1 IN TRK jacks [patch (7), Fig. 3]. SP SM2 OUT A and REG SG BK2 IN TRK jacks [patch (8), Fig. 3]. REG MG( ) OUT B and SP SM BK IN jacks [patch (9), Fig. 3].
14	Insert a 358B plug into the REG MG( ) OUT B jack [patch (10), Fig. 3].
15	Disconnect the RTE. On the scanner control panel, depress the SCAN pushbutton.