

# WHELEN®

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## Installation Guide Model SB456HAL School Bus Paddle Sign Halogen Retro-fit Kit

### Safety First

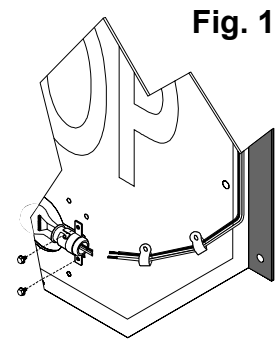
This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained 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 the 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.**
- **If this product contains strobe light(s), halogen light(s) or high-intensity LEDs, do not stare directly into these lights at a close distance. Momentary blindness and/or eye damage could result.**
- **If this product contains strobe light(s), halogen light(s) or high-intensity LEDs, use only soap and water to clean the lamp lens. Use of other chemicals could result in premature lens cracking (crazing) and discoloration. Lenses 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!**

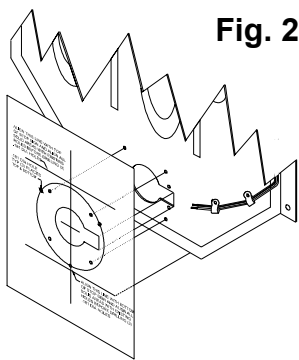
**NOTICE! The outer surfaces of this product may be cleaned with mild soap and water. Use of any other chemicals may void product warranty. Do not use a pressure washer.**

### Removal of Existing Lamps...

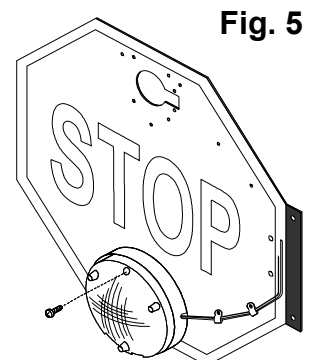
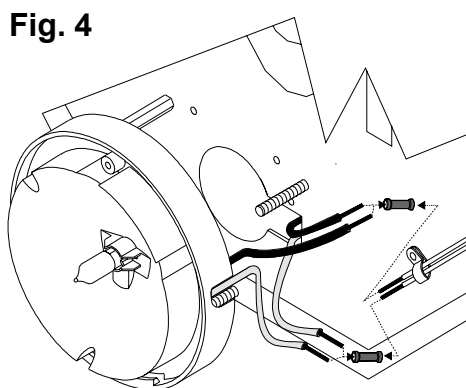
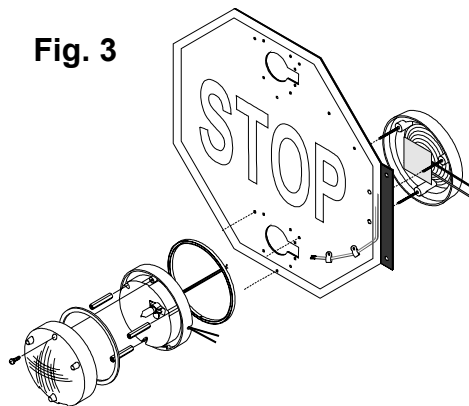
1. Remove existing paddle lamp lenses from the school bus paddle sign with a 1/4" nut driver. This will allow access to the light socket assembly.
2. Using a pair of wire cutters, cut the two wires going into the socket assembly **as close to the socket itself as possible** (fig. 1). This will leave enough wire for your new paddle lamps.
3. Using a 1/4" nut driver, remove the existing light socket.
4. Repeat procedure for the remaining paddle lamp.



