TMC SPECIFICATION			NO. S 938
REV> A			
COMPILED: L. M.	CHECKED:	APPD:	SHEET 1 OF 12
TITLE:			

NOTE: Check with KIT 247 for installation of electrical protect covers: PX919, PX921, PX922, PX923, DO NOT PERFORM ANY PROCEDURAL STEPS OF THIS KIT IN REFERENCE TO ABOVE ITEMS.

230 VAC AND 480 VAC SEPARATE AND DISTINCT
POWER FEEDERS TO 200K TRANSMITTER
(KIT NO.-206)

TMC SPECIFICATION

NO. S 938

REV: Ø A

COMPILED: L. M | CHECKED: | APPD: [illegible] | SHEET 2 OF 12

TITLE: 230 VAC AND 480 VAC SEPARATE AND DISTINCT POWER FEEDERS TO 200K TRANSMITTER (KIT NO.-206)

I. EQUIPMENT AFFECTED:

A. TMC MODEL GPT-200K GENERAL PURPOSE TRANSMITTER.

II. PURPOSE:

PROVIDES SEPARATE AND DISTINCT POWER FEEDERS TO 200K TRANSMITTER AS FOLLOWS:

A. 230 V., Power for Blower, Filaments, Bias Supply AND CONTROL CIRCUITS of 200KW Section.

B. 240/480V, 3 Phase Input to 200KW High VOLTAGE Power Supply Section's.

III. MATERIALS SUPPLIED IN KIT:

ITEM NO.	AMOUNT	DESCRIPTION
1	six ea.	TMC NO. TF325 Plate Transformer
2	two ea.	TMC NO. A 4224 Terminal Board Assembly
3	two ea.	TMC NO. A 4225 Plate Mtg. & Relay Assembly
4	two ea.	TMC NO. CA-1061-2 To Relay for Term/Board
5	two ea.	TMC NO. CA-1061-1 To Relay
6	eight ea.	TMC NO. SCBP1032BN16 Screws, Mach. Mtg TERM/BD
7	16 ea.	TMC NO. NTH1032BN12 NUT, HEX for Term/Brd/Mtg.
8	eight ea.	TMC NO. LWE10MRN washers, lock for Terminal Board Mtg.
9	eight ea.	TMC NO. FW10HBN washers, flat for Terminal Board Mtg.
10	eight ea.	TMC NO. TE1032AE10R Tapped hole STAND/OFF'S for Term/Board Cover Mtg.
11	eight ea.	TMC NO. SCBP1032 BN4 Screw, Mach. for Terminal Board Cover Mtg.
12	eight ea.	TMC NO. LWE10MRN washers, lock for Terminal Board Cover Mtg.
13	eight ea.	TMC NO. FW10HBN washers, flat for Terminal Board Cover Mtg.
14	20 ea.	TMC NO. SCBP1032BN8 screw, mach. for cover, Protect, Mtg. HDWR.
15	34 ea.	TMC NO. LWE10MRN washers, lock, for covers Protect Mtg. HDWR.
16	18 ea.	TMC NO. FW10HBN washer, flat for covers Protect Mtg. HDWR.
17	eight ea.	TMC NO. SCFP1032 BN12 Screw, Mach. for Mtg. Terminal Board STAND/OFF'S.
17.1	4 ea.	TMC NO. NT121-73B Splice, Conductor
17.2	12 ea.	TMC NO. MS4495 Bracket, XFmr Shields
17.3	12 ea.	TMC NO. SC143-2520B8 Scr w, Machine, nylon for LD1799 & MS 4495 MTG.
17.4	8 ea.	TMC NO. SCFP1032BN10 Screw, Machine for MTG. A-4225.

TITLE: 230 VAC AND 480 VAC SEPARATE AND DISTINCT POWER FEEDERS TO 200K TRANSMITTER

(KIT NO. 206)

ITEM NO	AMOUNT	DESCRIPTION
18	two ea.	TMC NO. LD1798-2/PX922 -2 cover(bottom) for HI VOLT Contactor
19	two ea.	TMC NO. LD1798-1/PX922-1 cover(TOP) for HI VOLT Contactor
20	two ea.	TMC NO. LD1800/PX923 cover, for Buss Bars Between HI VOLT CONTACTOR
21	two ea.	TMC NO. LD1797/PX921 cover, for dropping resistor
22	two ea.	TMC NO. LD1801/PX924 Cover, for Terminal Board
23	six ea.	TMC NO. LD1799/PX919 Cover,for plate XMFRS
24	six ea.	TMC NO. TE197-0-25 Term. Lug. for Pri. Power Cable.
25	six ea.	TMC NO. TE-178-4 Term. Lug. for Pri Power Cable
26	one ea.	TMC NO. 21 Drill Bit (For covers, Protect)
27	one ea.	TMC NO. 1032 TAP (for covers, Protect)
28	12 inches	TMC NO. PX-830-12-1, tubing (for splice
29	16 ea.	TMC NO. MS3284-7 strap, copper for plate XMFR, connections.
30	two ea.	TMC NO. CA-1061-3 Relay coil connecting cable from 440 VAC Phase 1 and Phase 2
31	two ea.	TMC NO. LD-1829/PX928 Cover for resistor Relay unit.
32	4 ea.	TMC NO. SCBP1032BN6 Screw, mach. for resistor relay unit cover.
33	4 ea.	TMC NO. FW10HBN to MT. PX928 washer flat
34	4 ea.	TMC NO. LWE 10 MRN washer, lock, to MT PX928
35	1 ea.	TMC NO. NP362-38 NAME PLATE MOD. KIT-206

