Altronix® SMP7CTX Series Installation Guide

Overview:

SMP7CTX Series units convert a 115VAC / 60Hz input into a regulated 12VDC or 24VDC output up to 6A of continuous load current (see specifications).

SMP7CTX Series Power Supply Configuration Reference Chart:

Altronix Model Number	Accessory Power Distribution Module(s)	Number of Outputs	Fused Outputs	PTC Outputs	Individual Output Rating (A)	Supervised	115VAC, 60Hz Input Current (A)	12/24VDC Total Output Current (A)
SMP7CTX	-		-	-		-		
SMP7PMCTX	-	1	-	-	6A			
SMP7PMCTXX	-		-	-				
SMP7PMP4	PD4	4	✓	-	3.5A	✓	2.5A	6A
SMP7PMP4CB	PD4CB		-	✓	2.5A			
SMP7PMP8	PD8	8	✓	-	3.5A			
SMP7PMP8CB	PD8CB		-	✓	2.5A			
SMP7PMP16	PD16W	16	✓	-	3.5A			
SMP7PMP16CB	PD16WCB		-	✓	2.5A			

For a red enclosure add an "R" suffix to the part #, e.g. SMP7CTXR

Specifications:

Battery Backup:
- Built-in charger for sealed lead acid or gel type batteries.
- Automatic switch over to stand-by battery when AC fails (zero voltage drop).
- Maximum charge current 0.7A.

Features:
- AC input and DC output LED indicators.
- Short circuit and thermal overload protection.

Features (cont'd):
- Complete with power supply, power distribution module (when applicable), enclosure, cam lock, and battery leads.
- Power On/Off switch.

Supervised Models Only:
- AC fail supervision (form "C" contacts).
- Battery presence and low battery supervision (form "C" contacts).

Power Supply Voltage Output Specifications:*

Output VDC	Switch Position	Max. Load DC
12VDC	SW1 - ON *(Fig. 4b, pg. 3)*	6A
24VDC	SW1 - OFF *(Fig. 4b, pg. 3)*	6A

*Specified at 25° C ambient.

Installation Instructions:

The unit should be installed in accordance with the National Electrical Code and all applicable Local Regulations.

1. Mount unit in the desired location. Mark and predrill holes in the wall to line up with the top two keyholes in the enclosure. Install two upper fasteners and screws in the wall with the screw heads protruding. Place the enclosure's upper keyholes over the two upper screws; level and secure. Mark the position of the lower two holes. Remove the enclosure. Drill the lower holes and install the three fasteners. Place the enclosure's upper keyholes over the two upper screws. Install the two lower screws and make sure to tighten all screws *(Enclosure Dimensions, pg. 4)*. Secure enclosure to earth ground.

2. Set SW1 on the power supply board to the desired DC output voltage *(Power Supply Voltage Output Specification Chart)*.

3. Connect AC power to the terminals marked [L & N], *(Fig. 4, pg. 3)*.
   Keep power-limited wiring separate from non power-limited wiring (115VAC / 60Hz Input, Battery Wires). Minimum 0.25" spacing must be provided.
   CAUTION: Do not touch exposed metal parts. Shut branch circuit power before installing or servicing equipment. There are no user serviceable parts inside. Refer installation and servicing to qualified service personnel.

4. Measure output voltage before connecting devices. This helps avoiding potential damage.

5. Connect devices to be powered:
   a. For Power Supply Board: connect to the terminals marked [– DC +].
   b. For Power Distribution Module(s): connect devices to be powered to the terminal pairs 1 to 4 marked [1P & 1N] through [4P & 4N] *(Fig. 1, pg. 2)* on PD4/CB board, terminal pairs 1 to 8 marked

[1P & 1N] through [8P & 8N] on PD8/CB *(Fig. 2, pg. 2)* or terminal pairs 1 to 16 marked
[1P & 1N] through [16P & 16N] on PD16W/CB *(Fig. 3, pg. 3),* carefully observing correct polarity.
*Note: Power switch is used to disconnect the L (HOT) terminal from the rest of the board.
When servicing the unit, AC mains should be removed.
6. When using stand-by batteries, they must be lead acid or gel type. Connect battery to the terminals marked [– BAT +] (battery leads included). Use two (2) 12VDC batteries connected in series for 24VDC operation *(Fig. 4, pg. 3).*
Note: When batteries are not used, a loss of AC will result in the loss of output voltage.
7. Connect appropriate signaling notification devices to the AC Fail & Low Bat supervisory relay outputs marked [NC, C, NO] (supervised models only) *(Fig. 4a, pg. 3).*

LED Diagnostics:

Power Supply Board

Red (DC)	Green (AC)	Power Supply Status
ON	ON	Normal operating condition.
ON	OFF	Loss of AC. Stand-by battery supplying power.
OFF	ON	No DC output.
OFF	OFF	Loss of AC. Discharged or no stand-by battery. No DC output.

