



617 0021P,W
617 0094P,W

A & B Distribution Fuse Panel
“CO-LOCATION PANEL”

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Contact Information

Phone: +1 877 546-3243

Email: PE.TechSupport@ge.com

Web site: www.gecriticalpower.com

Product Information

Please take a moment when the product is new to fill in this information.

First, locate the product information label. This is typically located on the upper front of the equipment frame, or on the rear of the frame. Fill in the part number, as it appears on the label, in the space below.

PART NUMBER	DATE CODE:
SERIAL NUMBER	ECN Level: 860 _ _ _ _ P

Warnings

1. Electrical shock hazard. Do not attempt to remove, maintain, or install this equipment with power applied. Personnel that attempt to work on this equipment with the power applied may subject themselves or others to electrical shock that may cause serious injury or death.
2. The use of this equipment by unauthorized or untrained personnel should not be attempted. Personnel that work on this equipment without the proper training may subject themselves or others to electrical shock that may cause serious injury or death.
3. Do not attempt to work on this equipment if it is, or has been, exposed to a high moisture condition. It is recommended the equipment be returned to GE to be properly tested. Working on this equipment during a high moisture condition subjects the user to electrical shock that may cause serious injury or death.
4. Use of an attachment other than one approved by GE will void any and all warranties, implied or other, and will increase risk of fire, or may possibly cause electrical shock, injury, or death to personnel.
5. Do not operate this equipment if it has been dropped or otherwise damaged. Trying to operate this equipment if it has been damaged subjects yourself or others to electrical shock that may cause serious injury or death.
6. Before you proceed, ensure the input source is not live and the input circuit breaker(s)/fuse(s) has been tripped or removed. If these procedures have not been followed and the input/output power is live, serious personnel injury or death may occur.
7. A rack/shelf may contain several operating systems. If there is another system in the general area you want to install this system, be cautious of any exposed connectors or wires and, with permission, remove power to the other systems. Failure to take the necessary safety precautions subjects the installer or maintenance personnel to severe electrical shock that may cause serious injury or death.
8. This equipment may connect to lead-acid batteries. Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the state of California to cause cancer and birth defects or other reproductive harm. **Wash hands after touching batteries.**

Cautions

1. Follow proper grounding instructions.
2. If connecting batteries, remove the battery-box-fuse or trip the circuit breaker. Check batteries and connections for proper polarity and power before connecting the batteries to the system
3. To remove the circuit breakers or fuses, the DC and/or AC input to the system will need to be disconnected, thereby disabling the system output to the load(s). Take the necessary precautions and inform the plant engineer that the system output power to the loads will be disabled.
4. Before performing any maintenance, ensure AC or DC power is not applied to the system.
5. Fuse holders, fuses, and circuit breakers are not to be loaded to more than 80 percent of their ampere rating.

Attachments

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A & B DISTRIBUTION FUUSE PANEL

617 0021P, W

617 0094P, W

“Co-Location Panel”

Product Manual Part Number: 438 0016PD

Issue 21, May 2015

Engineer: T. W.

Approved: R. T.

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SECTION 1: SPECIFICATIONS

1.1 GENERAL.

The 6170021P & W "A" & "B" Distribution Fuse Panel is designed to provide -48 VDC for two (2) separate fused distribution load points. The two (2) fused load distributions are designated as "A" Distribution and "B" Distribution.

The 6170094P & W "A" & "B" Distribution Fuse Panel is the same as 6170021P & W except it has an added feature of two (2) filter capacitors.

"B" Distribution also provides ten (10) GMT type fuse distribution points.

The "A" & "B" Distribution Fuse Panel can be mounted in a 23 inch relay type rack. The fuse panel is six (6) inches in height, mounts in three (3) frame positions and consists of the following equipment:

- A. "A" Distribution fusing consists of the following:
 - 1. Front access fuseholder - holds one (1) TPS cartridge type fuse. The fuse size can range from 3 to 70 Amps.
- B. "B" Distribution fusing consists of the following:
 - 1. Front access fuseholder - holds one (1) TPS cartridge type fuse. The fuse size can range from 3 to 70 Amps.
 - 2. Front access fuseholder - holds ten (10) GMT type fuses. The fuse size can range from 1/4 to 10 Amps.
- C. Metering (Load Current)
- D. Ground Bar (Isolated) - This ground bar is common for both "A" & "B" Distribution fusing.
- E. Alarm Monitoring - Complete alarming of fuses with indicators and two (2) sets of "Form C" contacts per distribution.

