

# WHELEN<sup>®</sup>

ENGINEERING COMPANY INC.

Route 145, Winthrop Road,  
Chester, Connecticut 06412

Phone: (860) 526-9504

Fax: (860) 526-4078

Internet: [www.whelen.com](http://www.whelen.com)

Sales e-mail: [autosale@whelen.com](mailto:autosale@whelen.com)

Canadian Sales e-mail: [autocan@whelen.com](mailto:autocan@whelen.com)

Customer Service e-mail: [custserv@whelen.com](mailto:custserv@whelen.com)

## Installation Guide for Model ADA48 Direction Advisor

### 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.**
- **This product contains either strobe light(s), halogen light(s), high-intensity LEDs or a combination of these lights. Do not stare directly into these lights. Momentary blindness and/or eye damage could result.**
- **Use only soap and water to clean the outer lens. Use of other chemicals could result in premature lens cracking (crazing) and discoloration. Lens in this condition have significantly reduced effectiveness and should be replaced immediately. Inspect and operate this product regularly to confirm its proper operation and mounting condition. Do not use a pressure washer to clean this product.**
- **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!**

## **ADA48 DIRECTION ADVISOR SYSTEM.**

The ADA48 Direction Advisor system was designed to provide a supplemental directional warning message toward the rear of a vehicle.

### ***The ADA48 Direction Advisor features four functions:***

- **The eight halogen light head assemblies flashing sequentially to the right or the left of the unit.**
- **Two sets of two light head assemblies flashing alternately with each other.**
- **Light head assemblies flashing sequentially from the center of the light array to each end of the light bar.**

The flashing sequence described above, is based on having the unit installed facing the rear of the vehicle.

### ***Selecting a Mounting Location:***

When selecting a location keep in mind: ease of operation, installation, and unobstructed visibility. The light array assembly comes assembled with the two upper brackets of the mounting feet located inside the groove of the housing base. When assembled, the angular adjustment of the lower bracket permits the light array assembly to be mounted on sharp angled mounting surfaces (Fig. 2).

### ***Installation:***

Do not connect the Direction Advisor system to power source until the installation of the unit is completed.

1. Remove the two lower brackets of the mounting feet from the mounting kit and secure them to the upper brackets with the supplied hex head screw, internal tooth lock washer, split lock washer and hex nut.
2. Slide the mounting feet in the desired position inside the groove, and secure them with the phillips machine screws and hardware supplied. (Fig. 2)
3. Slightly loosen the hex nuts holding the upper and lower brackets together and place the light array assembly in the desired position on the mounting surface. Adjust the lower brackets of the mounting feet to rest on a firm surface. Trace the outline of these brackets on that surface. Also, if the 5-conductor power cable (customer supplied) is to run inside the mounting surface, indicate the location of the passage hole.
4. Remove the light array assembly from the mounting surface and remove the lower brackets of the mounting feet from the upper brackets. Align these brackets with the outlines traced in the previous step. Trace the mounting hole locations on the mounting surface (See important note under step 6).

5. Examine the back side of the mounting surface to insure that no damage will occur when drilling the mounting holes. Drill the mounting holes with a 7/32" drill. Also at this time, if the power cable is to be installed inside mounting surface, drill the power cable passage hole to fit the power cable.
6. Mount the lower brackets on the mounting surface with the machine screws, and whiz nuts supplied, in the order shown in figure 2.

**Note: Make sure that the lower bracket is facing in the same direction as it was facing, when it was outlined on the mounting surface as indicated in step 3.**

