

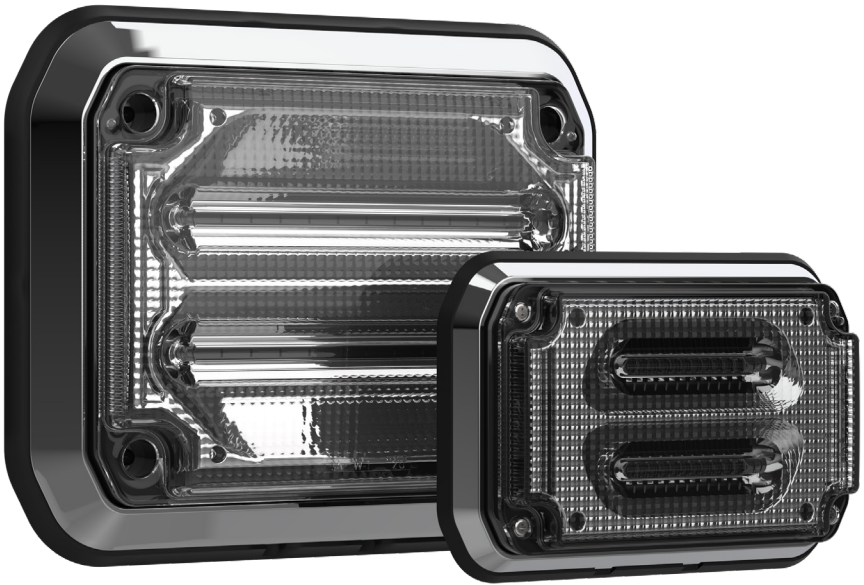


HVC GUARDIAN WARNING LIGHT SERIES INSTRUCTION MANUAL

HVC Guardian & Guardian Junior Warning

FT-HVC-GSM-WN & FT-HVC-GSMJR-WN Models

MANUAL VERSION 1.5 (January 23, 2025)



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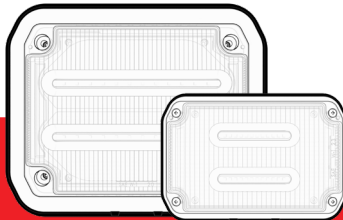
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FT-HVC GUARDIAN WARNING SERIES



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

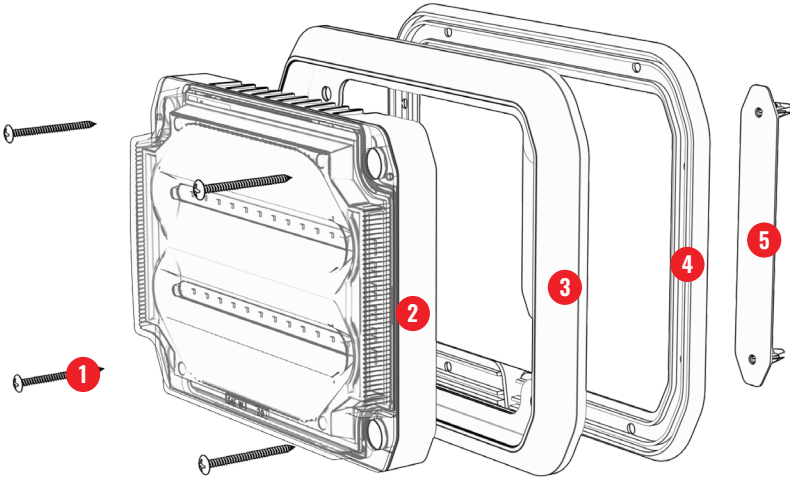


Warranty Information: Full policy available Online at hivizleds.com/warranty

- 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.