Power Distribution Module

Green	Power Distribution Module Status
ON	Normal operating condition.

Terminal Identification:

Power Supply Board

Terminal Legend	Function/Description
L, G, N	Connect 115VAC to these terminals: L to Hot, N to Neutral.
– DC +	12VDC / 24VDC @ 6A continuous output.
AC FAIL NC, C, NO	Used to notify loss of AC power, e.g. connect to audible device or alarm panel. Relay normally energized when AC power is present. Contact rating 1A @ 120VAC / 28VDC.
Low Battery NC, C, NO	Used to indicate low battery condition, e.g. connect to alarm panel. Relay normally energized when DC power is present. Contact rating 1A @ 120VAC / 28VDC. Low battery threshold: 12VDC output threshold set @ approximately 10.5VDC, 24VDC output threshold set @ approximately 21VDC.
– BAT +	Stand-by battery connections. Maximum charge rate 0.7A.

Power Distribution Module

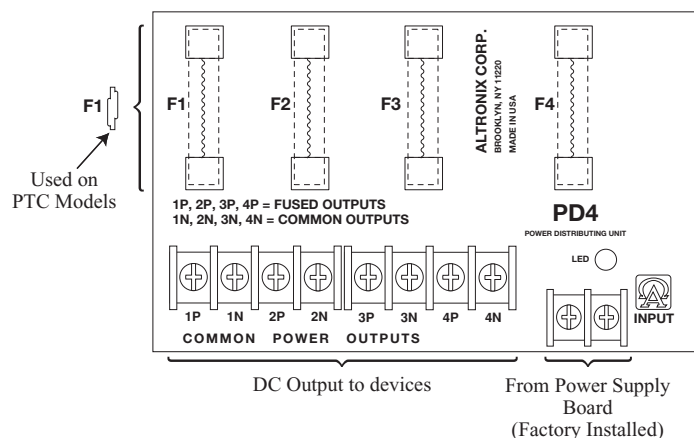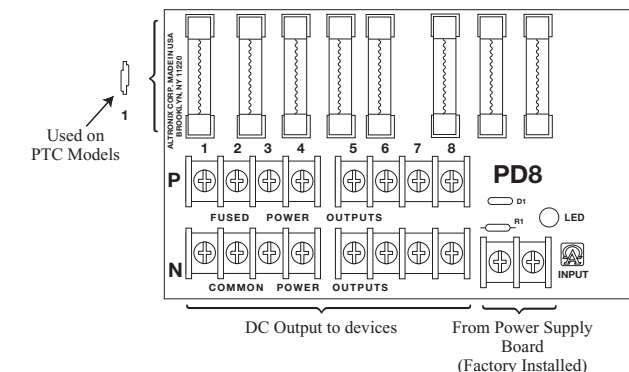| Terminal Legend			Function/Description
PD4/PD4CB	PD8/PD8CB	PD16W/PD16WCB	
1P to 4P	1P to 8P	1P to 16P	Positive DC power outputs
1N to 4N	1N to 8N	1N to 16N	Negative DC power outputs

Power Distribution Module(s):

Fig. 1

Fig. 2

SMP7CTX Series

Power Distribution Module(s):

Fig. 3

DC Output to devices

common outputs

protected outputs

N
P

From Power Supply Board (Factory Installed)

XFMR Input   S P N N

Used on PTC Models

For continuous protection against risk of fire replace fuses with same type and rating.