1.2 OUTPUT RATINGS

1.2.1 VOLTAGE: The system provides an output voltage of -48 VDC.

1.2.2 CURRENT: The system can distribute up to a MAXIMUM of 100 Amps of -48 VDC power per distribution.

1.3 INPUT RATINGS

1.3.1 VOLTAGE: -48 VDC.

1.3.2 CURRENT: 100 Amps per side.

1.4 STANDARD FEATURES

1.4.1 INDICATORS

- A. Two (2) Fuse Alarm (FA) LEDs (Red), located below the DC ammeter, will light when the corresponding fuse in the panel is "BLOWN". The indicators are as follows:

<u>Designation</u>	<u>Indicator</u>
Fuse Alarm "A"	Red
Fuse Alarm "B"	Red

- B. Fuse Alarm (GMT FA) LED (Red), located above the GMT fuse Distribution, will light when any of the GMT type fuses are "BLOWN".

<u>Designation</u>	<u>Indicator</u>
GMT FA	Red

- 1.4.2 METERING:** Each "A" & "B" Distribution is metered through the DC Ammeter. The ammeter can be switched to display either the "A" or "B" Distribution shunt. The "A" & "B" distribution shunt sense points are also brought out to the Alarm Terminal Block, so that an external test meter (1 MV/A) could be used. These terminals are as follows:

<u>Distribution</u>	<u>Terminals</u>
"A"	A LD+, A LD-
"B"	B LD+, A LD-

1.5 ENVIRONMENTAL RATINGS

- 1.5.1 OPERATING AMBIENT TEMPERATURE RANGE:** 0°C to 50°C (+32°F to +122°F)

- 1.5.2 STORAGE TEMPERATURE:** -40°C to +85°C (-40°F to +185°F)

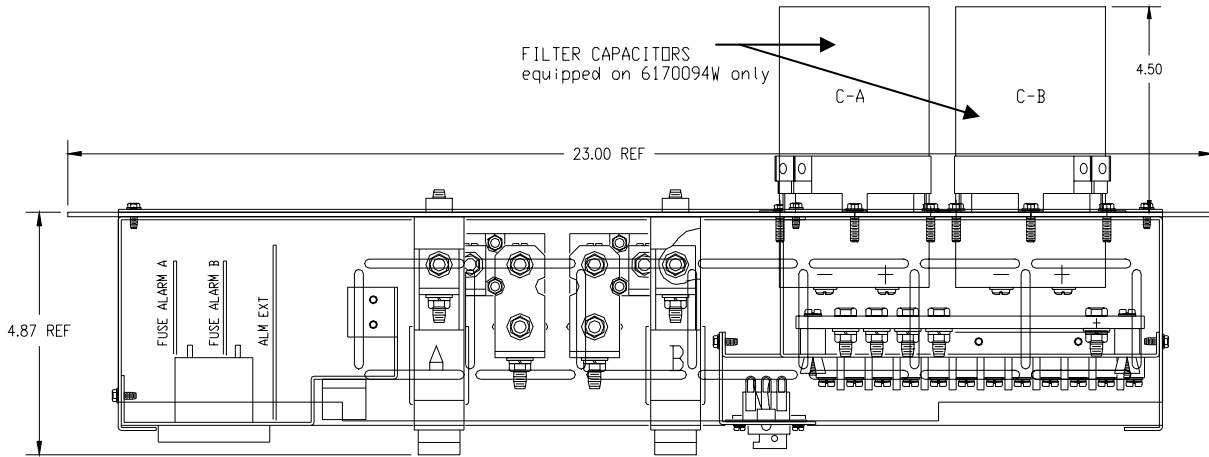
- 1.5.3 ALTITUDE:**
- | | |
|-----------------------|--------------------------------|
| Sea Level to 4800 ft: | 0°C to +50°C (+32°F to +122°F) |
| 4800 ft to 7000 ft: | 0°C to +45°C (+32°F to +113°F) |
| 7000 ft to 10,000 ft: | 0°C to +40°C (+32°F to +104°F) |

- 1.5.4 HUMIDITY:** This system is capable of operating in an ambient relative humidity range of 0 to 95%, non-condensing.

