



# **A & B DISTRIBUTION FUSE PANEL**

**"CO-LOCATION PANEL"**

**-48V @ 200 Amp**

**6170085P, W**

**6170095P, W**

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## Contact Information

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Email: PE.TechSupport@ge.com

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## 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.

<b>PART NUMBER</b>	<b>DATE CODE:</b>
<b>SERIAL NUMBER</b>	<b>ECN Level: 860 _ _ _ _ P</b>

**AGENCY APPROVALS:**

## 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.

# SECTION 1: SPECIFICATION

## 1.1 GENERAL.

The **6170085P** and **6170085W** "A" & "B" Distribution Fuse Panels are designed to provide -48 VDC for two (2) 200 Amp separately fused distribution load points. The **6170095P** and **6170095W** "A" & "B" Distribution Fuse Panels are designed to provide -48 VDC for two (2) 480 Amp separately fused distribution load points. The two (2) fused load distributions are designated as "A" Distribution and "B" Distribution.

The "A & B" Distribution Fuse Panel can be mounted in a 23 inch relay type rack. The fuse panel is 14" inches in height, mounts in eight (8) frame positions, and consists of the following equipment:

- A. "A" Distribution fusing consists of the following:
  - 1. Fuse holder (front access) - Holds one (1) TPL cartridge type fuse. The fuse size can range from 70 to 600 Amps, depending on the part number of the Panel.
- B. "B" Distribution fusing consists of the following:
  - 1. Fuse holder (front access) - Holds one (1) TPL cartridge type fuse. The fuse size can range from 70 to 600 Amps, depending on the part number of the Panel.
- C. Metering
  - 1. Current Meter & Select switch for "A" & "B" Distribution.
  - 2. Voltage Meter & Select switch for "A" & "B" Distribution.
- 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. Voltage
    - a. Fuse Holder (front access) - Holds one (1) 0.18A GMT type fuse.
    - b. Fuse Alarm LED.
  - 2. Current
    - a. Fuse Holder (front access) - Holds one (1) 0.18A GMT type fuse.
    - b. Fuse Alarm LED.

## 1.2 OUTPUT RATINGS

- A. VOLTAGE: The system provides an output voltage of -48 VDC.
- B. CURRENT: The 6170085P and 6170085W can distribute up to 200 Amps of -48 VDC power per distribution. The 6170095P and 6170095W can distribute up to 480 Amps of -48 VDC power per distribution.
- C. FUSES: TPL type fuses are used in the Distribution Fuse Panel. The following is a recommended list of fuses that can be used:

Manual 1.2 **OUTPUT RATINGS - cont.**

<b>GE Part No.</b>	<b>Ampere Rating</b>
3150002P-1	70
3150002P-2	80
3150002P-3	90
3150002P-4	100
3150002P-5	125
3150002P-7	150
3150002P-8	175
3150002P-9	200
3150002P-10	225
3150002P-11	250
3150002P-13	300
3150002P-14	350
3150002P-15	400
3150002P-16	450
3150002P-17	500
3150002P-18	600

**1.3 INPUT RATINGS**

- A. VOLTAGE: -48 VDC.
- B. CURRENT: The 6170085P and 6170085W provide 200 Amps per side, while the 6170095P and 6170095W provide 480 Amps per side.

**1.4 STANDARD FEATURES**

- A. INDICATORS: Two (2) Fuse Alarm (FA) LEDs (Red), located near each Distribution Fuse, will light when the corresponding fuse, and Alarm Fuse (0.18 Amp) in the panel are "BLOWN". The indicators are as follows:

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

- B. METERING: Each "A" & "B" Distribution current is metered through the DC Ammeter. The ammeter can be switched to display either the "A" or "B" Distribution shunt. Each "A" & "B" Distribution Voltage is metered for each load. The Voltmeter can be switched to display either "A" or "B" Distribution Load Voltage.

