

# TMC SPECIFICATION

NO. S-1282 *28.4*

REV:  $\emptyset$

COMPILED: BN

CHECKED: *WMM*

APPD: *WMM*

SHEET

OF

TITLE:

6/16/71

KIT 333G

INSTALLATION SPECIFICATION

GPT-10K

SBG-1 & 2 REPLACEMENT WITH MMXM-2

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I. EQUIPMENT AFFECTED:

TMC MODEL: GPT-10KRA7 (AN/FRT-39K)  
GPT-10KRA8

II. PURPOSE:

To update the auxiliary frame by removal of the SBG1 or 2 system and replacement with an MMXM-2.

III. MATERIALS REQUIRED:

Table 1 lists the material supplied with the field change kit.

Table 2 lists the tools necessary to accomplish this modification. These are standard tools and are not supplied with the kit.

TABLE 1

<u>ITEM</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	10 Ft.	BS100	SOLDER, TIN ALLOY
2	1	CA581-2	CBL, PWR
3	1	CA1635	CBL, MOD
4	2	CK1894	DIAG, WRG
5	100	CU142-10	STRAP, CBL
6	10	LA101-J	BND, MKR, CBL
7	10	LA101-P	BND, MKR, CBL
8	10	LA101-0	BND, MKR, CBL
9	10	LA101-1	BND, MKR, CBL
10	10	LA101-2	BND, MKR, CBL
11	10	LA101-3	BND, MKR, CBL
12	10	LA101-4	BND, MKR, CBL
13	10	LA101-5	BND, MKR, CBL
14	10	LA101-6	BND, MKR, CBL
15	1	LD2476	MARKING, MOD KIT
16	2	MS157-XXS	SET, BLANK PNL 15-3/4"
17	1	MS157-XXS	SET, BLANK PNL 14"
18	1	MMXM-2	EXC, MULTI-MODE
19	A.R.	SCBP1032BN8	SCR, MACH
20	1	UG492*/U	ADAPT, BNC
21	A.R.	WA101-11	WASH, FLAT, NM
22	1	NP362	NAMEPLATE, MOD KIT

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TABLE 2

1. Screwdriver, Philips
2. Pliers, Long Nose
3. Pliers, Diagonal Cutting
4. Soldering Iron
5. Wrench, Open End, 5/16"

## IV. PROCEDURE

### A. PREPARATION of TRANSMITTER

1. Turn off all power to the transmitter.
2. Mark the frame at the top of the CMO front panel. This will be the location of the top of the MMX front panel.
3. Disconnect the cabling and remove the following units from the frame.
  - a) CBE
  - b) CHG
  - c) CMO
  - d) CLL
  - e) CSS
  - f) TIS
  - g) CHL
  - h) CPP-2
  - i) CPP-5 (Rear of frame)
4. Do not remove the APP at the bottom of the rack. The TIS is temporarily removed to facilitate wiring. The other units are removed permanently.
5. Remove the track and slide assemblies of all the units except the TIS from the rack.
6. Remove one set of small tilt slides from one of the units. This set will be used to mount the MMX.
7. Mount the small tilt slide set into the frame located as per figure 2. Mount the tilt portion to the MMX. **CAUTION:** The slide set has a left and right slide. On the frame portion the nameplate must face upright. The unit portion must lock into place in the frame portion.

### B. MODIFICATION OF CENTER SHIELD

1. Trim the gummed labels and apply to the center shield to cover the marking for E3000 and E3002.
2. On the wiring side of the center shield remove the ground strap from E3000 Term 7.
3. Remove the (2) RED and the (2) BLK wires from E3002 Term 25 and 26.

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## C. INSTALLATION OF CA1635

1. Locate the end of CA1635 with the stripped wires.
2. Observe the method of wiring on the center shield.
3. Using the nylon cable straps, clamp CA1635 to the existing harness. Line up the following wires on CA1635 to the proper terminals on the center shield before strapping. See Figure 3.

a) WH1/BRN	E3002	Term 36
b) WH1/RED	E3002	Term 26
c) WH1/BLK	E3002	Term 25
d) GRY	E3000	Term 11
e) ORN	E3000	Term 7
f) RED	E3000	Term 6
g) BRN	E3000	Term 5

Solder the shields to the ground buss.
4. Strap CA1635 along the center shield breakout of the existing harness. The uncovered portion of CA1635 should line up with the main trunk of the existing harness. Line up the uncovered portion along the main trunk upwards and strap. The uncovered portion should end up approximately 4" above the existing CMO breakout.