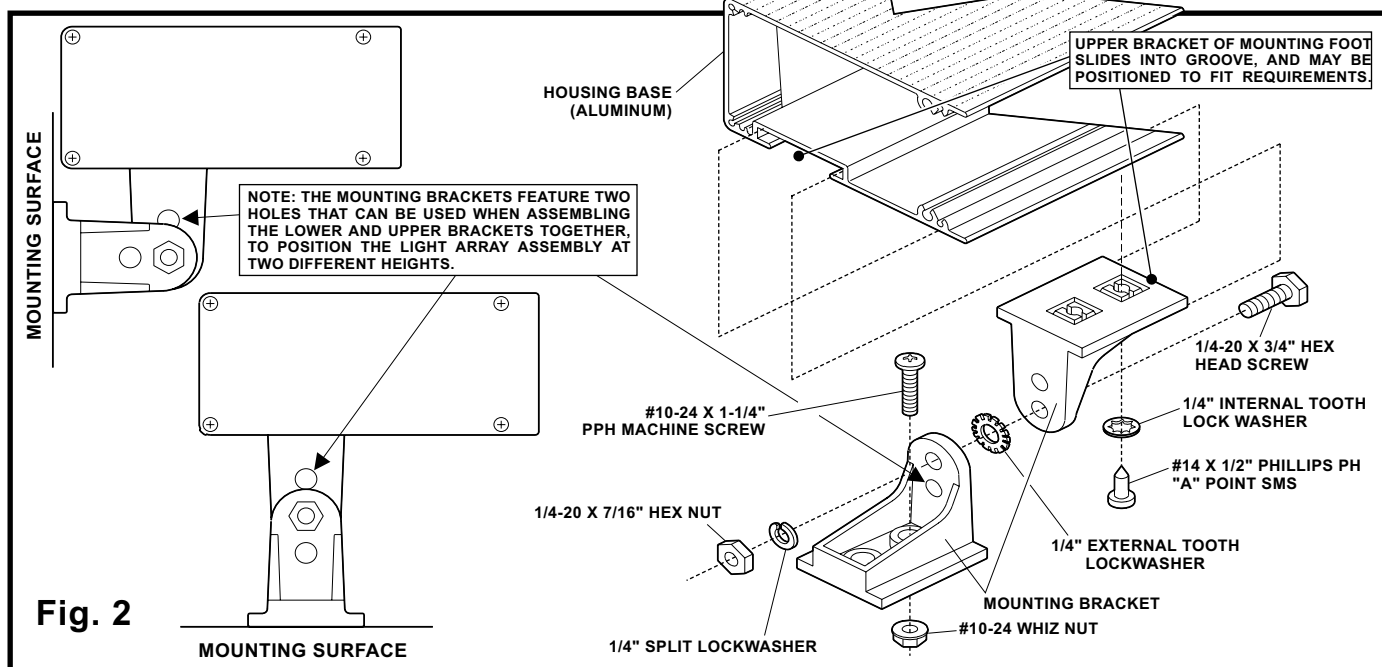
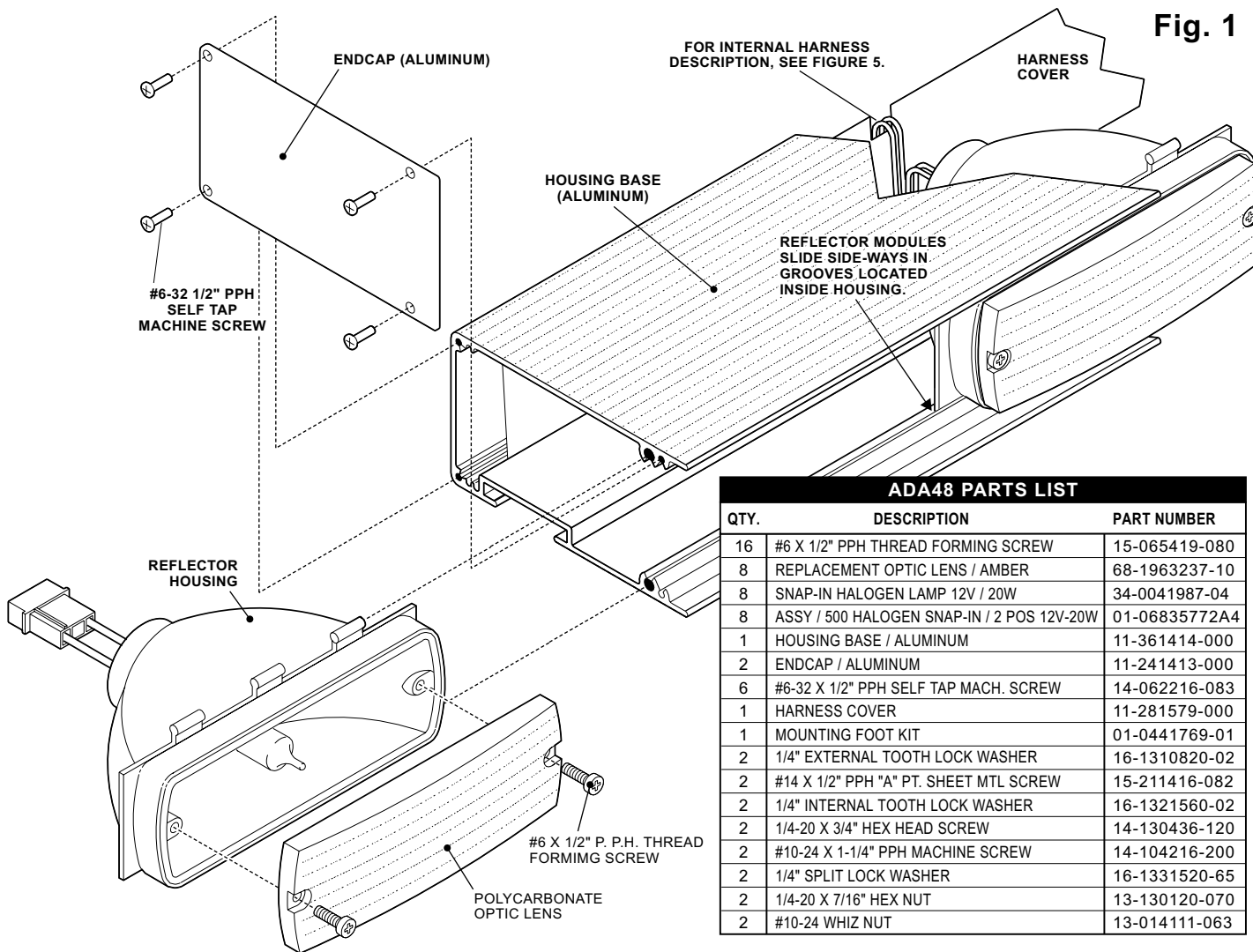
7. Lower the light array assembly onto the two lower brackets secured to the mounting surface. Fit the upper brackets located on the light array assembly against the lower brackets. Secure both brackets together with the supplied hex head screw, internal tooth lock washer, split lock washer and hex nut, in the same order as indicated in figure 2. Before tightening the upper and lower brackets together, rotate the light array assembly in the proper plane.

