clintonelectronics AC 24 Volt CCTV Power Supply

Installation Manual for Models:

CE-AC24V4
CE-AC24V8
CE-AC24V16

Included Items:
(1) 24 Volt Power Supply
(2) Phillips-Head Screws
(1) Power Cable, 6ft
(1) Power Cable Clip

Required Items:
Phillips-Head Screwdriver
Mounting Screws/Bolts

Model	Number of Outputs	Output Voltage	Total Output Power	Max Output per Channel	Dimensions (W x H x D)
CE-AC24V4	4	24 Volts AC	4 Amp	1 Amp	8" x 10.5" 3.5"
CE-AC24V8	8	24 Volts AC	4 Amp	.5 Amp (500mA)	8" x 10.5" 3.5"
CE-AC24V16	16	24 Volts AC	8 Amp	.5 Amp (500mA)	10.875" x 12" 3.375"

The lightning flash with an arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

WARNING:

- To reduce the risk of fire or electric shock, do not expose the unit to rain or moisture.
- This installation should be made by qualified service personnel and should conform to all local codes and in accordance with the National Electrical Code.
- Use 75°C or higher rated UL insulated wiring for connecting the unit to the mains.
- For Indoor Use Only!
- Risk of electrical shock and/or equipment damage. Disconnect power before servicing this appliance.

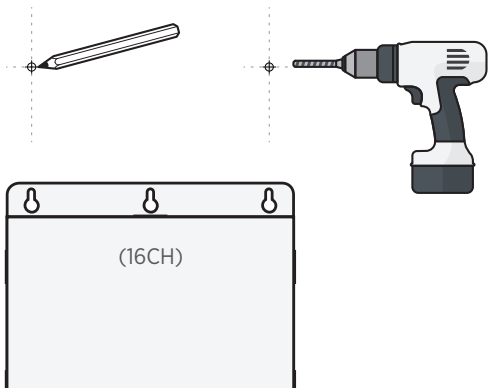
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION:

- Maintain a 1/4" of separation between the ac mains and all low voltage wiring.
- A readily accessible switched circuit breaker must be available to disconnect main power as required.
- This unit contains no user-serviceable parts, installation and servicing should only be made by qualified personnel.
- Install in accordance with local regulations and national electric code.
- Measure output voltage before connecting devices. This helps avoid potential damage.

Installation

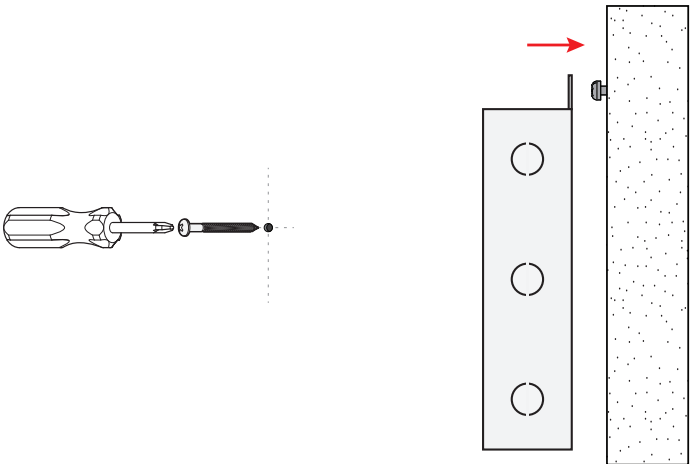
1



1. Mark and pre-drill holes on the wall where enclosure is to be mounted. Choose a vertical surface (wall) strong enough to support the full weight of the assembly. Select a mounting location in an area without excessive moisture; ***for indoor installation only*** and in a secured area.

