

WHELEN[®]

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Installation Guide: Harley-Davidson[®] Pole Light Assembly

Warnings to Installers

Whelen's emergency vehicle warning devices must be properly mounted and wired in order to be effective and safe. Read and follow all of Whelen's written instructions when installing or using this device. Emergency vehicles are often operated under high speed stressful conditions which must be accounted for when installing all emergency warning devices. Controls should be placed within convenient reach of the operator so that he can operate the system without taking his eyes off the roadway. Emergency warning devices can require high electrical voltages and/or currents. Properly protect and use caution around live electrical connections. Grounding or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or vehicle damage, including fire. Many electronic devices used in emergency vehicles can create or be affected by electromagnetic interference. Therefore, after installation of any electronic device it is necessary to test all electronic equipment simultaneously to insure that they operate free of interference from other components within the vehicle. Never power emergency warning equipment from the same circuit or share the same grounding circuit with radio communication equipment. All devices should be mounted in accordance with the manufacturer's instructions and securely fastened to vehicle elements of sufficient strength to withstand the forces applied to the device. Driver and/or passenger air bags (SRS) will affect the way equipment should be mounted. This device should be mounted by permanent installation and within the zones specified by the vehicle manufacturer, if any. Any device mounted in the deployment area of an air bag will damage or reduce the effectiveness of the air bag and may damage or dislodge the device. Installer must be sure that this device, its mounting hardware and electrical supply wiring does not interfere with the air bag or the SRS wiring or sensors. Mounting the unit inside the vehicle by a method other than permanent installation is not recommended as unit may become dislodged during swerving; sudden braking or collision. Failure to follow instructions can result in personal injury. Whelen assumes no liability for any loss resulting from the use of this warning device. PROPER INSTALLATION COMBINED WITH OPERATOR TRAINING IN THE PROPER USE OF EMERGENCY WARNING DEVICES IS ESSENTIAL TO INSURE THE SAFETY OF EMERGENCY PERSONNEL AND THE PUBLIC.

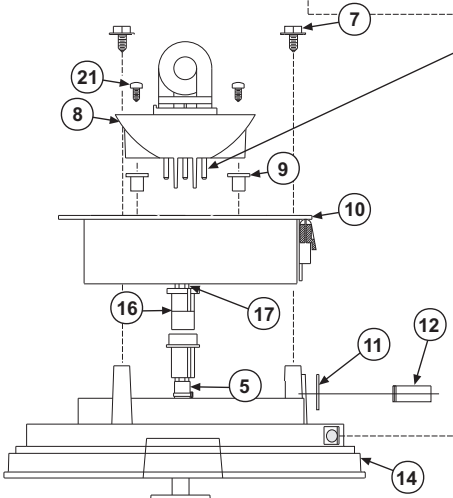
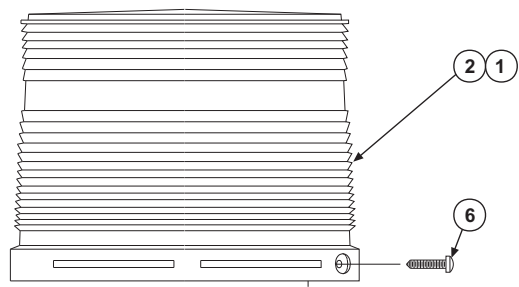
Warnings to Users

Whelen's emergency vehicle warning devices are intended to alert other operators and pedestrians to the presence and operation of emergency vehicles and personnel. However, the use of this or any other Whelen emergency warning device does not guarantee that you will have the right-of-way or that other drivers and pedestrians will properly heed an emergency warning signal. Never assume you have the right-of-way. It is your responsibility to proceed safely before entering an intersection, driving against traffic, responding at a high rate of speed, or walking on or around traffic lanes. Emergency vehicle warning devices should be tested on a daily basis to ensure that they operate properly. When in actual use, the operator must ensure that both visual and audible warnings are not blocked by vehicle components (i.e.: open trunks or compartment doors), people, vehicles, or other obstructions. It is the user's responsibility to understand and obey all laws regarding emergency warning devices. The user should be familiar with all applicable laws and regulations prior to the use of any emergency vehicle warning device. Whelen's audible warning devices are designed to project sound in a forward direction away from the vehicle occupants. However, because sustained periodic exposure to loud sounds can cause hearing loss, all audible warning devices should be installed and operated in accordance with the standards established by the National Fire Protection Association.