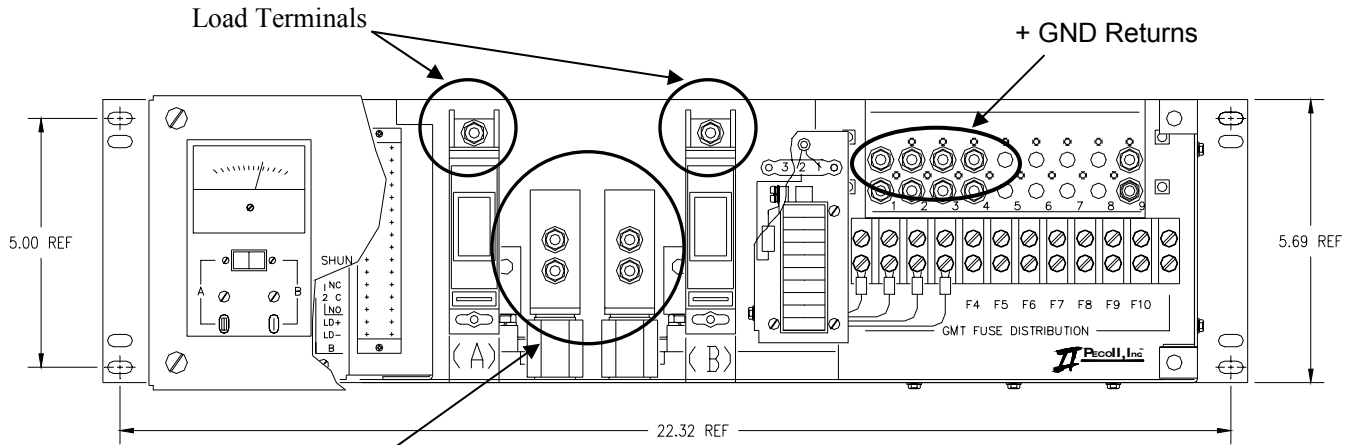
- 1.5.5 SHOCK:** This equipment, in its shipping container, withstands shock developed when one edge of the container is dropped six (6) inches while the opposite edge is resting on the ground, or is dropped two (2) inches on any surface without physical damage or degradation of the electrical performance.

- 1.5.6 VIBRATION:** This equipment, in its shipping container, withstands vibration encountered in shipping without physical damage or degradation of the electrical performance.

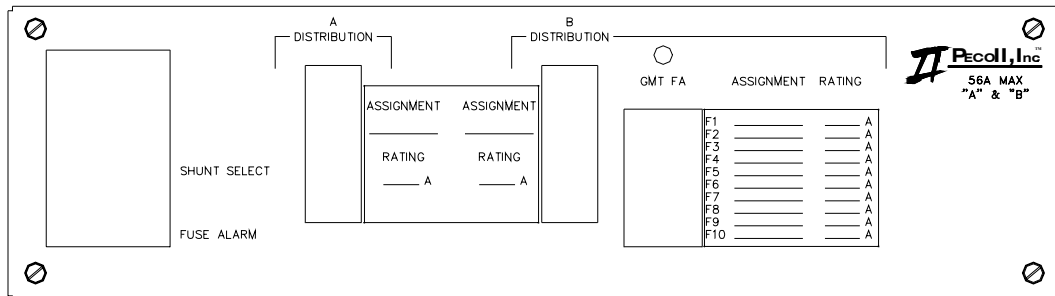
SECTION 2: DIMENSIONS



TOP VIEW



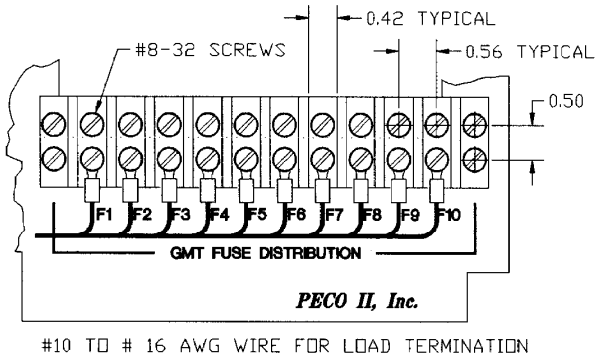
FRONT VIEW
(with cover removed)



