



DC CCTV Power Supplies

Installation Guide

Models Include:

Sav4D

- 12VDC @ 5 amp
- Four (4) Class 2 Rated PTC Protected Power-Limited Outputs.

Sav9D

- 12VDC @ 5 amp
- Nine (9) Class 2 Rated PTC Protected Power-Limited Outputs.

Sav18D

- 12VDC @ 5 amp
- Eighteen (18) Class 2 Rated PTC Protected Power-Limited Outputs.

Sav182D

- 12VDC @ 11 amp
- Eighteen (18) Class 2 Rated PTC Protected Power-Limited Outputs.

Sav36D

- 12VDC @ 11 amp
- Thirty-Six (36) Class 2 Rated PTC Protected Power-Limited Outputs



Rev. 070709



More than just power.™

Overview:

Altronix Sav Power Supplies provide 12VDC distributed via four (4), nine (9), eighteen (18), thirty-six (36) Class 2 Rated PTC protected power-limited outputs for powering Surveillance Cameras and other 12VDC devices.

Sav Reference Chart:

Altronix Model Number	Total Output Current (Power)	Output Voltage	Number of Class 2 Rated PTC Protected Power-Limited Outputs	Output Current (max per output)	115VAC 60Hz Input Current	230VAC 50Hz Input Current	Agency Listings	UL Listings and File Numbers
Sav4D	5 amp	12VDC	4	2.5 amp*	1.5 amp	0.75 amp		UL Listed for Commercial CCTV Equipment (UL 2044). CUL Listed - CAN/CSA C22.2 No. 1-04, Audio, Video and Similar Electronic Equipment.
Sav9D	5 amp	12VDC	9	2.5 amp*	1.5 amp	0.75 amp		
Sav18D	5 amp	12VDC	18	2.5 amp*	1.5 amp	0.75 amp		
Sav182D	11 amp	12VDC	18	2.5 amp*	3 amp	1.5 amp		
Sav36D	11 amp	12VDC	36	2.5 amp*	3 amp	1.5 amp		

*Not to exceed total output current.

230VAC/50Hz operation is intended for use outside of the North American Markets only.

Specifications:

Input:

- 115VAC 60Hz or 230VAC 50Hz.

Output:

- 12VDC outputs.
(1.2 amp per device, 2.5 amp max.).
- four (4), nine (9), eighteen (18) or thirty-six (36) Class 2 Rated PTC protected power-limited outputs
- Filtered and electronically regulated outputs.
- Short circuit and thermal overload protection.

Features:

- Four (4) power LEDs.
- Power ON/OFF switch.

Features (cont'd):

- Field installable 3-wire line cord with integral strain relief.
- Unit maintains camera synchronization.
- Ease of installation saves time and eliminates costly labor.

Enclosure Dimensions (H x W x D approx.):

- **Sav4D, Sav9D and Sav18D:**
8.5" x 7.5" x 3.5" (215.9mm x 190.5mm x 88.9mm).
- **Sav182D and Sav36D:**
13.5" x 13" x 3.25" (342.9mm x 330.2mm x 82.55mm).

Installation Instructions:

This installation should be made by qualified service personnel and should conform to all local codes and in accordance with the National Electrical Code. Product is intended for indoor use only.

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 two 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, pgs. 11-12*).
2. SAV4D, SAV9D and SAV18D:
Connect unswitched AC power 115VAC, 60 Hz / 230VAC, 50 Hz to the removable terminals marked [L, G, N] (*Fig. 1, pg. 2*).

SAV182D and SAV36D:

Connect unswitched AC power 115VAC, 60 Hz / 230VAC, 50 Hz to black and white flying leads, which are factory installed. Connect main incoming ground to the provided green grounding conductor lead.

To install 3-wire line cord with integral strain relief (supplied) refer to pages 9 and 10.

3. Unit is factory set at 12VDC. To adjust output voltage use the trimpot (*Fig. 2a pg. 4, 3a pg. 5, 4a pg. 6, 5a pg. 7, 6a, pg. 8*) on the power supply board(s), connect digital volt meter to the terminals marked [OUT1 to OUT18] and slowly

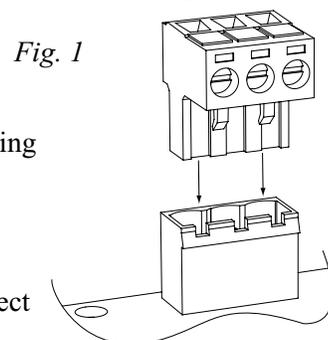


Fig. 1

turn trimpot clockwise to increase voltage or counter clockwise to decrease voltage.

Note: Voltage will be the same for all outputs.

4. Connect cameras to be powered to the terminals marked [OUT1 through OUT4 (Sav4D)] (Fig. 2, pg. 4), [OUT1 through OUT9 (Sav9D)] (Fig. 3, pg. 5), [OUT1 through OUT18 (Sav18D)] (Fig. 4, pg. 6), [OUT1 through OUT9 on each power supply board (Sav182D)] (Fig. 5, pg. 7), [OUT1 through OUT18 on each power supply board (Sav36D)] (Fig. 6, pg. 8), carefully observing correct polarity.
5. Upon completion of wiring, secure enclosure door with screws (supplied).

Caution: Equipment to be installed/serviced by authorized/trained personnel only and should conform to all local codes and in accordance with the National Electrical Code. Shut branch circuit power before installing/servicing equipment.

WARNING: To reduce the risk of fire or electric shock, do not expose the unit to rain or moisture. Use 75°C or higher rated UL insulated wiring for connecting the unit to the mains.

