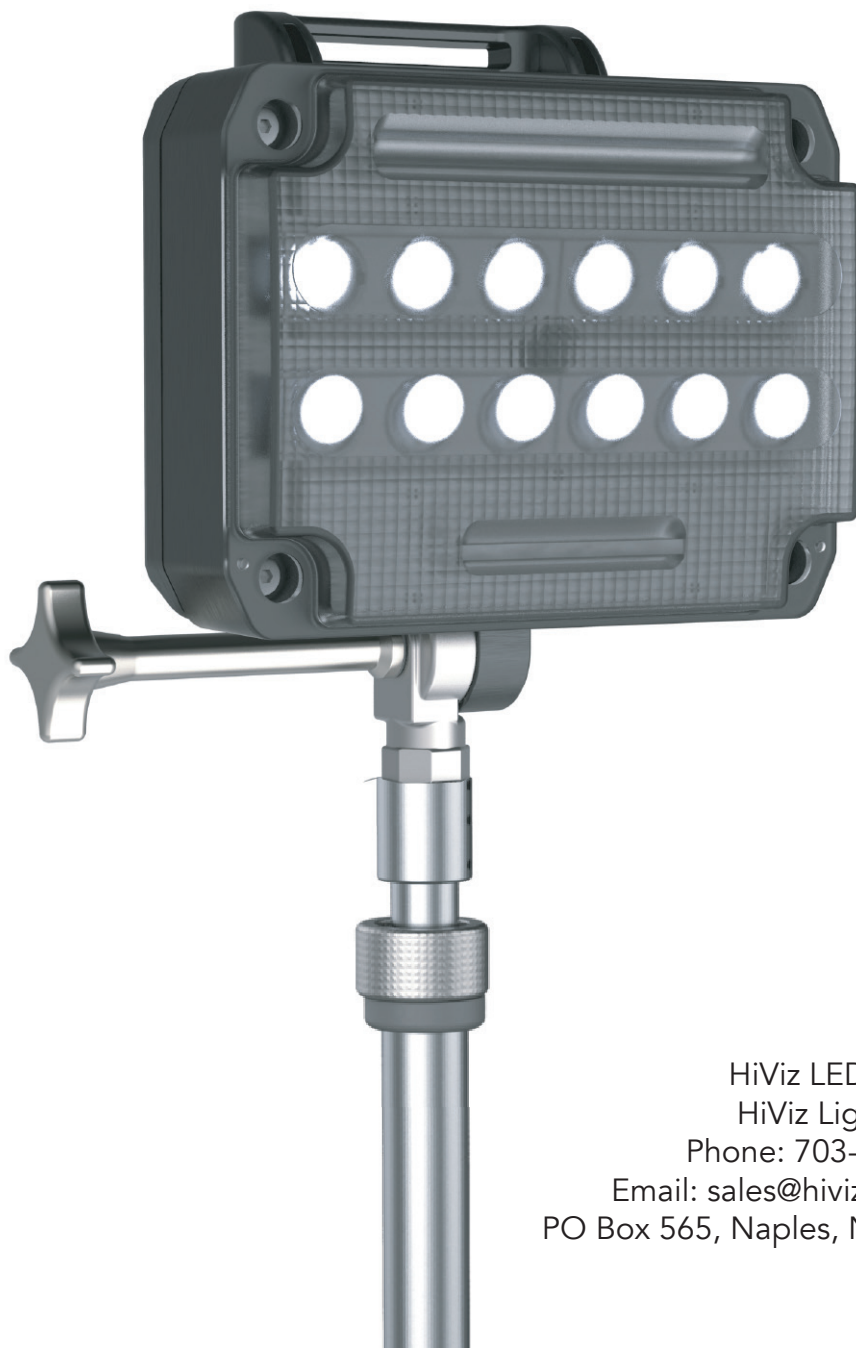




POLE-MOUNTED GUARDIAN INSTRUCTION MANUAL

GUARDIAN AND GUARDIAN ELITE

FT-SL-GSM & FT-SL-GESM

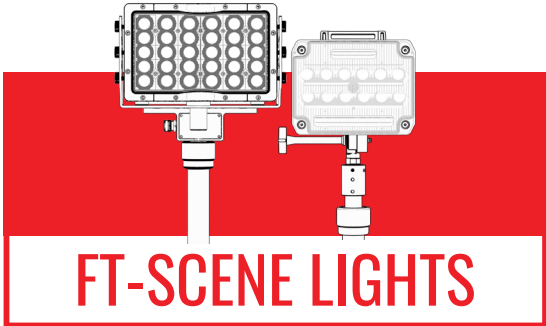


HiViz LED Lighting
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SAFETY NOTICE & WARRANTY

WARNING: INSTALLATION MUST BE CONDUCTED BY A QUALIFIED TECHNICIAN.