IV. TOOLS REQUIRED:

TO BE SUPPLIED BY THE INSTALLING ACTIVITY

1. Screwdriver, Medium Blade.
2. Soldering iron, 250 WATT on Equivalent and 3 feet Solder.
3. Pliers, 6", Longnose
4. Pliers, 6", Diagonal
5. Steel Rule 6"
6. Steel Rule (Tape Type) 6 foot
7. 3/8" Capacity Electric Drill.
8. Center Punch
9. Ball Pin Hammer (2oz) or Equivalent.
10. 6" ADJUSTABLE wrench
11. 3/4" socket and speed wrench (for r moving Plate XMFR MTG. BOLTS).

V. PROCEDURE:

REMOVE ALL PRIMARY POWER FROM TRANSMITTER (230 and 480 VAC) viewing "A & B" HIGH VOLTAGE POWER SUPPLIES FROM REAR.

1. Open Rear doors of Power Supply "A" and "B".
2. Remove Rear (bottom) panels of "A" and "B" Hi Voltage Power Supplies (This will allow access to the Three Large Plate Transformer from the rear).
3. Remove front (bottom) panels of "A" and "B" Hi Voltage Power Supplies (This will allow access to the three large plate transformers from the front).
4. Remove 230 VAC primary power leads from the bottom connections of motor driven contactor, located right side near top rear, of power supply.
5. Remove the three (230 VAC leads) (violet, grey and white) from the bottom of motor driven contactor, that route to the main primary power breaker, (CB-6502) located front of power supply in main power control panel.
6. Attach items #25 supplied in kit, to the 3 large 230 VAC primary cables, crimp & solder these lugs firmly.
7. Attach items #24 supplied in kit, to the three lead ends, removed from motor driven contactor in Step #5. Crimp and solder these lugs firmly.
8. Remove the small (control leads) that are connected to the Top of Hi Voltage contactor (#2) (located top; left of power supply rear) Ø 1 and Ø 2. (Refer to Fig. #4 for original location).
9. Disconnect the large AC power leads and the three Hi Volt Leads from the three plate transformers T-6001, T-6002, and T-6003, of the power supply.
10. Remove the three Plate Transformers by unbolting the 24 bolts holding the transformers at the base of the power supply. (Remove Transform rs from the front of the front of the Power Supply).
11. Drill the four new holes (for item #2, supplied in kit) with items #26 supplied in kit, as per figure #1.
12. Remove Jennings VACUUM Relay (K-6001) and redrill shelf near L-6001 as per Fig. #1 using item #26 supplied in kit and reinstall K-6001 in new location using existing hardware.
13. Drill & Tap the six new holes (for items #18, 19 and 20 supplied in kit) with items #26 and #27 supplied in kit, as per Figure #4.
14. Drill & Tap the two new holes (for item #21 supplied in kit), with item #26 and #27 supplied in kit, as per Figure #2.
15. Install the three Plate transformer Item #1 supplied in Kit, in the location of transformers removed in Step #10.
16. Install item #19 supplied in kit, over top Hi Volt Contactor cables, located left top, rear, of power supply, with items #14, item #15 and item #16 supplied in kit.

17. Install item #20 supplied in kit, over the three connecting buss bars located between the two Hi Volt Contactors, with items #14, Item #15 and item #16 supplied in kit.
18. Install item #18 supplied in kit, over bottom Hi Volt Contactor cables located bottom left of rear power supply with items #14, item #15 and item #16 supplied in kit.
19. Install item #21 supplied in kit, over Pri. Dropping resistors located top of resistor board with items #14, 15, & 16.
20. Connect the 3 newly installed Plate Transformers of Step #15 as per figure #3 + 3A.