Maintenance:

Unit should be tested at least once a year for the proper operation as follows:

Output Voltage Test: Under normal load conditions, the DC output voltage should be checked for proper voltage level.

Terminal Identification:

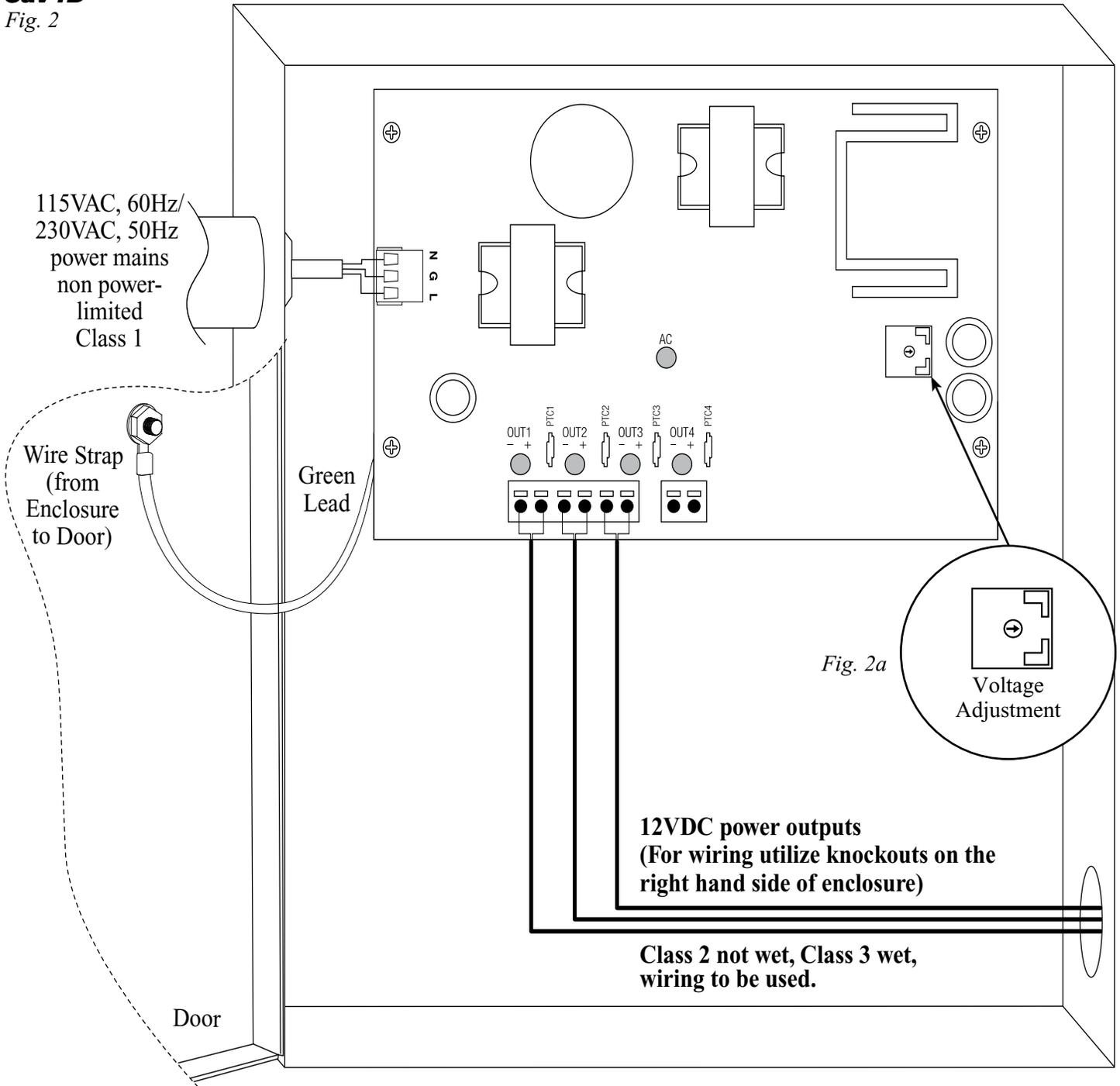
Model	Terminal Legend	Description
All	L, G, N	115VAC, 60 Hz / 230VAC, 50 Hz Input
Sav4D	OUT1 (-, +) through OUT4 (-, +)	12VDC power output.
Sav9D	OUT1 (-, +) through OUT9 (-, +)	
Sav18D	OUT1 (-, +) through OUT18 (-, +)	
Sav182D	OUT1 (-, +) through OUT9 (-, +) (on both power supply boards)	
Sav36D	OUT1 (-, +) through OUT18 (-, +) (on both power supply boards)	

LED Identification:

Model	LED	ON	OFF
All	AC	Normal operating condition.	Loss of AC, No DC output
Sav4D	OUT1 through OUT4	Normal operating condition.	No Power Output.
Sav9D	OUT1 through OUT9		
Sav18D	OUT1 through OUT18		
Sav182D	OUT1 through OUT9 (on both power supply boards)		
Sav36D	OUT1 through OUT18 (on both power supply boards)		

Sav4D

Fig. 2



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



The lightning flash with arrow head symbol within an equilateral triangle is intended to alert the user to the presence of an insulated DANGEROUS VOLTAGE within the product's enclosure that may be of sufficient magnitude to constitute an electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: To reduce the risk of electric shock do not open enclosure. There are no user serviceable parts inside. Refer servicing to qualified service personnel.

