

# WHELEN<sup>®</sup>

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## Installation Guide: Model AF6016A Ambulance Halogen Flasher

### Safety First

This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained herein that could prevent serious injury or damage.

- **Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures.**
- **If mounting this product requires drilling holes, the installer MUST be sure that no vehicle components or other vital parts could be damaged by the drilling process. Check both sides of the mounting surface before drilling begins. Also de-burr any holes and remove any metal shards or remnants. Install grommets into all wire passage holes.**
- **If this product is mounted with tape or Velcro™, clean the mounting surface with a 50/50 mix of isopropyl alcohol and water and dry thoroughly.**
- **Do not install this product or route any wires in the deployment area of your air bag. Equipment mounted or located in the air bag deployment area will damage or reduce the effectiveness of the air bag, or become a projectile that could cause serious personal injury or death. Refer to your vehicle owners manual for the air bag deployment area. The User/Installer assumes full responsibility to determine proper mounting location, based on providing ultimate safety to all passengers inside the vehicle.**
- **For this product to operate at optimum efficiency, a good electrical connection to chassis ground must be made. The recommended procedure requires the product ground wire to be connected directly to the NEGATIVE (-) battery post.**
- **If this product uses a remote device to activate or control this product, make sure that this control is located in an area that allows both the vehicle and the control to be operated safely in any driving condition.**
- **Do not attempt to activate or control this device in a hazardous driving situation.**
- **It is recommended that these instructions be stored in a safe place and referred to when performing maintenance and/or reinstallation of this product.**
- **FAILURE TO FOLLOW THESE SAFETY PRECAUTIONS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT OR VEHICLE AND/OR SERIOUS INJURY TO YOU AND YOUR PASSENGERS!**

## INSTALLING THE HALOGEN LIGHTING SYSTEM:

It is recommended you follow the general order of steps as indicated below:

1. Choose an accessible location for the halogen flasher module, protected from the weather and abuse.
2. Determine, on the vehicle, the desired locations of the remote halogen light head assemblies.
3. String interconnecting cables from halogen flasher control module to the locations chosen to hold the remote halogen light head assemblies.
4. Connect the interconnecting cables to the halogen flasher control module.

**IMPORTANT: MAKE SURE THE HALOGEN FLASHER MODULE IS NOT CONNECTED TO POWER .**

5. Install, at the chosen locations, the halogen lightheads and connect them to the interconnecting cables. Do not, at this time, finalize the installation of the lightheads until the system's final test.
6. Install control switch and connect to halogen flasher module.
7. Install and connect the two power cables to the power source of the vehicle (battery), and test the halogen light system.

**Note: When passing interconnecting cables through metal surfaces, remove burrs from edges of the holes, and use rubber grommets to protect the cables. It is advisable to support the cables with cable ties, cable clamps, or with any other means, to make sure that they will not shift around or put tension on the connectors.**

## MOUNTING THE HALOGEN FLASHER MODULE:

- The unit must be mounted with the cooling fins in the vertical plane for maximum heat dissipation (Fig. 1).
- Keep enough clearance, 3 inches minimum, around the unit for proper ventilation, and room for easy access to the remote halogen light head interconnecting cable connectors. Sufficient room is also required to remove or install both the module outer cover and the internal slide-on cover (Fig. 2).
- Mount the halogen flasher module on a metal surface to enhance heat dissipation.

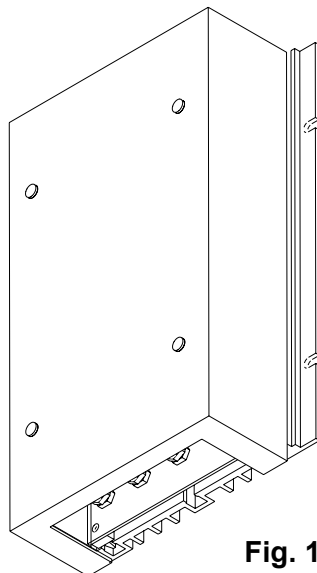


Fig. 1

## INSTALLING HALOGEN LIGHT HEAD INTERCONNECTING CABLES (customer supplied).

**IMPORTANT: DURING THIS OPERATION MAKE SURE HALOGEN FLASHER IS NOT CONNECTED TO POWER.**

The interconnecting cables should have color coded wires. A good installation practice is to label the opposite end of the cables with an indelible marker with the number of the halogen connector to which it is connected. Leave a service loop in the interconnecting cable at the halogen flasher module location, in case maintenance should be required at a later date. Determine the correct wire size for the cables, depending on how you wire the system (If you wire the lightheads individually, they will have a different amp draw from lightheads wired in series)

**Note: All customer supplied wires that connect to the positive terminal of the battery, must be sized to supply at least 125% of the maximum operating current and fused at the battery to carry the load.**

1. Route the interconnecting cables through the vehicle to the location chosen for the halogen light heads. Cut the cable length leaving an allowance for a service loop. During the installation of the cable avoid sharp edges and chafe points.
2. When halogen lightheads are supplied with a 2 wire pigtail to be butt spliced to the interconnecting cables. Make sure, when butt splicing, to match the colored wires of the pigtail to the same colored wires of the flasher module.