. Place the items #23 supplied in kit; over the Terminal boards and connectors of items #1 just connected in step#20, with items 17.2&17.3

21.1 Install item #10 supplied in kit with item #17 supplied in Kit on item #2 per Figure #1.

22. Install item #2 supplied in kit with item #6, 7, 8, and item #9 supplied in kit (Using holes drilled in Step #11). Refer to Fig. #1.
23. Install item #3 supplied in kit with items #17.4,15, #16, &17. supplied in kit (using existing holes created by Step #12): Refer to Fig. #1.
24. Connect the 3 Phase, 230 VAC primary power cables (customer supplied) to terminal board installed in step #22. (NOTE: Connect one Phase to each connecting stud, Phase Ø1, White, closest to rear of power supply; Ø2, violet, middle Ø3, grey, to remaining stud.
25. Connect the 3 Phase 230 VAC cables removed from bottom of motor driven breaker in Step #5 to the Terminal board installed in Step #22 (NOTE: Connect one phase to each connecting stud, Ø1, White closest to rear of power supply; Ø2, violet middle Ø3, grey to remaining, stud.
26. Connect one end (white) of item #5 supplied in kit, to Phase one (closest to rear of power supply) of terminal board installed in step #22 and remaining wire of item #5 (violet). to Phase 2 (center terminal board securely.
27. Connect remaining ends of Item #5 installed in step #26 to Item #3 installed in step #12 as per Fig. #5B.
28. Connect and solder one end of the white wire of item #4 supplied in kit, to the two white wires removed in Step #8 using 2" of item 28 supplied in kit, over the newly soldered connection.
29. Connect and solder one end of the violet wire (same end of cable as Step #28) of item #4 supplied in kit, to the violet wire removed in Step #8 using 2 inches of item #28 supplied in kit, over the newly soldered Connection.
30. Route item #4, just soldered in step #28 & 29 along the vertical of the Power Supply frame and along existing cabling at rear of shelf to the new relay installed in step #23 and connect remaining ends of item #4 as per Fig. #5B.

31. Connect one end of item #30 supplied in kit (Blue wire to top end of resistor in relay assembly unit) yellow wire to the open terminal of coil of item #3 installed in step #23. As per Fig. #5B.
32. Route item #30 in same manner along item #4, installed in step #30 and connect remaining ends of item #30 as follows:
    (a) Blue wire to Ø1 (closest to rear connection top of Hi Volt Contactors #2).
    (b) Yellow wire to Ø2 (center top connection of Hi Volt contactors #2.)
33. Install item #22 supplied in kit over item #2 installed in step #22 using item #11, 12 and item #13 supplied in kit.
34. Connect the three Phase Primary power cable (customer supplied) 480 VAC leads to bottom of motor driven contactor. Phase one to Terminal located nearest rear of power supply: phase two to center terminal and Phase three to remaining terminal.
35. Install Item #31 supplied in Kit, over item #3 installed in Step #23 with items #32, 33 and 34 supplied in Kit.
    NOTE: USE THE ABOVE 35 Step Procedure to modify THE "SUPPLY "B"- Starting with step #4 of the Procedure and continuing Thru Step #36.
36. Replace rear and front bottom panels on both power supplies and close rear doors.

THIS COMPLETES MOD. KIT #206 OF YOUR GPT-200K TRANSMITTER.