Sav9D

Fig. 3

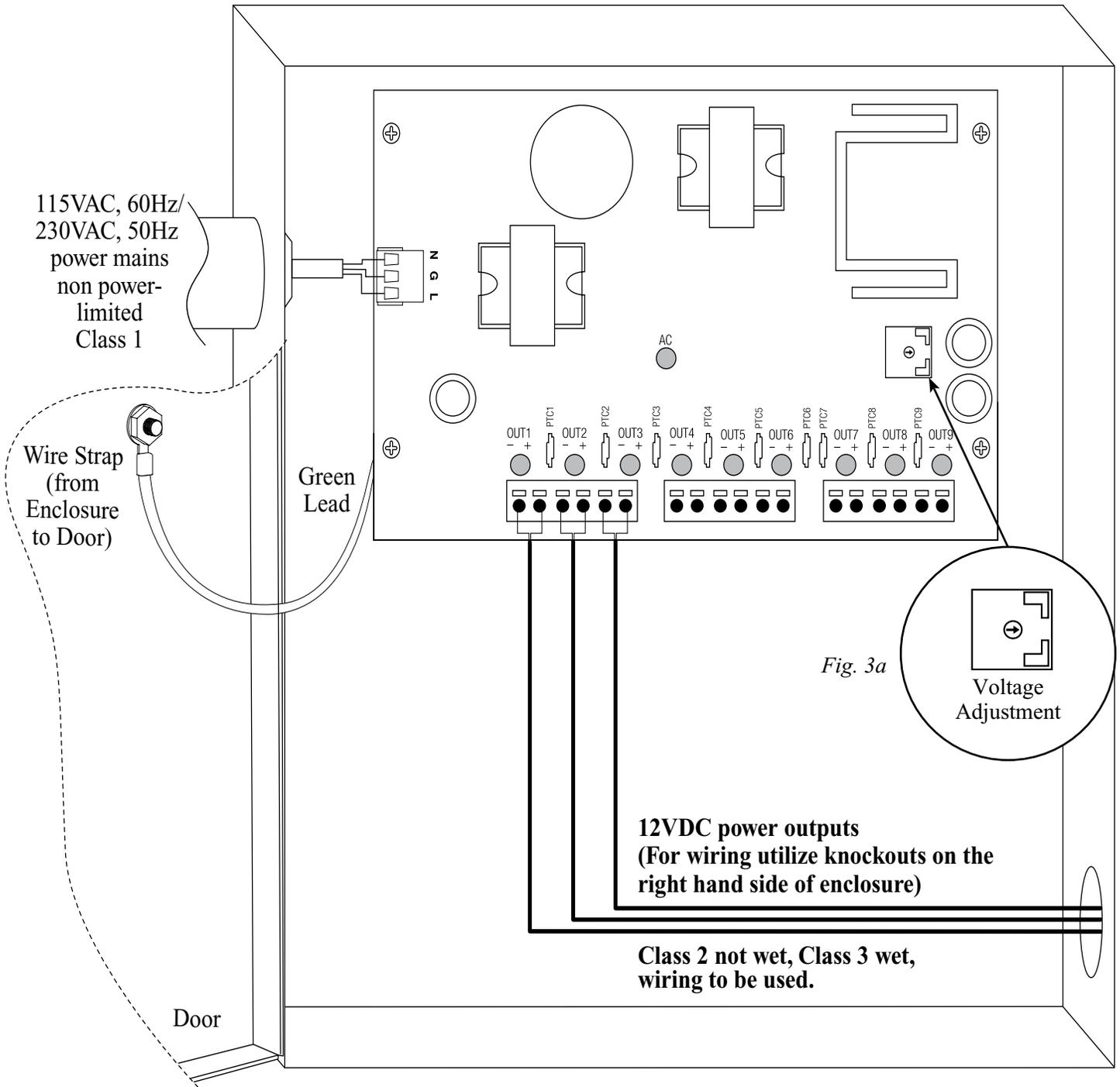
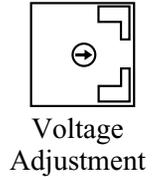