HVC GUARDIAN WARNING LIGHT ASSEMBLY



PIECES INCLUDED

- 1** Screws (4)
P/N: ASC872
- 2** Light Fixture
- 3** Bezel
P/N: AHOSMCR
- 4** Gasket
P/N: AGKSMBK
- 5** Isolator
P/N: AWPSMBK

TOOLS REQUIRED

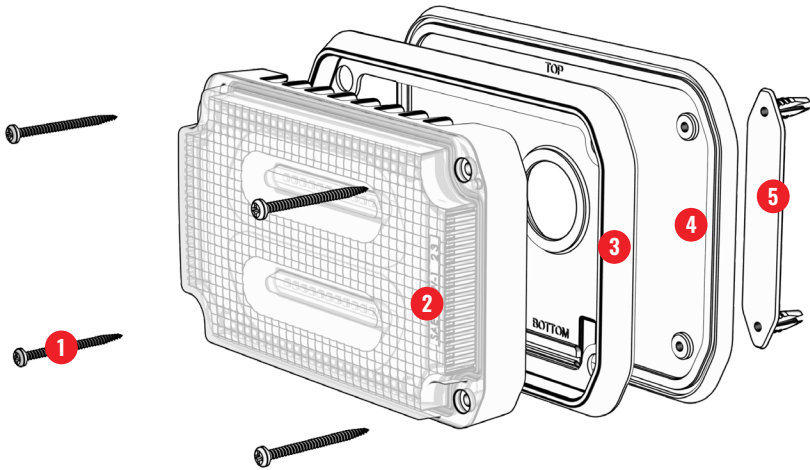
- Phillips Screwdriver
- Heat-shrink butt connectors
- Wire Strippers

NOTE:

Tighten screws by hand/screwdriver.
Power-tools can cause damage to isolators
and cause an insecure attachment.



HVC GUARDIAN JR WARNING LIGHT ASSEMBLY



PIECES INCLUDED

- 1** Screws (4)
P/N: ASC495
- 2** Light Fixture
- 3** Bezel
P/N: AHOSMJCR
- 4** Gasket
P/N: AGKSMJBK
- 5** Isolator
P/N: AWPSMJBK

TOOLS REQUIRED

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

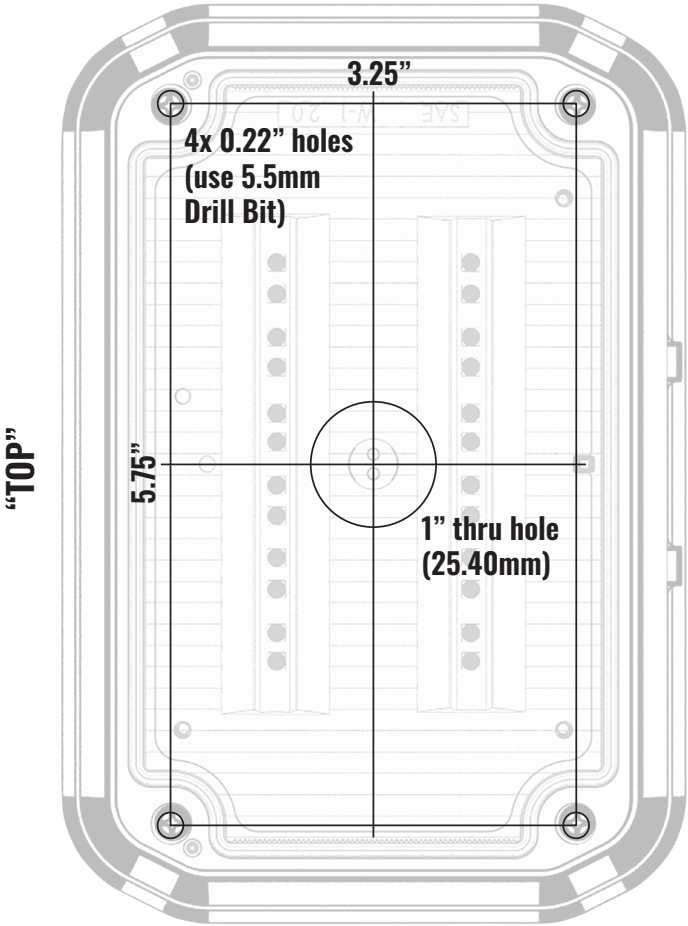
NOTE:

Tighten screws by hand/screwdriver.
Power-tools can cause damage to isolators
and cause an insecure attachment.



