JOB DRAWINGS

POWER

CONTENTS

---

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.

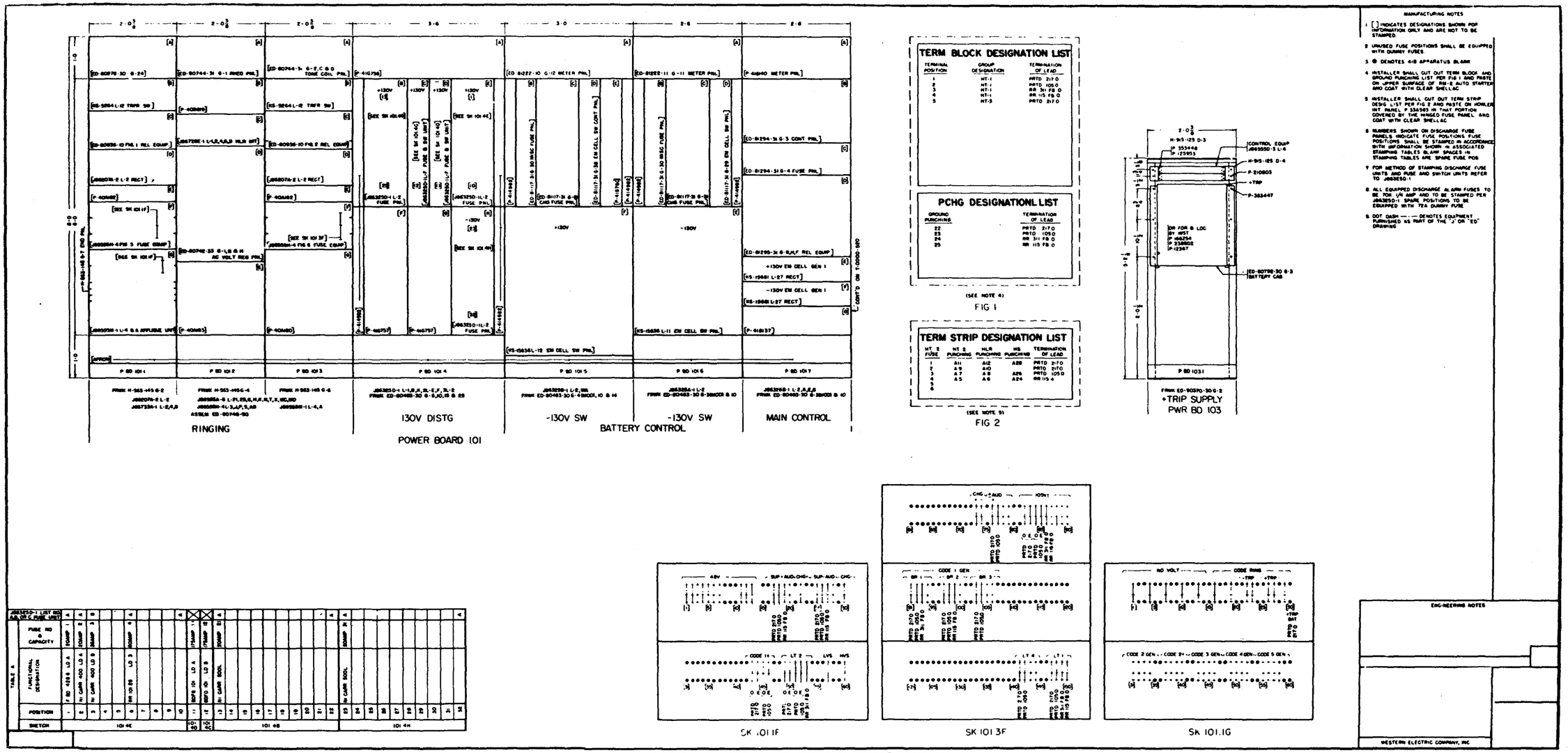
6.18 Designations for the tags at the ground leads.

Manager, Engineering Practices

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

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.



