KIT-224
S924

DATE	TMC SPECIFICATION NO. S 924	F
SHEET 1 OF 13		
COMPILED	CHECKED	TITLE:
APPROVED		

KMCU-1 MODIFICATION FOR GPT-10K

AND GPT-10K DRIVER

KIT - 224

SUPERSEDED
REPLACED BY
IN4028K
FIELD CHANGE
BULLETIN

OGILVIE PRESS, INC., BROOKLYN 17, N. Y. STOCK NO. 439M

DATE		TMC SPECIFICATION NO. S 924	F
SHEET 2 OF 13			
BM COMPILED	CHECKED	TITLE: KMCU-1 MODIFICATION FOR GPT-10K and GPT-10K DRIVER	
APPROVED		(TMC KIT-224)	

I. EQUIPMENT AFFECTED:

A. TMC MODEL GPT-10K, GPT-40K and GPT-200K GENERAL PURPOSE TRANSMITTERS.

II. PURPOSE:

Provides remote ON/OFF control of the transmitter carrier. In addition, the unit provides an indication of transmitter status by means of signals to a display board located at the transmitter monitor control console or elsewhere at the transmitter site. In order to accomplish this modification, Tone Intelligence Unit Model TIS-3 is physically replaced by Transmitter Keyer-Monitor Control Unit. MODEL KMCU-1. Tone Intelligence Unit TIS-3 will be relocated to the CLL facilities at the transmitter site or to some other remote location.

III. MATERIALS SUPPLIED IN KIT:

ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1		DRILL BIT 9/64"
2	1		" " 5/16"
3	1		" " 3/8"
4	1		" " NO.36
5	1		TAP, 0632 UNC
6	1		PUNCH, CHASSIS,11/16"
7	1		" "1 - 5/16"
8	1	TP-131	STAMP, J-1010
9	1	"	" J-2708
10	1	"	" B-3054
11	1	"	" E-3001
12	1	"	" COM
13	1	"	" FAIL
14	1	"	" ON-AIR
15	1	"	" STAND BY
16	1	CA-1028	WIRING HARNESS,BRANCHED
17	1	CA-1029	" " "
18	1	CA-1030	" " "
19	1	CA-1031	" " "
20	42"	RG-174/U	CABLE RF, COAXIAL
21	60"	RG-188/U	" "
22	9"	WL-100-4	WIRE BUSS, SIZE 16
23	6"	WL-100-7	" " 22
24	18"	PX-830-12-1	INSULATION, SLEEVING, SHRINK
25	1	TM-100-8	TERMINAL STRIP
26	1	PX-337-8	INSULATION
27	2	MS-154-1	SADDLE PLATE

OGILVIE PRESS, INC., BROOKLYN 17, N. Y. STOCK NO. 4304

DATE

SHEET 3 OF 13

COMPILED | CHECKED

APPROVED

TMC SPECIFICATION NO. S 924 F

TITLE: KMCU-1 MODIFICATION FOR GPT-10K and GPT-10K DRIVER

(TMC KIT-224)

ITEMS	QTY	PART NUMBER	DESCRIPTION
28	1	PL-169	CONNECTOR, PLUG, COAXIAL
29	1	UG-492/U	ADAPTER, COAXIAL, FEED THRU
30	1	UG-274/U	" " T"
31	1	LD1745/MS4267	COVER, TERMINAL STRIP
32	2	TE-104-1	TERMINAL, LOCKING
33	7	CM-20-F102-G	CAPACITOR, MICA
34	3	SCBP-0440 BN-5	SCREW, MACHINE
35	4	SCBP-0440 BN-6	" "
36	4	SCBP0440BN10	" "
37	2	SCBP0632 BN6	" "
38	9	LWE04MRN	LOCKWASHER, EXTERNAL
39	2	LWE06MRN	" "
40	11	NTH0440 BN6	NUT, HEX HEAD.
41	1	KMCU-1	KEYER, MONITOR CONTROL UNIT
42	1	CA-581	CABLE, POWER
43	2	NP362-25	NAMEPLATE, MODIFICATION KIT 224
44	1	NP360-5	" " REC-1A
45	1	NP360-6	" " CHG-2B
46	1	CU161	CLAMP, HOLD DOWN
47	1	CM15C200J	CAPACITOR MICA, 20 UUF
48	1	RC20GF471K	RESISTOR, COMP., 470 ohm 1W
49	1	RC20GF121K	RESISTOR, COMP., 120 ohm

IV. TOOLS REQUIRED:

TO BE PROVIDED BY THE INSTALLING ACTIVITY.