3.5A 250V

Fig. 4

CAUTION: De-energize unit prior to servicing. For continued protection against fire hazard replace fuse with the same type and rating.
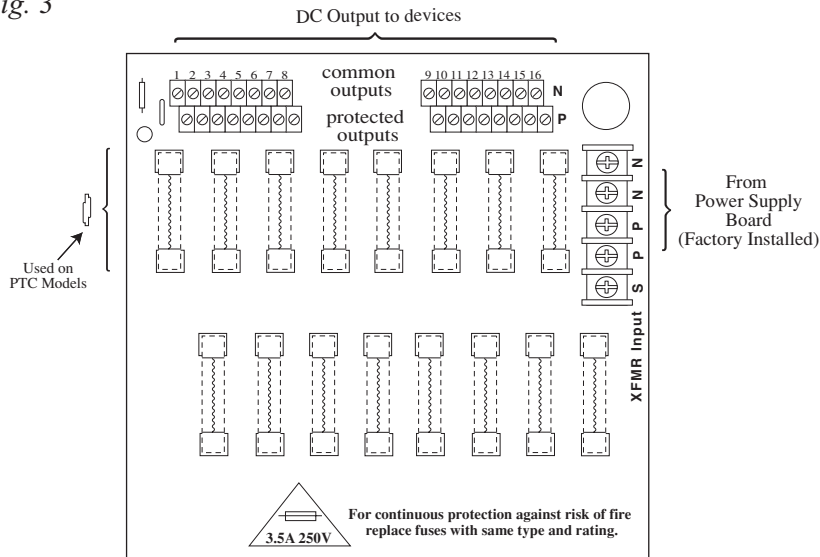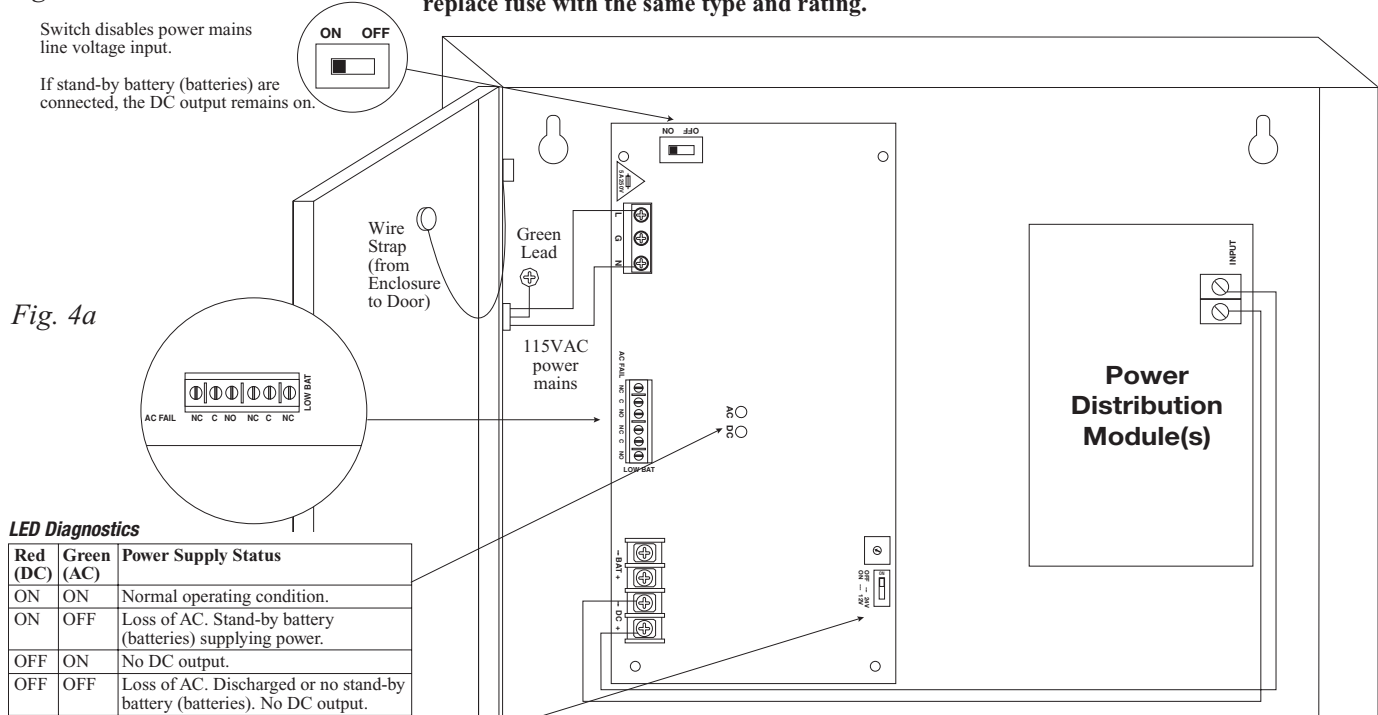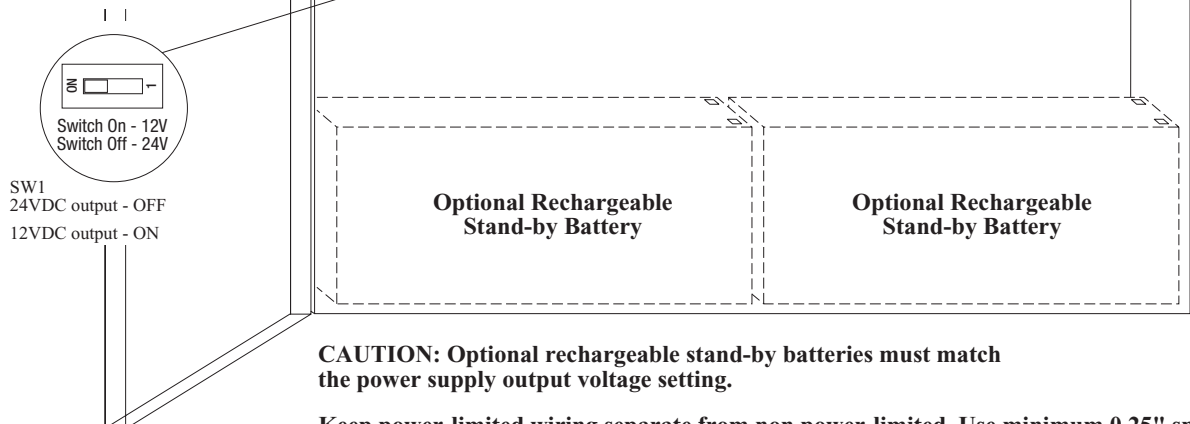
Switch disables power mains line voltage input.