37. Place item #35 supplied in Kit to right of relay panel power supply "A" identification name plate.

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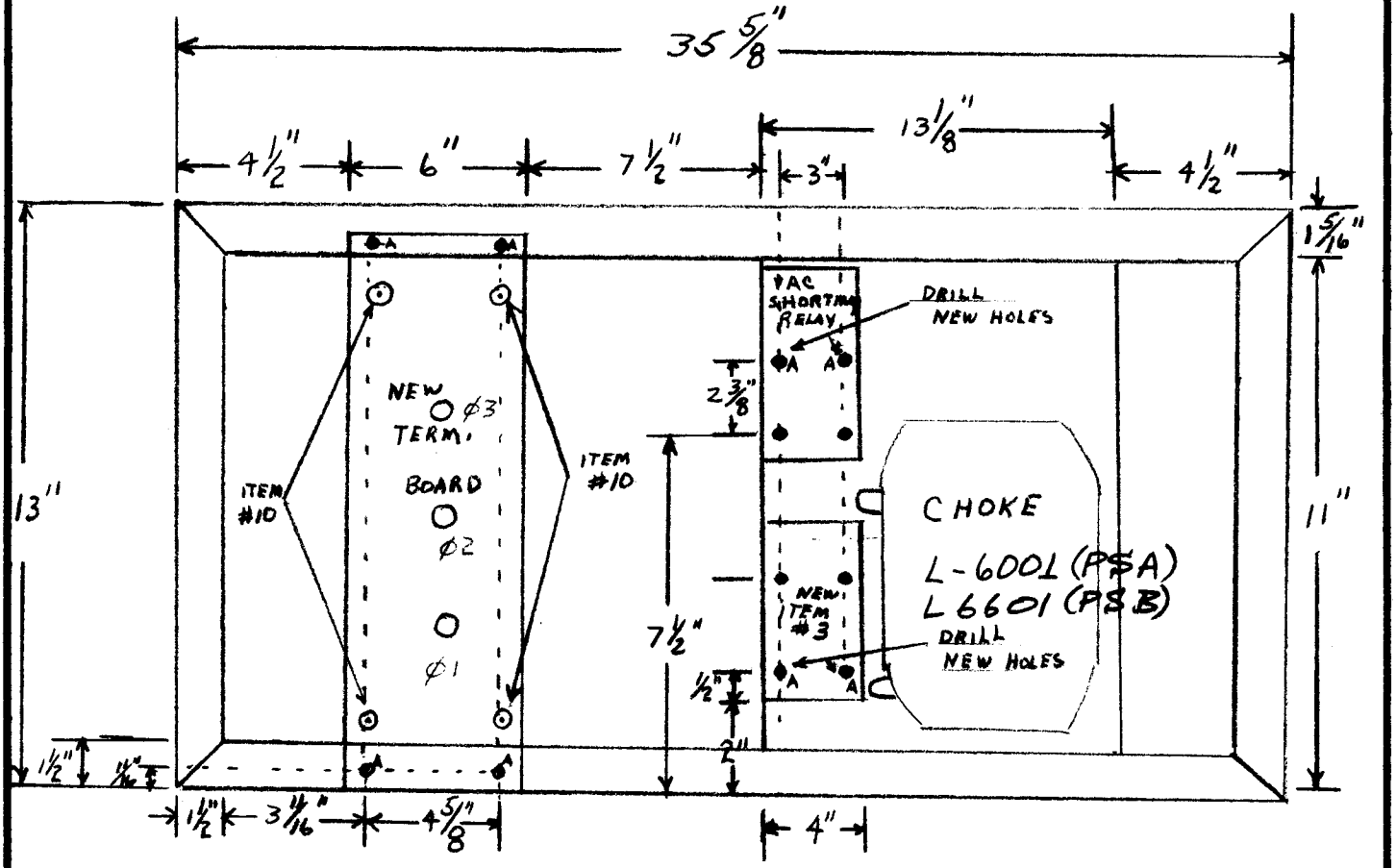
FIGURE #1

TOP VIEW OF SHELF (VIEWING FROM REAR OF UNIT)

"A" + "B" HI VOLTAGE POWER SUPPLY SHELF - 200K



HOLES:

A - .2055 Dia.

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VIEWING FROM REAR OF PWR. SUPPLY.