1. Screwdrivers, flat blade, assorted sizes.
2. Screwdrivers, Phillips", assorted sizes.
3. Soldering Iron (100 watt type) 2 feet solder, (rosin core)
4. ELECTRIC DRILL, 3/8" chuck capacity.
5. 6" Pliers, longnose
6. 6" Pliers, diagonal

V. PROCEDURE:

1. MODIFICATION OF 10-kw PA.

(a) Remove rear shield of 10-kw PA.
(b) Remove rear shield of V-900 chassis.
(c) Remove cover from r-f monitor board. (located on right side wall of V900 chassis).
(d) Remove resistors R902 and R903 from r-f monitor board.
(e) Solder item 48 (470 ohm, 1 watt resistor) in circuit to replace old R902.
(f) Solder item 49 (120 ohm resistor) in circuit to replace R903. New symbol designation is R917.
(g) Solder item 47 (20UUF mica capacitor) in parallel with capacitor C908. Symbol designation of new capacitor is C954.

OGILVIE PRESS, INC., BROOKLYN 17, N. Y. STOCK NO. 439M

(h) Replace cover of r-f monitor board and both rear shields removed in steps (a) and (b) above.

2. MODIFICATION OF THE RFC-1.

THIS MODIFICATION CHANGES THE MODEL NUMBER TO RFC-1A.

(a) Remove the RFC-1, IPA, and the AX-104, IPA Power Supply, from the main frame, Remove the RFC-1 from the AX-104. Remove the dust covers from the RFC-1.

(b) On the underside of the RFC-1, remove the screws securing the component board, A-1607. This is the board on which R-202 is mounted. On the underside of the board, remove the ground lead on R-202 and the jumper between R-202 and C-220. Solder the ground lead to C-220. Using the RG-188/U, strip the cover 3". Cut a 1" piece of No. 12 shrink tubing and slip the tubing over RG-188. Remove the center conductor from the shield at the cover cut. Center the shrink tubing over the break and shrink. Solder the center conductor to R-202 and ground the shield. Dress the RG-188/U to match the breakouts of the main cable. Lace the RG-188 to the main harness to P-201. Secure the component board.

(c) Open P-201. Cut the RG-188/U to the same length as the other wires. Cut the cover back 1". Cut a 1" piece of No. 12 shrink tubing and slip on to the RG-188 Remove the center conductor from the shield. Position the shrink tubing to cover the break and shrink. Cut two 1/2" pieces of NO. 12 shrink tubing. Slip these on the center conductor and the shield. Solder the center conductor to Pin "h" and the shield to Pin "j". Slip the shrink tubing over the pins and shrink. Reassemble the plug.

(d) Replace the covers.
This completes the modification of the RFC-1.

3. MODIFICATION OF THE AX-104 IPA POWER SUPPLY.

(a) Remove the dust covers from the AX-104.

(b) Cut two 1" pieces and four 1/2" pieces of NO. 12 shrink tubing. Slip a 1" piece of shrink tubing over the RG-188.
Cut the cover back 1" and remove the center conductor from the shield. Center the shrink tubing over the break and shrink. On the underside of the unit, use two 1/2" pieces of shrink tubing and slip overthe center conductor and shield of the trimmed end of the RG-188/U. On J-2001, solder the center conductor to Pin "h" and the shield to Pin "j". Slip the tubing over the pins, and shrink. Lace the RG-188 along the harness to J-2002. Trim the RG-188 to size and follow the above procedure to solder the center conductor to Pin "h" and the shield to Pin "j".

OGILVIE PRESS, INC., BROOKLYN 17, N. Y. STOCK NO. 439M

(c) Replace the dust covers and install the RFC-1A.

THIS COMPLETES THE MODIFICATION OF THE AX-104.

4. MODIFICATION OF CA-431, JUMPER CABLE BETWEEN THE AX-104 AND THE MAIN FRAME.

(a) Remove CA-431 from the main frame.