FRONT VIEW

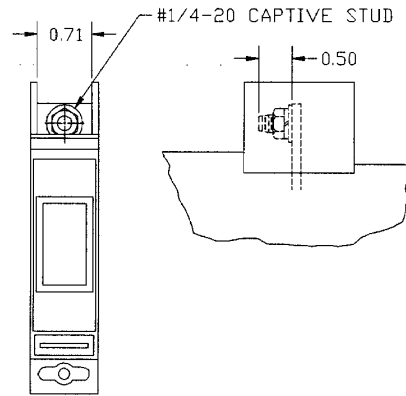
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SECTION 3: INSTALLER CONNECTIONS



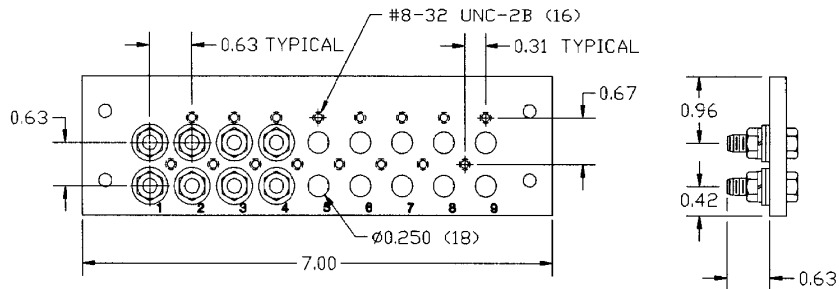
GMT FUSE DISTRIBUTION

30A TERMINAL BLOCK



#2 TO #8 AWG WIRE FOR LOAD TERMINATION
HARDWARE IS PROVIDED BY FACTORY

LOAD TERMINATIONS (FUSE ENCLOSURE)



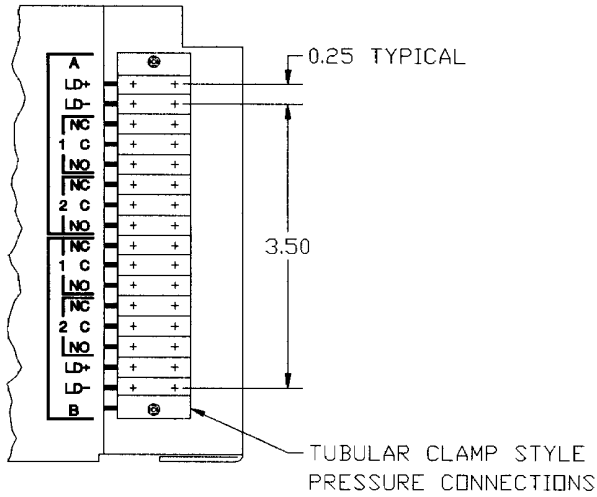
Torque 2 hole lug connections to 7.6 ft/lbs