## D. MODIFICATION OF CA1007 MAIN HARNESS

1. Install the BNC feedthru adapter between P3025 and P3026 of the CSS breakout.
2. Cut the lacing cord along the main trunk from the CBE breakout to the point where CA1635 is strapped to the main trunk. (Approximately 4" above the CMO breakout.)
3. Pull the wires in the CBE and CHG breakouts down to this point. Strap the tubing back around the main trunk. See Figure 4.
4. Cut the wires from the CBE terminal strip wasting as little wire as possible. (YEL, ORN, VIO, BLU). Cut the BNC connectors from the coaxial cables. The shielded wires will be used. The coaxial cable will not. Remove the tubing. See Figure 4.
5. On the CHG breakout cut the following plugs.

a) P2304	(1Mc Output)
b) P2701	(250 Kc In)
c) P2702	(CMO)
d) P2706	(250 Kc Out)
e) P2708	(Cut plug only. Wires to be used)

Cut and remove the short pieces of tubing from P2303 and P2304 breakout to the end. See Figure 4.  
Do not cut P2303, P2703, P2704, P2705
6. The wires from the CBE and CHG breakouts should be pulled down the main trunk to the new CA1635 breakout. Slide the long piece of tubing of the CHG breakout down to the main trunk and trim to same length as the new breakout. See Figure 4.
7. Using the unused coaxial cables as pull wires pull the YEL, VIO, ORN and BLU shielded wires from the CBE through the tubing on the old CHG breakout.
8. Pull back to the main trunk all cut coaxial wires.

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9. Pull the BLU and ORN shielded wires and the BRN and WH1/BRN wires thru the tubing and clamp of TB103 fanning strip. Connect as follows:

BLU to Lug 1  
ORN to Lug 3  
SHIELDS to Lug 2  
BRN to Lug 4 with existing shields  
WH1/BRN to Lug 5 with existing WH1/BRN

See Figure 5.

10. Pull the VIO and YEL shield wires thru the tubing and clamp of the TB104 fanning strip. Connect as follows:

VIO to Lug 1  
YEL to Lug 3  
SHIELDS to Lug 2

See Figure 5.

11. At the main trunk pull back the 4 coaxial cables that will be used for the MMX so that they will be approximately 18" long from the junction of the two cables at the fanning strips. See Figure 5.
12. Using the cable straps, dress up the wiring of the rack by tying back all unused branches and the extra lengths of coaxial cable pulled back.
13. Using the labels provided, change the labeling on the coaxial leads as shown in Figure 6.
14. Place the MMX in the rack and replace the TIS in the rack and connect the cabling to the units.
15. Install the blank panels in place.
16. Add the modification nameplate to the equipment.

