

JOB DRAWINGS

POWER

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1. GENERAL

1.1 Scope of Section

1.11 This section describes the several kinds of job power drawings most commonly encountered and explains the use thereof. The numbering plan applied to job drawings is covered in Section 1 of this handbook.

2. FRONT EQUIPMENT

2.1 Figures 1 and 2 show the manner in which typical power board front equipment is presented on job power board front equipment drawings.

2.2 Complete bays or individual panels ordered by codes ("J", "ED" or "H"), to be mounted in line with other bays, are shown on the job power board drawing. The apparatus furnished as a part of the coded bays or panels is not shown on the job drawing except in those cases where it is necessary to show the apparatus to clearly indicate job stamping information.

2.3 The job drawing shows the name and drawing or specification numbers for all standard panels used in the power board assembly. When coded bays are furnished, the name and code numbers, including the list numbers, are shown in addition to the individual panel designations. Typical examples of panel designations are as follows:

ED-80742-30-G-1 & A - Volt. Reg. Pan.
ED-80278-30-G-9 - Blk. Pan.
KS-5264 L-12 - TRNS. SW.

2.4 When coded panels are modified, the job drawing shows only the modifications.

3. REAR EQUIPMENT

3.1 Figure 3 shows the manner in which typical power board rear equipment is presented on job power board rear equipment drawings.

3.2 The rear view of the job power board drawing does not show the apparatus and bus bar details furnished with coded bays and panels except to show modifications and connections to bus bars and apparatus furnished on a job basis.

3.3 All apparatus and bus bar details furnished on a job basis, and apparatus and bus bar details furnished as a part of coded equipment that must either be modified or relocated, are shown full line.

3.4 Apparatus and bus bar details furnished as a part of coded equipment that must be shown without modification in order to associate it with job details are shown with dot and dash lines.

3.5 When standard details are to be cut or drilled by the installer, the required length of details and size of holes are shown on the job drawing; also the detail numbers and screws for assembly.

4. BATTERY AND MACHINE ROOM BUS BAR EQUIPMENT

4.1 Figure 4 shows the manner in which typical machine room bus bar equipment is presented on job bus bar plan drawings.

4.2 The machine and battery room bus bars are shown on the bus bar plan drawings as follows:

4.21 The bus bars are represented by full parallel lines. When the bus bars are run on two levels, the lines representing the upper level are broken as required to indicate where the lower level bus bars terminate or change their course.

4.22 The bus bar plan drawings show the following:

4.23 Height of bus bars from the floor.

4.24 The location of horizontal bus bars above batteries with respect to the center of battery stand.

4.25 The location of other bus bar details at the battery stands as required for installing purposes.

4.26 The auxiliary framing supports P-412083 mounted on the rear uprights of the bays adjacent to the emergency cell switch bays and the locating dimensions for the bus bar insulators at the rear of the emergency cell switch bays.

4.3 Sectional views are shown on the bus bar plan drawing as required to clearly indicate how the bus bars are to be installed. See Figure 4.

4.4 The standard bus bar joints are designated by joint numbers or symbols to agree with the "Standard Bus Bar Joints" drawing. This drawing is referred to in a manufacturing note on the job drawing.

4.5 The location of the battery-ground lead terminal, when mounted on the overhead bus bars, is indicated on the job battery room bus bar plan drawing.

5. CONDUIT PLANS

5.1 Conduit plan drawings are provided only when there are very special conditions to be met and it is known that the installer would experience undue delay and expense when installing the conduits without the aid of conduit plans.

6. POWER BATTERY DISTRIBUTING CIRCUIT AND EQUIPMENT DRAWING

6.1 A job circuit is provided for the discharge leads from the battery distributing fuse board to the various frames and fuse boards. This drawing shows the following:

6.11 Fuse numbers corresponding to the numbering on the typical battery distributing fuse board equipment drawing.

6.12 Capacity of fuses (shown in table).

6.13 Size of discharge leads (shown in table).

6.14 Names and numbers of frames and fuse boards supplied by each circuit (shown in table).

6.15 Piece part of "KS" specification number of the terminal lug associated with each lead terminating at the battery distributing fuse board.