FIG #2

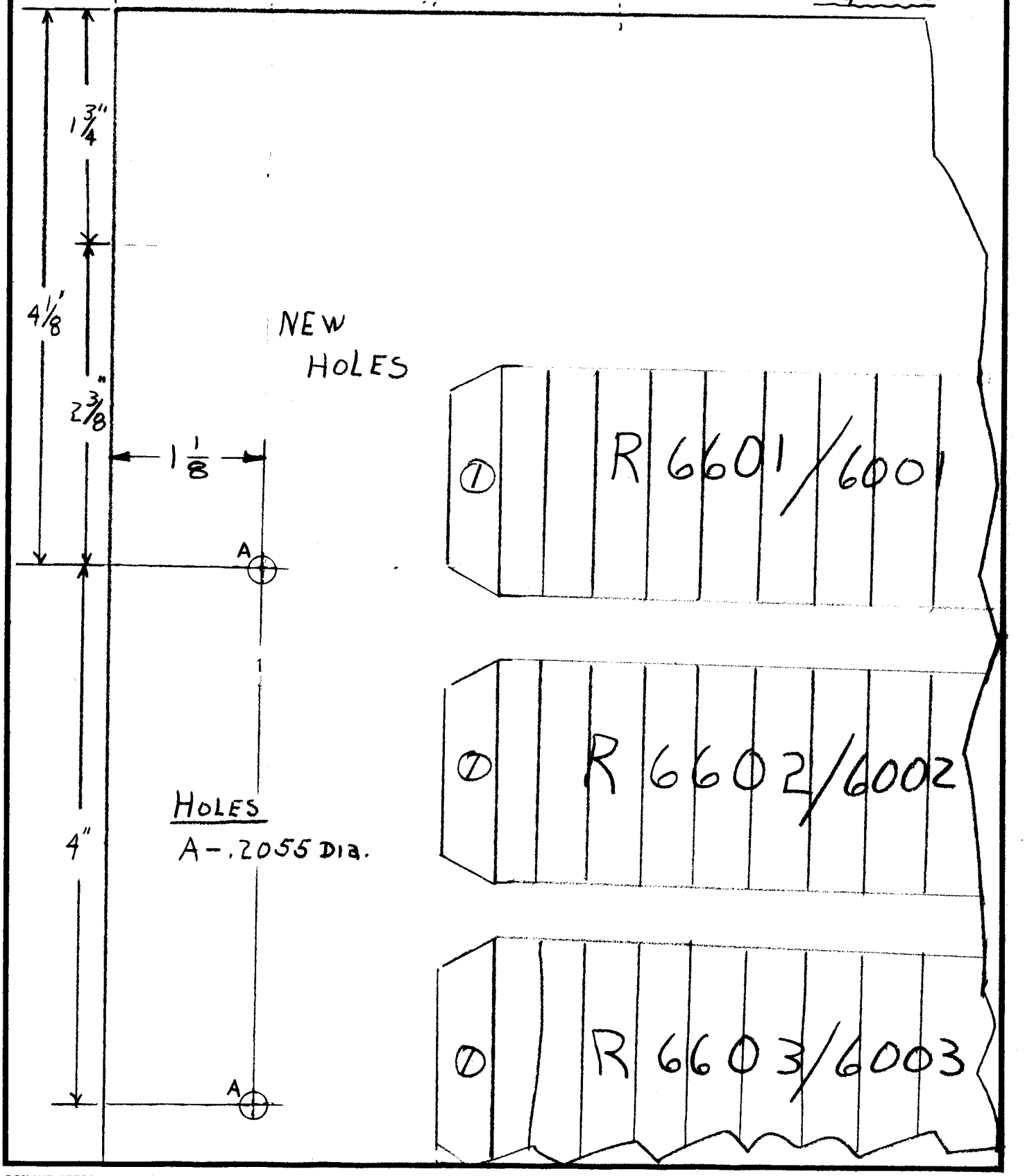

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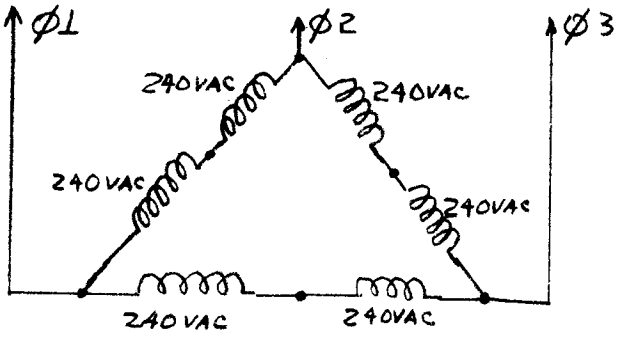
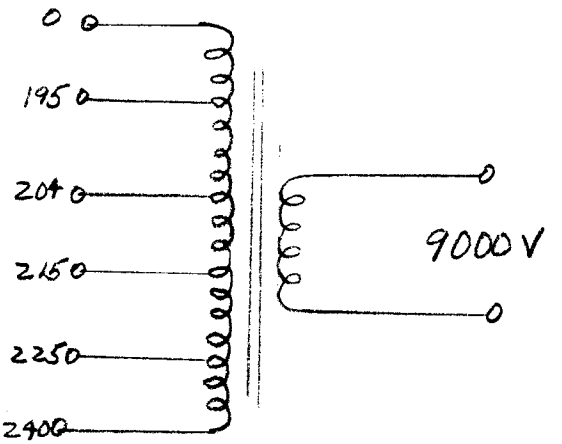
FIGURE #3