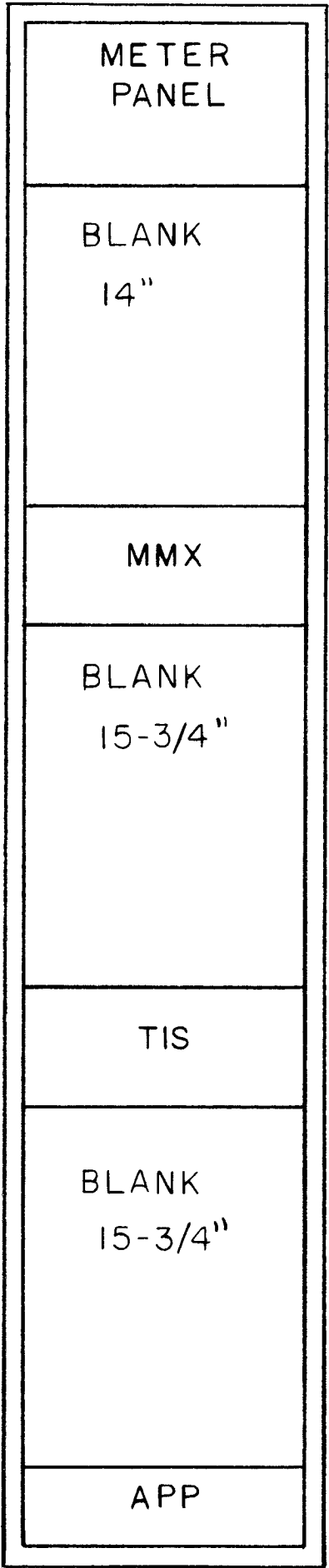
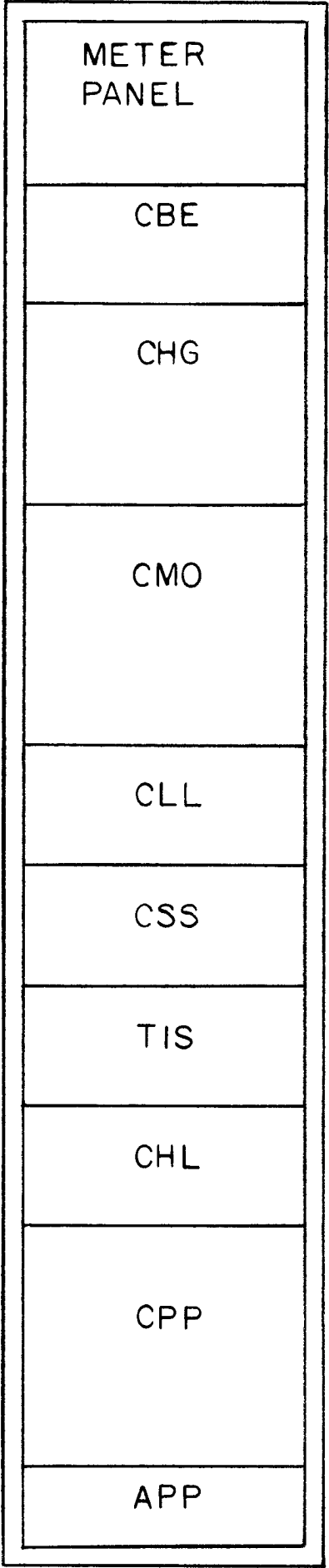
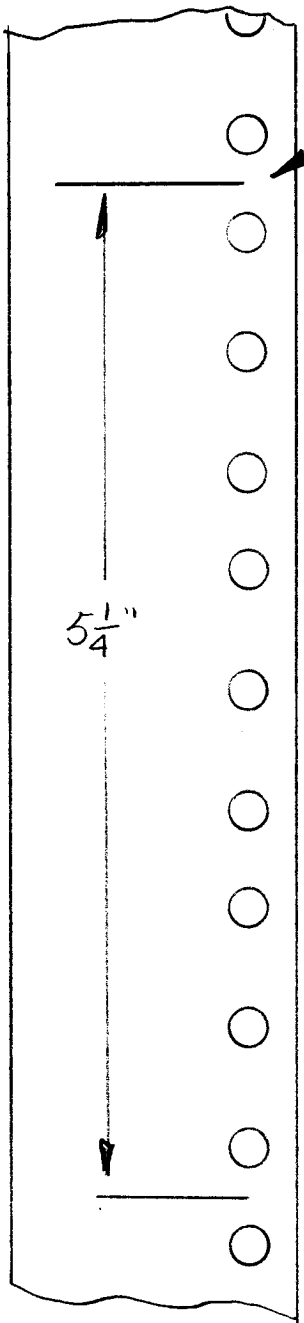


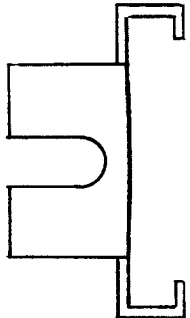
FIG. 1 FRONT VIEW



MARK OF TOP OF CMO

MMX TO BE PLACED IN THIS AREA

CAUTION: SLIDE SET HAS LEFT & RIGHT SIDES



ON FRAME MOUNTED PORTION NAMEPLATE SHOULD FACE RIGHT SIDE UP.

ON UNIT MOUNTED PORTION CHECK FOR PROPER LOCKING OF SPRING LOADED LOCKING MECHANISM.