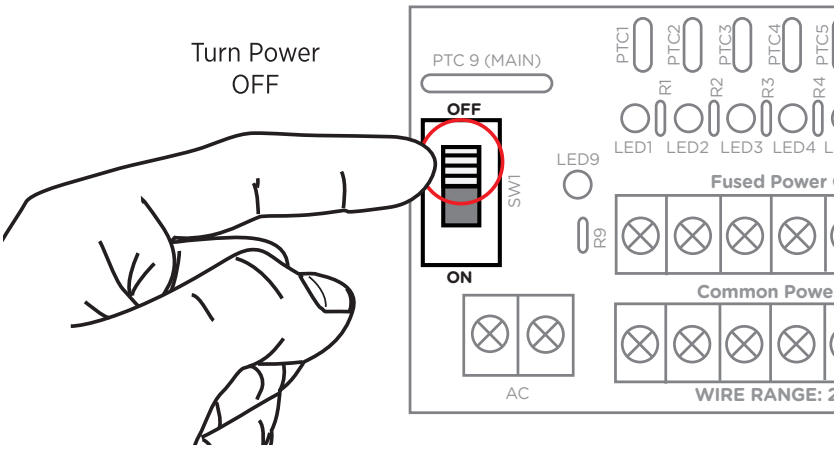
FOR INDOOR INSTALLATION ONLY

2



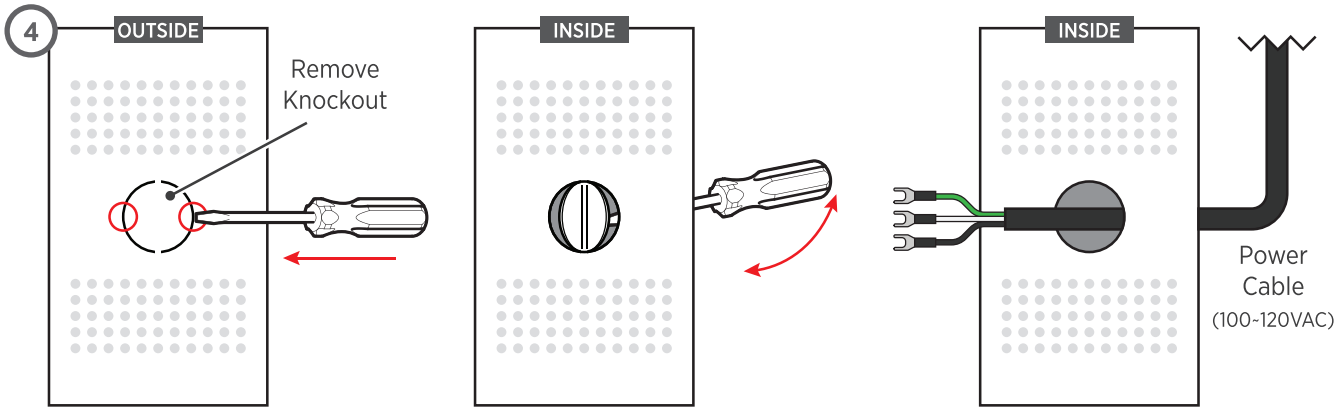
2. Install two upper fasteners *(sufficient length 1/8" bolts or screws, not included)* in the wall with the screw heads protruding. Place the enclosure's upper keyholes over the two upper screws, level and secure. Mark the position of the lower two hole(s). Remove the enclosure. Drill the lower hole(s). Place the enclosure's upper keyholes over the two upper screws. Install the lower screw(s) and make sure to tighten all screws. Secure enclosure to earth ground.