(b) Cut two 1" pieces and four 1/2" pieces of NO. 12 shrink tubing. Open P-1010 and P-1011 of CA-431. Use the procedures above and trim the end of the RG-174/U. Solder the center conductor to Pin "h" of one of the plugs. Lace the RG-174 along the cable and trim to length. Again using the above procedures trim and connect the RG-174/U to the same pin numbers.

(c) Reassemble the plugs.
This completes the modification of CA-431.
Do not replace the units, In the main frame.

5. MODIFICATION OF MS-3679, INTERFRAME SHIELD.

(a) Mark MS-3679, using Figure 1 for dimensions.

(b) Remove jumpers between terminals 9&13 and between 8 and 12 on equipment side of E3000.

(c) Using the 9/64" drill bit, 3/8"drill bit and the 1-5/16" Chassis punch, modify FM-3679 as shown in Figure 1.

(d) Using the stamps provided, stamp J-1010 on both sides of the shield and P-3054 on the auxiliary frame side. THIS completes the modification of MS3679.

6. INSTALLATION OF CA-1029, MAIN FRAME.

(a) Starting from the rear of the main frame, near the J-1010 mounting hole in MS-3679, route the loose end of CA-1029 along the main cable, through all grommets and clamps, to the breakout for J-1001. Align the RG-174/U breakout of CA-1029 with the breakout for J-1001 on the main harness.
Using two 1/2" pieces of NO. 12 shrink tubing over the leads solder the center conductor to Pin "h" and the shield to Pin "j". Slide the tubing over the pins and shrink. Lace the RG-174 to the main breakout. Route the second breakout of CA-1029 along the main cable to the Tune-Operate switch on the control panel. Lace the two together. Solder the Violet wire to the Violet wire on the switch. Solder the White/Violet wire to the White/Violet wire on the switch. Lace the two cables together from J-1001 to J-1010. Leave enough slack near J-1010 to allow free positioning into the mounting hole. Using 4 3/8" 4-40 screws, lockwashers and nuts provided, mount J-1010 to MS-3679.
This completes the modification of the main frame. Reconnect CA-431, and insert and reconnect the RFC-1A and AX-104 drawer.

7. MODIFICATION OF MS- 2469, CENTER SHIELD.

(a) Remove all the units from the front of the auxiliary frame.

TMC SPECIFICATION NO. S 924 F

COMPILED | CHECKED

APPROVED

TITLE: KMCU-1 MODIFICATION FOR GPT-10K and GPT-10K DRIVER

(TMC KIT 224)

con't

(b) MARK MS-2469, using Figure (2) for dimensions. Using the 9/64" 5/16" and the NO.36 drill bits and the 0632 UNC Tap modify MS-2469 as shown in Figure (2). Using the terminal strip, insulation paper, 2 saddle plates, 4 5/8" 4-40 screws, 4 nuts, 2 lock washers and 2 ground lugs, mount the terminal strip, identically as E-3000 and E-3002, on the rear of the center shield. Remove J-3002 from the shield. Mount the UG-492/U Feed thru in the J-3002 position on the center shield. Mount the UG-274/U "T" to the feed thru on the equipment side. Cut the removed J-3002,(JJ-172), from the cable. Connect the PL-169 to this cable. Connect this PL-169 to The "T" on the equipment side of the center shield, solder the NO. 16 buss wire, to the ground lugs as is done on the other strips. To seven lugs of the strip, running consecutively right to left from NO. 14 of E-3000, connect the 1000 MMFD capacitors. Connect the other end of the capacitors to the ground buss as is done on the other strips. To the eighth lug connect a length of NO.22 buss wire to the ground buss. Position the connections on the terminal strip lugs to leave enough clearance to connect the cable in a following step. Using the stamps provided, stamp the center shield as shown in Figure (3).

THIS COMPLETES THE MODIFICATION OF THE CENTER SHIELD

8. INSTALLATION OF CA-1030, AUXILIARY FRAME, REAR.

(a) Connect P-3054 of CA-1030 to J-1010 on the side shield. Route and lace CA-1030 along the main harness to the fanning strip for E-3000. Connect the fanning strip of CA-1030 to E-3001. Using 2 3/8" 0632 screws and lockwashers, secure the fanning strip cover, MS-4258, to the center shield. Remove the jumper across the CMO key line if present.