6.16 Standard circuit and figure numbers for the wiring connections at the various frames (shown in table).

6.17 Standard circuit and figure numbers for connecting the alarm leads.

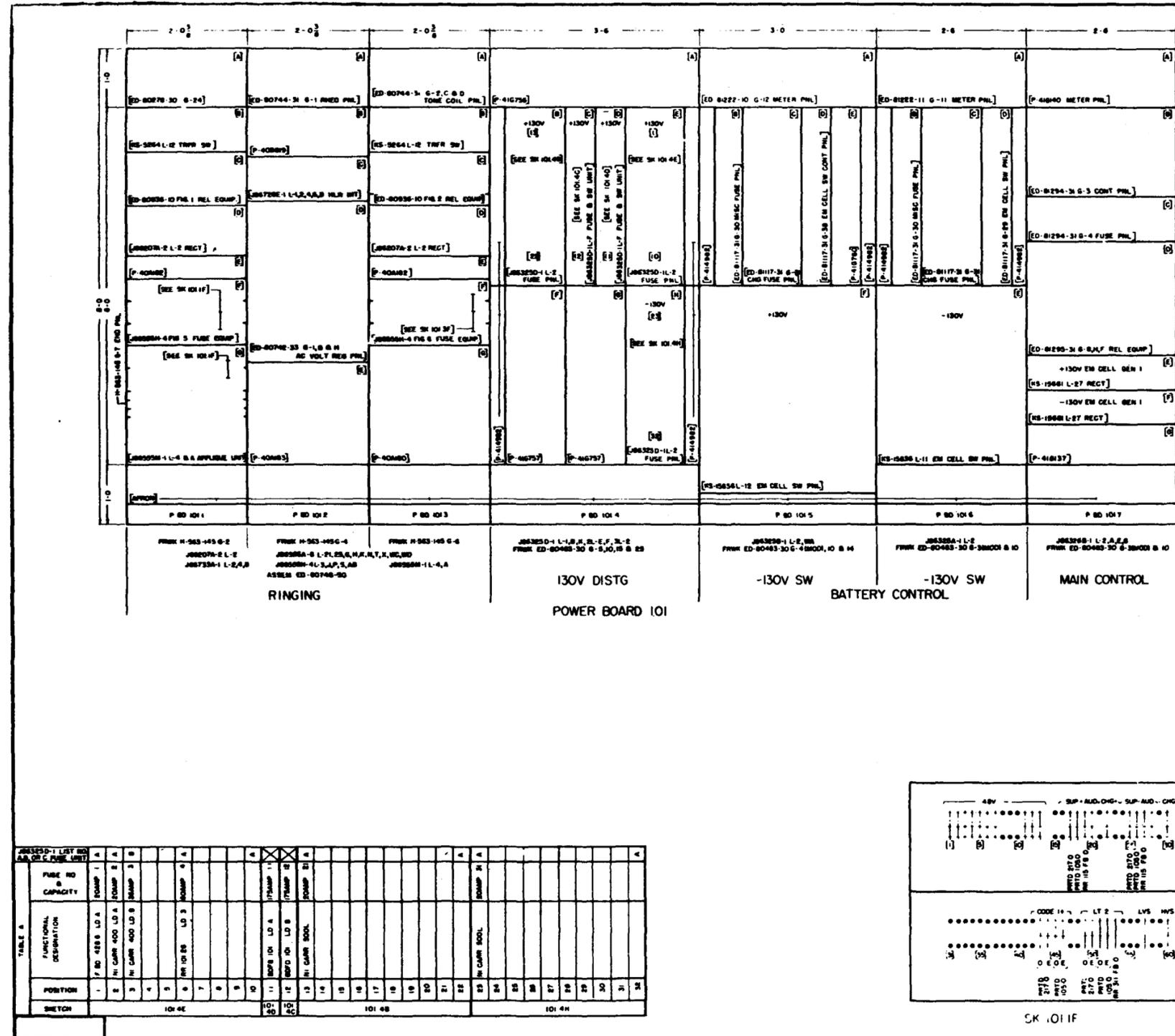
6.18 Designations for the tags at the ground leads.