FIG. 2 MMX SLIDE LOCATION

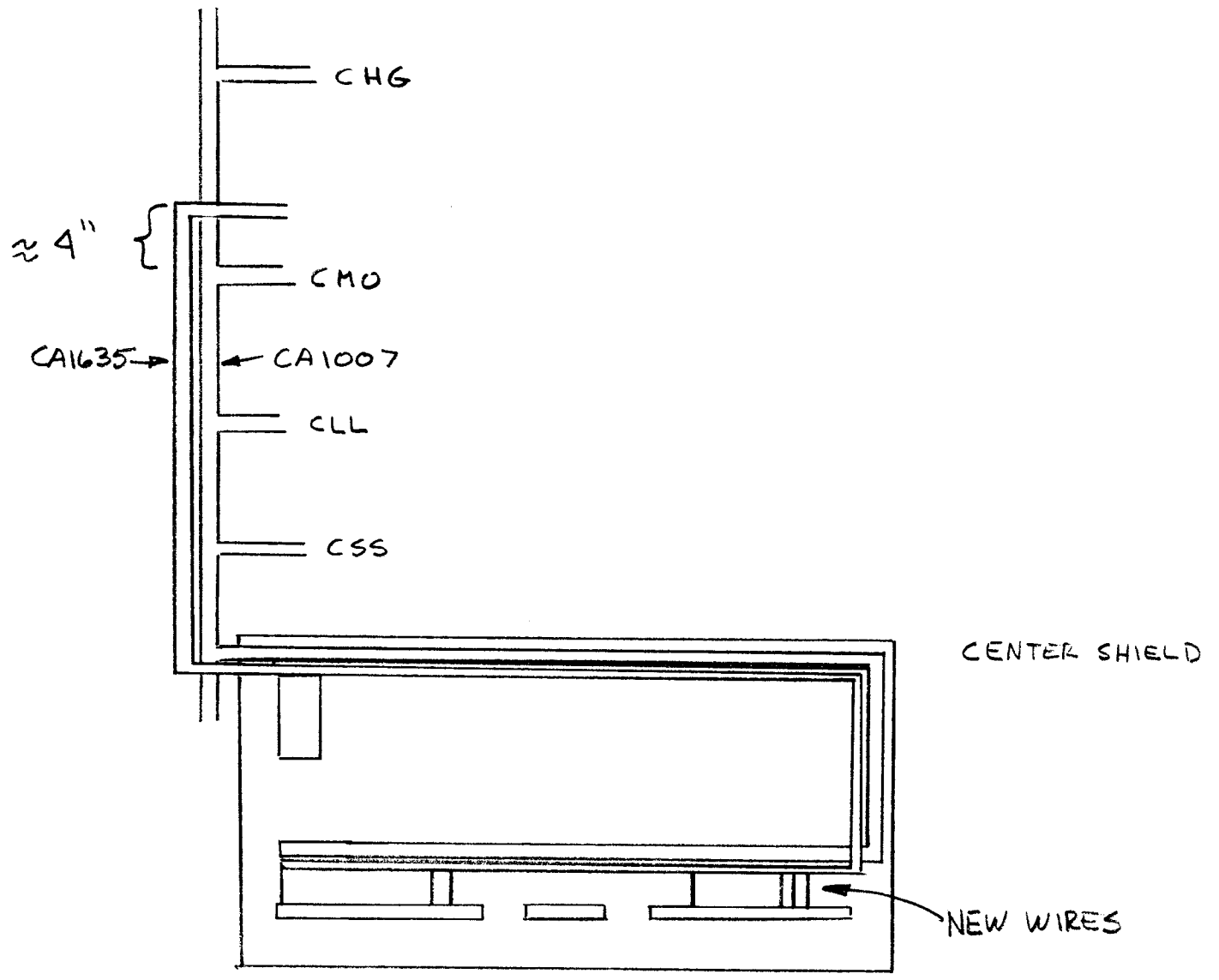


FIG. 3 CA1635 INST.