Fig. 3a



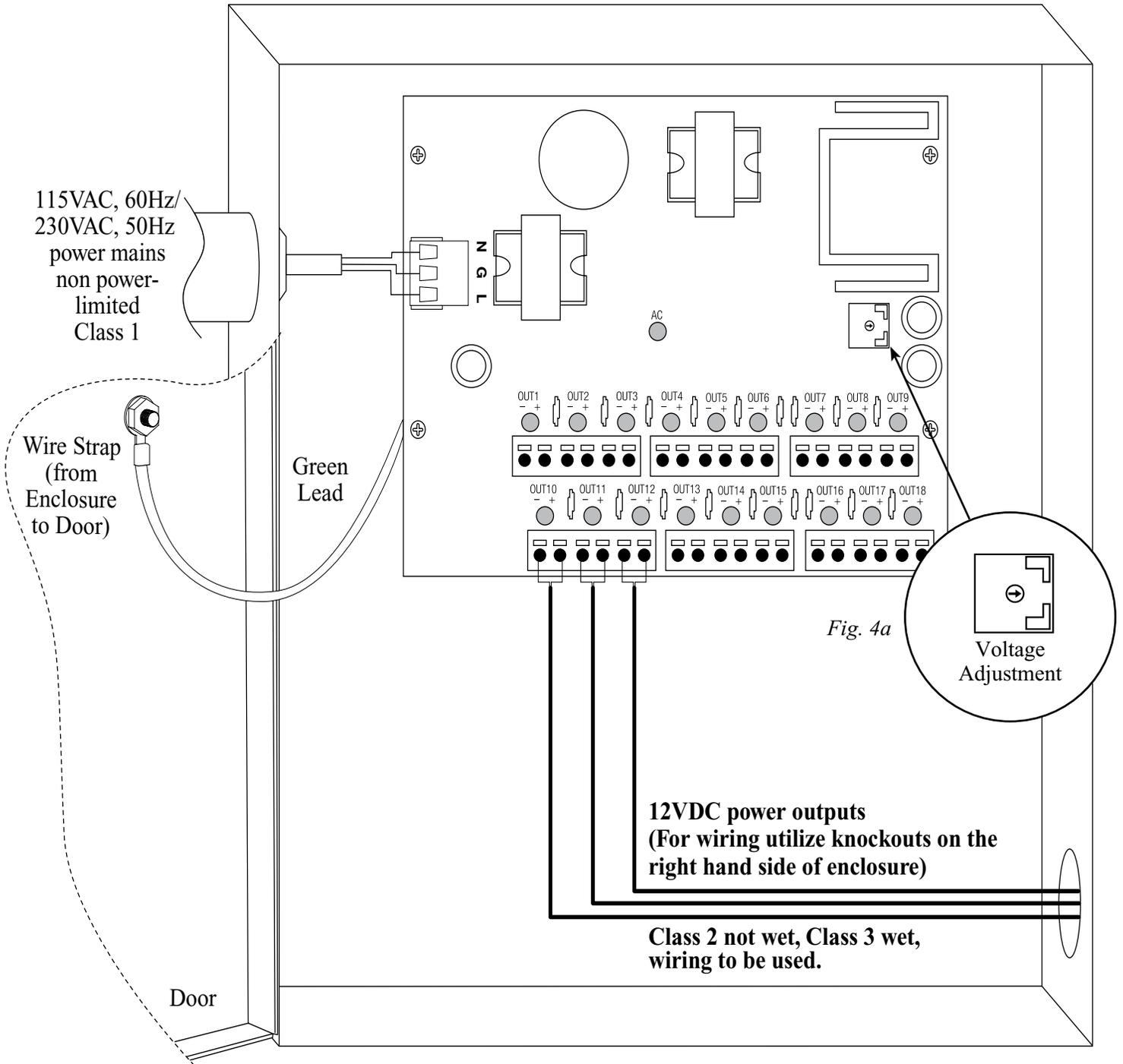
**12VDC power outputs
(For wiring utilize knockouts on the
right hand side of enclosure)**