ATTACHMENT
Figures 1, 2, 3 & 4 on Pages 3, 5, 7 and 9.

Manager, Engineering Practices

Reason for Reissue:
(1) General revision of Section 7 series.
(2) Power drawing information transferred to Section 7D.

Replaces part of Section 7 dated 12-2-54.



TERM BLOCK DESIGNATION LIST

TERMINAL POSITION	GROUP DESIGNATION	TERMINATION OF LEAD
1	HT-1	PRTD 2170
2	HT-1	PRTD 1050
3	HT-1	RR 31 FB 0
4	HT-1	RR 15 FB 0
5	HT-3	PRTD 2170

PCHG DESIGNATION LIST

GROUND PUNCHING	TERMINATION OF LEAD
22	PRTD 2170
23	PRTD 1050
24	RR 31 FB 0
25	RR 15 FB 0

TERM STRIP DESIGNATION LIST

HT 2 FUSE	HT 2 PUNCHING	HLR PUNCHING	HS PUNCHING	TERMINATION OF LEAD
1	A11	A12	A28	PRTD 2170
2	A9	A10	A29	PRTD 2170
3	A7	A8	A26	PRTD 1050
4	A5	A6	A24	RR 15 FB 0
5				

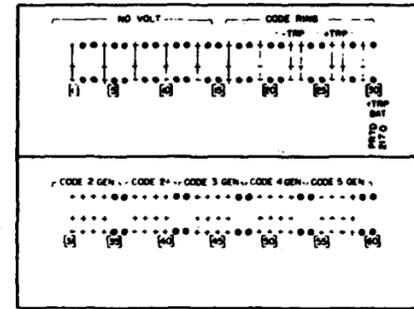
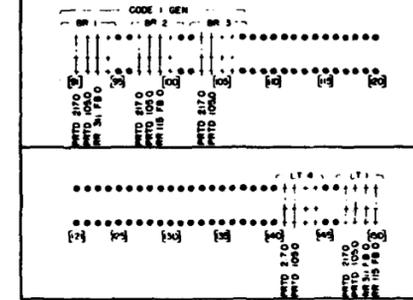
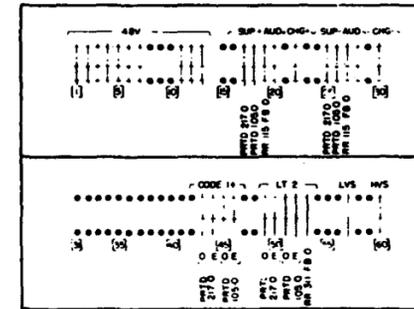
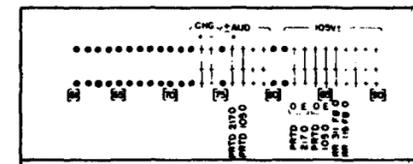
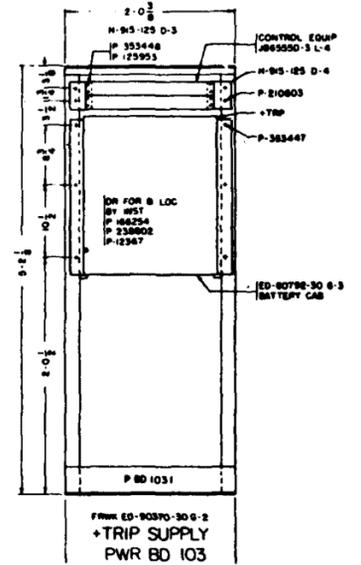