3

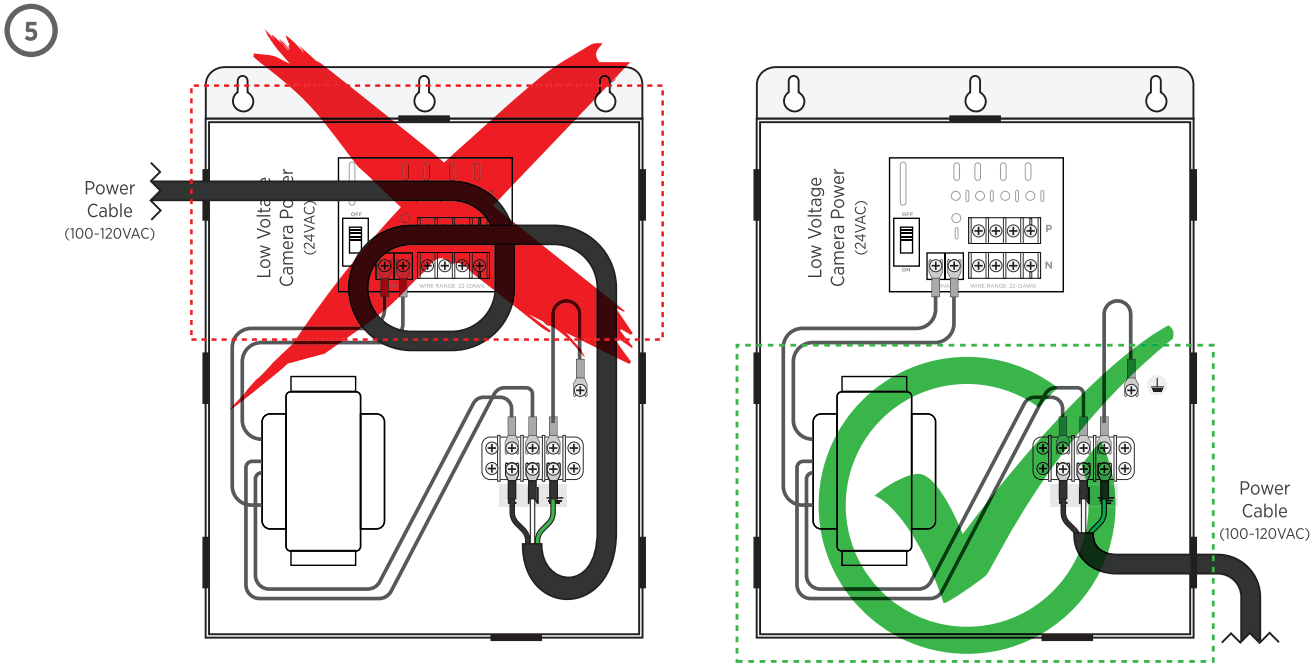


3. Slide switch on Power Supply PD (Power Distribution) board to OFF position.

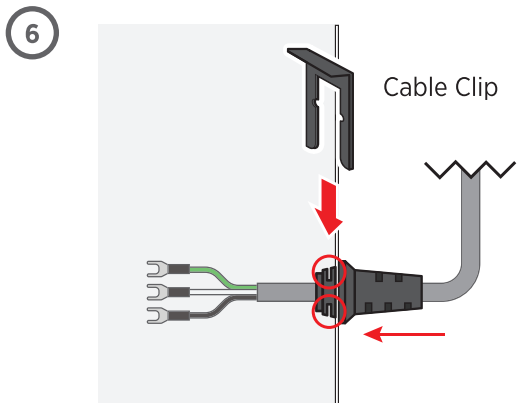
Installation



4. Remove a knockout on the bottom half of the enclosure. *(It may be easier to remove the knockout with the enclosure off the wall)* To remove a knockout; push/strike inward with a flathead screwdriver or chisel on either side of the knockout. After the knockout is loose, pry the screwdriver and knockout from side to side to remove from the enclosure. Once the knockout is removed from the bottom half of the enclosure, insert the Power Cable into the enclosure.



5. Route the Power Cable through the hole made from removing the knockout on the bottom half of the enclosure. Ensure that the Power Cable maintains a distance of at least 1/4" from the low voltage DC camera power.



6. Secure the Power Cable to the enclosure with the supplied clip. Push boot on cable firmly against the enclosure and slide the clip into the notches on the boot from inside of the enclosure.