IMPROPER INSTALLATION CAN RESULT IN INJURY OR DEATH.

- Installation must be conducted by a qualified automotive electrician or emergency vehicle technician in accordance with the applicable NFPA standard(s) and procedures (Including but not limited to NFPA 1901, 1906, 1911, 414, 1900)
- Improperly installed, aimed, or operated lights can create significant hazard to motorists which can result in collision. Ensure light fixtures are installed and operated such that their beam does not shine into oncoming traffic
- All circuits must be fused at 125% of the rated power consumption of the loads on the circuit
- A voltage drop greater than 10% in the power feed to a fixture could be an indicator of an under-sized conductor. Use of improperly sized conductors will, at a minimum, result in poor performance, and at a maximum could result in fire
- Verify input voltage is within fixture range before installation. Voltage range information can be found in this manual or printed on the fixture body
- The use of personal protective equipment (safety glasses and gloves) is highly recommended
- Allow proper cooling time before handling the fixture if it has been installed & powered to prevent burns
- Any modifications to the fixture will void warranty and are not authorized by the manufacturer
- Always inspect the fixture for any damage prior to installing and DO NOT install if any damage is present



PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLATION

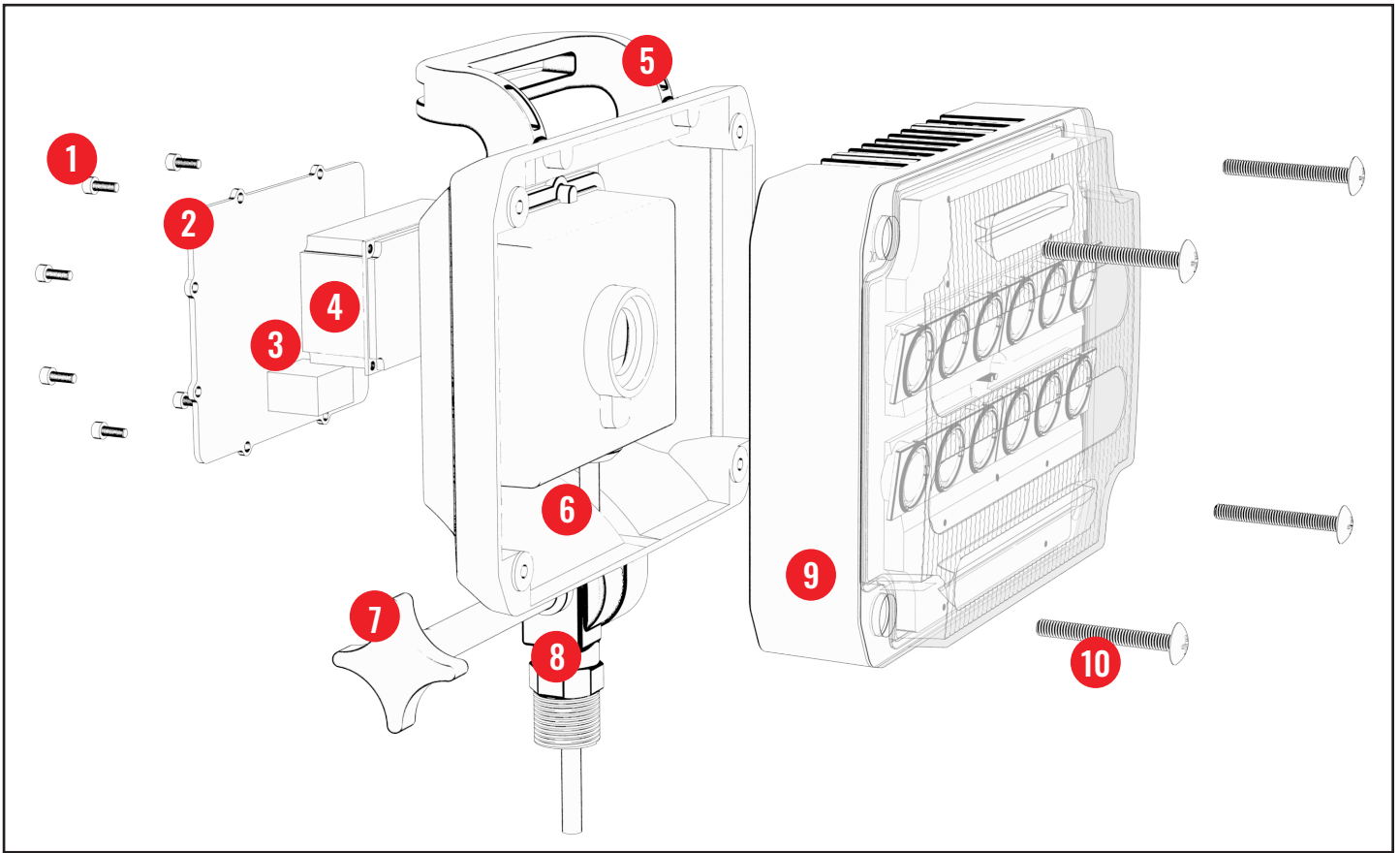


Warranty Information: Full policy available Online at www.hivizleds.com/warranty

- Proof of purchase may be required to validate warranty. All FireTech products are warranted for the useful service life of the vehicle for which they were first installed
- Improper installation, accident, physical damage, neglect, and normal wear and tear are not covered under warranty
- Lights operated in environments over 150° Fahrenheit are not covered under warranty