Safety First

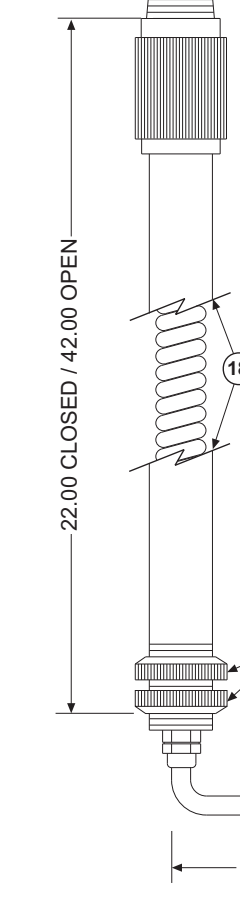
This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained 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.**
- **Whelen Engineering requires the use of waterproof butt splices and/or connectors if that connector could be exposed to moisture.**
- **Failure to use specified installation parts and/or hardware will void the product warranty.**
- **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 manual states that this product may be mounted with suction cups, magnets, 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 owner's 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 (this does not include products that use cigar power cords).**
- **If this product uses a remote device for activation or control, make sure that this device is located in an area that allows both the vehicle and the device 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. 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!**



When inserting the flash tube assembly into the strobe power supply assembly, align the 3 prongs on the flash tube assembly with the slots on the strobe power supply assembly.

IMPORTANT NOTE:
See page 3 for instructions about proper installation of Spring-Transistor-Retainer



The pole strobe light assembly is assembled and shipped without a connector attached to the wires. A connector kit (shown on page 2) is supplied with the pole strobe assembly. It contains all parts needed to match the connector hardware used on the motorcycle wiring harness.

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 fused "at the battery" to carry that load.

IMPORTANT NOTE:
Hand tighten the mounting nuts securely *then*, using channel lock pliers or similar tool, tighten the top mounting nut an additional 1/8 of a turn. Use Loctite #262 (Red) or equivalent thread-locking compound to ensure these nuts do not loosen.

BLACK (GROUND)
RED (+12VDC)

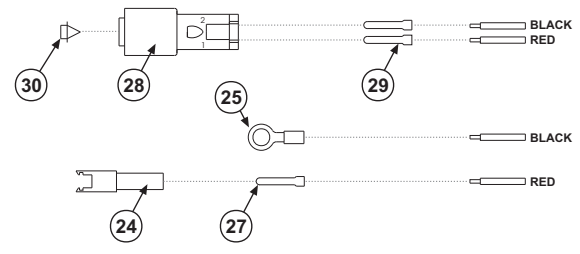
36" FROM MAST TO CONNECTOR END OF CABLE

PARTS LIST

ITEM	DESCRIPTION	PART NUMBER
31	PLASTIC BAG 2 1/2 x 5	03-0610017-00
30	SECONDARY LOCK DEUTSCH	39-0015982-00
29	PIN TERMINAL DEUTSCH	39-1H00316-35
28	2 POS DEUTSCH HSG (DTO4-2-FOOY)	39-1H02014-35
27	AMP PIN	39-0501316-04
25	RING LUG 1/4" INSUL #31904	25-0116521-05
24	1 POS AMP PIN HOUSING	39-0401313-04
22	KIT, INSTALLATION	01-0415983-00
21	# 4 x 1/2 PHILLIPS PAN HD SMS SS	15-041416-080
18	MAST & CABLE ASS'Y W/ PINS - 36" CABLE	02-0262362-02
17	AMP SOCKET	39-0501326-04
16	AMP 2 SOCKET CONNECTOR	39-0402023-04
14	BASE-STROBE	06-180842-003
12	SPRING-TRANSISTOR RETAINING	23-0320760-00
11	CHO-THERM INSULATOR	56-000000-100
10	STROBE POWER SUPPLY ASSY.	02-0167204-01
9	GROMMET, #4 FASTEX	21-17020602-3
8	FLASH TUBE ASSY. (FT-20A)	36-0341567-00
7	6-32 x 5/16" HEX WASH HD THD FORM SCREW	15-066939-056
6	6 X 5/8 PPH PLASTI SS	15-065410-100
5	TY WRAP 6"	26-0215001-06
2	OPTIC DOME (RED) LEXAN	68-2180452-50
1	OPTIC DOME (BLUE) LEXAN	68-2180452-20
*	LIGHT ASSEMBLY (12V OR 24V)	01-0680866-00

WARNING: The Strobe Power Supply is a High Voltage Device. Do Not Remove Tubes or Dismantle the Strobe Light Head Assembly While in Operation. Wait 10 Minutes After Turning Off Power Before Starting Work or Any Trouble Shooting.