If stand-by battery (batteries) are connected, the DC output remains on.

ON   OFF

Wire Strap (from Enclosure to Door)

Green Lead

115VAC power mains

AC
DC

Power Distribution Module(s)

INPUT

Fig. 4a

AC FAIL   NC   C   NO   NC   C   NC   LOW BAT

LED Diagnostics

Red (DC)	Green (AC)	Power Supply Status
ON	ON	Normal operating condition.
ON	OFF	Loss of AC. Stand-by battery (batteries) supplying power.
OFF	ON	No DC output.
OFF	OFF	Loss of AC. Discharged or no stand-by battery (batteries). No DC output.

Fig. 4b

ON

Switch On - 12V
Switch Off - 24V

SW1
24VDC output - OFF
12VDC output - ON

Optional Rechargeable Stand-by Battery

Optional Rechargeable Stand-by Battery

CAUTION: Optional rechargeable stand-by batteries must match the power supply output voltage setting.

Keep power-limited wiring separate from non power-limited. Use minimum 0.25" spacing.

Enclosure Dimensions:
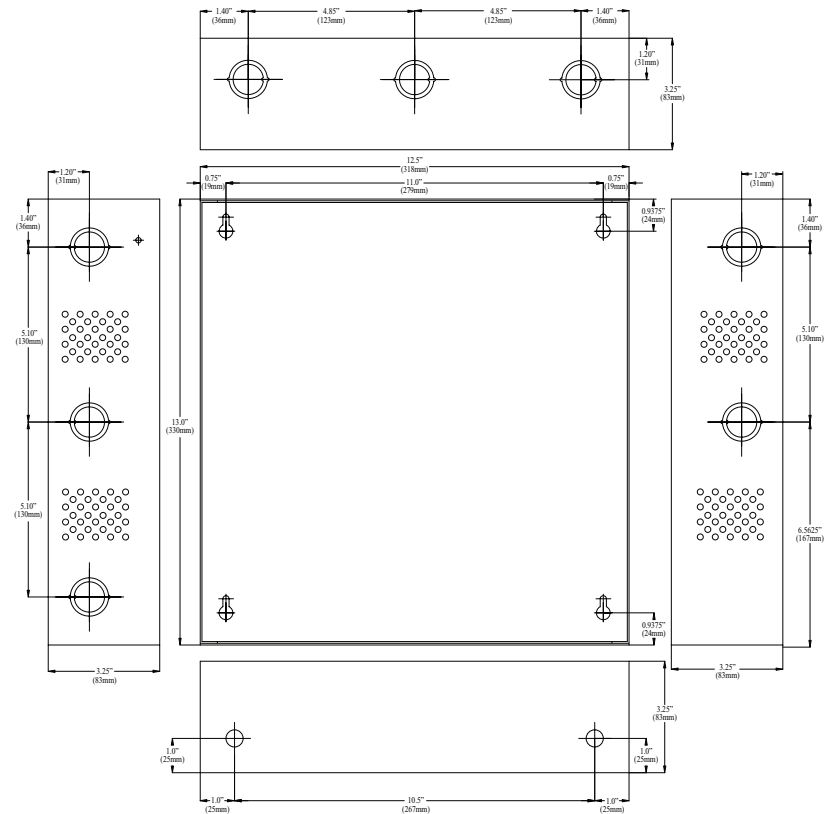
- *SMP7CTX*
- *SMP7PMCTX*
- *SMP7PMP4*
- *SMP7PMP4CB*
- *SMP7PMP8*
- *SMP7PMP8CB*
- *SMP7PMP16*
- *SMP7PMP16CB*