**Note: There are two holes that can be used when assembling lower and upper brackets together, to position the light array assembly at two different heights (Fig. 2)**

8. Slide power cable through passage hole in mounting surface and route it from the light array location to the area selected for the Center-Off control switches. Holes to be drilled in metal surfaces to serve as cable passages should be deburred, and sharp bends in the cable at the corners should be avoided.
9. On the cable exit end of the light array, remove the end cap from the housing base (Fig. 1). Pull the 5 wires connected to the P.C. board assembly, and protruding from the cable exit hole, back inside the housing base. (Fig. 4) Insert the 5 conductor power cable through cable exit hole inside the housing base and crimp to these the 5 wires observing color coding. Secure power cable with strain relief, and remount end cap on the light array.
10. Connect the system to the power source and test.

**WARNING! When servicing or trouble shooting the Direction Advisor always disconnect it from the power source.**

**Fig. 1**



**Fig. 2**

## TROUBLESHOOTING:

### A. NOTHING WORKS.

1. Check that power cable is properly connected to power source.
2. Check that the Center-Off control switch is properly connected to power cable.
3. Check that the power cable is properly connected to the five wires from the P.C. board assembly, located inside the housing base (see step 9).

### B. ONE (OR MORE) LIGHT(S) NON-OPERATIONAL.

1. Check that the halogen lamp holder assembly is firmly plugged into the internal wire harness.
2. Determine if the lamp is burned out by replacing the questionable lamp with a known good lamp.

**IMPORTANT NOTE:** REPLACE LAMPS ONE AT A TIME ONLY! If more than one light is removed from the unit without being replaced, the cable harness will shift and the socket connectors will be inaccessible.

## SERVICING LIGHT ARRAY ASSEMBLY:

Remove the end cap, and the reflector modules can be slid from the housing base by disconnecting them from the internal wire harness located in the back of the housing base, and replaced if needed (Figs. 1 & 3).

**Caution: To avoid personal injury, do not attempt to replace the lamp with your fingers! Use the lamp replacement tool supplied with spare lamp kits.**

1. Remove the two #6 x 1/2" screws holding the lens to reflector housing, and remove lens. Be sure the power to the lamp is turned off.

**Caution: Replacing any bulb requires the use of safety glasses to prevent injury! Do not handle the bulb with bare hands. Use gloves**

### To Replace a Snap-In bulb:

2. Be sure the power to the lamp is turned off. Locate the removal tool included with your new bulb. Use the small end of the tool to lift the base of the bulb assembly away from the socket as shown. Continue to lift until the bulb is free. Use either of these illustrated methods for best

results, depending upon application. Use pliers to hold the tool and aid bulb removal.

3. Insert the alignment tab of the new bulb into the bulb holder and press firmly into socket to lock the new bulb into place.
4. Wipe any finger prints from the glass bulb with a soft cloth or tissue. Replace lens and lens retaining screws.
5. If the reflector is dirty, clean gently with a soft cloth or tissue moistened with isopropyl alcohol. "DO NOT SCRUB, OR USE ABRASIVE CLEANERS."

**Caution: As not to crack the optic lens near the mounting holes, use hand held screw driver and tighten both retaining screws evenly.**

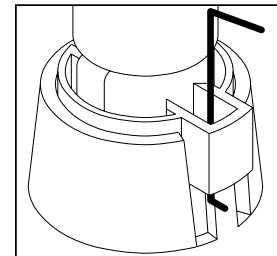
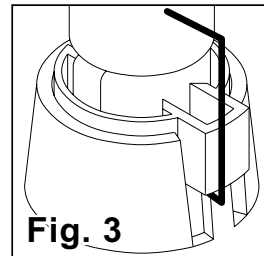