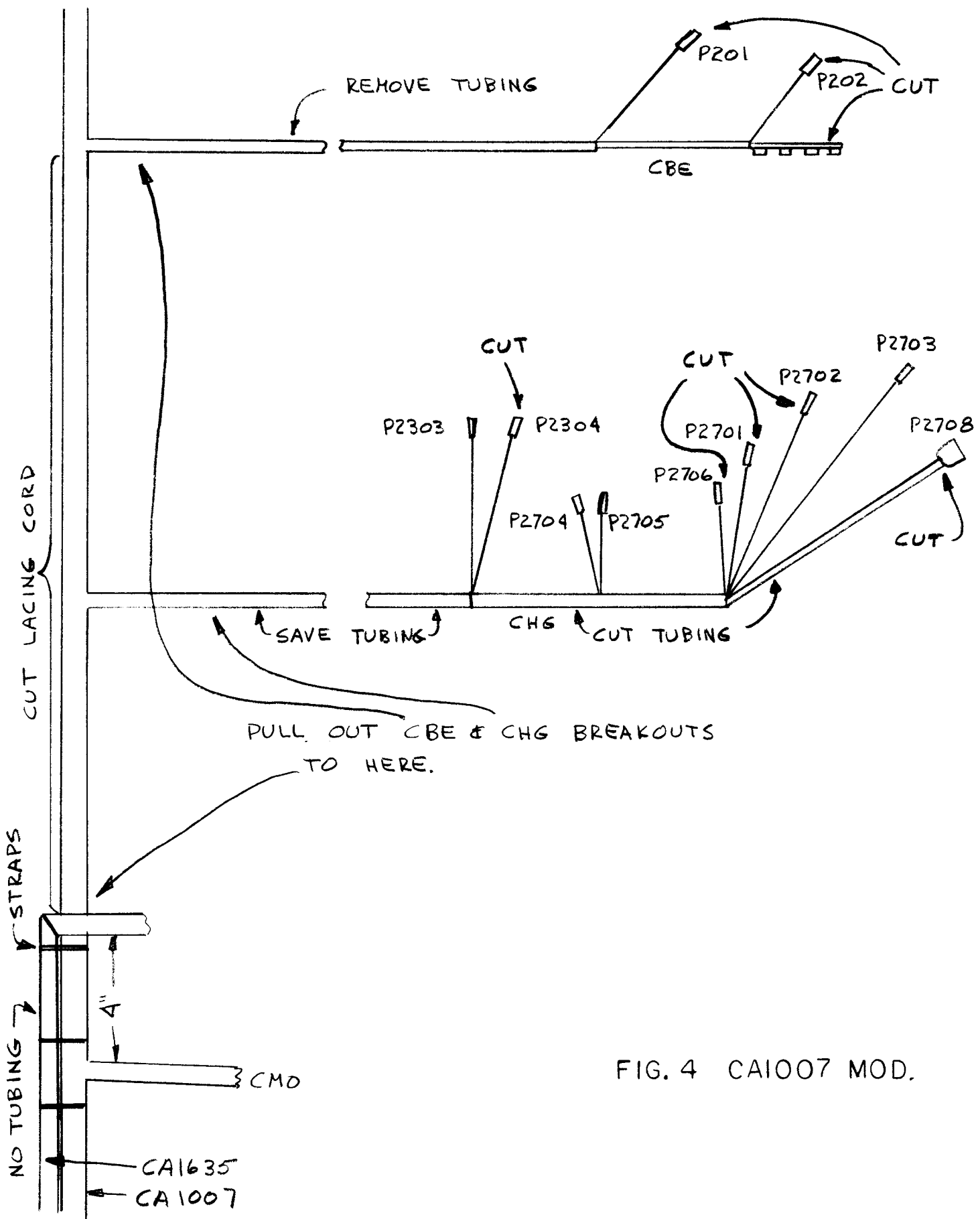


FIG. 4 CA1007 MOD.