This unit is designed to operate from a 12 VDC or 24 VDC power source (nominal).



1. Determine the Model number of motorcycle the pole strobe light assembly is to be mounted on.

2. In supplied connector kit, choose connector hardware to match motorcycle Model number, and install onto wires of the pole strobe light assembly.

IMPORTANT NOTE: WIRES MUST BE INSERTED INTO THE PROPER POSITIONS AS SHOWN IN FIGURES ON THIS PAGE, SINCE POLARITY IS IMPORTANT.

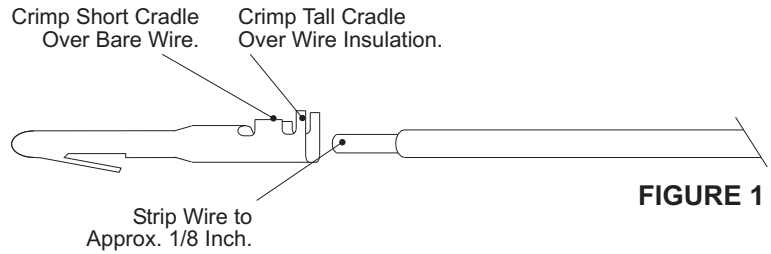


FIGURE 1

Models FLHTP and FXRP 1988-1992

FIGURE 2. Route cable to left side cover. Crimp ring terminal and AMP pin terminal on Black and Red wires. Insert pin in 1 position AMP connector. Connect Red wire with pin connector to main harness, and ground Black wire with ring terminal.

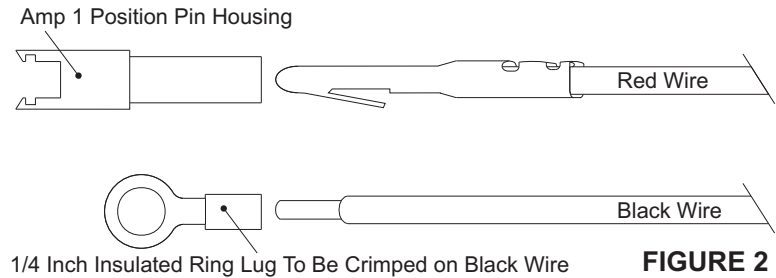


FIGURE 2

Model FLHTP 1994

FIGURES 3 TO 6. Cut cable to 10 inches long.

FIGURE 3. Crimp DEUTSCH pin terminals to Red and Black wires using DEUTSCH crimping tool DTT1600. Cut White wire flush with cable jacket.

FIGURE 4. To insert pin inside rear seal of connector, hold wire approximately one inch behind pin terminal.

FIGURE 5. Push pin terminal all the way inside the rear seal of the connector until a click is felt. A slight tug on the wire will confirm that the pin terminal is properly locked in place.

FIGURE 6. Once the two pin terminals are in place inside the connector housing, use a needle nose pliers to insert the orange pin wedge inside the connector housing from the other end. The pin wedge will have to be fitted inside the cavity below the two pins. Connect the pin connector to main harness at the back of the radio carrier.

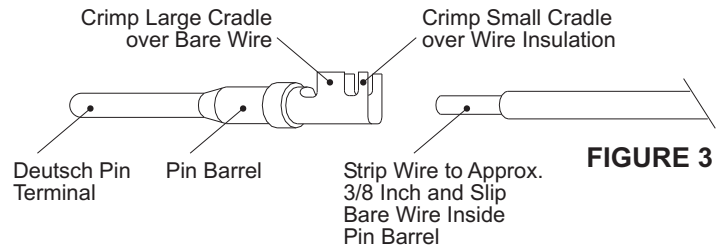


FIGURE 3

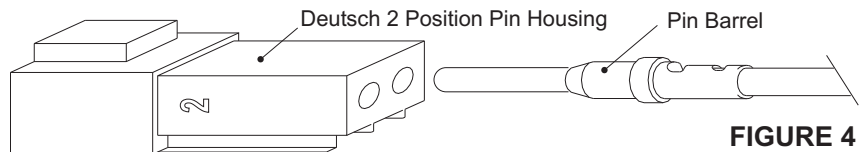


FIGURE 4

CONNECTOR KIT P/N 01-0415983-00 CONTAINS:		
QTY.	DESCRIPTION	PART NUMBER
1	1 Position Amp Pin Connector	39-0401313-04
1	1/4 inch Insulated Ring Lug	25-0116521-05
1	Deutsch Orange Pin Wedge	39-0015982-00
1	Amp Pin Terminal	39-0501316-04
1	Deutsch 2 Position Pin Housing	39-1H02014-35
2	Deutsch Pin Terminals	39-1H00316-35