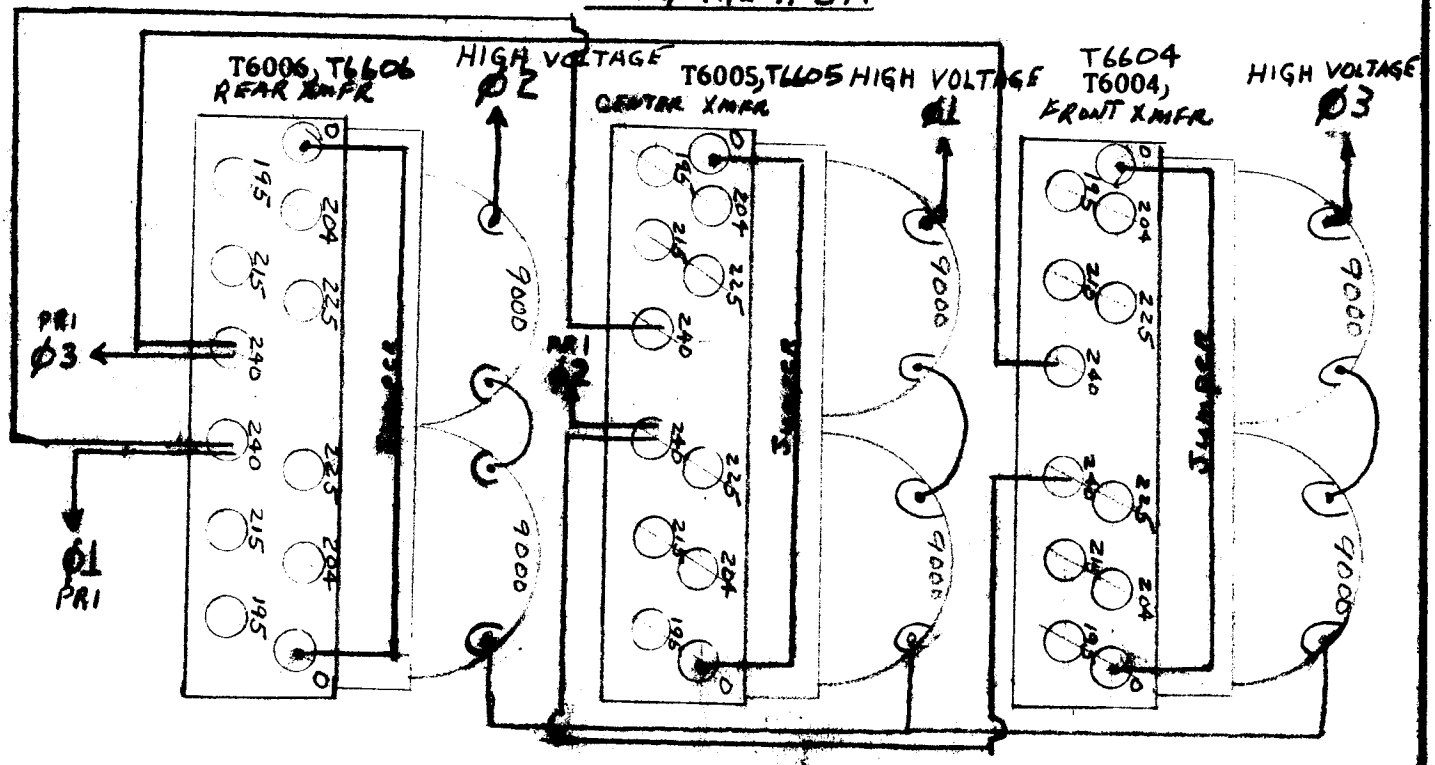




480 VAC PLATE TRANSFORMER ARRANGMENT, (SCHEMATIC)

NOTE: 240VAC WINDINGS ARE SERIES FOR 480 VAC OPERATION

FIGURE #3A



(WIRING DIAGRAM) FOR 480VAC (PRIMARY) TRANSFORMER OPERATION

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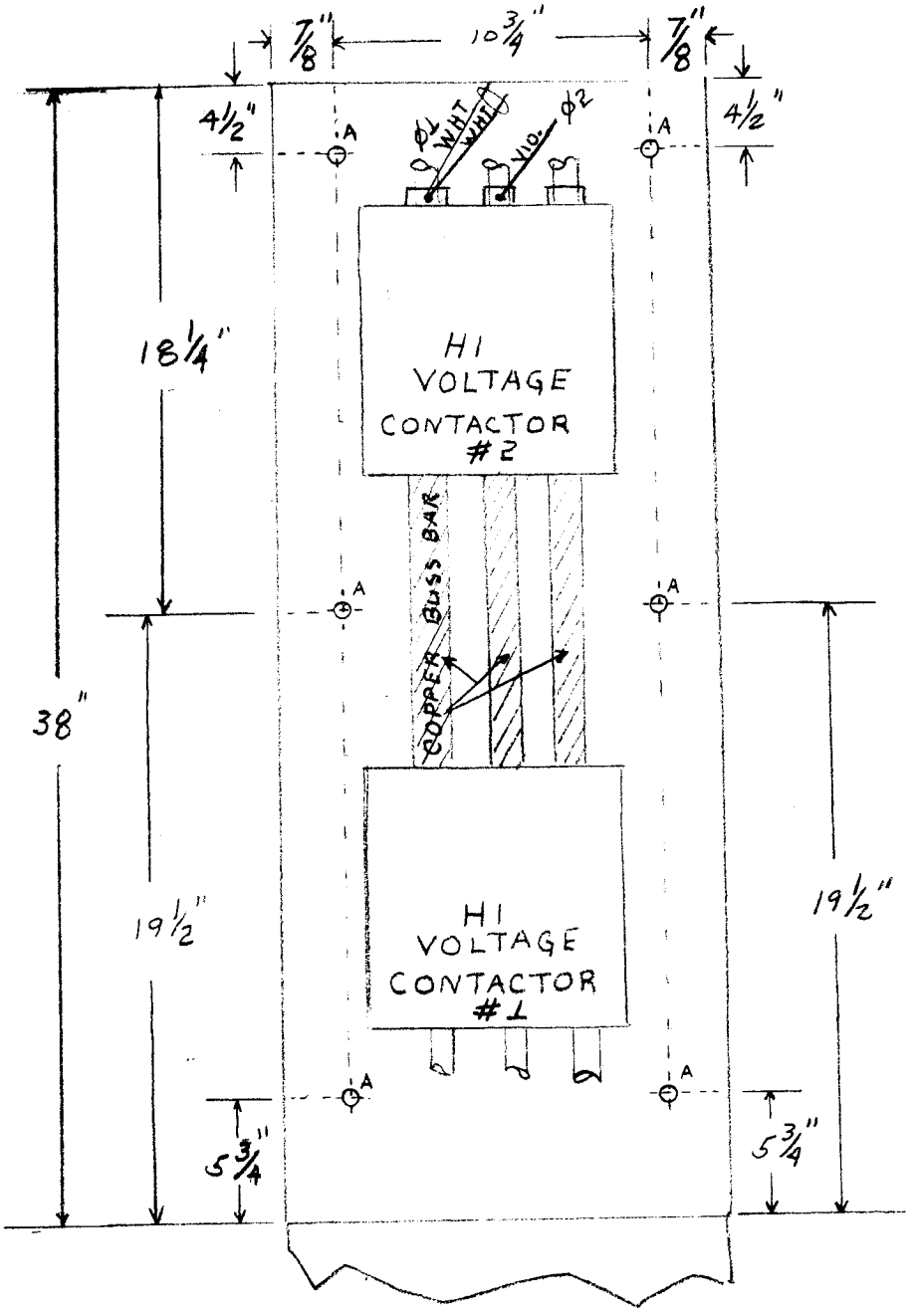
FRONT VIEW (VIEWING FROM RIGHT REAR OF UNIT)