THIS COMPLETES THE MODIFICATION OF THE REAR OF THE AUXILIARY FRAME.

9. INSTALLATION OF CA-1031, AUXILIARY FRAME FRONT.

(a) Align the center shield breakout of CA-1031 with the center shield breakout of the main cable. Lace the two center shield breakouts together. Connect and solder the leads as shown in Figure (4). Along the main cable, lace the KMCU breakout to the cable as far as the TIS breakout. Do not lace the KMCU and TIS breakouts. Lace the CHG breakout along the main cable and the CHG original breakout. Leave enough slack at the plug to allow free movement during connection.

THIS COMPLETES MODIFICATION OF THE AUXILIARY FRAME.

OGILVIE PRESS, INC., BROOKLYN 17, N. Y. STOCK NO. 430M

10. MODIFICATION OF THE CHG-2A

THIS MODIFICATION CHANGES THE MODEL NUMBER TO CHG-2B

(a) Remove dust covers from the CHG.

(b) Mark the main chassis as shown in Figure (5). Using the 9/64, 3/8 drill bits and the 11/16 Punch, modify the chassis as shown on Figure (5). Use extreme care during this portion as the internal wiring is in close proximity to the holes. Using the stamp provided, stamp J-2708 on both sides of the chassis.

(c) Using three 5/16"4-40 screws, nuts and lockwashers, mount the JJ-119-2 of CA-1028 internally and CU161 externally. Route the cable along the main harness and lace. Connect the orange wire to the orange wire on C-2773. Route and lace the white/orange wire under the tube and along the main harness to the B+ switch. Connect the white/orange wire to the junction of the switch and the coil, L-2101.

(d) Replace the dust covers.

11. THIS COMPLETES THE MODIFICATION OF ALL THE UNITS.

Replace all units in the auxiliary frame with the exception that the KMCU-1 replaces the TIS-3A. The fanning strip of the original cable now goes to TB-101 of the KMCU-1.

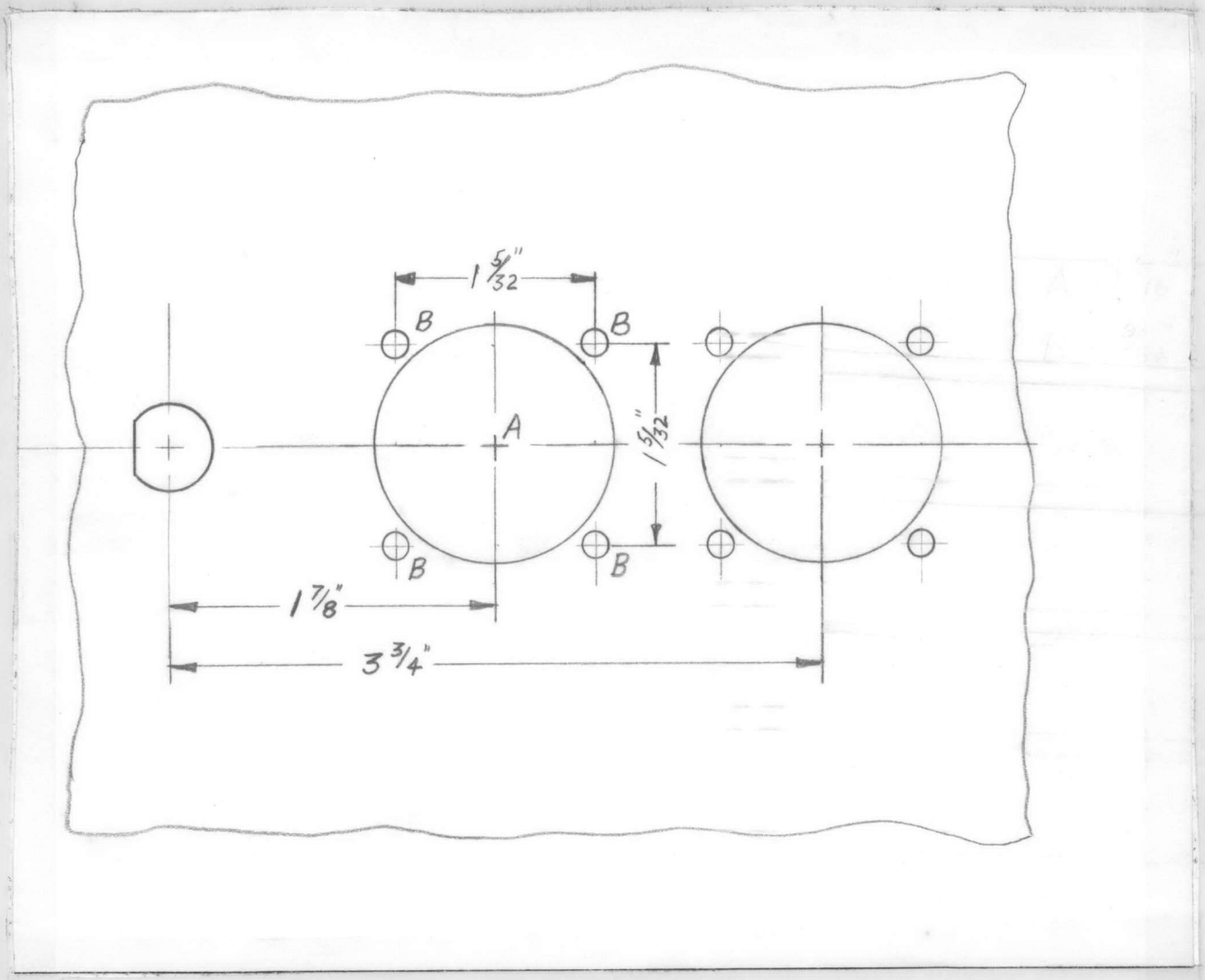
12. NO MODIFICATION IS NECESSARY ON THIS BREAKOUT.