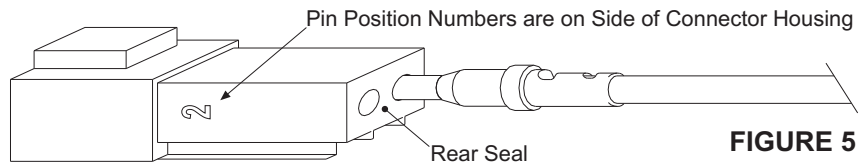


FIGURE 5

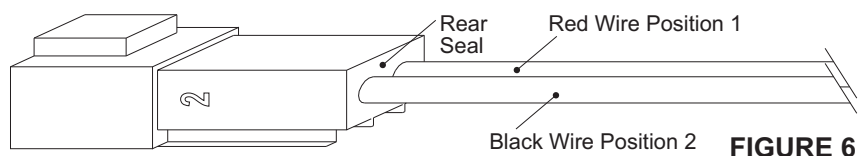
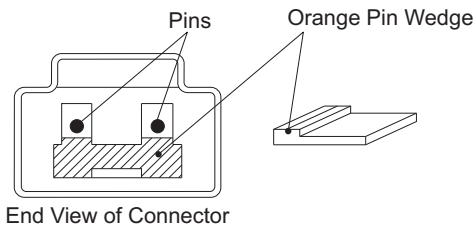


FIGURE 6

ASSEMBLY INSTRUCTIONS OF STROBE LIGHT POWER SUPPLY ASSEMBLY TO CAST ALUMINUM BASE, TO PREVENT ELECTRICAL SHORT CIRCUIT BETWEEN THESE TWO PARTS

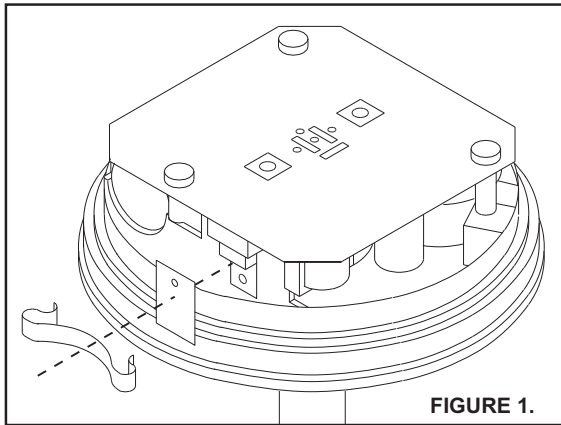


FIGURE 1.

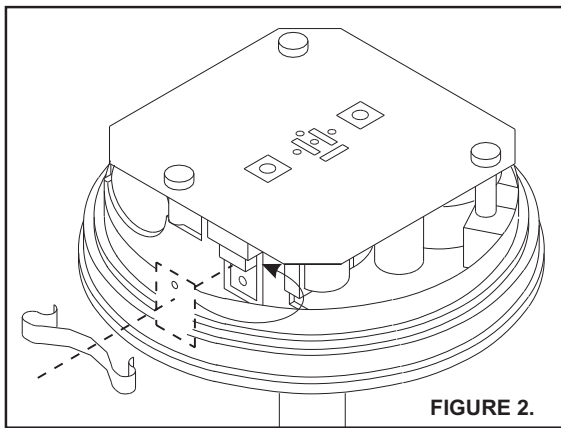


FIGURE 2.