TYPICAL JOB POWER BOARD FRONT EQUIPMENT DRAWING

FIGURE 2

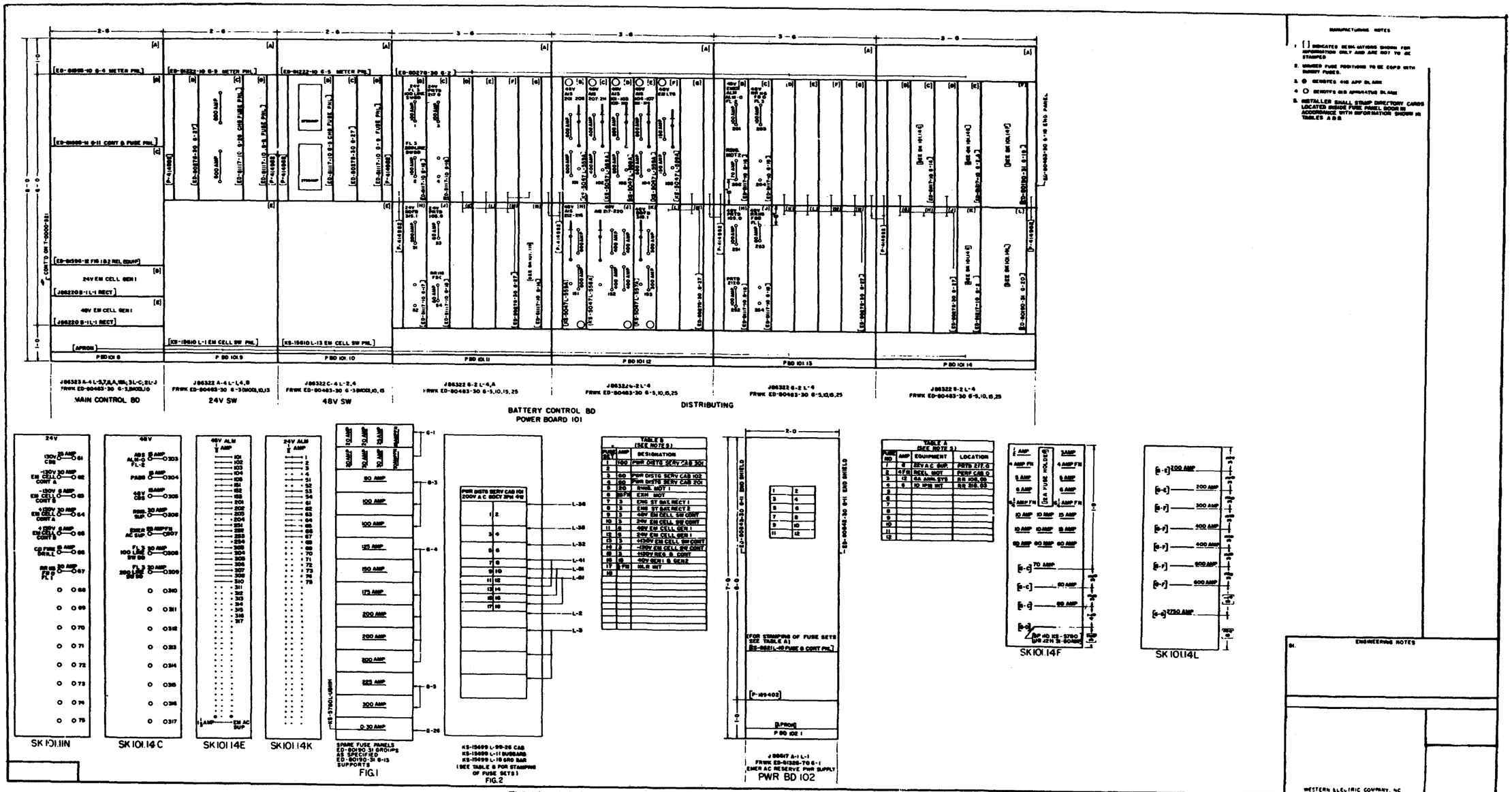
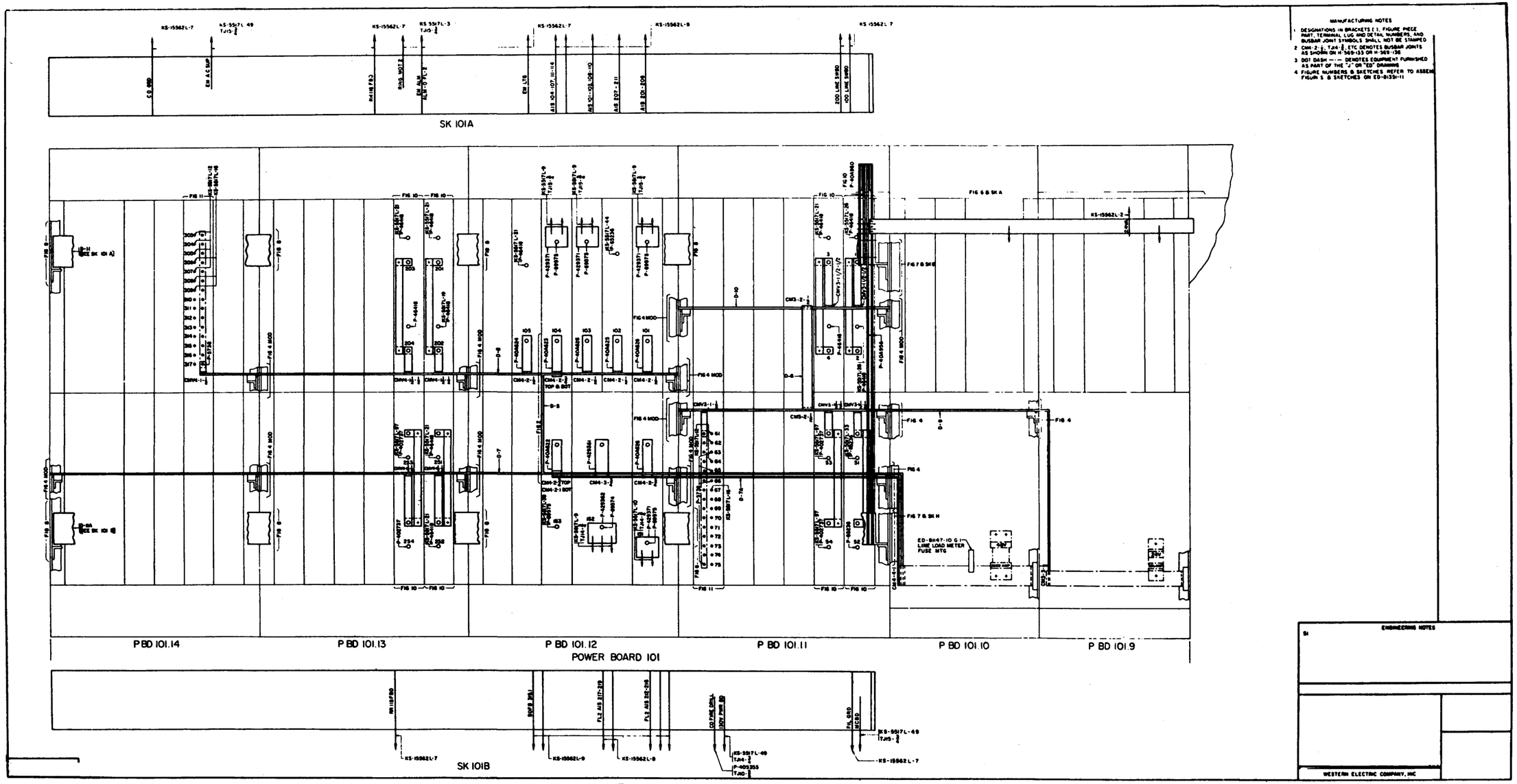