MOUNTING DIMENSIONS

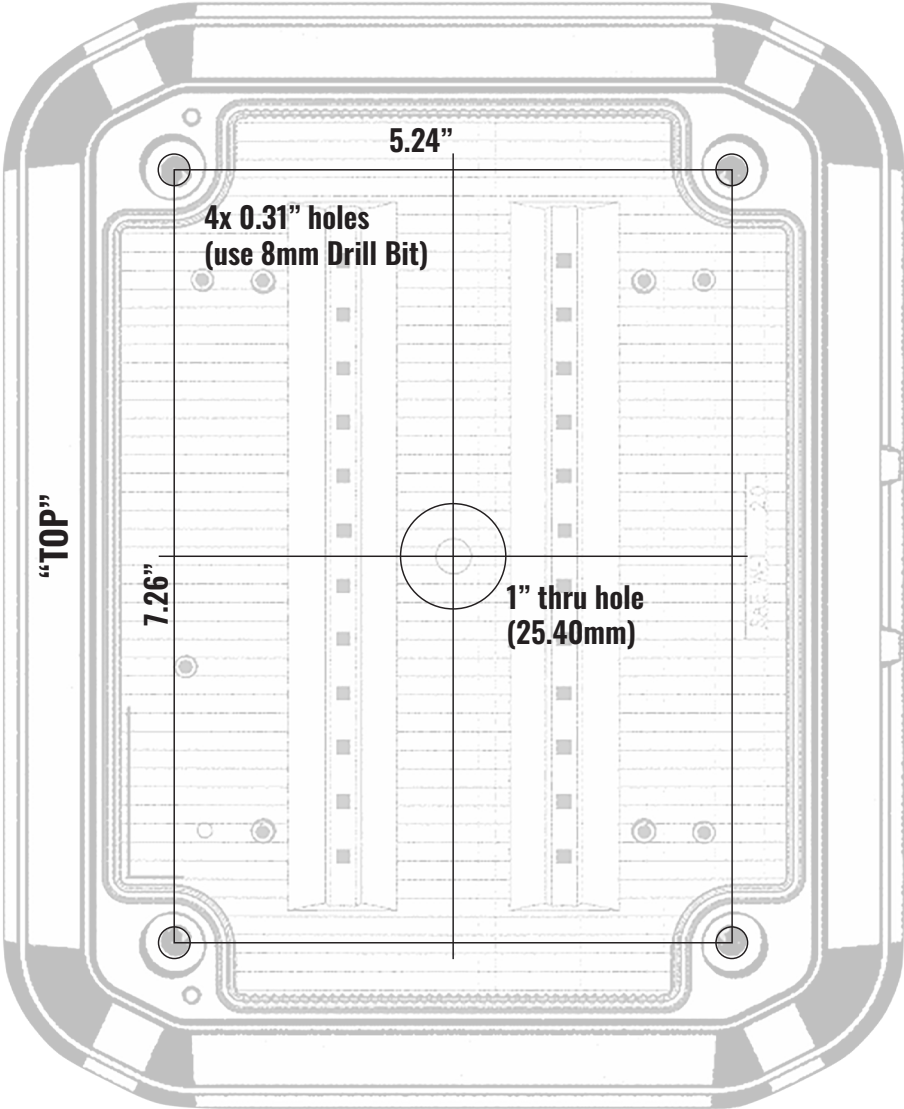
*Please see template on separate full size pieces of paper included in package to use. The template below is NOT to scale.



GUARDIAN JR WARNING: 7.48" X 5.11"



***Please see template on separate full size pieces of paper included in package to use. The template below is NOT to scale.**

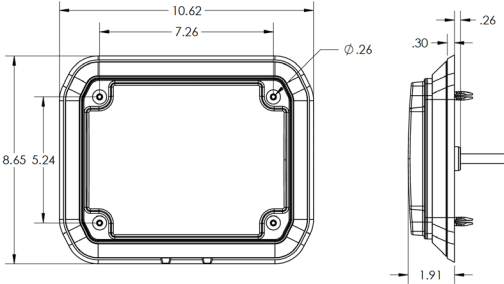


GUARDIAN WARNING: 10.66” X 8.69”