**Class 2 not wet, Class 3 wet,
wiring to be used.**

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

Sav18D

Fig. 4

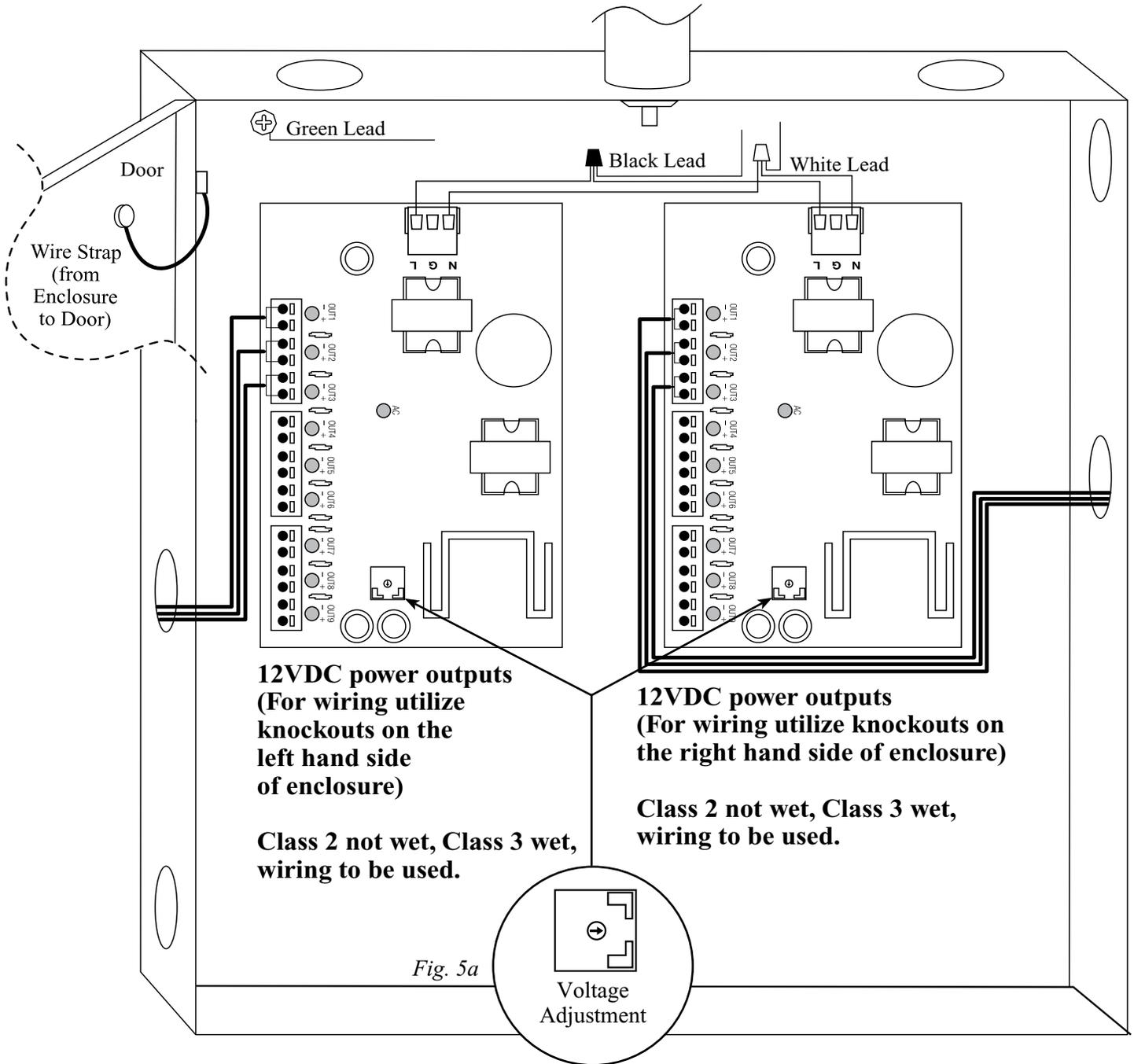


Keep power-limited wiring separate from non power-limited. Use minimum 0.25" spacing.

Sav182D

Fig. 5

115VAC, 60Hz / 230VAC, 50Hz
power mains non power-limited Class 1

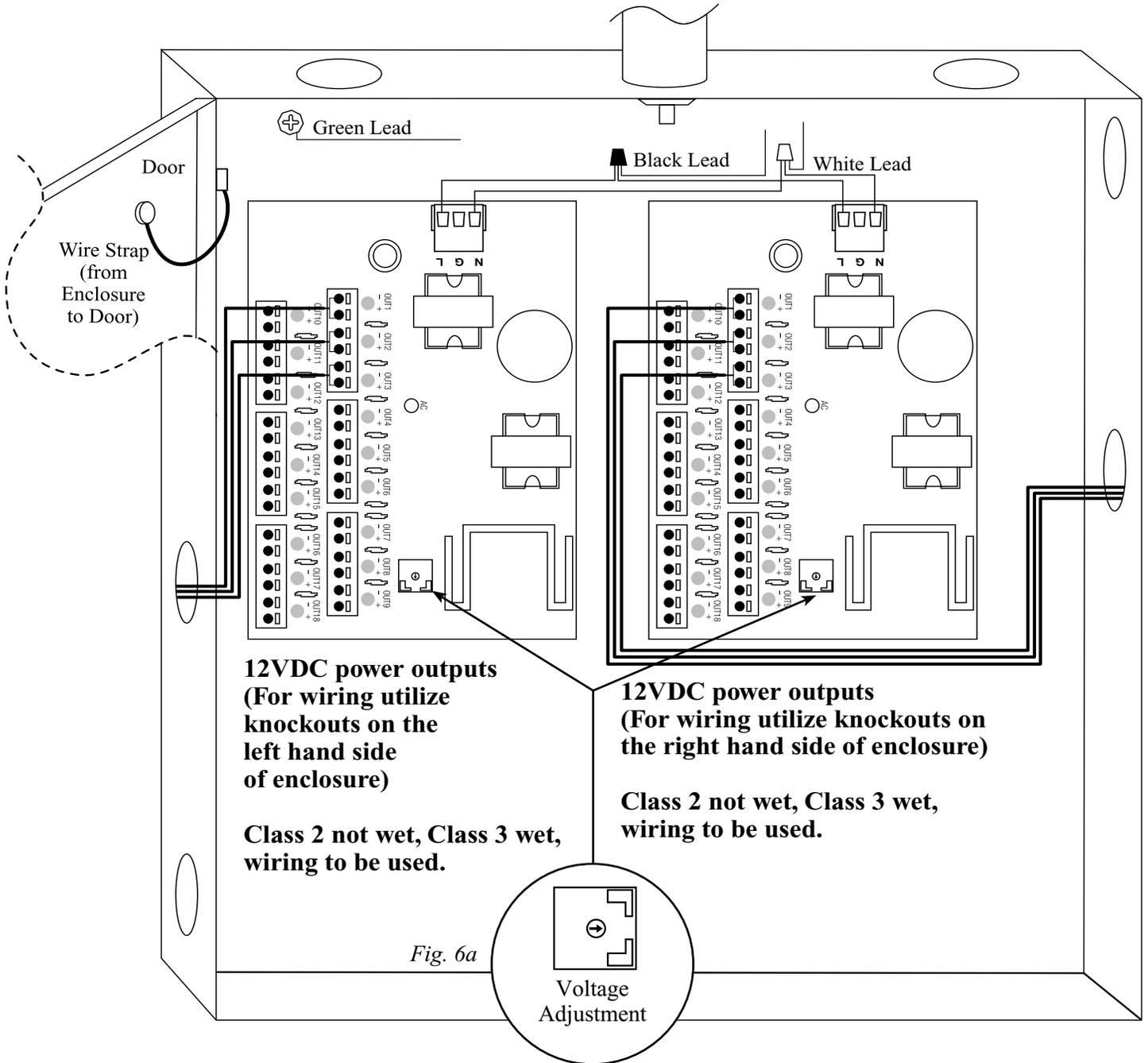


Keep power-limited wiring separate from non power-limited. Use minimum 0.25" spacing.