Installation

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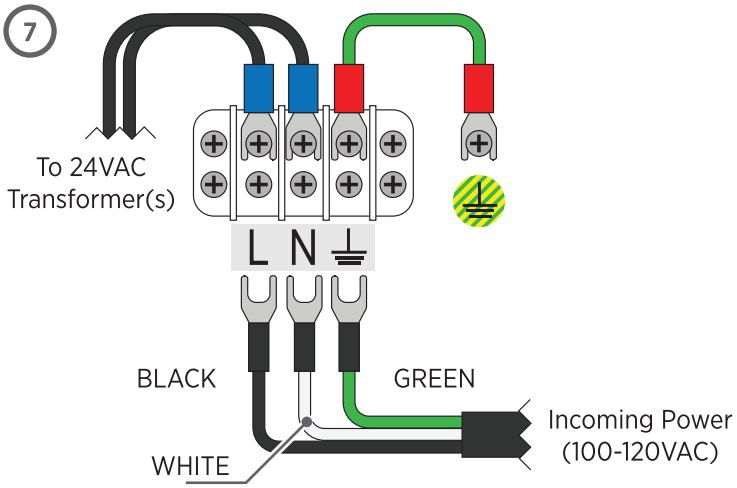
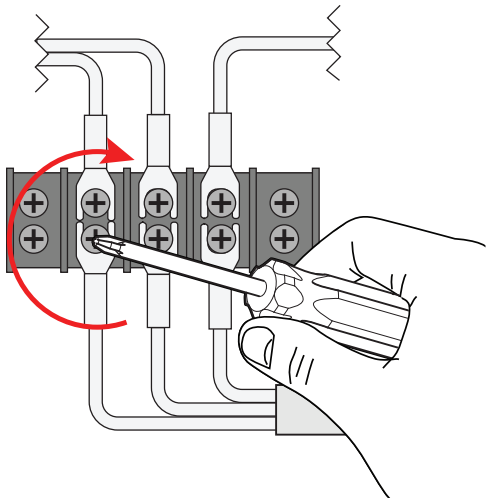
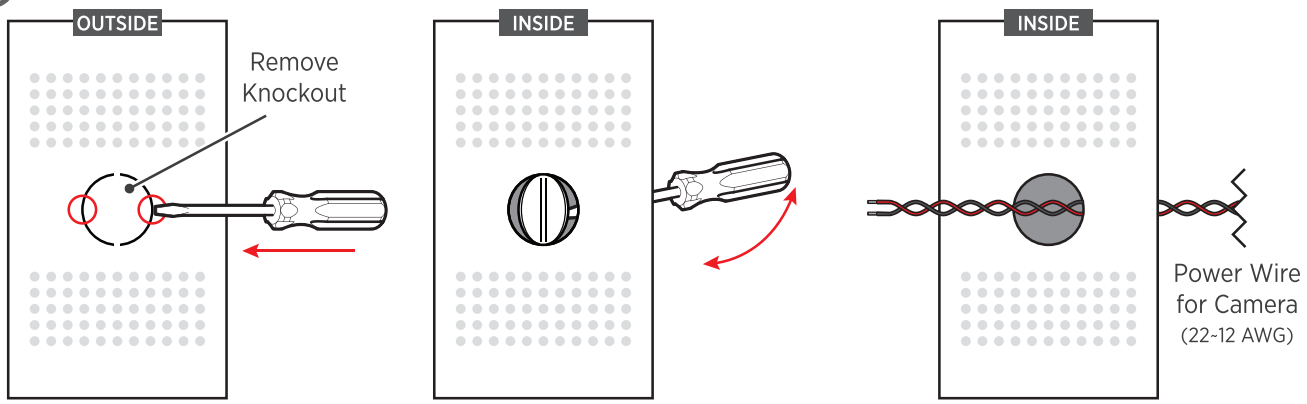




7. Use a Phillips head screwdriver to connect incoming 100 ~ 120 VAC main power (60 Hz) to the terminals marked L, N and ⏚ :
   - Hot (L1) (**BLACK**) to terminal marked "L".
   - Neutral (L2) (**WHITE**) to terminal marked "N".
   - Ground (**GREEN**) to terminal marked "⏚". *(This terminal will share 2 spade/fork connectors)*.

Ensure that terminal screws (Phillips head screws) are tightened securely before moving on to the next step.

8



8. Remove separate knockout(s) for the low voltage camera wiring. It is recommended to use a knockout on the top half of the enclosure. DO NOT use the same knockout opening as the main power source. Once the knockout(s) are removed from the top half of the enclosure, insert the Camera Power Wires into the enclosure. *(Camera Power Wires Not Included).*