TECHNICAL SPECIFICATIONS

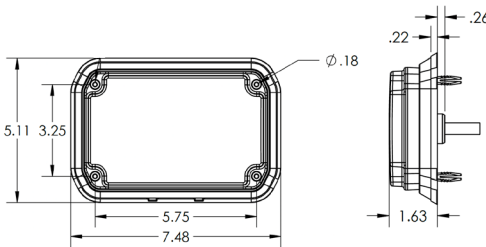
HVC GUARDIAN WARNING LIGHT



HVC GUARDIAN WARNING LIGHT

DIMENSIONS	10.62" X 8.65" X 1.91"
WEIGHT	4.4 LBS.
BEZEL	CHROME OR BLACK
INPUT VOLTAGE	11-16V DC
CERTIFICATIONS	SAE J595 CLASS 1; SAE J578; NFPA 1901
LED COLOR OPTIONS	RED, BLUE, AMBER, WHITE, RED/GREEN, RED/BLUE, BLUE/AMBER, AMBER/GREEN, AMBER/WHITE, BLUE/GREEN, BLUE/WHITE, RED/AMBER, RED/WHITE, WHITE/GREEN

HVC GUARDIAN JR WARNING LIGHT



HVC GUARDIAN JR WARNING LIGHT

DIMENSIONS	7.48" X 5.11" X 1.63"
WEIGHT	1.7 LBS.
BEZEL	CHROME OR BLACK
INPUT VOLTAGE	11-16V DC
CERTIFICATIONS	SAE J595 CLASS 1; SAE J578; NFPA 1901
LED COLOR OPTIONS	RED, BLUE, AMBER, WHITE, RED/GREEN, RED/BLUE, BLUE/AMBER, AMBER/GREEN, AMBER/WHITE, BLUE/GREEN, BLUE/WHITE, RED/AMBER, RED/WHITE, WHITE/GREEN

GUARDIAN JR. & GUARDIAN WARNING OPTIONAL ACCESSORIES



GUARDIAN JR. BLACKOUT BEZEL

P/N: P-GSMJR-BOBEZEL

Matte black replacement bezel for FireTech Guardian Jr Series Product.



GUARDIAN BLACKOUT BEZEL

P/N: P-GSM-BOBEZEL

Matte black replacement bezel for FireTech Guardian Series Product.



GUARDIAN RETROFIT GASKET

P/N: P-GSM-RGKIT

For replacing older style fixture or halogen side scene light. Covers old or oversized holes in the body.



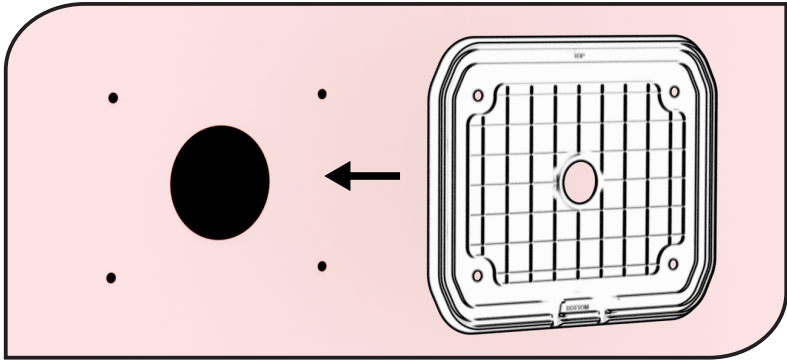
GUARDIAN BEZEL DELETE GASKET

P/N: P-GSM-BDKIT

Allows installation of Guardian/Guardian Elite without chrome bezel for a reduced mounting profile.