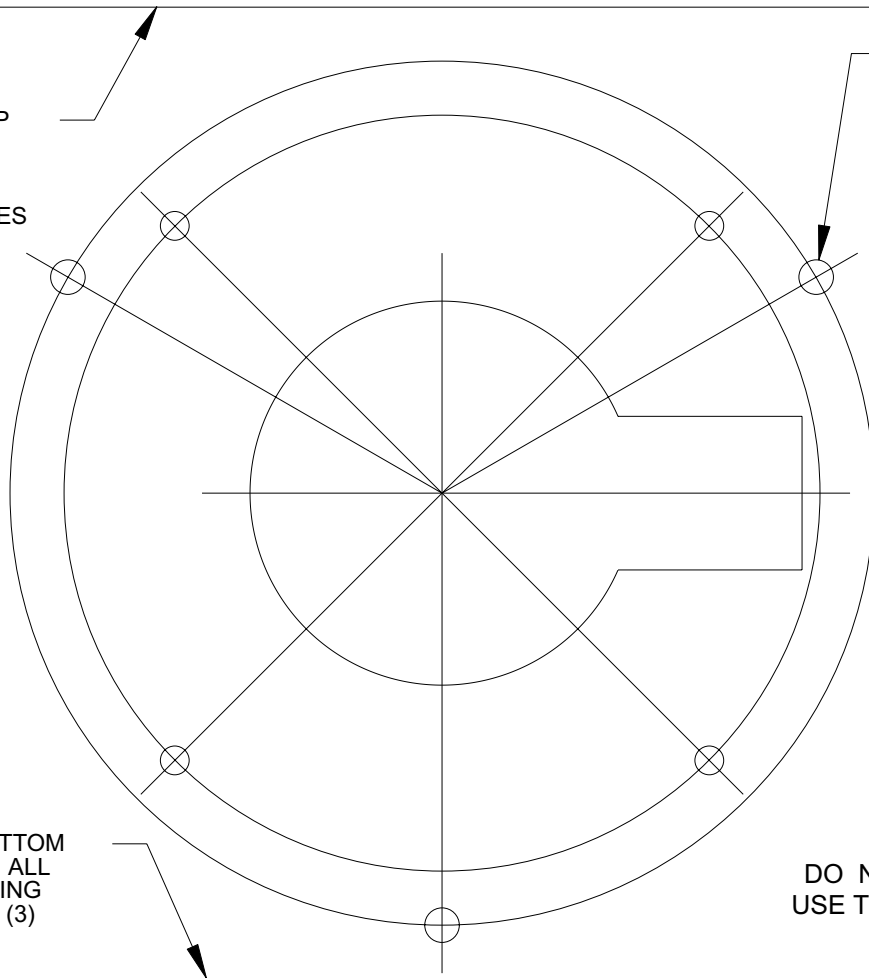
### Installation of Halogen Paddle Sign Retro-Fit Kit...



1. Using the supplied template, drill the holes required to mount the halogen paddle light. It is **extremely important** to be sure that you have properly aligned the template (as detailed in the template instructions) **before** you begin to drill the new holes (see fig. 2).
2. Insert the halogen paddle lamp mounting studs through your new mounting holes as indicated in fig. 3. Be sure that the two wires from the new lamp are fed through the existing lamp clearance hole. Use one of the special stud nuts to secure the lamp to the paddle while you are mounting and wiring the remaining lamp.
3. Connect the BLACK wire from the front paddle lamp to the black wire from the rear paddle lamp. Now locate the wiring harness for the previous lamps and connect the two black wire(s) to the Negative wire (RED w/WHITE stripe). An In-Line wire connector should be used to ensure a solid connection and to eliminate the possibility of a short circuit (see fig. 4).
4. Repeat step 3 using the RED wires from the new lamps and connect them to the RED wire from the existing harness.
5. Now both the front and rear light may be mounted to the paddle. Remove the stud nut and guide the rear lamp stud holes over the mounting studs. Make sure that the wires that exit through the notch, are not pinched between the lamp, gasket or sign. Firmly connect the two sides with the stud nuts.
6. Carefully insert the lens into the reflector assembly (fig. 5). Do not force the lens into place. Align the bottom of the lens first and then the top for proper fit. Check both sides of the paddle sign for proper operation of your new lamps. Repeat steps 1 through 5 for installation of the upper halogen paddle sign lamp installation