DO NOT USE THE SAME KNOCKOUT OPENING AS THE MAIN POWER SOURCE

Installation

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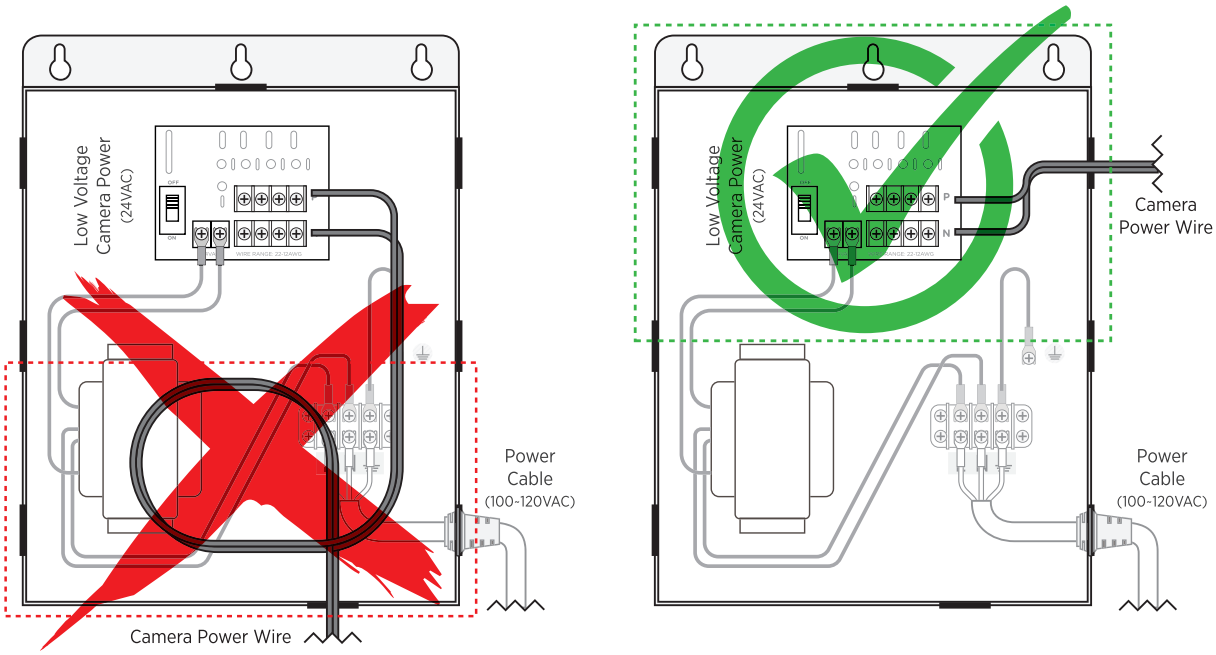

9. Route the Camera Power Wires into the hole made from removing the knockout on the top half of the enclosure. Ensure that the low voltage AC camera power maintains a distance of at least 1/4" from the main AC power.

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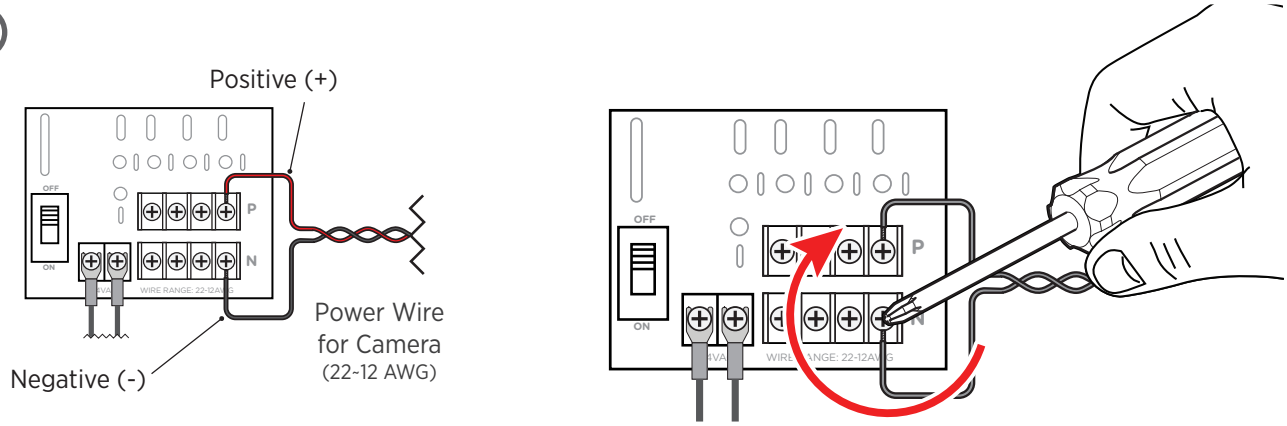
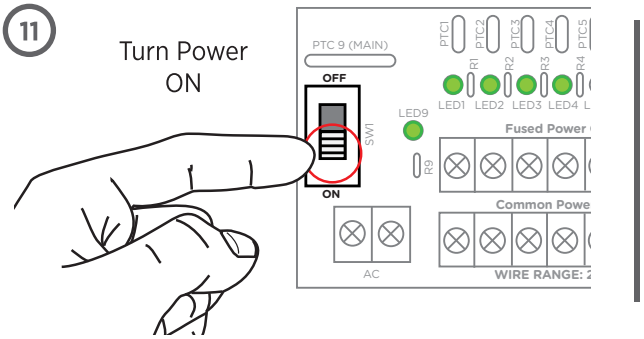


10. Connect CCTV cameras (or other external loads) to appropriate terminals, carefully observing polarity. Tighten terminal connections with Phillips head screwdriver.