- All advance-exchange warranty claims must be validated with HiViz Technical Support prior to issuance of a shipping label. Failure to return defective product will result in an invoice for the full replacement value of the product
- HiViz Lighting will repair or replace defective product at its discretion. Replacement product will be in similar or better cosmetic condition than the defective part
- Warranties should be handled through the dealer/reseller the product was purchased from; customer is responsible for delivery
- If product is found to have damage not covered under warranty, customer will be responsible for return shipping charges and/or cost of repair
- Non-warranted items can be repaired at the customer's expense of parts and labor, at the discretion of HiViz LED Lighting, who will provide an estimated repair cost before proceeding with the repair



WHAT'S INCLUDED



PIECES INCLUDED

1 Housing Screws
(M4X10 HEX)

2 Back Plate

3 Switch

4 Power Supply

5 Handle

6 Housing

7 Adjustment Knob

8 Knuckle

9 Guardian Light Fixture

10 Housing Screws
(18-8 SS Metric Pan Head)

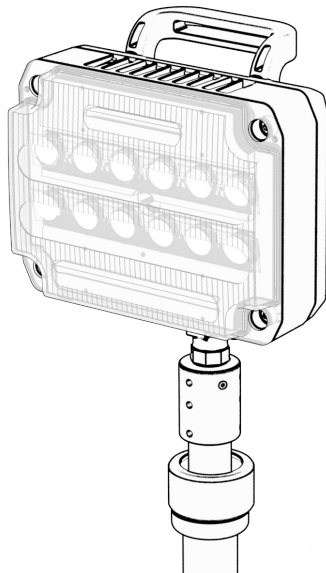
TOOLS REQUIRED

- Phillips Screwdriver
- Heat-shrink butt connectors
- Wire Strippers



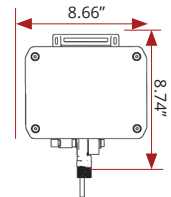
TECHNICAL SPECIFICATIONS

POLE-MOUNTED GUARDIAN SCENE LIGHT | FT-SL-GSM & FT-SL-GESM



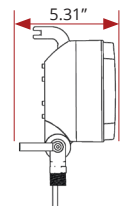
GUARDIAN | STANDARD OUTPUT

EQUIVALENT LUMENS	10,000
MEASURED LUMENS	6,500
WATTAGE	70W
AMPERAGE AT 12 V DC	5.83A
INPUT VOLTAGE DC	9-32V DC
INPUT VOLTAGE AC	80-264V AC



GUARDIAN ELITE | HIGH OUTPUT

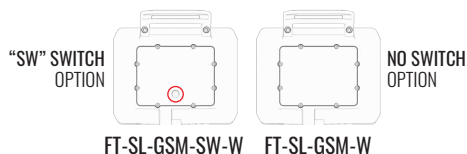
EQUIVALENT LUMENS	20,500
MEASURED LUMENS	12,290
WATTAGE	125W
AMPERAGE AT 12 V DC	10.41A
INPUT VOLTAGE DC	9-32V DC
INPUT VOLTAGE AC	80-264V AC



Note: Always check part number before beginning the wiring process to ensure proper installation.