HARDWARE SHOWN IS PROVIDED BY FACTORY

#8 TO #2 AWG TERMINATION FOR 2 HOLE LUGS
#10 TO #16 AWG TERMINATION FOR SINGLE HOLE LUGS

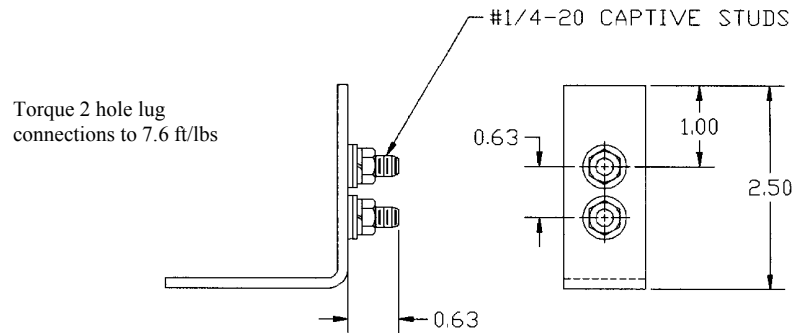
GROUND BAR

25 X 2.00 COPPER



#12 TO #30 AWG WIRE FOR ALARM TERMINATIONS

ALARM TERMINATIONS



HARDWARE SHOWN IS PROVIDED BY FACTORY
#8 TO #2 AWG TERMINATION FOR 2 HOLE LUGS

BATTERY TERMINATIONS

.13 X 1.00 COPPER

SECTION 4: INSTALLER NOTES

WARNING: Electrical Hazard. Pre-Charge BEFORE applying battery.

NOTE: Fuse panel 6170094P, 6170094W ONLY.

This panel contains electrolytic capacitors that require pre-charge BEFORE the panel can become operational.

COMPONENTS REQUIRED:

- A. Pigtail lampholder (Eagle Electric Mfg Co. #145 or equivalent).
- B. Lamp (100 Watt 120V)
 1. Remove all fuses / close all circuit breakers for both positions, A and B. Remove all GMT fuses from the unit.
 2. At the source panel, connect the pigtail lamp holder in series with the source fuse/circuit breaker terminals until the lamp extinguishes (caps charged).
 3. With the lamp still connected in series with the source fuse/circuit breaker terminals, insert the fuse or close circuit breaker.
 4. Perform steps 1 and 2 for both, positions A and B. Once both positions are complete the GMT fuses may be installed.
 5. Remove pigtail lampholder.

4.1 INSTALLER INFORMATION NOTES

It is imperative that the installer bends and secures all input and output power cables before connecting them to the busses. There should be no strain on the cable or connection point. For detailed information on securing, bending, and connecting power cables, refer to SBC TP76300 Installation Instructions, or equivalent.

4.1.1 INPUT (-48VDC)

Terminal Capacity	Terminal Type
8 to 2 Ga	2 hole crimp lug 0.25 stud on 0.625 centers