Ensure that terminal screws (Phillips head screws) are tightened securely before moving on to the next step.

11



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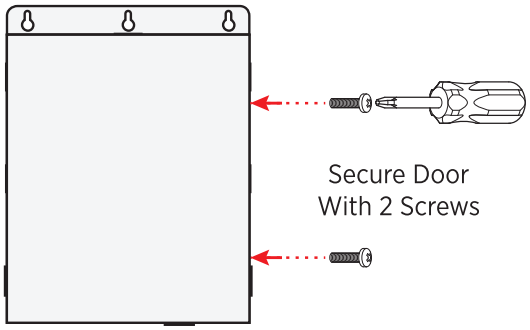
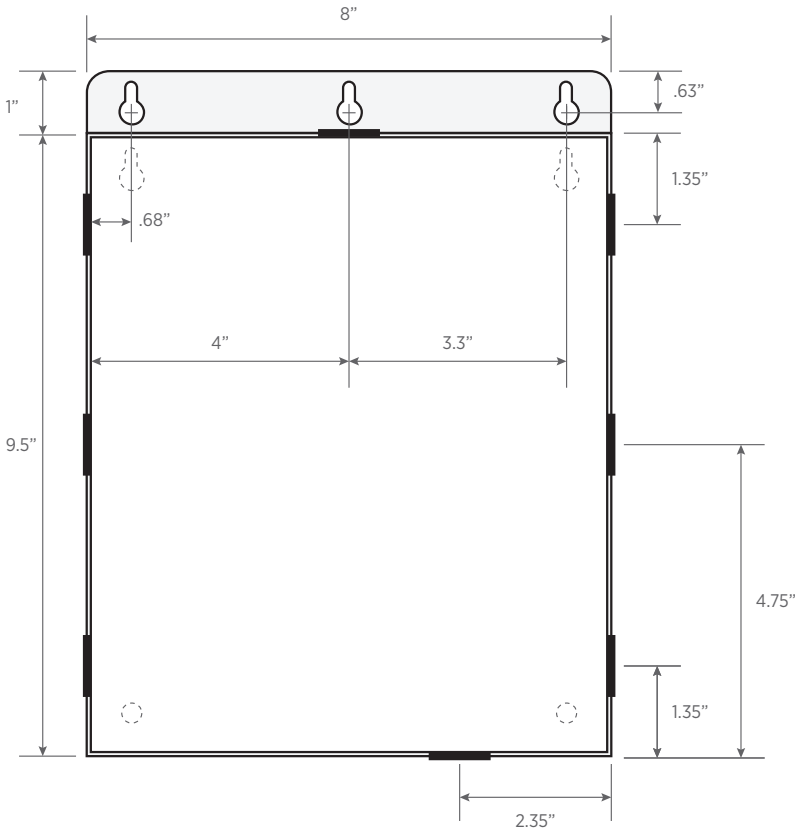