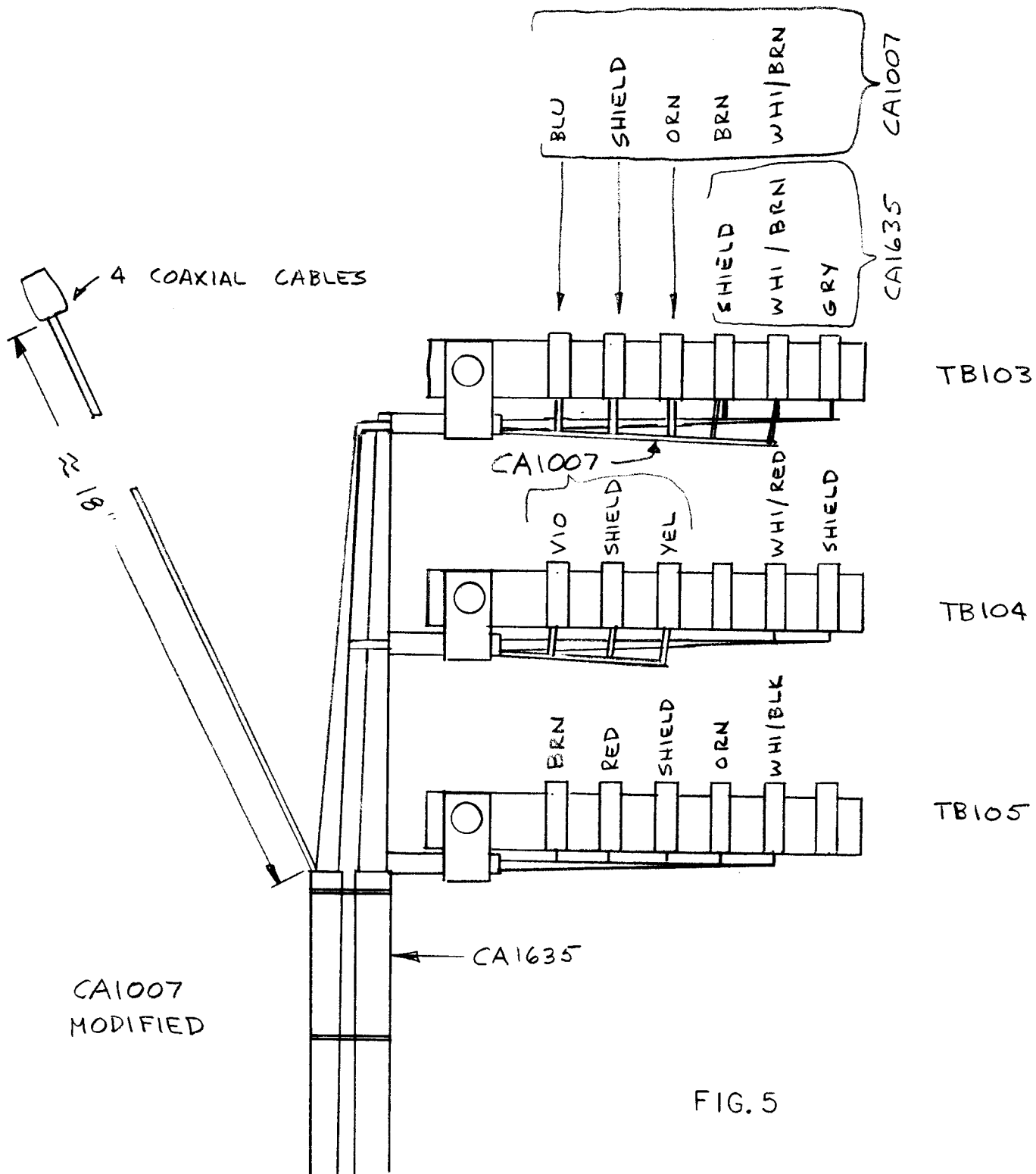


FIG. 5

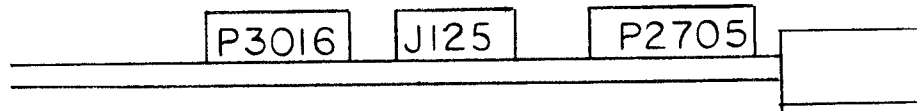
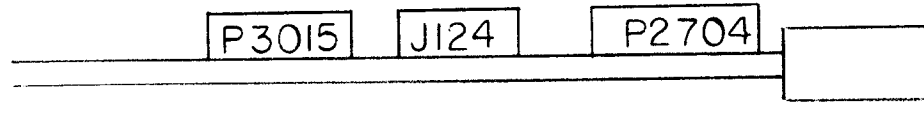
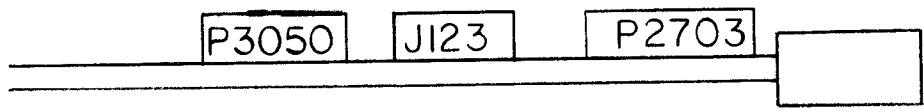
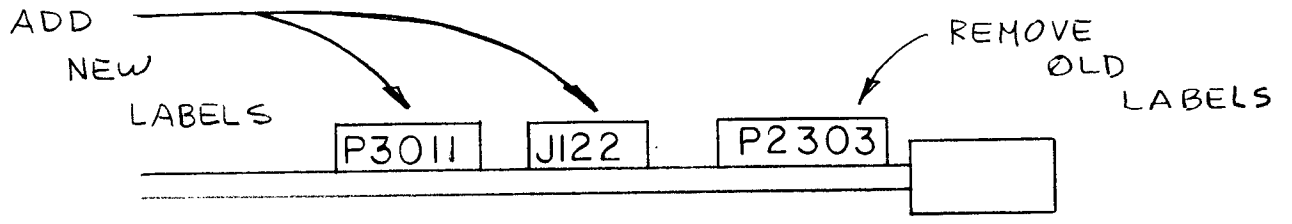


FIG. 6 MARKING