TABLE 6

FUNCTIONAL DESIGNATION	POSITION	SWITCH
1. 1000-400 LD A	1	101 4E
2. 1000-400 LD B	2	101 4E
3. 1000-400 LD C	3	101 4E
4. 1000-400 LD D	4	101 4E
5. 1000-400 LD E	5	101 4E
6. 1000-400 LD F	6	101 4E
7. 1000-400 LD G	7	101 4E
8. 1000-400 LD H	8	101 4E
9. 1000-400 LD I	9	101 4E
10. 1000-400 LD J	10	101 4E
11. 1000-400 LD K	11	101 4E
12. 1000-400 LD L	12	101 4E
13. 1000-400 LD M	13	101 4E
14. 1000-400 LD N	14	101 4E
15. 1000-400 LD O	15	101 4E
16. 1000-400 LD P	16	101 4E
17. 1000-400 LD Q	17	101 4E
18. 1000-400 LD R	18	101 4E
19. 1000-400 LD S	19	101 4E
20. 1000-400 LD T	20	101 4E
21. 1000-400 LD U	21	101 4E
22. 1000-400 LD V	22	101 4E
23. 1000-400 LD W	23	101 4E
24. 1000-400 LD X	24	101 4E
25. 1000-400 LD Y	25	101 4E
26. 1000-400 LD Z	26	101 4E
27. 1000-400 LD AA	27	101 4E
28. 1000-400 LD AB	28	101 4E
29. 1000-400 LD AC	29	101 4E
30. 1000-400 LD AD	30	101 4E
31. 1000-400 LD AE	31	101 4E
32. 1000-400 LD AF	32	101 4E