Fig. 3

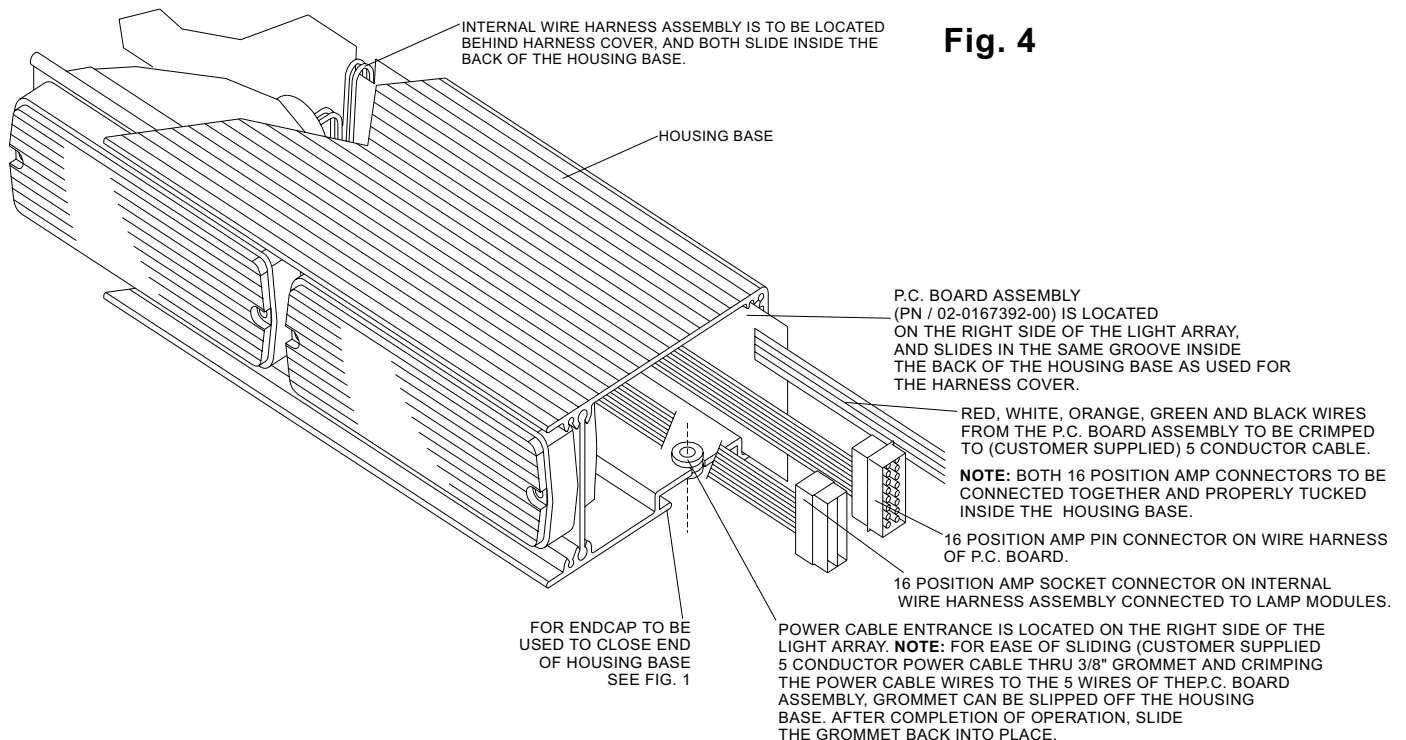
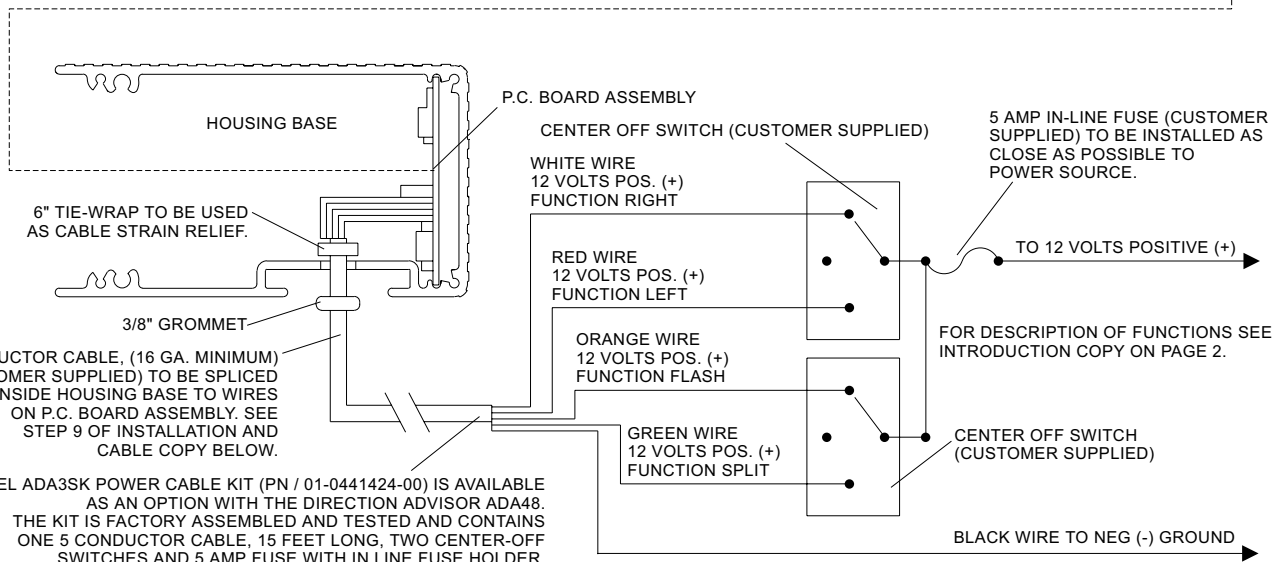
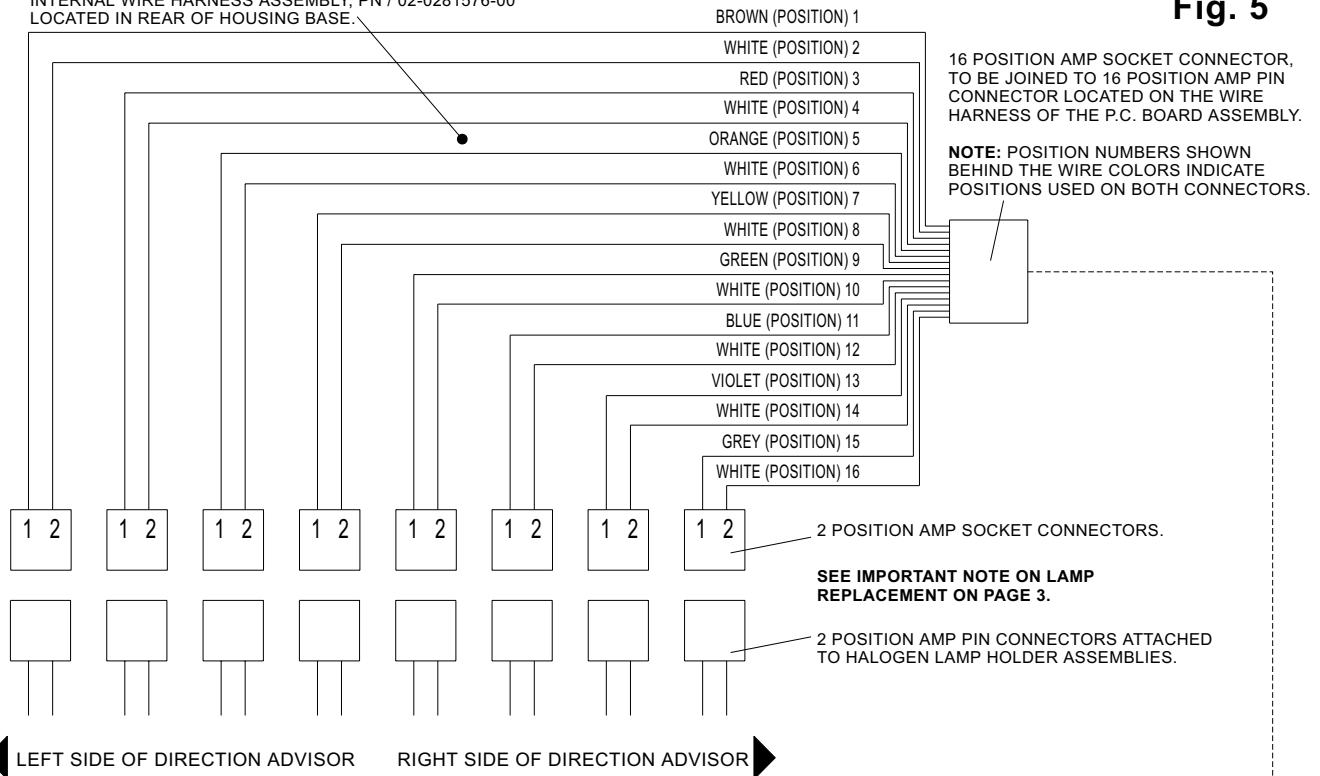


Fig. 4

**Fig. 5**

INTERNAL WIRE HARNESS ASSEMBLY, PN / 02-0281576-00  
LOCATED IN REAR OF HOUSING BASE.



**The outer surfaces of this product may be cleaned with mild soap and water. Use of any other chemicals may void product warranty. Do not use a pressure washer.**

**WARNING:** 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 be fused "at the battery" to carry that load.