

TMC SPECIFICATION

NO. S 1303

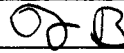
REV:

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SHEET

OF

TITLE:

KIT 376

MODIFICATION PROCEDURE

AN/FRT-53 (SBT-1KJ) STABILIZATION

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TITLE: Modification Procedure AN/FRT-53 (SBT-1KJ) Stabilization KIT376

I. EQUIPMENT EFFECTED:

1KW SB Transmitter, Model AN/FRT-53 (TMC Model SBT-1KJ).

II. PURPOSE:

To provide better frequency stabilization for the transmitter.

III. MATERIALS REQUIRED:

Table 1 lists the material supplied with the Kit. Table 2 lists the tools necessary to accomplish the modification. These are standard tools and are not supplied as part of the Kit.

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TABLE 2

1. Screwdriver, Phillips
2. Screwdriver, Flat Blade
3. Pliers, Longnose
4. Pliers, Diagonal Cutting
5. Wrench, Open End, 1/4" x 5/16"
6. Wrench, Adjustable
7. Drill Motor, 3/8"
8. Nut Driver, 5/16"

IV. PROCEDURE:

A. EQUIPMENT REMOVAL:

1. Refer to Figures 1 and 2, Front Elevation.
2. Remove the front panel screws from the VOX, Oscillator and pull the unit out. Disconnect the wiring from the rear of the unit and remove the unit from the rack.
3. Following the procedure of Step 2 above, remove the Exciter, A0101 & the Power Supply, A1397 from the rack.
4. Observe the method of mounting the slides to the rack. Remove the slides associated with the Oscillator and the Exciter.
5. Remove the following cables completely from the rack. Refer to CK558.
 - a. RF cable, W608, CA480-6-49, between the VOX and the A0101.
 - b. MAIN HARN, W609, CA507 between the A0101 and the APP-4.
 - c. RF cable, W610, CA480-3-72, between the A0101 and the PS-4.
(ALDC)
6. Disconnect the RF cable, W607, CA480-9-96 from the rear of the A0101 to the main trunk only. Do not disconnect the end from the RFD-1. This cable will be used to provide the RF drive to the amplifier from the patch panel, AX5146.
7. Repeat Steps 1 thru 6 for both racks, XMTR 1 and 2.

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B. MECHANICAL MODIFICATION:

1. Drill a guide hole & punch a 1" hole in the walls between the racks approximately 6 inches below the bottom of the RFD and 2 inches from the rear wall. These dimensions are approximate. Locate the hole so that it will clear all cables and brackets in the racks. Care should be take so that no cables are damaged by the drilling.

2. Use the grommeting material to cover the edges of the hole.

3. Refer to Figures 2 and 3, XMTR 1. Mark the front universal mounting channel with the location of the MMX Exciter front panel. Using the old slides as a model for the method of mounting, mount the set of TK108-18A slides in the center of the MMX location.

4. Refer to Figure 4 and CK1942. Using the nylon cable straps, clamp CA1709 to the rear right hand channel of XMTR 1 locating the MMX breakout above the MMX slide to give vertical location. Feed the XMTR 2 breakout through the 1" hole into the rack for XMTR 2. Clamp the switch panel breakout to the front channel as shown in Figure 4. Dress the PS-4 breakout along the existing PS-4 cabling and connect to J704. Dress the APP-4 breakout along the existing cables and connect to J501. Connect the AX5146, SWITCHING PANEL, to the cable and mount the unit to the rack. Dress the original RF DRIVE cable from the RFD of XMTR 1 along CA1709 to the switching panel. Connect the plug to the XMTR 1 jack. Dress the original RF DRIVE cable from the RFD of XMTR 2 through the hole and along CA1709 to the switching panel. Connect the plug to the XMTR 2 jack. Dress the XMTR 2 breakout of CA1709 down along the rear left hand channel of XMTR 2 to the breakouts for the PS-4 and APP-4. Dress the breakouts along the existing cables and connect to J704 and Terminals 1 and 2 of E501 of the APP-4.