11. Slide switch on Power Supply to ON position. LEDs will illuminate green with proper power connections.

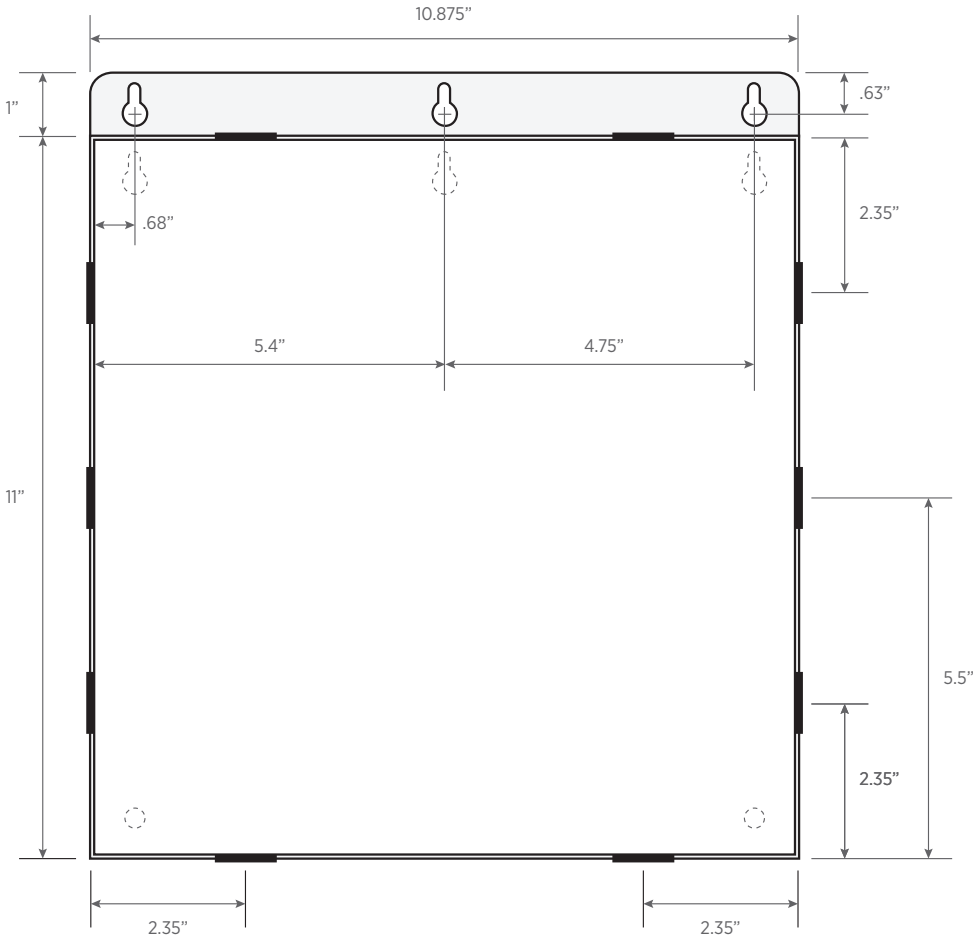
12. Upon completion of wiring, secure enclosure door with 2 screws (supplied) or use an optional lock (not included).