4.1.2 OUTPUT (-48VDC MAIN)

Terminal Capacity	Terminal Type
8 to 2 Ga	1 hole crimp lug, 0.25 stud

4.1.3 OUTPUT (-48VDC GMT)

Terminal Capacity	Terminal Type
16 to 10 Ga	1 hole crimp lug, #8 stud

4.1.3 ALARMS (Dry Contacts)

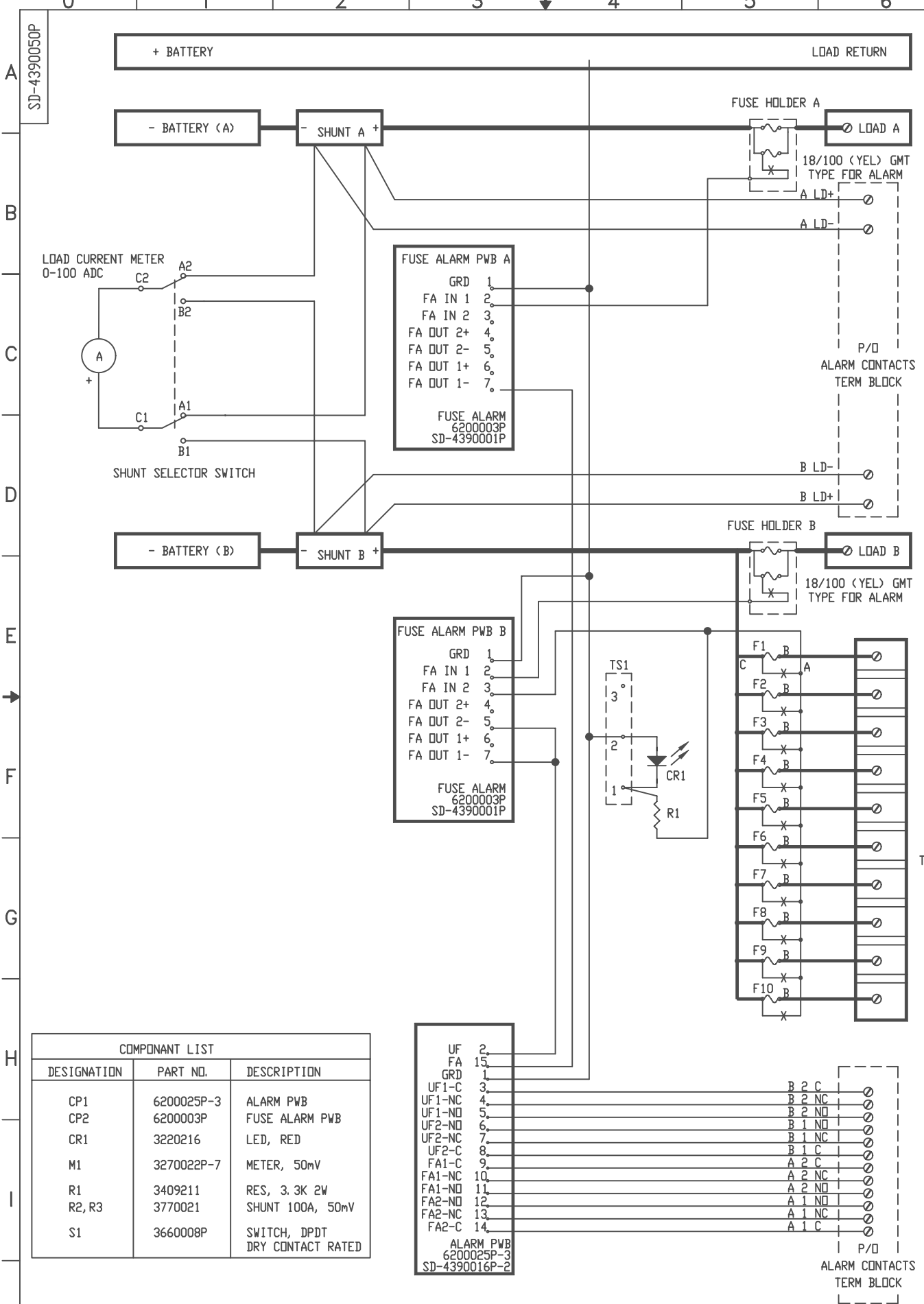
Terminal Capacity	Terminal Type
30 to 12 Ga	Solderless

4.1.4 TORQUE. The following torque requirements are for connections to the ground and battery termination bars:

Bolt/Nut Size	Torque (ft/lbs)
1/4"	7.6

4.1.5 Wire sizes are based on voltage drop considerations and National Electric Code Table 310-16 for copper wire.

SD-4390050P			
ISSUES & REVS			
DRAWN	ENG. APP.	REVISED	REV. APP.
TOW	TOW	VLD	RJL
ISSUE CHG. NO. DATE		BY	
NO. DESCRIPTION			
1	8500050P	2-13-93	BS
2	8600426P	CHG LOAD CURR TO 0-100, CHG M1 TO 3270022P-7	
		CHG R2,R3 TO 3770021	
		2-20-97	VLD
3	8603251P	CHG DESCRIPTION OF ALARM FUSE ON SCHEMATIC	
		06-16-00	EIC



COMPONENT LIST		
DESIGNATION	PART NO.	DESCRIPTION
CP1	6200025P-3	ALARM PWB
CP2	6200003P	FUSE ALARM PWB
CR1	3220216	LED, RED
M1	3270022P-7	METER, 50mV
R1	3409211	RES, 3.3K 2W
R2,R3	3770021	SHUNT 100A, 50mV
S1	3660008P	SWITCH, DPDT DRY CONTACT RATED

UF	2
FA	15
GRD	1
UF1-C	3
UF1-NC	4
UF1-NO	5
UF2-NC	6
UF2-NC	7
UF2-C	8
FA1-C	9
FA1-NC	10
FA1-NO	11
FA2-NO	12
FA2-NC	13
FA2-C	14

ALARM PWB
6200025P-3
SD-4390016P-2

B 2 C	
B 2 NC	
B 2 NO	
B 1 NC	
B 1 C	
A 2 C	
A 2 NC	
A 2 NO	
A 1 NC	
A 1 C	

P/O
ALARM CONTACTS
TERM BLOCK

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A/B DISTRIBUTION
(CO-LOCATION)
FUSE PANEL

PECO II Inc.
Galion, Ohio, U.S.A.