B" HI VOLTAGE POWER SUPPLY HI VOLTAGE CONTACTORS.



HOLES
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FIGURE #4

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FIGURE #5 - SCHEMATIC

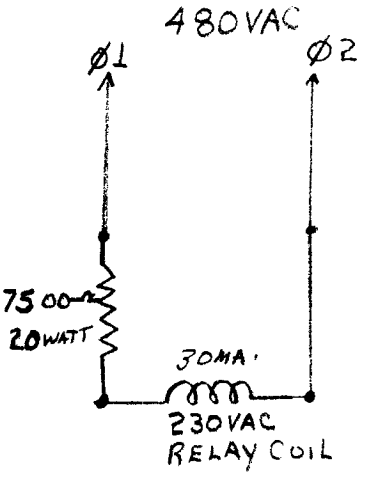
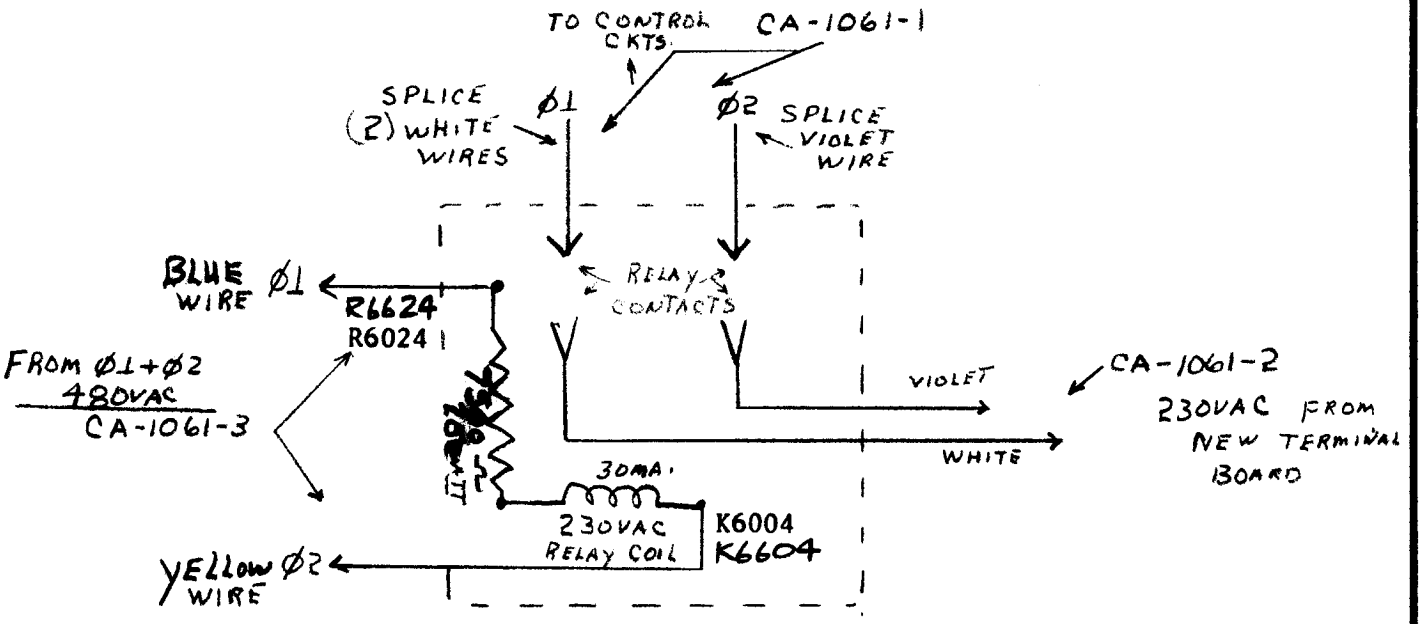