Dimensions

For Models:
CE-AC24V4
CE-AC24V8



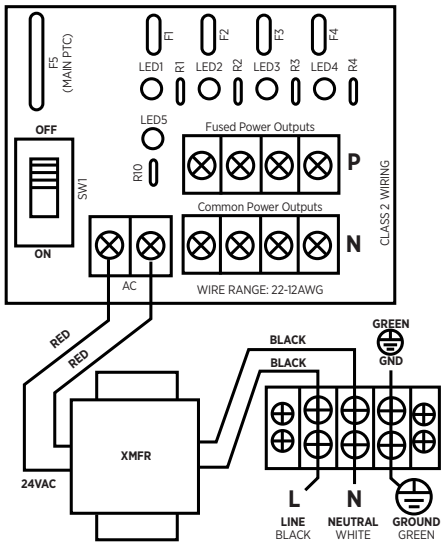
For Models:
CE-AC24V16



Wiring

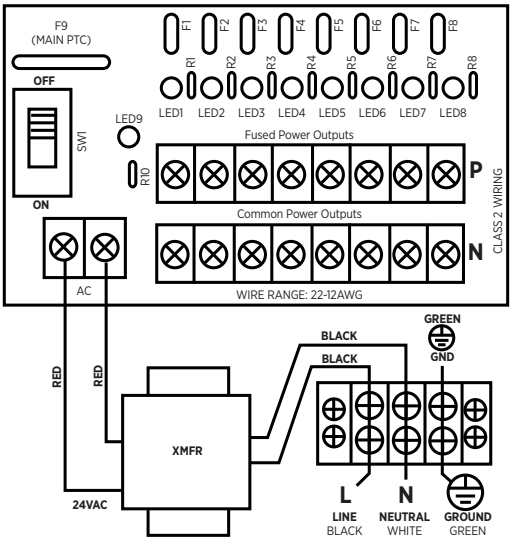
CE-AC24V4

OUTPUT 1A/24VAC 60Hz EACH TERMINAL
TOTAL OUTPUT 4A/24VAC 60 Hz



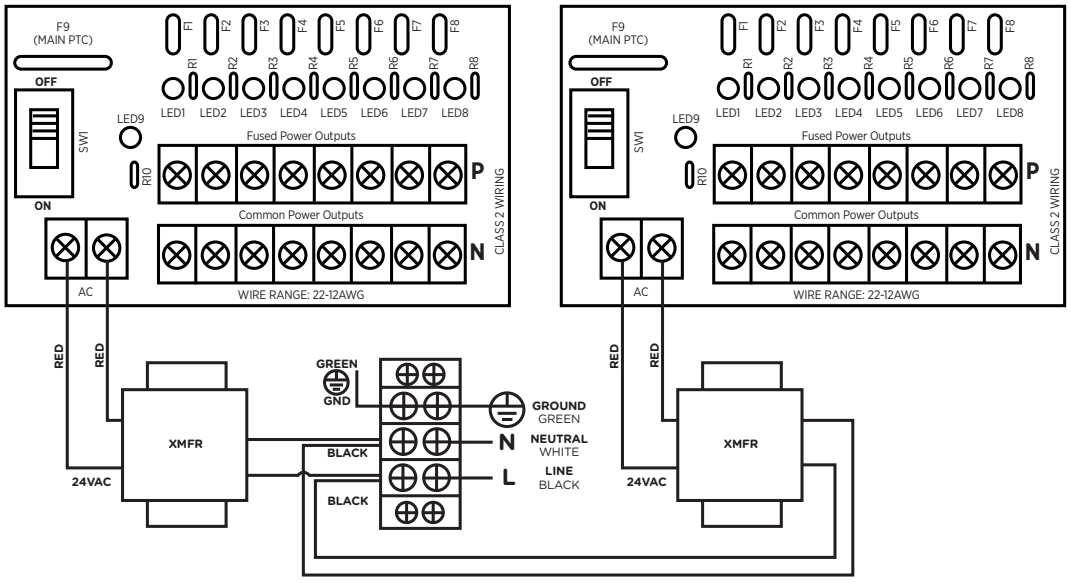
CE-AC24V8

OUTPUT 0.5A/24VAC 60Hz EACH TERMINAL
TOTAL OUTPUT 4A/24VAC 60 Hz



CE-AC24V16

OUTPUT 0.5A/24VAC 60Hz EACH TERMINAL
TOTAL OUTPUT 8A/24VAC 60 Hz



Voltage Drop Table for Wire Runs

Current Draw	Cable Length (feet)	Voltage at Camera (22 awg wire)		Voltage at Camera (16 awg wire)	
		24 Volt AC	12 Volt DC	24 Volt AC	12 Volt DC
100 mA	500	22.4	12.2	23.4	13.17
	1,000	20.8	10.61	22.7	12.53
	1,500	19.2	9.01	22.1	11.9
	2,000	17.6	7.42	21.5	11.27
	3,000	14.4	4.23	20.2	10
	5,000	8.1	0	17.7	7.47
150 mA	500	21.6	11.41	23.1	12.85
	1,000	19.2	9.01	22.1	11.9
	1,500	16.8	6.62	21.2	10.95
	2,000	14.4	4.23	20.2	10
	3,000	9.7	0	18.3	8.10
200 mA	500	20.8	10.61	22.7	12.53
	1,000	17.6	7.42	21.5	11.27
	1,500	14.4	3.19	20.2	10
	2,000	11.2	1.04	18.9	8.74
300 mA	300	21.1	10.93	22.9	12.66
	500	19.2	9.01	22.1	11.9
	1,000	14.4	4.23	20.2	10
	1,500	9.7	2.31	18.3	9.24
500 mA	200	20.8	10.61	22.7	12.53
	300	19.2	9.01	22.1	11.9
	500	16	5.82	20.9	10.64
750 mA	100	21.6	11.41	23.1	12.85
	200	19.2	9.01	22.1	11.9
	300	16.8	6.62	21.2	10.95
	500	12.1	1.84	19.3	9.05
1 Amp	100	20.8	10.61	22.7	12.53
	200	17.6	7.42	21.5	11.27
	300	14.4	4.23	20.2	10
1.5 Amps	100	19.2	9.01	22.1	11.9
	200	14.4	4.23	20.2	10