WHEN AND HOW TO USE A RETROFIT GASKET



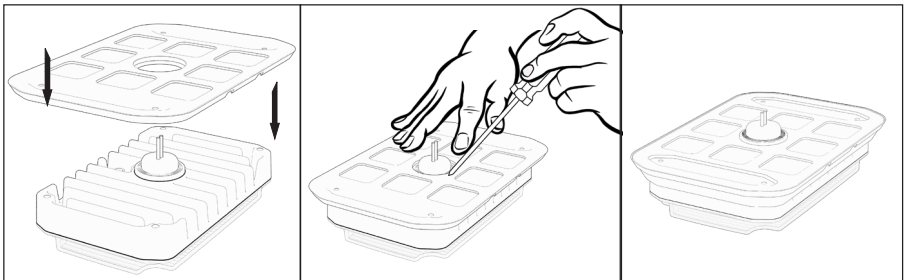
For Guardian full size fixtures: If an older light is removed and a large hole is left in its place, a **retrofit gasket kit** will be required (the standard fitment requires exact hole sizes for proper water ingress protection).

HOW TO SEAT A RETROFIT GASKET

When using the Retrofit Gasket, or any Guardian Junior product, it is important to ensure the gasket seats properly under the wire bushing on the back of the fixture for a water-tight seal.

To install the gasket around the bushing:

1. Line the gasket, fixture, and bezel up in place (be sure drain holes are at the BOTTOM).
2. On the gasket, push the rubber material **down and underneath** the bushing on the back of the light. Pulling on the corners of the gasket to stretch the rubber material and allow for the gasket to seat is helpful.
3. The gasket needs to be hooked over top of the light. **If needed**, use a flat screwdriver to work the gasket around until it seats in place.



Step 1

Step 2

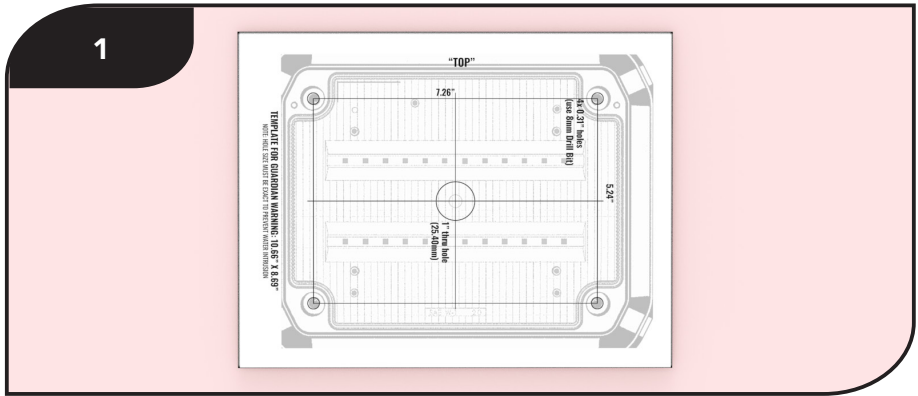
Step 3



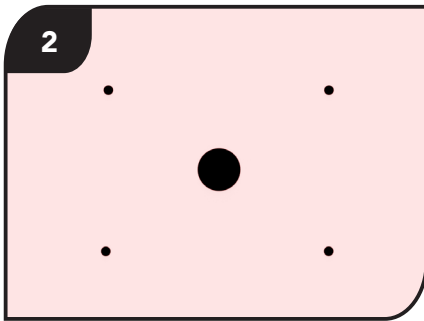
INSTALLATION INSTRUCTIONS



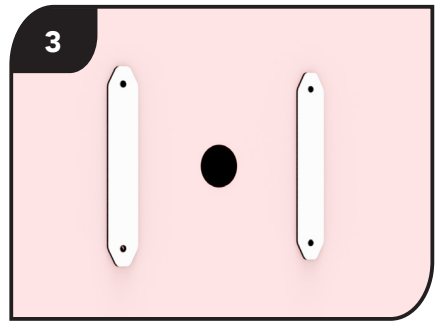
WARNING: TURN OFF POWER BEFORE WIRING



Using the included full size mounting template, measure and mark the holes using a permanent marker, check to be sure there is no wiring or other critical infrastructure behind the mounting location (and that you have adequate access to run wiring) then center punch (**measure twice, cut once**).



Drill holes. Exact diameters are important for water sealing and secure mounting.