MANUFACTURING NOTES

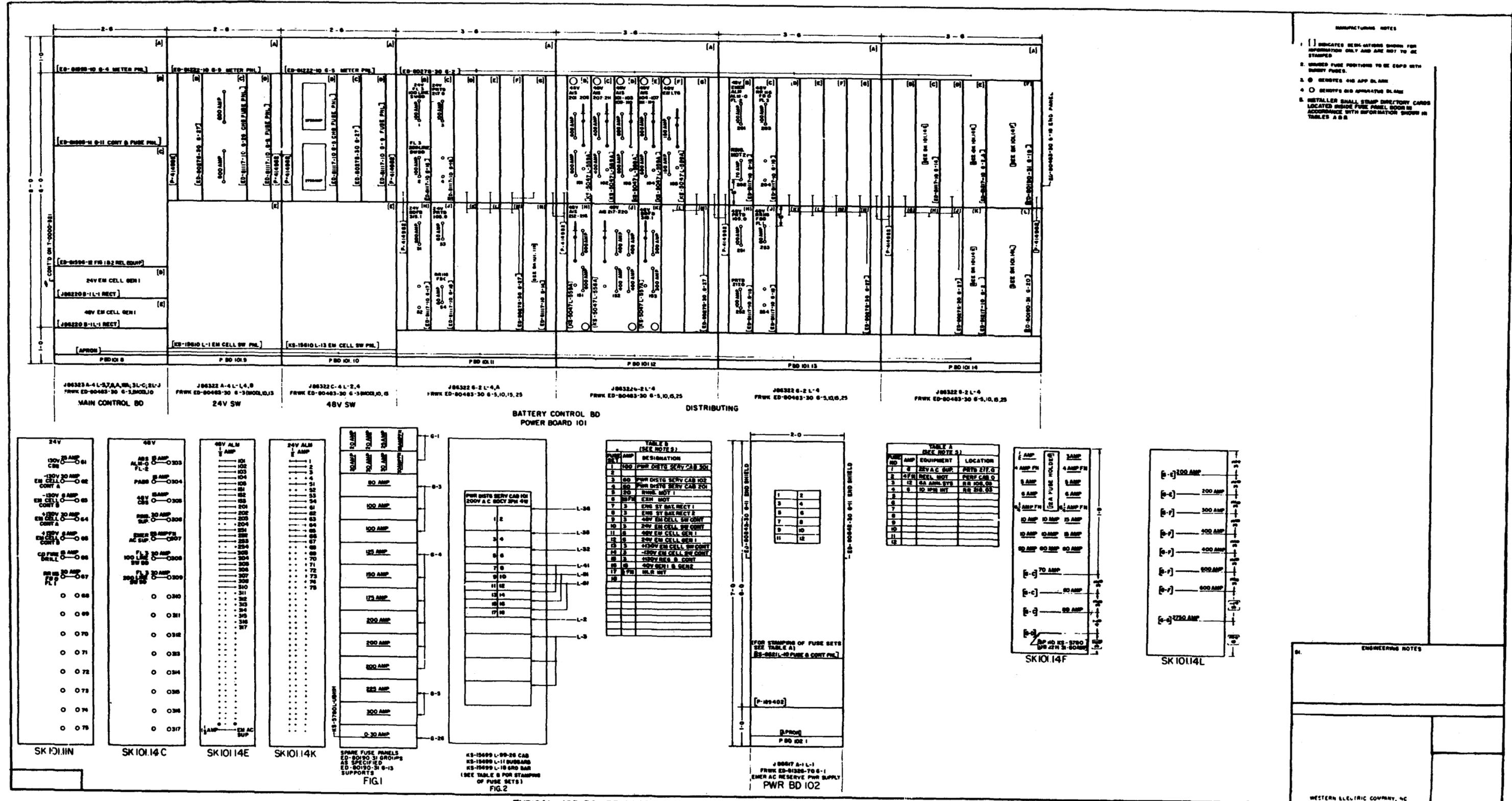
- [] INDICATES DESIGNATIONS SHOWN FOR INFORMATION ONLY AND ARE NOT TO BE STAMPED.
- UNUSED FUSE POSITIONS SHALL BE EQUIPPED WITH DUMMY FUSES.
- ⊙ DENOTES 418 APPARATUS BLANK.
- INSTALLER SHALL CUT OUT TERM BLOCK AND GROUND PUNCHING LIST PER FIG 1 AND PASTE ON UPPER SURFACE OF RM-2 AUTO STARTER AND COAT WITH CLEAR SHELLAC.
- INSTALLER SHALL CUT OUT TERM STRIP DESIG LIST PER FIG 2 AND PASTE ON LOWER INT PANEL P 334583 IN THAT PORTION COVERED BY THE HINGED FUSE PANEL AND COAT WITH CLEAR SHELLAC.
- NUMBERS SHOWN ON DISCHARGE FUSE PANELS INDICATE FUSE POSITIONS. FUSE POSITIONS SHALL BE STAMPED IN ACCORDANCE WITH INFORMATION SHOWN IN ASSOCIATED STAMPING TABLES. SPARE FUSE POS IN STAMPING TABLES ARE SPARE FUSE POS.
- FOR METHOD OF STAMPING DISCHARGE FUSE UNITS AND FUSE AND SWITCH UNITS REFER TO J86350-1.
- ALL EQUIPPED DISCHARGE ALARM FUSES TO BE FOR 1/4 AMP AND TO BE STAMPED PER J86350-1. SPARE POSITIONS TO BE EQUIPPED WITH 75A DUMMY FUSE.
- DOT DASH --- DENOTES EQUIPMENT FURNISHED AS PART OF THE "D" OR "ED" DRAWING.