Apply Kit Modification Name plate to the AX-104 and the Relay Panel cover. Apply the RFC-1A and CHG-2B Modification name plates to the appropriate equipments.

OGILVIE PRESS, INC., BROOKLYN 17, N. Y. STOCK NO. 439M

DATE		TMC SPECIFICATION NO. S 924	F
SHEET 9 OF 13			
COMPILED	CHECKED	TITLE: KMCU-1 MODIFICATION FOR GPT-10K and GPT-10K DRIVER	
APPROVED		(TMC KIT-224)	

FIGURE #1



A - 1 5/16" DIA. 1 REQ.

B - 9/64" DIA. 4 REQ.

MODIFICATION OF MS 3679

OGILVIE PRESS, INC., BROOKLYN 17, N. Y. STOCK NO. 439M

DATE

SHEET 10 OF 13

TMC SPECIFICATION NO. S 924

F

BM COMPILED | CHECKED

TITLE: KMCU-1 MODIFICATION FOR GPT-10K and GPT-10K DRIVER

DG APPROVED

(TMC KIT - 224)

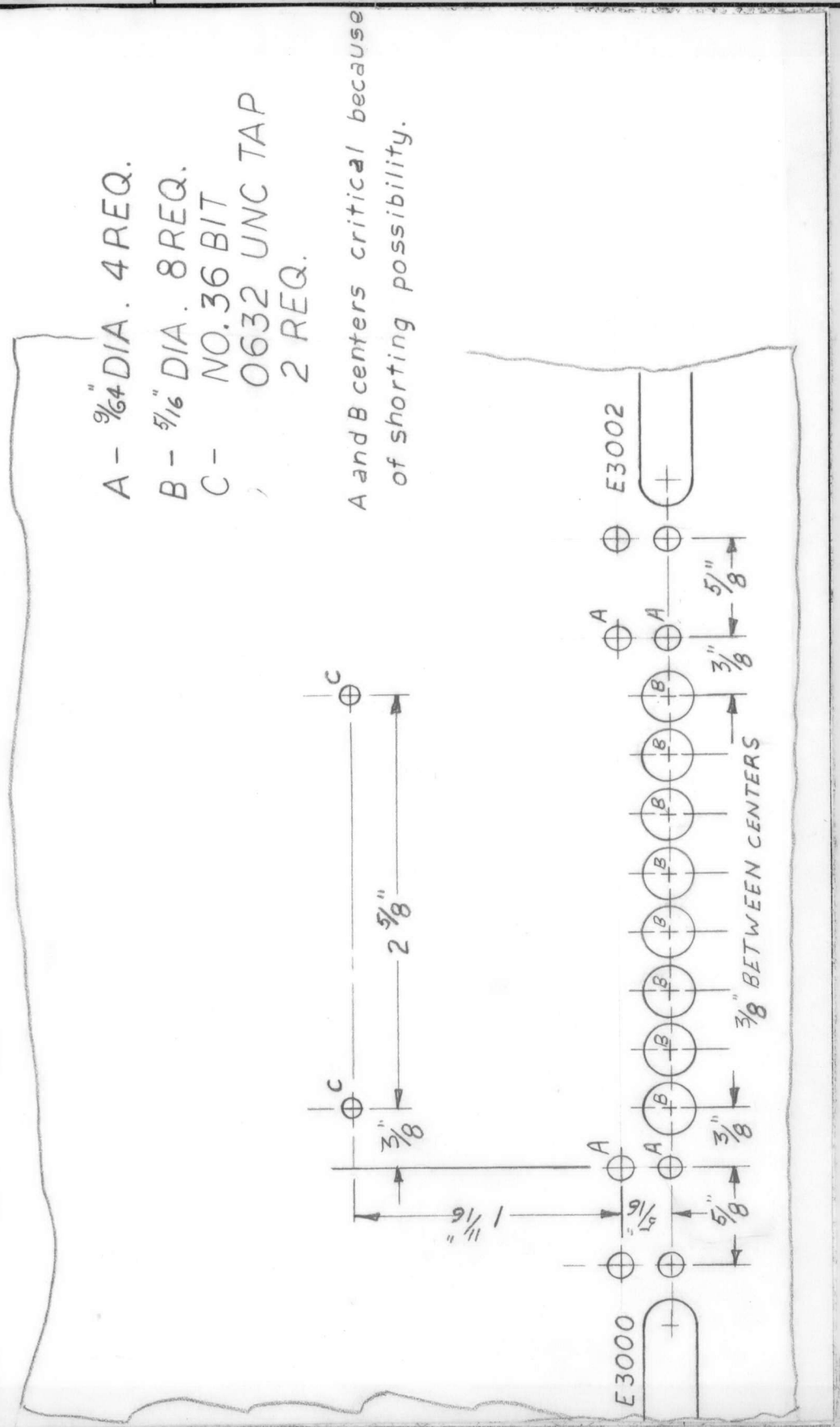


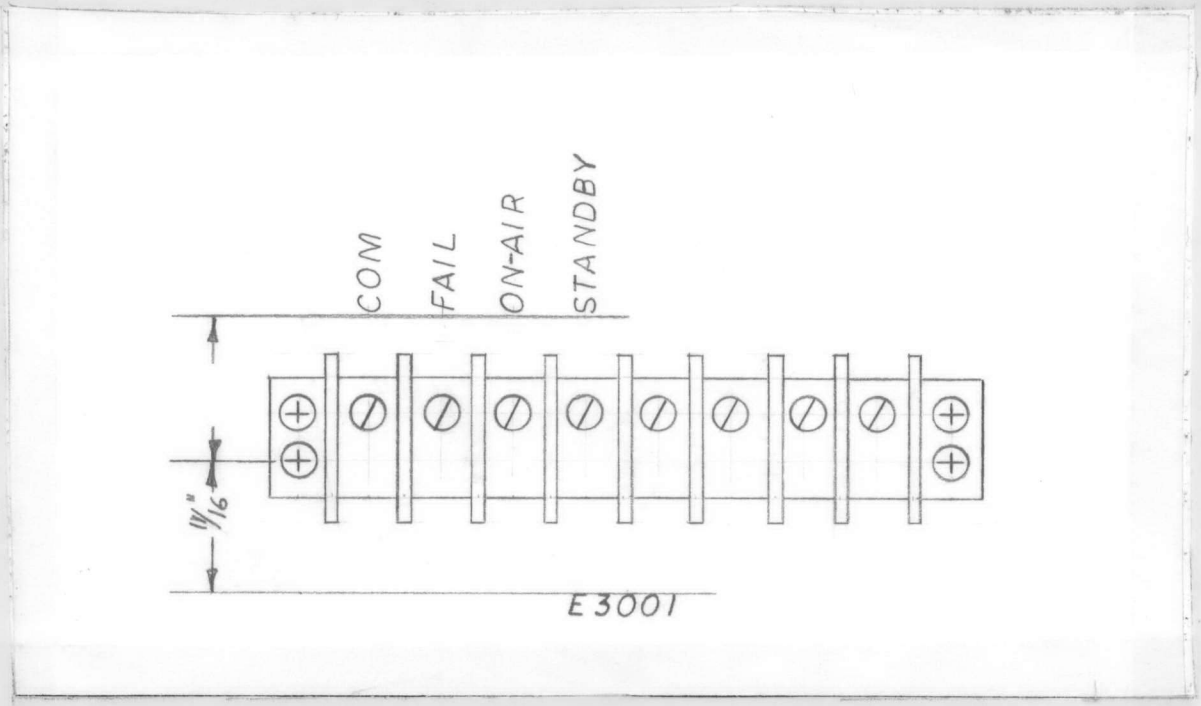
FIGURE #2

MODIFICATION OF MS 2469

OGILVIE PRESS, INC., BROOKLYN 17, N. Y. STOCK NO. 439M

DATE		TMC SPECIFICATION NO. S 924	F
SHEET 11 OF 13			
COMPILED	CHECKED	TITLE: KMCU-1 MODIFICATION FOR GPT-10K and GPT-10K DRIVER	
APPROVED		(TMC KIT-224)	

FIGURE #3



LETTERING, MS 2469

OGILVIE PRESS, INC., BROOKLYN 17, N. Y. STOCK NO. 439M

DATE

SHEET 12 OF 13

TMC SPECIFICATION NO. S 924 F

COMPILED | CHECKED

APPROVED

TITLE: KMCU-1 MODIFICATION FOR GPT-10K and GPT-10K DRIVER

(TMC KIT-224)