Sav36D

Fig. 6

115VAC, 60Hz / 230VAC, 50Hz
power mains non power-limited Class 1

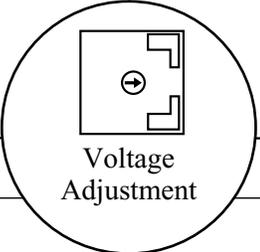


**12VDC power outputs
(For wiring utilize
knockouts on the
left hand side
of enclosure)**

**Class 2 not wet, Class 3 wet,
wiring to be used.**

**12VDC power outputs
(For wiring utilize knockouts on
the right hand side
of enclosure)**

**Class 2 not wet, Class 3 wet,
wiring to be used.**



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

Installation Instructions for 3-wire Line Cord:

Wiring methods shall be in accordance with the National Electrical Code/NFPA 70/NFPA 72/ANSI, and with all local codes and authorities having jurisdiction. Product is intended for indoor use only.

The line cord option should be used when the equipment needs to be removed for maintenance or servicing. Do not attach the 3-wire line cord to the building surface.

1. Remove 7/8" knockout by applying pressure from the inside of enclosure (*Fig. 7*).
Note: Keep power-limited wiring separate from non power-limited. Use minimum 0.25" spacing. Please refer to the SAV DC Power Supplies Installation Guide's wiring diagram.
2. Insert AC line cord with integral strain relief through the desired enclosure knockout (*Fig. 8*).
3. Secure AC line cord by sliding hog ring into strain relief slot inside the enclosure (*Figs. 9 and 10*).

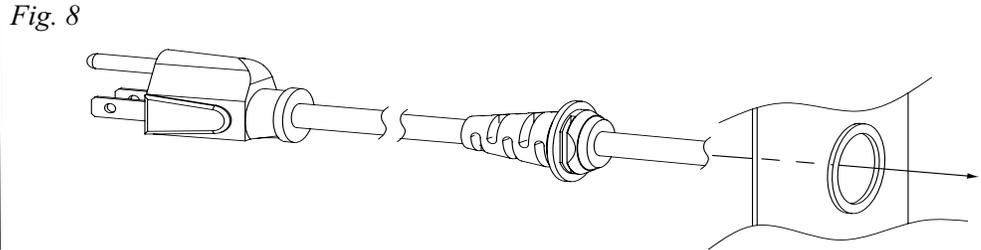
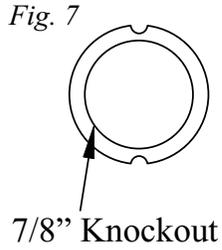
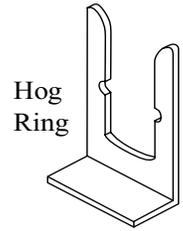


Fig. 9

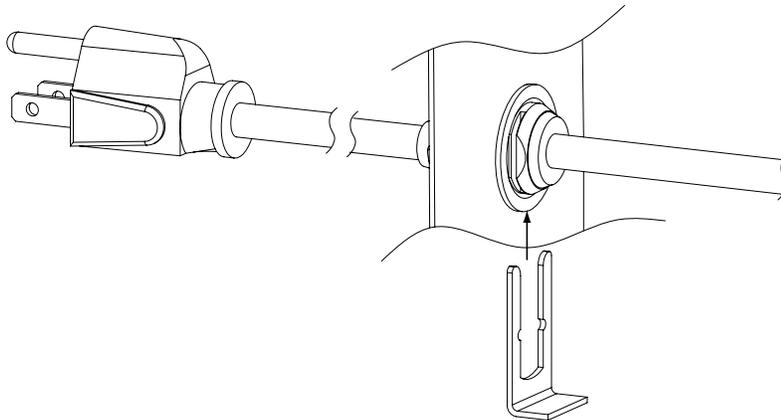
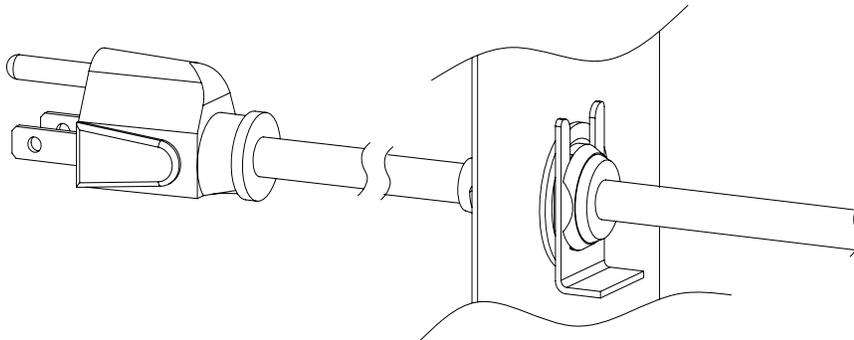


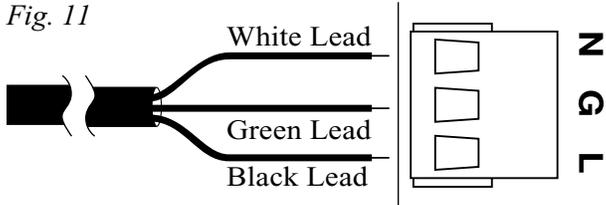
Fig. 10



Wiring AC line cord for models SAV4D, SAV9D and SAV18D:

1. Connect black lead to terminal marked [L]. Connect green lead to terminal marked [G].
Connect white lead to terminal marked [N] (Fig. 11).

Fig. 11



Wiring AC line cord for models SAV182D and SAV36D:

1. Splice black lead from line cord to black leads from each power supply board utilizing wire nut (Fig. 12).
Splice green lead from line cord to green flying lead in the enclosure utilizing wire nut (Fig. 12).
Splice white lead from line cord to white leads from each power supply board utilizing wire nut (Fig. 12).
Note: To prevent loosening of splices secure each wire nut separately with a few wraps of electrical tape (Fig. 13).