5. Slide the MMX into the rack and connect the cabling to the rear. Connect the power cable.

6. Mount the blank panels in both racks as shown in Figure 2.

7. Mount the modification Kit nameplate to the transmitter.

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V. OPERATING PROCEDURE:

1. Read the operating procedures for the MMX and the AN/FRT-53 in the appropriate manuals.
2. Turn the power on to the equipment and let the equipment warm up.
3. Set the controls on the MMX to the proper frequency and mode.
4. Set the bands on the AN/FRT-53 to the proper positions. Leave the TRANSMITTER PLATES switch in the REMOTE position if the transmitter is to be controlled by the MMX.
5. On the switching panel, AX5146, patch the RF OUT and the ALDC to the proper transmitter. Set the XMTR ON switch to the proper transmitter. This switch operates the REMOTE TRANSMITTER PLATES switch of the transmitter. For ease of tuning the TEST KEY switch will provide a ground on the CW KEY line.
6. Follow the procedures listed in the manuals for the proper tuning and operating of the MMX and the AN/FRT-53.

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BEFORE MODIFICATION

XMTR 1

XMTR 2

RFD LIN AMP	RFD
VOX OSC	VOX
AO101 EXC	AO101
A1397 EXC PS	A1397
PS 4 LV PS	PS 4
APP-4 AUX PWR PNL	APP-4
PS-5 HV PS	PS-5

FIG. 1

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AFTER MODIFICATION

XMTR 1

XMTR 2

RFD	RFD
BLANK	BLANK
AX5146	BLANK
BLANK	BLANK
MMXM-2	BLANK
BLANK	BLANK
BLANK	BLANK
PS 4	PS 4
APP-4	APP-4
PS 5	PS 5

FIG. 2

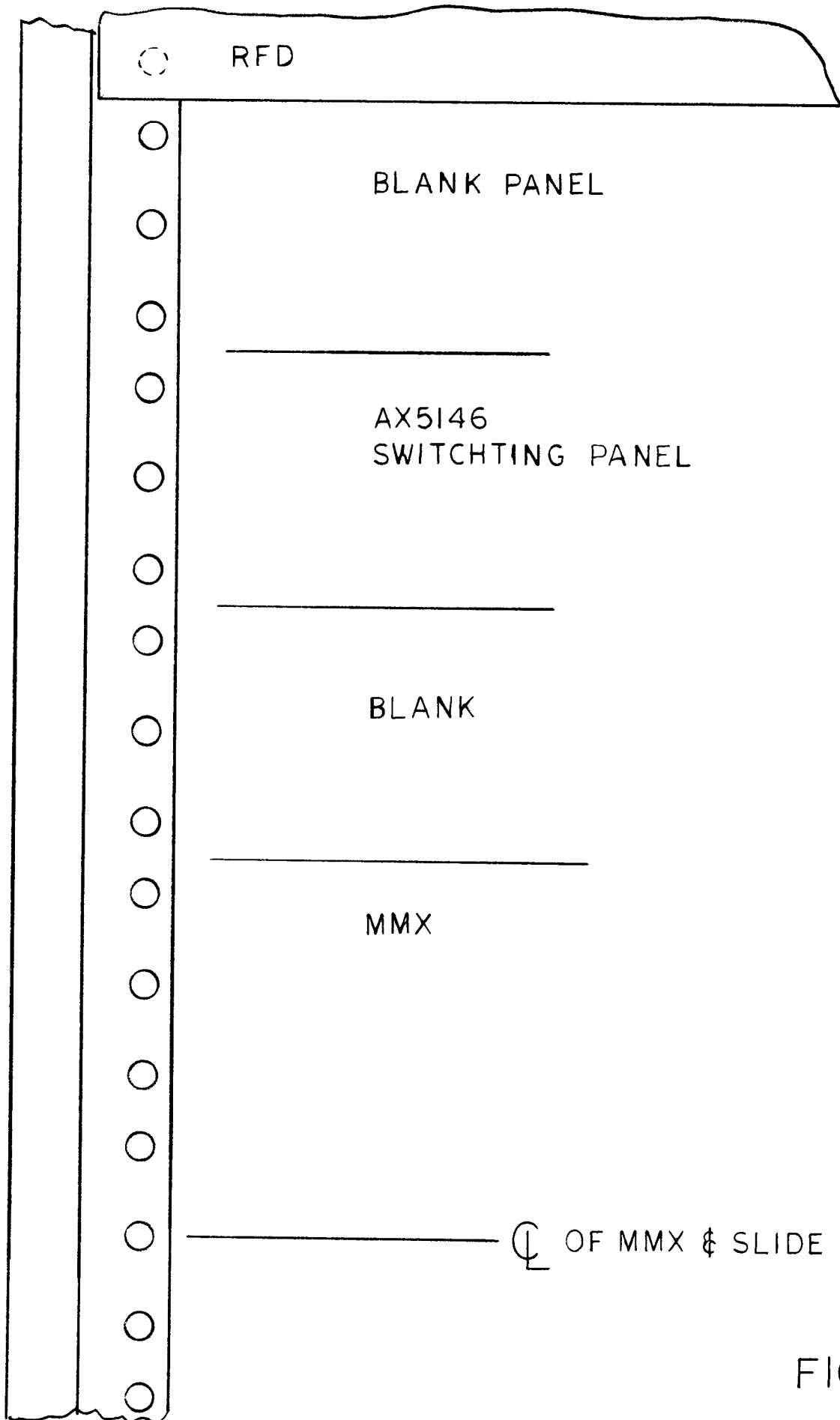


FIG. 3

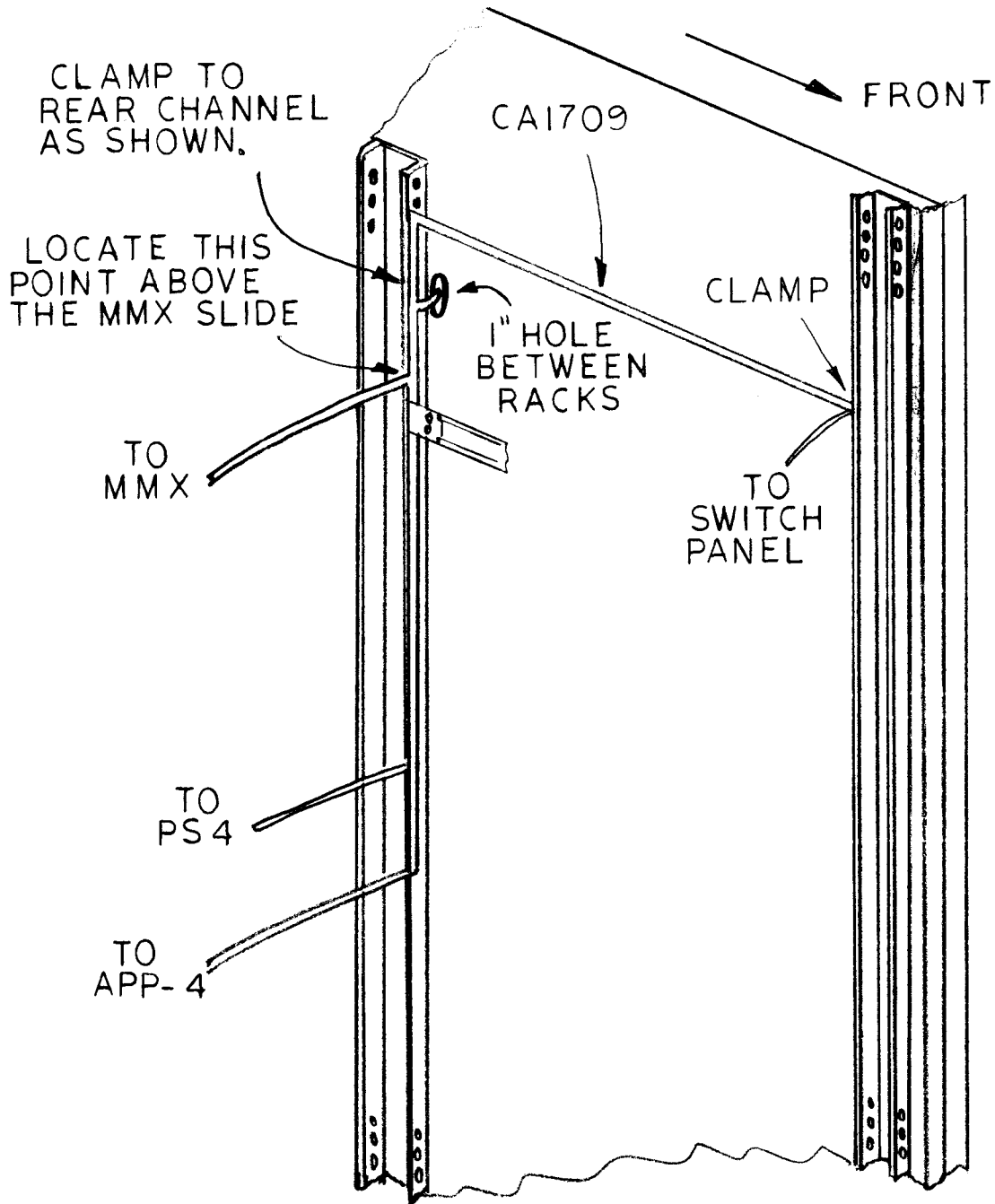


FIG. 4