CONFIGURE PART

SWITCH OR NO SWITCH BACKPLATE



HOUSING COLOR OPTIONS



AVAILABLE OUTPUT AND POWER OPTIONS

GSM= STANDARD GUARDIAN
GESM= GUARDIAN ELITE

"110"
DESIGNATES
80-264V AC POWER
(STANDARD IS 9-32VDC)

(OPT) (OPT)
OUTPUT | INPUT | SWITCH | HOUSING
↓ ↓ ↓ ↓
FT-SL-____ - 110-SW-____
GSM GSM B W

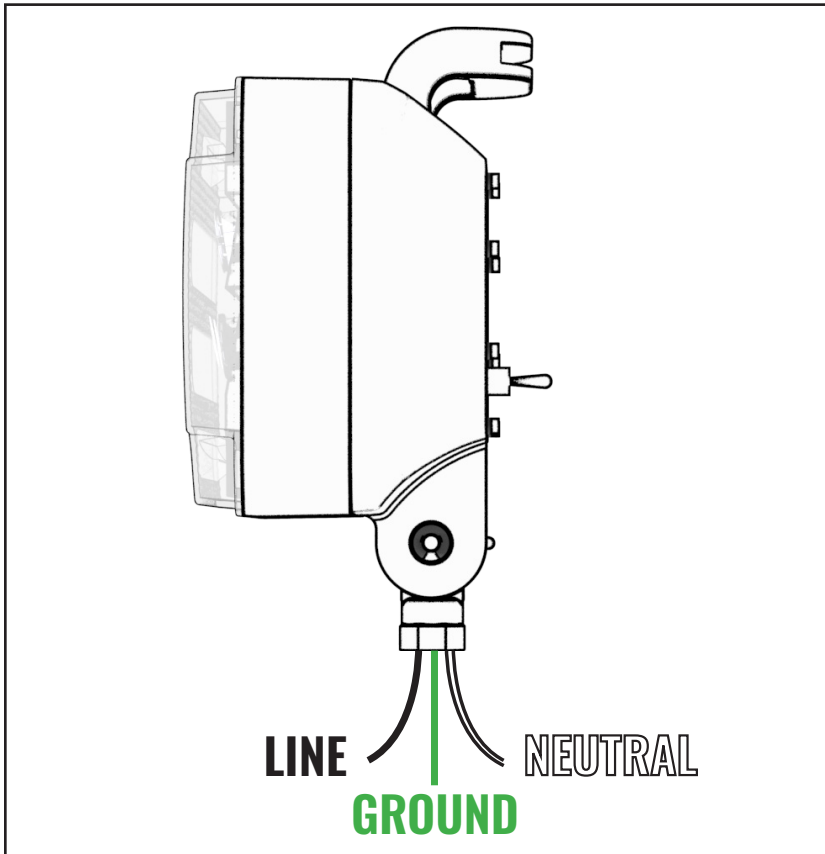
EXAMPLE CONFIGURATION

FT-SL-GESM-SW-B

GUARDIAN ELITE SCENE LIGHT - BACK SWITCH
9-32V DC INPUT - BLACK HOUSING



AC WIRING INFORMATION



MODEL	AMPS
FT-GESM	1
FT-GSM	0.625

WIRING:

BLACK= Line (80 to 264V AC)

GREEN = Ground

WHITE = Neutral

NOTES:

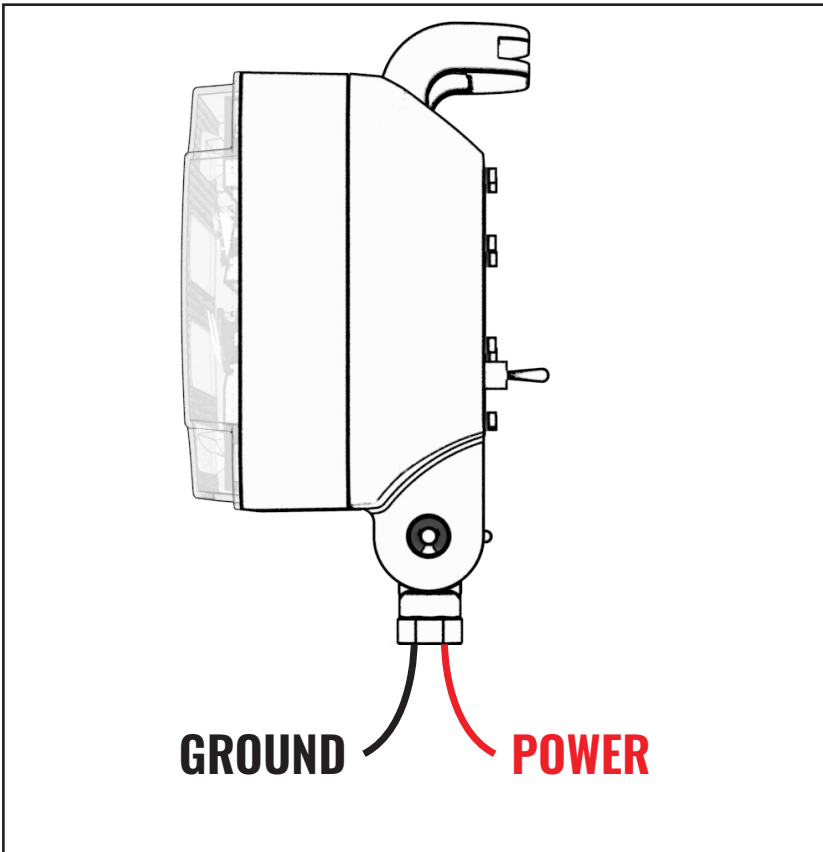
*IN APPLICATIONS WHERE 2 LEG POWER IS REQUIRED (240V AC) THE BLACK WIRE BECOMES LEG 1 AND THE WHITE WIRE BECOMES LEG 2. NO ADDITIONAL ACTION IS REQUIRED TO CHANGE MODES.

*WHEN INSTALLED ON POLES CONSIDER THE CONDUCTOR SIZE AND CONDITION WITHIN THE POLE WHEN EVALUATING ELECTRICAL INSTALLATION REQUIREMENTS.

*AMPERAGE BASED ON 120V AC



DC WIRING INFORMATION



MODEL	AMPS	FUSE
FT-GESM	10.41	15
FT-GSM	5.83	10

WIRING:
 RED = 9-32V DC
 BLACK= GROUND

Below, **Blue Sea Systems** has provided a chart documenting proper wire size selections for automotive applications. NFPA 1901 13.2.1.1 allows for up to 10% voltage drop on automotive fire apparatus. Please be sure to reference proper conductor size below. Visit blueseas.com for more information.