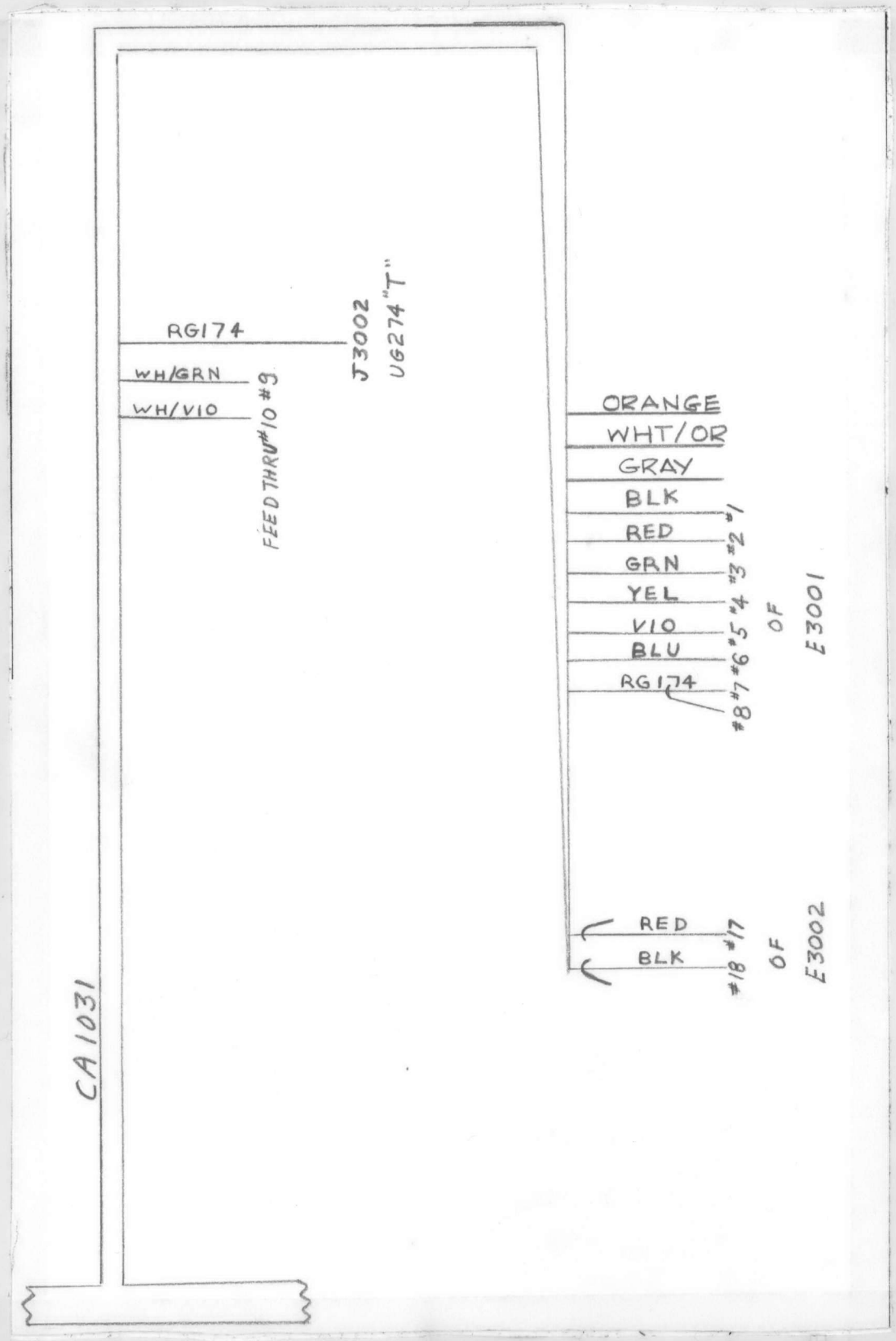


FIGURE #4

CA1031 INSTALLATION

OGILVIE PRESS, INC., BROOKLYN 17, N. Y. STOCK NO. 439M

DATE

SHEET 13 OF 13

TMC SPECIFICATION NO. S 924 F

COMPILED | CHECKED