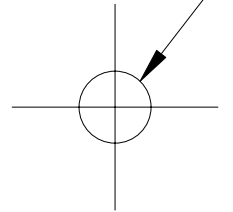


ALIGN THIS LINE WITH TOP OF STOP SIGN AND ALIGN ALL SOLID AREAS WITH EXISTING HOLES BEFORE DRILLING (3) .180 DIA HOLES



.180 DIA TYP  
(3) PLACES  
TOP AND BOTTOM

.375 DIA THRU  
(REF) WIRE  
ENTRY HOLE

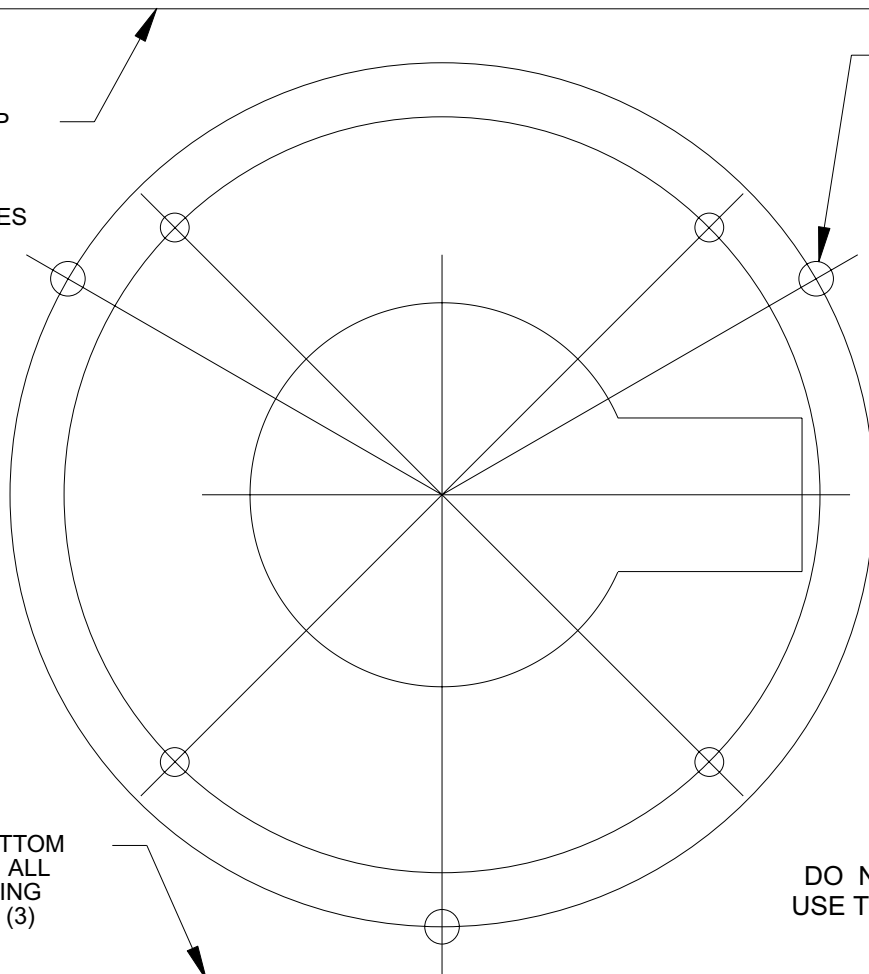


ALIGN THIS LINE WITH BOTTOM OF STOP SIGN AND ALIGN ALL SOLID AREAS WITH EXISTING HOLES BEFORE DRILLING (3) .180 DIA HOLES.

DO NOT PHOTOCOPY  
USE THIS ORIGINAL ONLY.

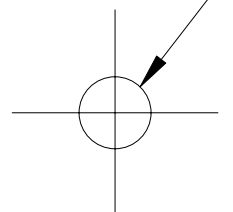
CUT HERE

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.180 DIA TYP  
(3) PLACES  
TOP AND BOTTOM

.375 DIA THRU  
(REF) WIRE  
ENTRY HOLE



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