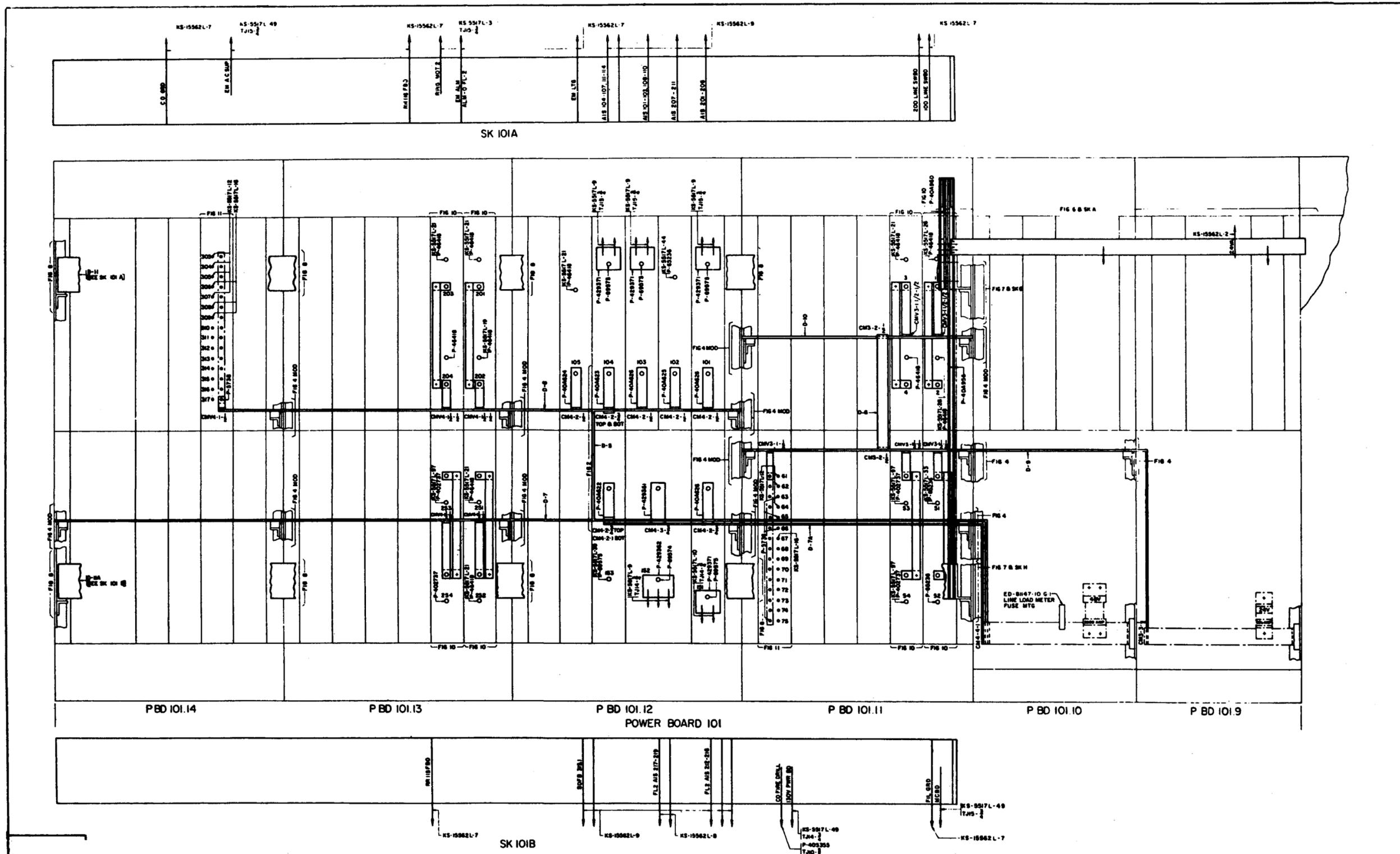
ENGINEERING NOTES

WESTERN ELECTRIC COMPANY, INC.

TYPICAL JOB POWER BOARD FRONT EQUIPMENT DRAWING

FIGURE 2





MANUFACTURING NOTES

- 1 DESIGNATIONS IN BRACKETS (), FIGURE PIECE PART, TERMINAL LUG AND DETAIL NUMBERS, AND BUSBAR JOINT SYMBOLS SHALL NOT BE STAMPED
- 2 CM-2, T-4, ETC DENOTES BUSBAR JOINTS AS SHOWN ON H-569-133 OR H-569-136
- 3 DOT DASH --- DENOTES EQUIPMENT FURNISHED AS PART OF THE "I" OR "ED" DRAWING
- 4 FIGURE NUMBERS & SKETCHES REFER TO ASSEMBLY FIGURES & SKETCHES ON ED-8135-11