TITLE: KMCU-1 MODIFICATION FOR GPT-10K and GPT-10K DRIVER

APPROVED

(TMC KIT 224)

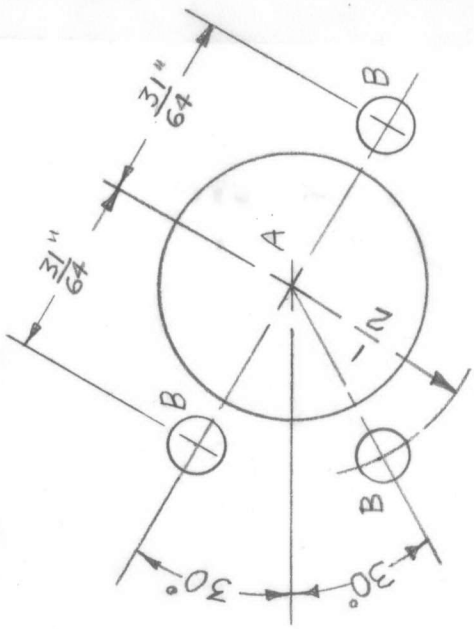
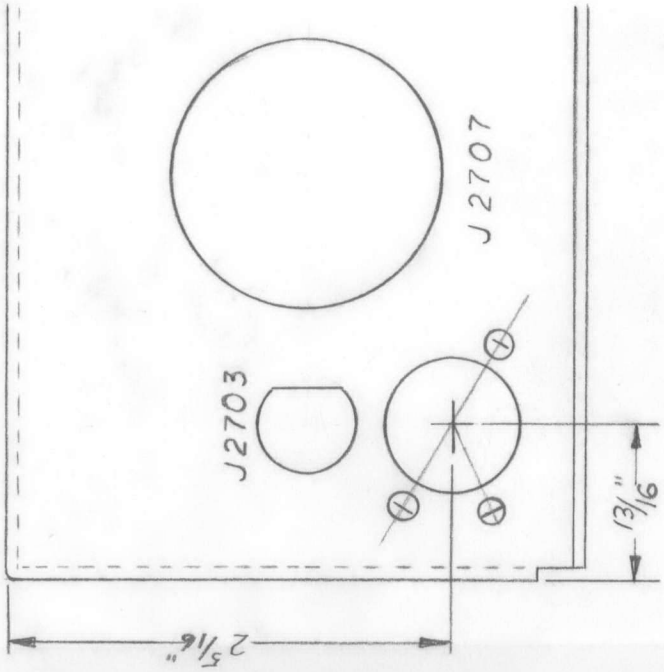


FIGURE #5



MODIFICATION OF CHG-2A

OGILVIE PRESS, INC., BROOKLYN 17, N. Y. STOCK NO. 439M