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CIRCUIT TYPE				CURRENT FLOW IN AMPS																
10% VOLTAGE DROP Non Critical		3% VOLTAGE DROP Critical		5A	10A	15A	20A	25A	30A	40A	50A	60A	70A	80A	90A	100A	120A	150A	200A	
CIRCUIT LENGTH	0 to 20 ft.	0 to 6.1 M	0 to 6 ft.	0 to 1.8 M	16 AWG	16 AWG	14 AWG	14 AWG	12 AWG	10 AWG	8 AWG	6 AWG	6 AWG	6 AWG	4 AWG	4 AWG	2 AWG	1 AWG	2 1/0 AWG	
	30 ft.	9.1 M	10 ft.	3.0 M	16 AWG	14 AWG	12 AWG	12 AWG	10 AWG	10 AWG	8 AWG	6 AWG	6 AWG	4 AWG	4 AWG	2 AWG	2 AWG	1 AWG	0 AWG	2 1/0 AWG
	50 ft.	15.2 M	15 ft.	4.6 M	14 AWG	12 AWG	10 AWG	10 AWG	8 AWG	8 AWG	6 AWG	6 AWG	4 AWG	4 AWG	2 AWG	2 AWG	1 AWG	0 AWG	2 1/0 AWG	
	65 ft.	19.8 M	20 ft.	6.1 M	14 AWG	10 AWG	8 AWG	8 AWG	6 AWG	6 AWG	4 AWG	4 AWG	2 AWG	2 AWG	1 AWG	1 AWG	0 AWG	1 AWG	0 AWG	3 1/0 AWG
	80 ft.	24.4 M	25 ft.	7.6 M	12 AWG	10 AWG	8 AWG	6 AWG	6 AWG	4 AWG	4 AWG	2 AWG	2 AWG	1 AWG	1 AWG	0 AWG	0 AWG	2 1/0 AWG	2 1/0 AWG	3 1/0 AWG
	100 ft.	30.5 M	30 ft.	9.1 M	12 AWG	10 AWG	8 AWG	6 AWG	6 AWG	4 AWG	4 AWG	2 AWG	2 AWG	1 AWG	1 AWG	0 AWG	0 AWG	2 1/0 AWG	2 1/0 AWG	3 1/0 AWG
	130 ft.	39.6 M	40 ft.	12.2 M	10 AWG	8 AWG	6 AWG	4 AWG	4 AWG	4 AWG	2 AWG	2 AWG	1 AWG	1 AWG	0 AWG	0 AWG	2 1/0 AWG	2 1/0 AWG	3 1/0 AWG	4 1/0 AWG
	165 ft.	50.3 M	50 ft.	15.2 M	10 AWG	8 AWG	6 AWG	4 AWG	4 AWG	2 AWG	2 AWG	1 AWG	0 AWG	0 AWG	2 1/0 AWG	2 1/0 AWG	3 1/0 AWG	3 1/0 AWG	4 1/0 AWG	4 1/0 AWG
	200 ft.	61.0 M	60 ft.	18.3 M	10 AWG	8 AWG	6 AWG	4 AWG	4 AWG	2 AWG	2 AWG	1 AWG	0 AWG	0 AWG	2 1/0 AWG	3 1/0 AWG	3 1/0 AWG	4 1/0 AWG	4 1/0 AWG	4 1/0 AWG
			70 ft.	21.3 M	8 AWG	6 AWG	4 AWG	4 AWG	2 AWG	2 AWG	1 AWG	0 AWG	0 AWG	2 1/0 AWG	3 1/0 AWG	4 1/0 AWG				
			80 ft.	24.4 M	8 AWG	6 AWG	4 AWG	2 AWG	2 AWG	1 AWG	0 AWG	0 AWG	2 1/0 AWG	3 1/0 AWG	4 1/0 AWG					
			90 ft.	27.4 M	8 AWG	6 AWG	4 AWG	2 AWG	2 AWG	1 AWG	0 AWG	0 AWG	2 1/0 AWG	3 1/0 AWG	4 1/0 AWG					
		100 ft.	30.5 M	8 AWG	6 AWG	4 AWG	2 AWG	2 AWG	1 AWG	0 AWG	0 AWG	2 1/0 AWG	3 1/0 AWG	4 1/0 AWG						
		110 ft.	33.5 M	8 AWG	6 AWG	4 AWG	2 AWG	2 AWG	1 AWG	0 AWG	0 AWG	2 1/0 AWG	3 1/0 AWG	4 1/0 AWG						
		120 ft.	36.6 M	8 AWG	6 AWG	4 AWG	2 AWG	2 AWG	1 AWG	0 AWG	0 AWG	2 1/0 AWG	3 1/0 AWG	4 1/0 AWG						
		130 ft.	39.6 M	8 AWG	6 AWG	4 AWG	2 AWG	2 AWG	1 AWG	0 AWG	0 AWG	2 1/0 AWG	3 1/0 AWG	4 1/0 AWG						

Although this process uses information from ABYC E-11 to recommend wire size and circuit protection, it may not cover all of the unique characteristics that may exist on a boat. If you have specific questions about your installation please consult an ABYC certified installer.

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INSTALLATION INSTRUCTIONS

DC

1. Unscrew old light from the pole, and prepare the new light by bringing it next to the pole.
2. The red wire is for power, and the black wire is for ground.
3. Connect wires using heat-shrink butt connectors.
4. Screw the fixture into the pole's top-collar, making sure not to damage wiring while threading light into place.
5. Test operation of light fixture.
6. Get back to saving lives.

AC

1. Unscrew old light from the pole, and prepare the new light by bringing it next to the pole.
2. The black wire is for line voltage, white is for neutral (or leg 2 on 240v AC systems), and the green wire is for earth/ground.
3. Connect wires using heat-shrink butt connectors.
4. Screw the fixture into the pole's top-collar, making sure not to damage wiring while threading light into place.
5. Test operation of light fixture.
6. Get back to saving lives.

***Note:** Occasionally a fixture from AC to DC or vice-versa will be built after production based on inventory and order requests. Always refer to wire color to identify AC vs DC fixture voltage range.



Pole Mounted Guardian
Product Page