13.5" x 13" x 3.25"
(342.9mm x 330.2mm x 82.55mm)
Enclosure accommodates
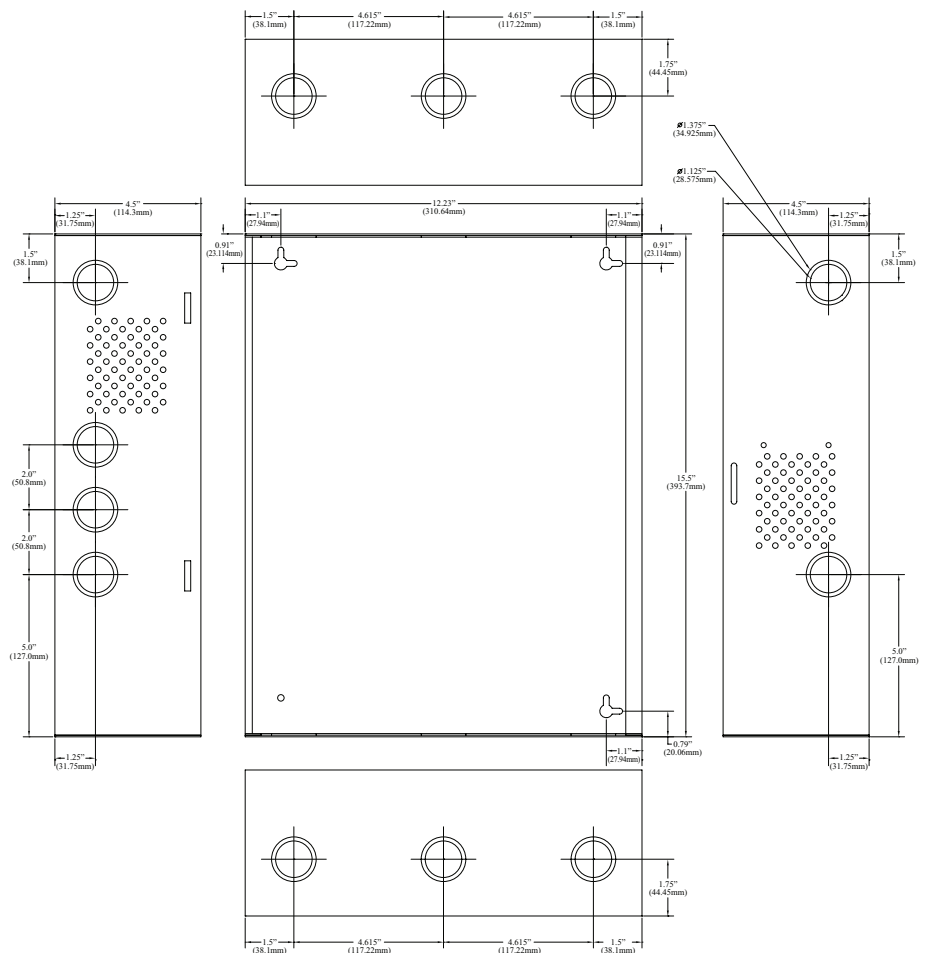up to two (2) 12VDC/7AH batteries.

Enclosure Dimensions:

- *SMP7PMCTXX*

15.5" x 12" x 4.5"
(393.7mm x 304.8mm x 114.3mm)
Enclosure accommodates up to
two (2) 12VDC/12AH batteries.

MEMBER
SMP7CTX Series