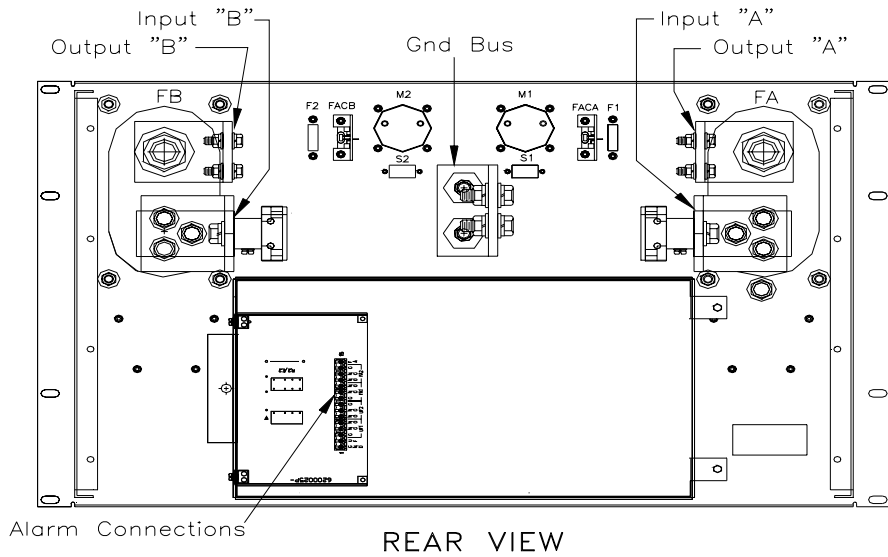
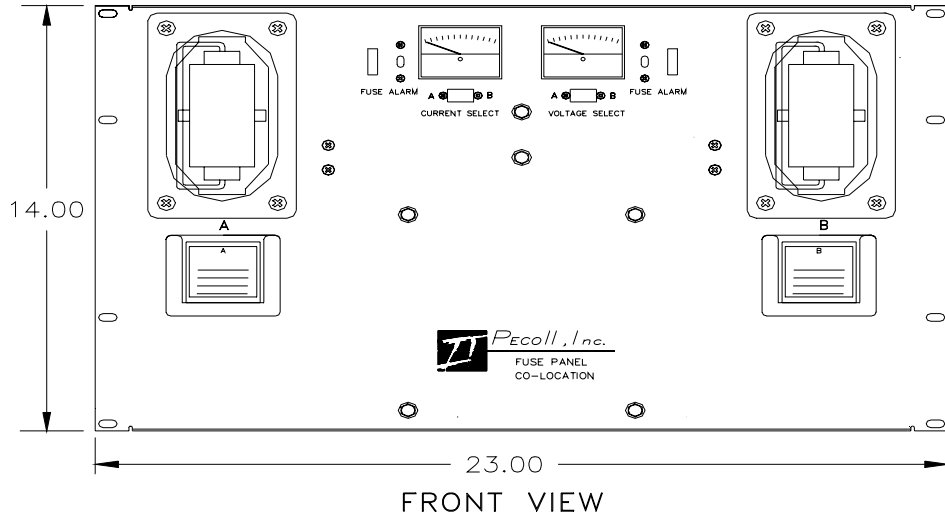


## 1.5 ENVIRONMENTAL RATINGS

- A. OPERATING AMBIENT TEMPERATURE RANGE: 0°C to 40°C (+32°F to +104°F)
- B. STORAGE TEMPERATURE: -40°C to +85°C (-40°F to +185°F)
- C. 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)
- D. HUMIDITY: This system is capable of operating in an ambient relative humidity range of 0 to 95%, non-condensing.
- E. SHOCK: This equipment, in its shipping container, withstands the shock developed when one edge of the container is dropped six (6) inches while the opposite edge is resting on the ground. It will withstand a drop of two (2) inches on any surface without physical damage or degradation of the electrical performance.
- F. VIBRATION: This equipment, in its shipping container, withstands vibration encountered in shipping without physical damage or degradation of the electrical performance.

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# SECTION 2: DIMENSIONS



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# SECTION 3: INSTALLERS CONNECTIONS

## 3.1 INSTALLATION NOTES

This panel contains electrolytic capacitors that require pre-charge before the panel can become operational. Components Required:

- A. Pigtail lamp holder (Eagle Electric Mfg Co. #145 or equivalent).
- B. Lamp (100 watt 120v).