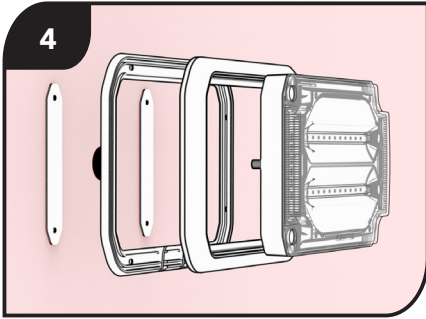
Once holes have been drilled, install the **isolators** (they prevent the light fixture and mounting hardware from coming in contact with the body, preventing galvanic corrosion), a rubber mallet can be used to pop them in place.



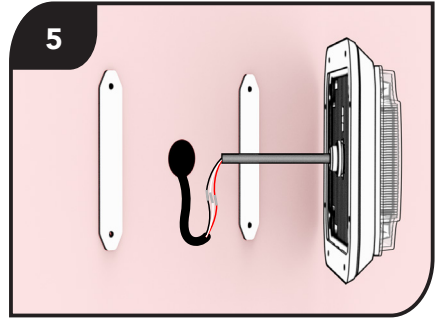
INSTALLATION INSTRUCTIONS (CONT.)



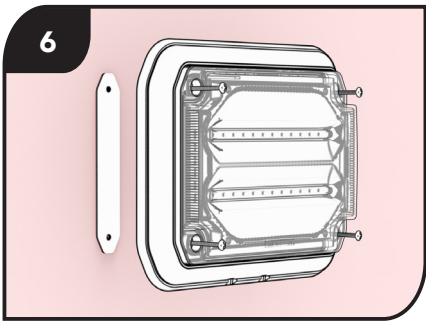
WARNING: TURN OFF POWER BEFORE WIRING



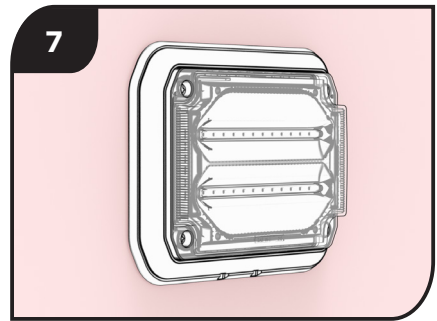
Install the gasket on your bezel and the bezel with your fixture before connecting wiring. Be sure the gasket drains are at the bottom.



Connect wiring from HVC Zone Module or OMEN end module/ beacon to the HVC Guardian fixture (it may be necessary to have a second person hold the light while you connect the wiring). Be sure to leave a service loop (slack in the wire) to allow for removal and re-installation if needed.



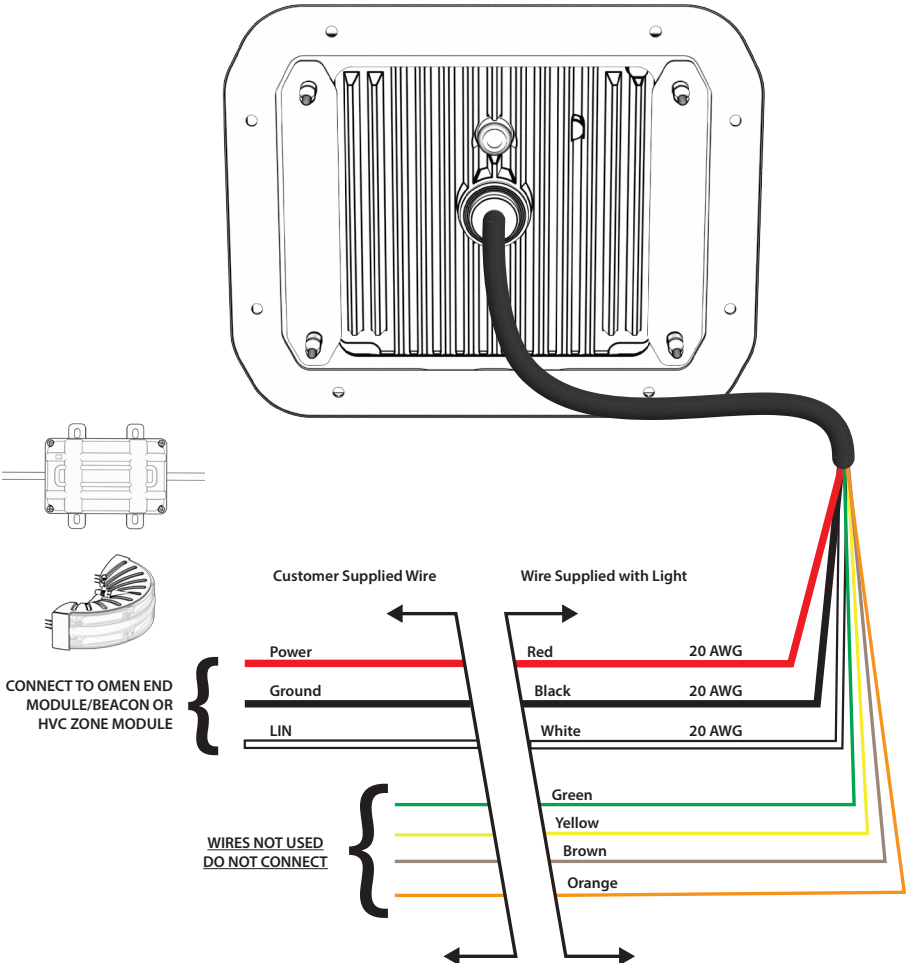
Align fixture with isolators and install fixture **using included mounting screws**. Use a manual screwdriver to prevent damage to the isolators.