FIGURE #5A - WIRING DIAGRAM



RELAY AND DROPPING RESISTOR UNIT (ITEM #3)

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RL-124 AND RW110-32 WIRE LOCATION DIAGRAM
(ITEM #3 OF KIT)

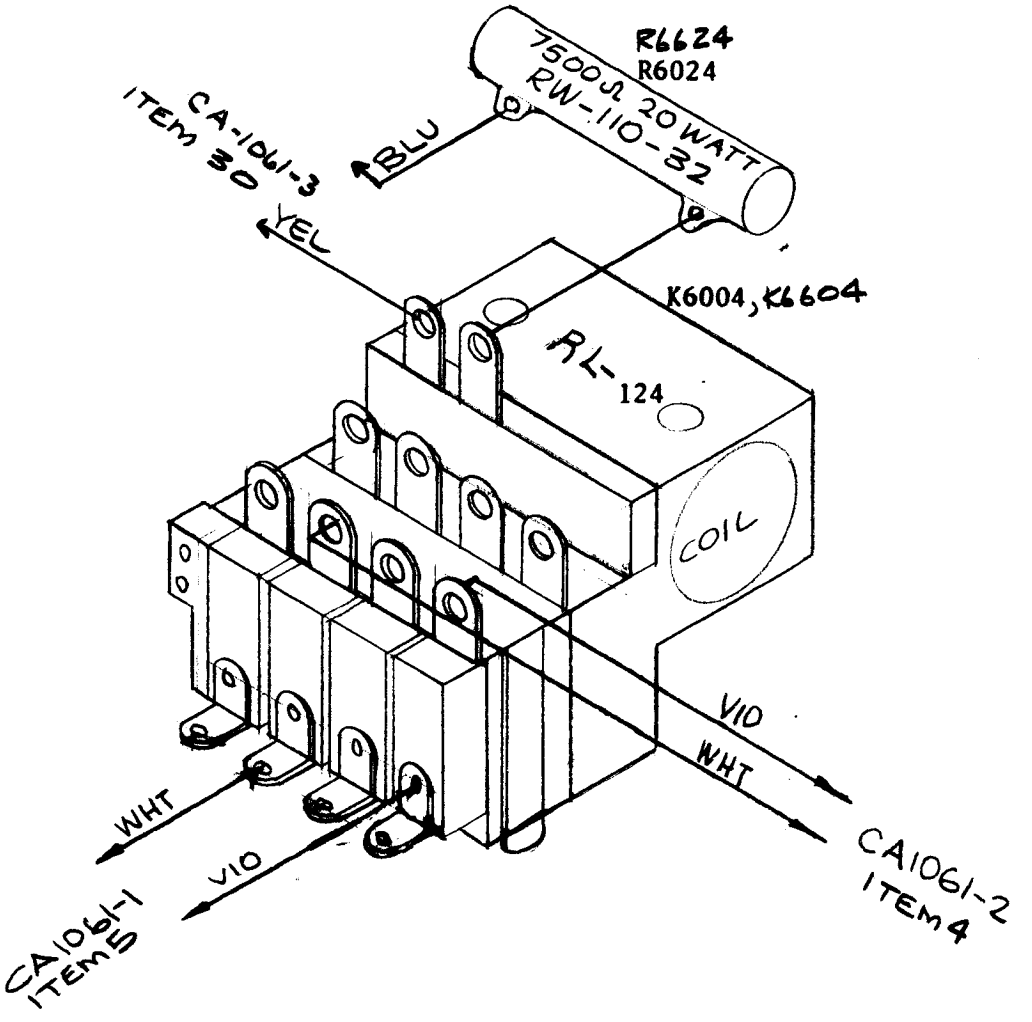

FIG #5B

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

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DATE	REV.	SHEET	EMN #	DESCRIPTION	APP.
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11/30/66	A	tt	17370	Revised per EMN	

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