Fig. 12

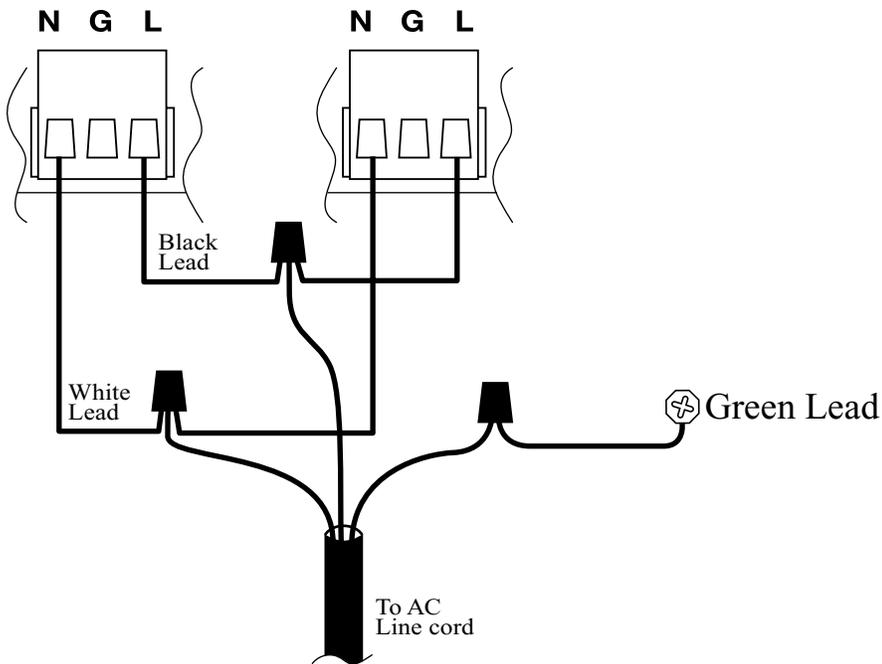
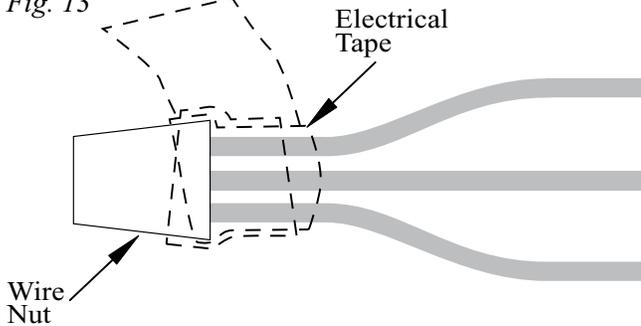
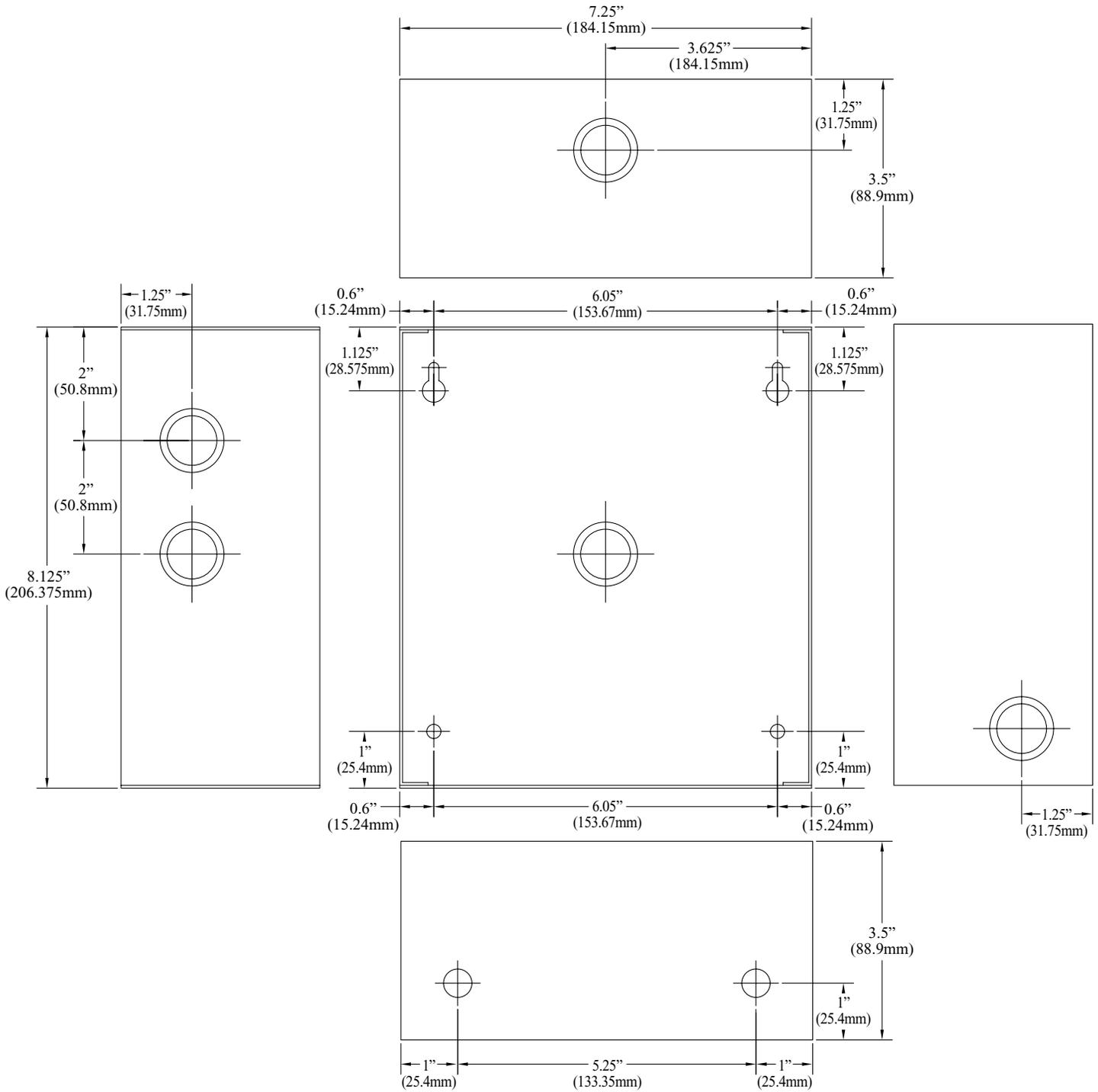