The following method is preferred:

- A. At the source panel, connect pigtail lamp holder across source fuse/circuit breaker terminals until the lamp extinguishes (caps charged).
- B. Insert fuse or close circuit breaker.
- C. Remove pigtail lamp holder.

**NOTE:** Installation of the power equipment should be in areas accessible only to qualified personnel. All units should be secured before operating.

**NOTE:** Insure proper input voltage.

## 3.2 INSTALLATION

All connections should be made in accordance with the wiring diagram 4390598SD. 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.

The following is a brief summary of the connections to be made:

### A. INPUT "A"

Ga	From "A" BATTERY SOURCE	To DISTRIBUTION PANEL
As Required	(-) Battery	Input Bus A, (-) Battery
As Required	(+) Ground	Ground Bus, (+) Ground

### B. INPUT "B"

Ga	From "B" BATTERY SOURCE	To DISTRIBUTION PANEL
As Required	(-) Battery	Input Bus B, (-) Battery
As Required	(+) Ground	Ground Bus, (+) Ground

Manual 3.2 **INSTALLATION - cont.**

C. OUTPUT "A"

Ga	From <b>DISTRIBUTION PANEL</b>	To <b>LOADS</b>
As Required	Output Bus "A", (-) Battery	(-) Battery
As Required	Ground Bus, (+) Ground	(+) Ground

D. OUTPUT "B"

Ga	From <b>DISTRIBUTION PANEL</b>	To <b>LOADS</b>
As Required	Output Bus "B", (-) Battery	(-) Battery
As Required	Ground Bus, (+) Ground	(+) Ground

E. OFFICE ALARMS "A"

Ga	From <b>DISTRIBUTION PANEL Alarm Ext PWB</b>	To <b>OFFICE ALARMS (As required)</b>
As Required	TB-9 C TB-10 NC TB-11 NO TB-12 NO TB-13 NC TB-14 C	Fuse Alarm "A" Load (As Required)

F. OFFICE ALARMS "B"

Ga	From <b>DISTRIBUTION PANEL Alarm Ext PWB</b>	To <b>OFFICE ALARMS (As required)</b>
As Required	TB-3 C TB-4 NC TB-5 NO TB-6 NO TB-7 NC TB-8 C	Fuse Alarm "B" Load (As Required)

### 3.3 TERMINAL TYPES

A. INPUT (-48 VDC)

Terminal Type	
2 Hole Crimp Lug,	0.38" on 1.00" centers

B. OUTPUT (-48 VDC MAIN)

Terminal Type	
2 Hole Crimp Lug,	0.38" on 1.00" centers

C. ALARMS (Dry Contacts)

Terminal Capacity	Terminal Type
30 to 16 GA	Solderless

### 3.4 TORQUE REQUIREMENTS

A. The following torque requirements are for connections to the ground, input, and output busses:

TORQUE	
Bolt/Nut Size	Torque (ft/lbs)
3/8"	27

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# Attachments

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MANUFACTURING NOTES:

SHOP	INST
X	X

4390598SD			
ISSUES & REVS			
DRAWN	ENG. APP	REVISED	REV. APP
DDD			
ISSUE NO.	CHG. NO.	DATE	BY
1	8500050P	DRIG. REL.	06-16-99 VLD