ENGINEERING NOTES

TYPICAL JOB POWER BOARD REAR EQUIPMENT DRAWING

FIGURE 3

EQUIPMENT ENGINEERING HANDBOOK
WESTERN ELECTRIC COMPANY, INCORPORATED

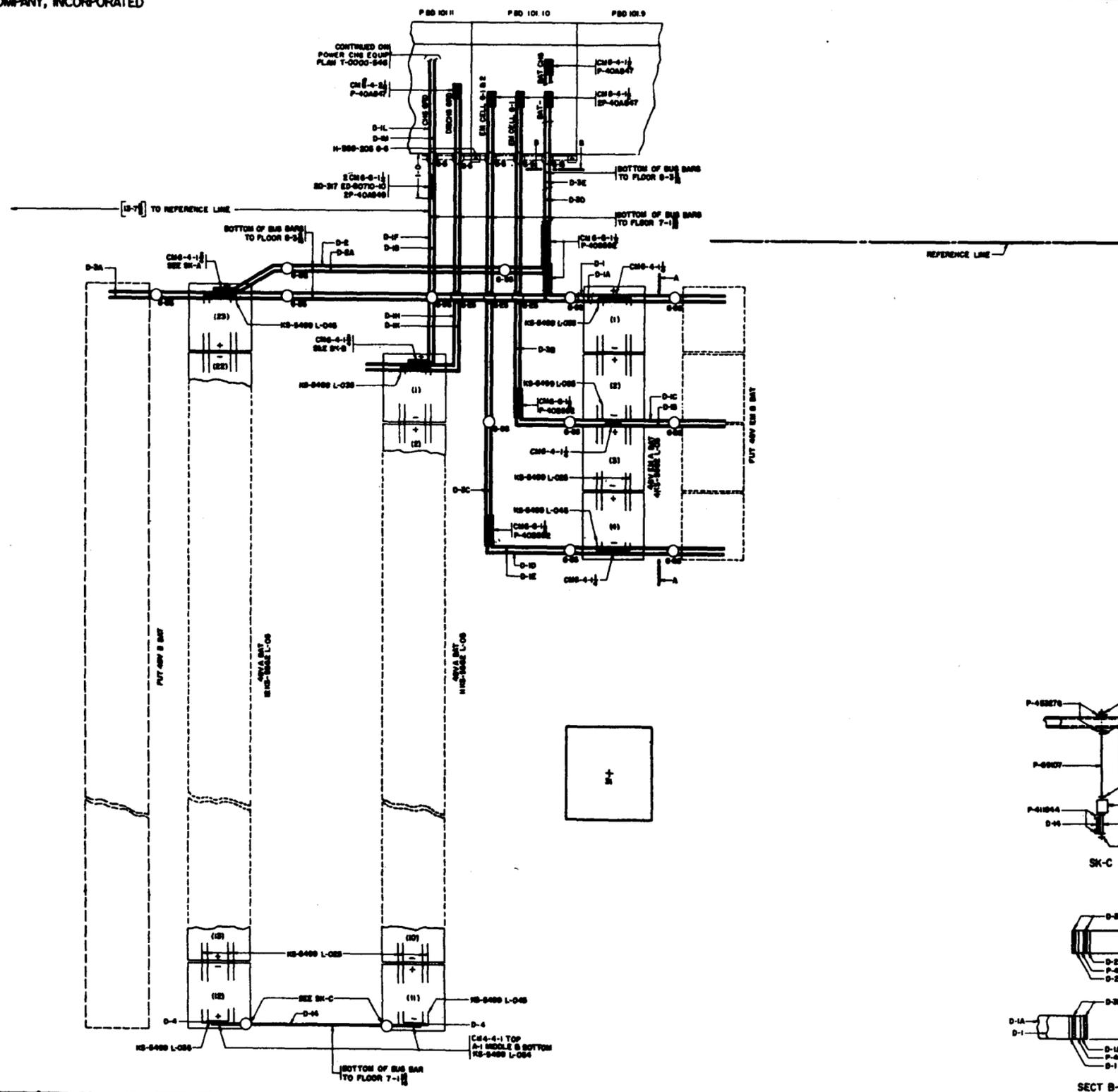
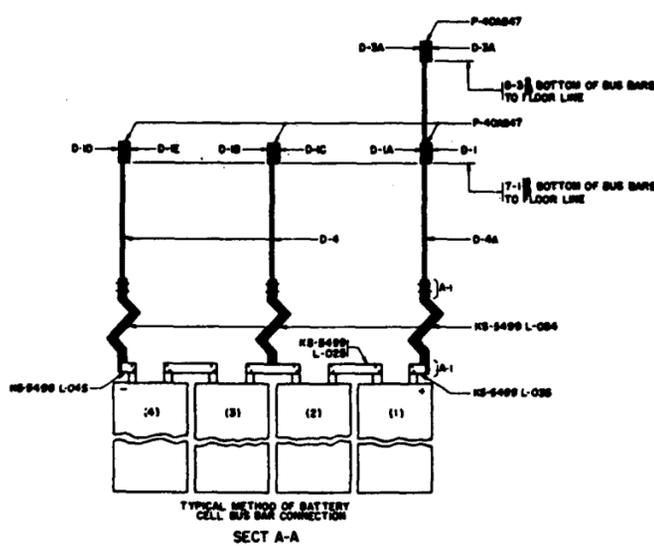
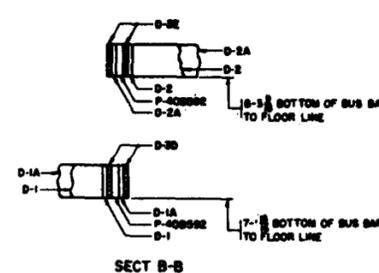
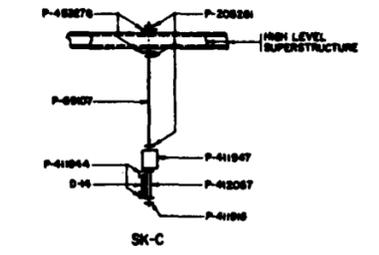
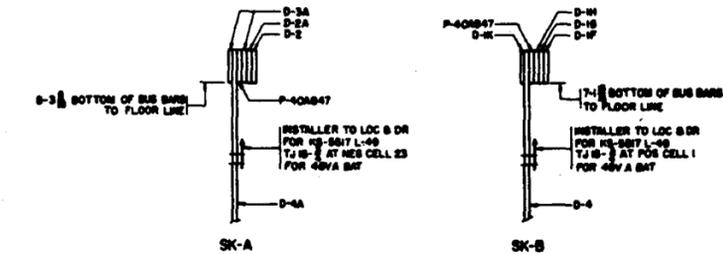