Fig. 13



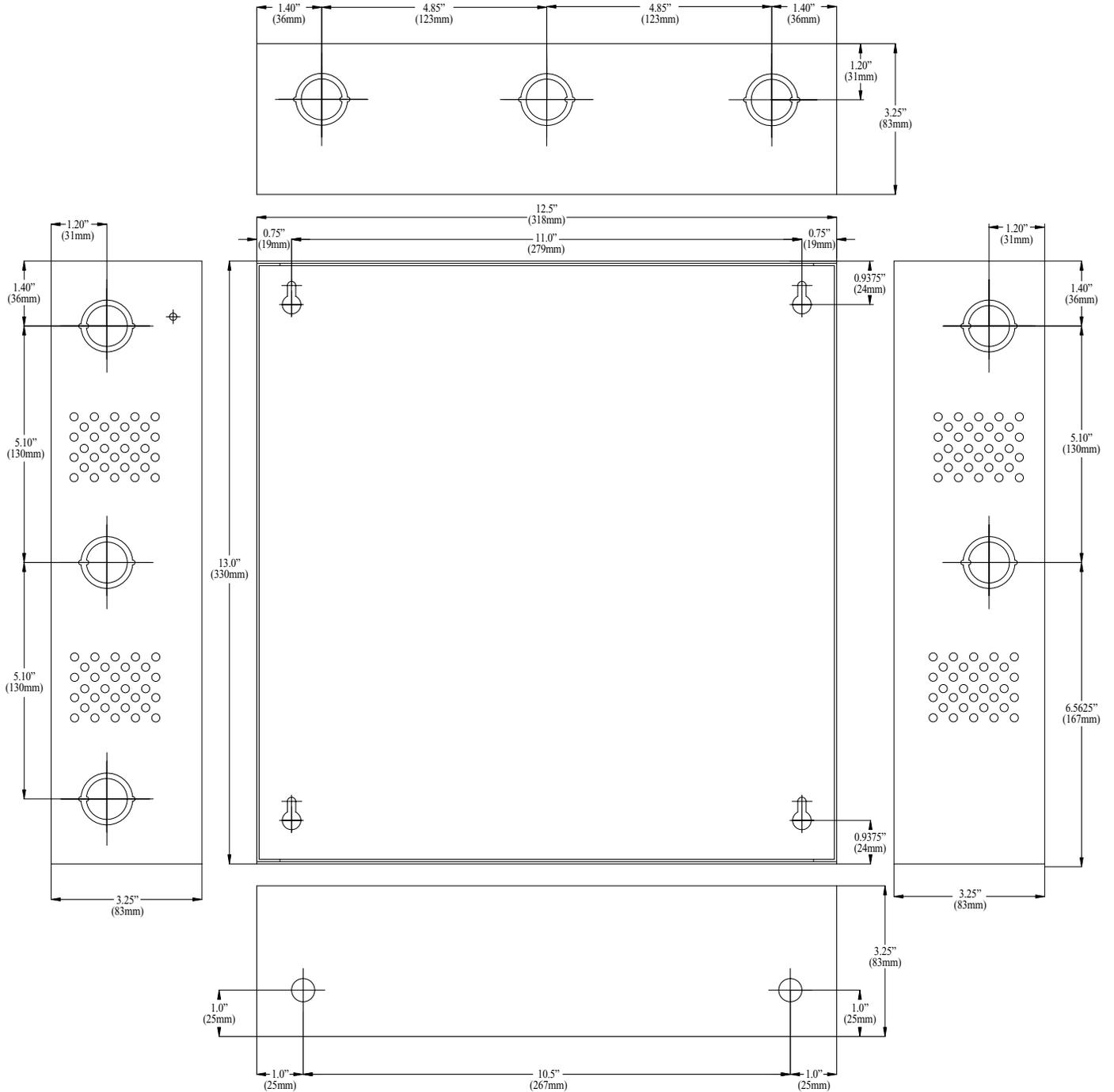
Enclosure Dimensions for Sav4D, Sav9D and Sav18D:

8.5" x 7.5" x 3.5" (215.9mm x 190.5mm x 88.9mm)



Enclosure Dimensions for Sav182D and Sav36D:

13.5" x 13" x 3.25" (342.9mm x 330.2mm x 82.55mm)



Altronix is not responsible for any typographical errors. Product specifications are subject to change without notice.

140 58th Street, Brooklyn, New York 11220 USA, 718-567-8181, fax: 718-567-9056
 website: www.altronix.com, e-mail: info@altronix.com, Made in U.S.A.
 IISAV4D/SAV9D/SAV18D/SAV182D/SAV36D

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