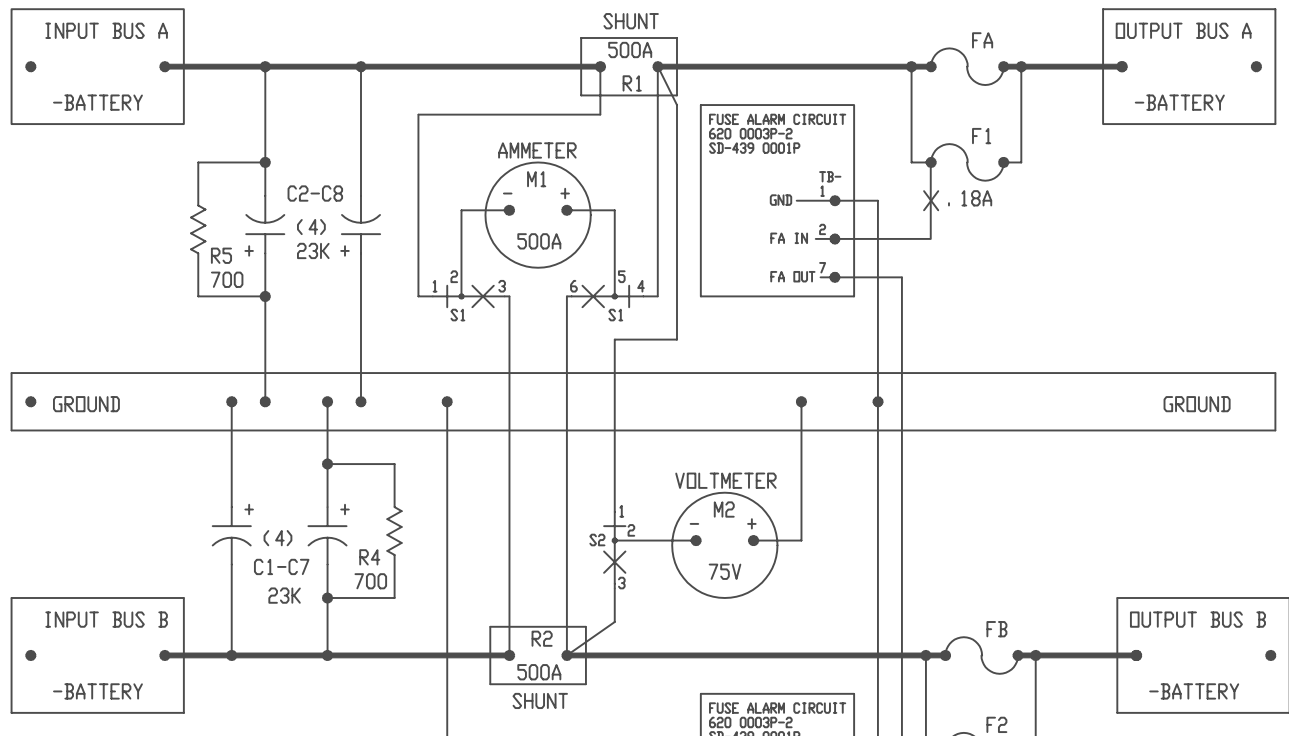
A  
B  
C  
D  
E  
F  
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H

A  
B  
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FROM 'A' BATTERY POWER SOURCE

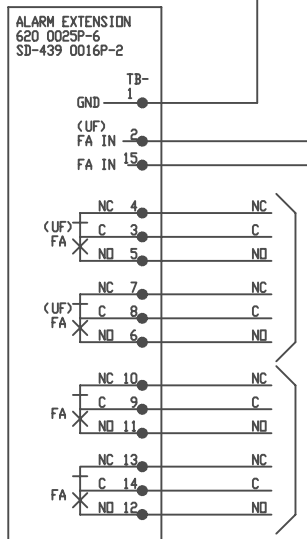
FROM 'B' BATTERY POWER SOURCE

TO 'A' AND 'B' LOADS AS REQUIRED



COMPONENTS

CAPACITOR			
C1-8	304 2688	23K MFD	75VDC
FUSE			
F1, F2	315 0437	.18A	125VAC
AMP METER			
M1	327 0027P-11		500 ADC
VOLT METER			
M2	327 0032P		75 VDC
RESISTOR			
R4, R5	340 8301	700 OHM	10W
SHUNT			
R1, R2	377 0046	500A	50MV
SWITCH			
S1, S2	366 0008P		DPDT
PRINTED WIRING BOARDS			
FUSE ALARM CIRCUIT			
ALARM EXTENSION			
		620 0003P-2	
		620 0025P-6	



FUSE ALARM 'B' TO EQUIPMENT AS REQD.

FUSE ALARM 'A' TO EQUIPMENT AS REQD.

NOTE: RELAY CONTACTS ARE SHOWN IN AN UNPOWERED (NORMAL) STATE. THIS RELAY IS ENERGIZED IN AN ALARM CONDITION.

SUPPORTING INFORMATION

NO.	CATEGORY
438 0144PD	SYSTEM MANUAL

ISSUE 1

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A/B DISTRIBUTION  
(CO-LOCATION)  
FUSE PANEL

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

A

4390598SD

SHEET A1

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9