Installation complete.



WIRING INFORMATION





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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Standard and Metric Wire Comparison Table Available Wire Size Wire Size Metric	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
0 to 20 ft.	0 to 6.1 M	0 to 6 ft.																
30 ft.	9.1 M	10 ft.	16 AWG	14 AWG	14 AWG	14 AWG	12 AWG	10 AWG	8 AWG	6 AWG	6 AWG	6 AWG	4 AWG	4 AWG	4 AWG	2 AWG	1 AWG	1 AWG
50 ft.	15.2 M	15 ft.	12 AWG	12 AWG	10 AWG	10 AWG	8 AWG	8 AWG	6 AWG	6 AWG	4 AWG	4 AWG	4 AWG	2 AWG	2 AWG	1 AWG	1 AWG	1 AWG
65 ft.	19.8 M	20 ft.	10 AWG	10 AWG	8 AWG	8 AWG	6 AWG	6 AWG	6 AWG	4 AWG	4 AWG	4 AWG	2 AWG	2 AWG	2 AWG	1 AWG	1 AWG	1 AWG
80 ft.	24.4 M	25 ft.	8 AWG	8 AWG	6 AWG	6 AWG	6 AWG	6 AWG	4 AWG	4 AWG	4 AWG	2 AWG	2 AWG	2 AWG	2 AWG	1 AWG	1 AWG	1 AWG
100 ft.	30.5 M	30 ft.	6 AWG	6 AWG	6 AWG	6 AWG	6 AWG	4 AWG	4 AWG	4 AWG	2 AWG	2 AWG	2 AWG	2 AWG	2 AWG	1 AWG	1 AWG	1 AWG
130 ft.	39.6 M	40 ft.	4 AWG	4 AWG	4 AWG	4 AWG	4 AWG	4 AWG	2 AWG	2 AWG	2 AWG	2 AWG	2 AWG	2 AWG	2 AWG	1 AWG	1 AWG	1 AWG
165 ft.	50.3 M	50 ft.	2 AWG	2 AWG	2 AWG	2 AWG	2 AWG	2 AWG	2 AWG	2 AWG	2 AWG	2 AWG	2 AWG	2 AWG	2 AWG	1 AWG	1 AWG	1 AWG
200 ft.	61.0 M	60 ft.	1 AWG	1 AWG	1 AWG	1 AWG	1 AWG	1 AWG	1 AWG	1 AWG	1 AWG	1 AWG	1 AWG	1 AWG	1 AWG	1 AWG	1 AWG	1 AWG
		70 ft.	21.3 M															
		80 ft.	24.4 M															
		90 ft.	27.4 M															
		100 ft.	30.5 M															
		110 ft.	33.5 M															
		120 ft.	36.6 M															
		130 ft.	39.6 M															

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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