TABLE A TABLE OF BOLTING MATERIAL	
SYM	DESCRIPTION
A-1	4KS-8882 EXTRA LEAD PLATED PHOSPHOR BRONZE 1/2" HEX HEAD BOLTS 1 1/2" INCHES LONG WITH 8 LEAD PLATED WASHERS

DRAFTING INFORMATION
A- THIS DRAWING IS TYPICAL AND NO ATTEMPT SHALL BE MADE TO CHECK THE ACCURACY OF DETAIL AND DRAWING NUMBERS.

- MANUFACTURING NOTES
- BATTERY CONTROL BOARD TO BE THE STARTING POINT FOR THE INSTALLATION OF THE HORIZONTAL SUBBAR RUNS.
 - DIMENSIONS IN BRACKETS [] ARE FOR ENGINEER'S INFORMATION ONLY.
 - 4 ETC DENOTES SUBBAR ASSEMBLY SUPPORTS AS SHOWN ON ED-80767-12, -13 & -14.
 - HIGH LEVEL AUX FRAMING IS SHOWN ON T-0000-801 AUX FRAMING & CABLE RACK PLAN.
 - DESIGNATIONS IN PARENTHESES () SHALL BE STAMPED IN ACCORDANCE WITH U.S.A. STANDARD.
 - ALL HANGER RODS TO BE CUT TO REQUIRED LENGTH BY INSTALLER.
 - FOR TYPICAL SUBBAR JOINTS AND BOLTING INFORMATION SEE N-890-130.



ENGINEERING NOTES

WESTERN ELECTRIC COMPANY, INC.

TYPICAL JOB BATTERY ROOM BUS BAR PLAN DRAWING

FIGURE 4