## INSTALLING THE HALOGEN LIGHTHEADS:

After connecting the halogen lightheads (Customer Supplied) to the interconnecting cables using the 2 wire pigtail assemblies, install them according to their instructions. It is recommended not to finalize the installation of the individual halogen lightheads until the complete system has been tested, since it is possible that minor adjustments may be needed later on.

## CONNECTING THE HALOGEN FLASHER MODULE TO THE CONTROL SWITCH:

The halogen flasher module is to be connected to a customer supplied mode control switch. The single pole, double throw, center off type switch, is to be installed inside the vehicle's cab. In Mode 1, all halogen lightheads on the vehicle are flashing. In Mode 2, only the remote halogen lightheads, located on the box of the vehicle, will be flashing. The flashing sequence of both modes is controlled by the halogen flasher module.

## CONNECTING THE HALOGEN FLASHER MODULE TO THE POWER SOURCE: (battery)

**IMPORTANT: DURING THIS STEP, MAKE SURE THAT CONTROL SWITCH IS IN THE OFF POSITION.**

Use an #8 AWG minimum size wire for positive and a #10 AWG minimum size wire for negative (both customer supplied) with ring lugs to fit the power input studs located on the halogen flasher unit. These studs are clearly marked positive (+) and negative, and are colored red and black respectively. Connect the positive wire (+) directly to the battery positive post through a customer supplied 50 amp master fuse (see wiring diagram). Install this master fuse as close to power source as possible. Connect the negative wire (-) directly to the battery negative post.

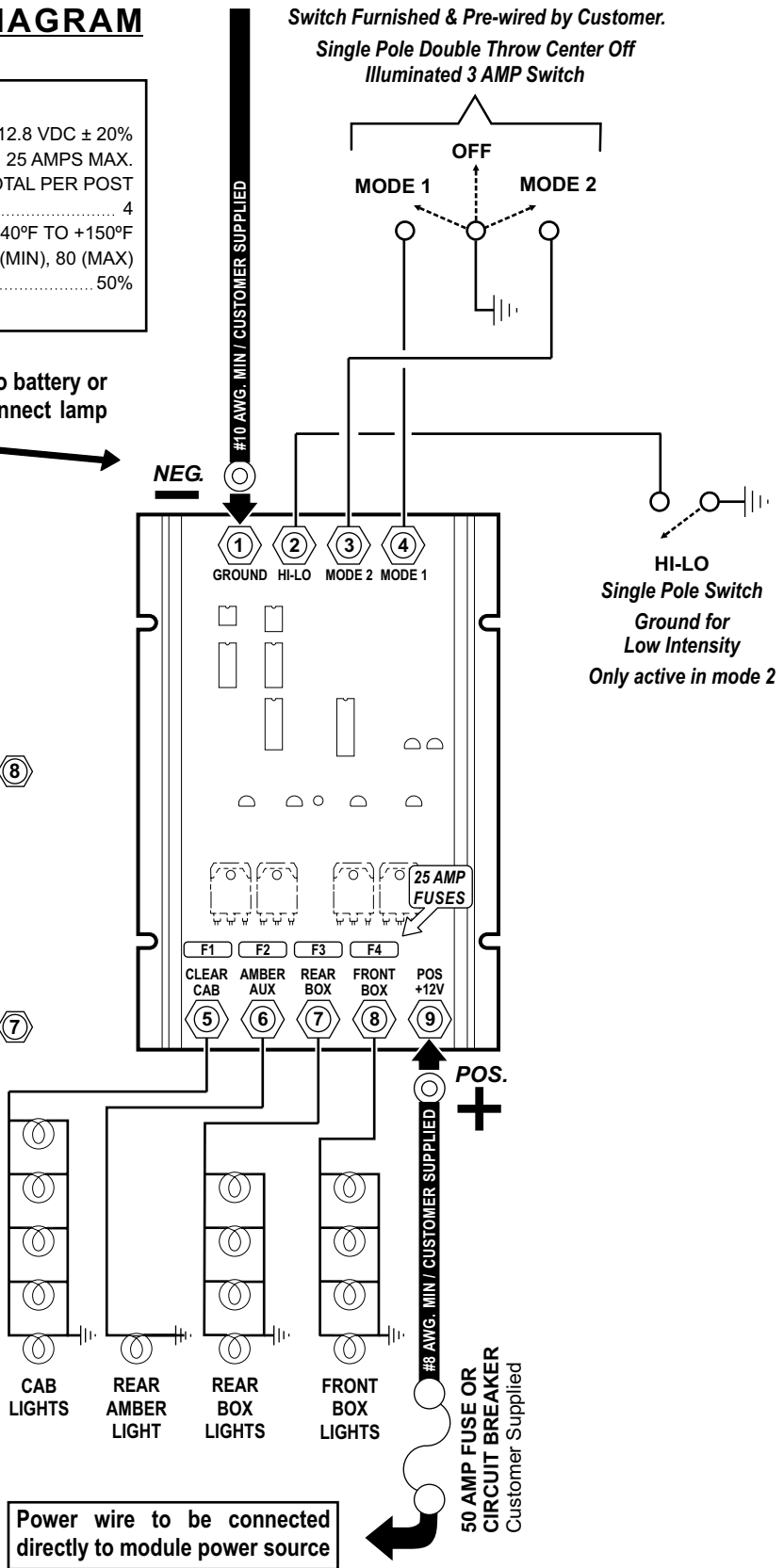
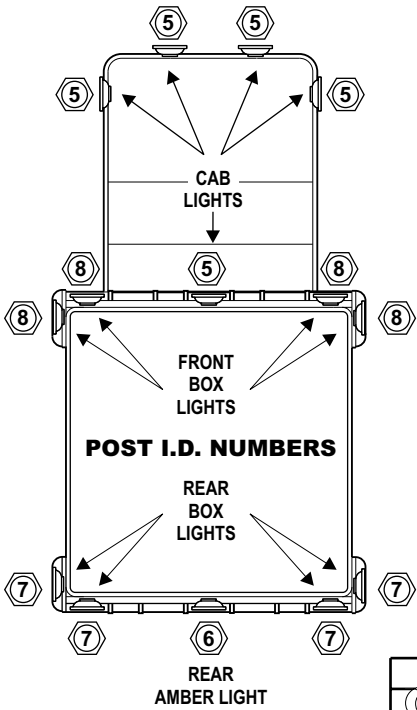
## HI-LO INTENSITY:

Switches intensity of lighting from high to low using a customer supplied single pole switch. This function is only active in mode 2. (See wiring diagram)

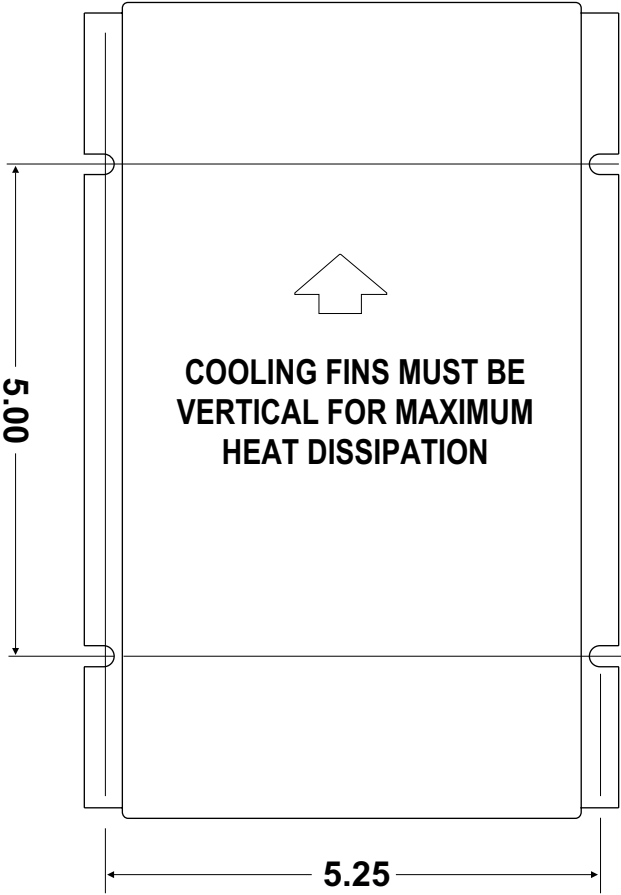
# AF6016A WIRING DIAGRAM

SPECIFICATIONS	
INPUT VOLTAGE .....	12.8 VDC ± 20%
OUTPUT CURRENT / PER POST .....	25 AMPS MAX.
	320 WATTS TOTAL PER POST
NUMBER OF OUTLETS .....	4
OPERATING TEMPERATURE .....	-40°F TO +150°F
FLASH RATE .....	75 F/M X 2 (MIN), 80 (MAX)
DUTY CYCLE .....	50%
KKK-A-1822-C CERTIFIED	

Ground wire to be connected directly to battery or module grounding system. Do not connect lamp commons to this terminal.



**INSTALLATION DIMENSIONS**



**FIG. 2  
ASSEMBLY**