SD-4390050P

ISSUE
3

+ BATTERY LOAD RETURN

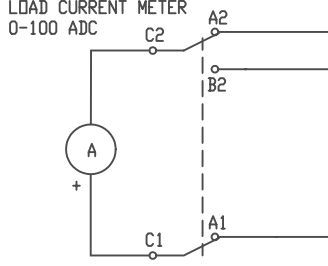
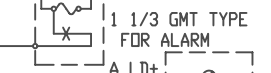
- BATTERY (A)

SHUNT A

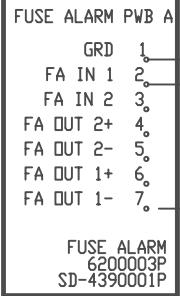


FUSE HOLDER A

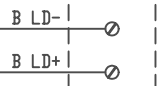
LOAD A



SHUNT SELECTOR SWITCH

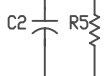


P/D ALARM CONTACTS TERM BLOCK



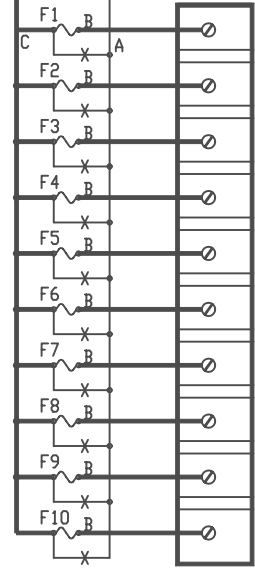
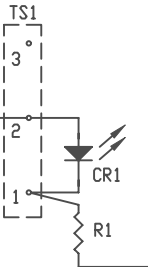
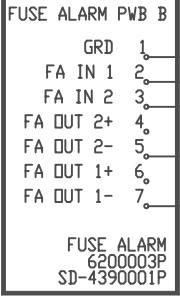
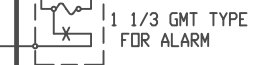
- BATTERY (B)

SHUNT B



FUSE HOLDER B

LOAD B



GMT DISTRIBUTION TO LOADS AS REQUIRED

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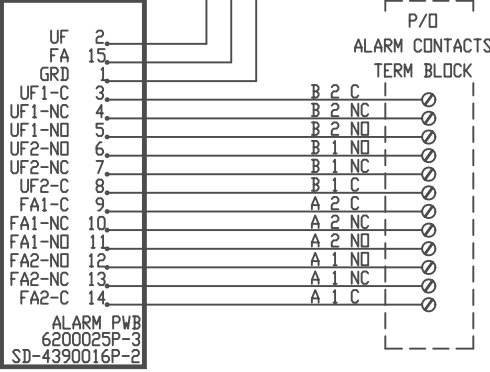
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CP2	6200003P	FUSE ALARM PWB
CR1	3220216	LED, RED
M1	3270022P-7	METER, 50mV
R1	3409211	RES, 3.3K 2W
R2, R3	3770021	SHUNT 100A, 50mV
R4, R5	3408301	700 OHM 10W
C1, C2	3042688	23K MFD 75VDC
S1	3660008P	SWITCH, DPDT DRY CONTACT RATED

X	SHOP
X	INST
X	

MANUFACTURING NOTES:

1	8500050P	ISSUE CHG. NO. DATE	BY
	DRIG. REL. 12-17-99		

SUPPORTING INFORMATION	
NO.	CATEGORY
6420129P	SYSTEM MANUAL



A/B DISTRIBUTION (CD-LOCATIONS) FUSE PANEL

PECO II Inc. Galion, Ohio, U.S.A.

A

SD-4390050P-1

ISSUE 1

SHEET A1

SD-4390050P-1

ISSUES & REVS

DRWING ENG. APPL REVISED REV. APP

NO. DESCRIPTION

1 8500050P DRIG. REL. 12-17-99 VLD