MANUFACTURING NOTES
ENGINEERING NOTES
MAIN CONTROL BD
24V SW
48V SW
BATTERY CONTROL BD
POWER BOARD 101
DISTRIBUTING
P BD 101 8
P BD 101 9
P BD 101 10
P BD 101 11
P BD 101 12
P BD 101 13
P BD 101 14
SK 101.11N
SK 101.14C
SK 101 14E
SK 101 14K
SK 101.14F
SK 101.14L
PWR BD 102
FIG.1
FIG.2
TYPICAL JOB POWER BOARD FRONT EQUIPMENT DRAWING
WESTERN ELECTRIC COMPANY, INC

FIGURE 1



TYPICAL JOB POWER BOARD REAR EQUIPMENT DRAWING

FIGURE 3

EQUIPMENT ENGINEERING HANDBOOK
WESTERN ELECTRIC COMPANY, INCORPORATED

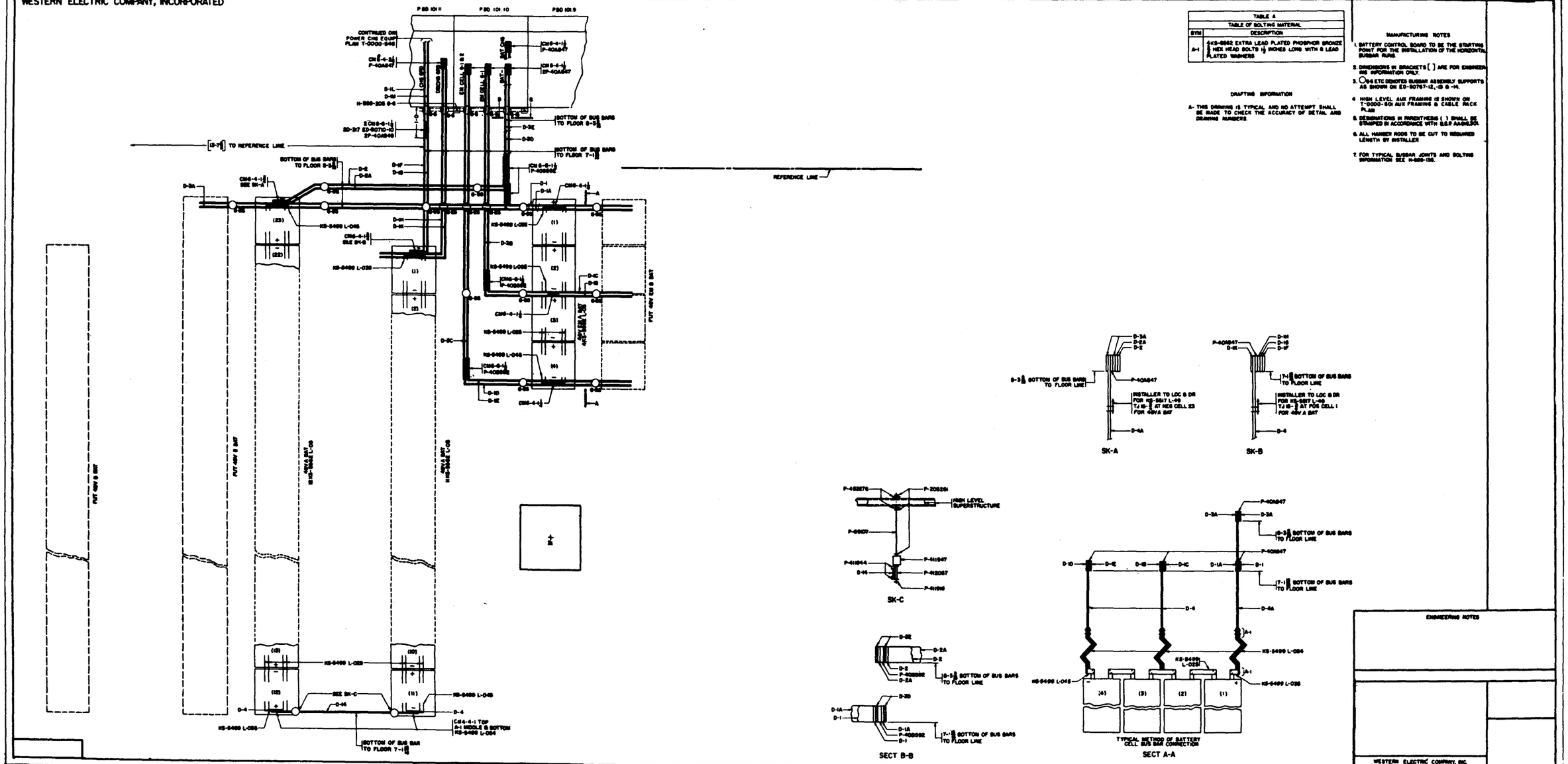


TABLE A	
TABLE OF BOLTING MATERIAL	
SYM	DESCRIPTION
A-1	4 KS-5882 EXTRA LEAD PLATED PHOSPHOR BRONZE ⅝ HEX HEAD BOLTS 1¼ INCHES LONG WITH 6 LEAD PLATED WASHERS

DRAFTING INFORMATION

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

MANUFACTURING NOTES

1. BATTERY CONTROL BOARD TO BE THE STARTING POINT FOR THE INSTALLATION OF THE HORIZONTAL BUSBAR RUNS.
2. DIMENSIONS IN BRACKETS [ ] ARE FOR ENGINEERING INFORMATION ONLY.
3. ○#6 ETC DENOTES BUSBAR ASSEMBLY SUPPORTS AS SHOWN ON ED-80767-12, -13 & -14.
4. HIGH LEVEL AUX FRAMING IS SHOWN ON T-0000-501 AUX FRAMING & CABLE RACK PLAN
5. DESIGNATORS IN PARENTHESIS ( ) SHALL BE STAMPED IN ACCORDANCE WITH E.S.F AA68,50.
6. ALL HANGER RODS TO BE CUT TO REQUIRED LENGTH BY INSTALLER
7. FOR TYPICAL BUSBAR JOINTS AND BOLTING INFORMATION SEE H-886-136.

ENGINEERING NOTES

WESTERN ELECTRIC COMPANY, INC.

TYPICAL JOB BATTERY ROOM BUS BAR PLAN DRAWING

FIGURE 4