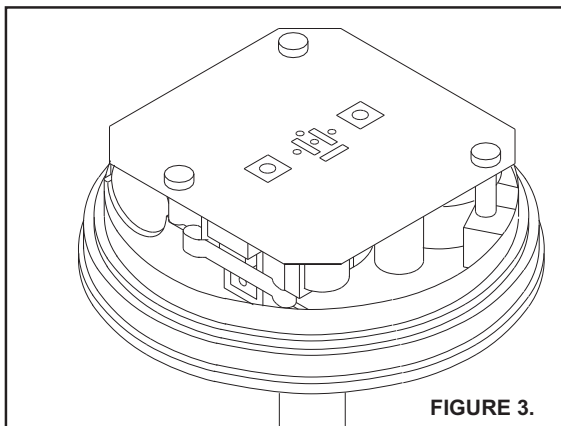


FIGURE 3.

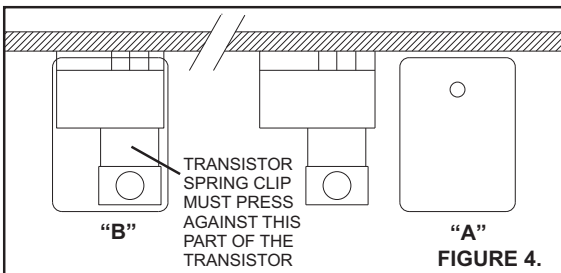
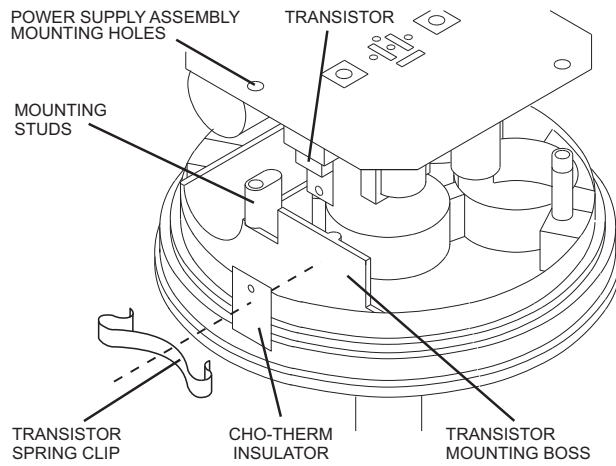


FIGURE 4.



WARNING: The strobe light power supply is a high voltage device. Do not touch or remove strobe tube assembly while unit is in operation. Wait at least 10 minutes after turning off power before starting work or any trouble shooting on the unit. On this page is described the assembly procedure of the strobe light power supply to the cast aluminum base. It is extremely important that the assembly steps, as described below, be followed exactly, to insure the proper insulation of the strobe light power supply from the cast aluminum base.

FIGURE 1. Lower the power supply assembly onto the cast aluminum base, with the three mounting holes lined up with the holes located on the three mounting studs of the cast aluminum base. During this assembly operation, the transistor on the power supply assembly has to be positioned on the outside of the transistor mounting boss. Secure the strobe light power supply assembly to the mounting studs with enclosed self tapping screws.

FIGURE 2. Slightly bend the transistor on the power supply away from the transistor mounting boss. Slip the Cho-Therm insulator behind the transistor with the hole directed towards the top (see figure 4 "A"). Position the top of the Cho-Therm insulator against the circuit board of the power supply assembly, making sure that some of it shows below the transistor (See figure 4 "B"). It is important that the transistor on the power supply assembly does not contact the transistor mounting boss at any place, as to prevent a damaging electrical short circuit between the strobe light power supply and the cast aluminum base.

FIGURE 3. Use the transistor spring clip to secure firmly the Cho-Therm insulator and the power supply assembly to the mounting boss of the cast aluminum base. Wrap one end of the clip around one side of the mounting boss, then press the other end in position using needle nose pliers. (See figure 5 and note in figure 4 "B").

TOP VIEW OF TRANSISTOR MOUNTING BOSS CHO-THERM INSULATOR AND TRANSISTOR TO BE SECURED BETWEEN TRANSISTOR SPRING CLIP AND TRANSISTOR MOUNTING BOSS (SEE NOTE IN FIGURE 4 "B")

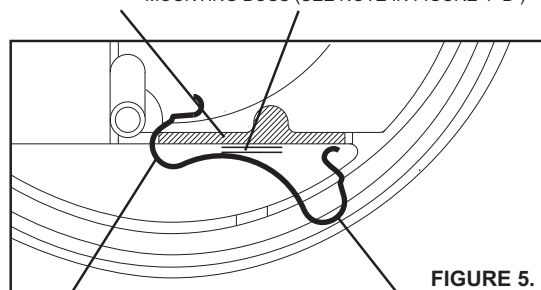


FIGURE 5.

SPRING CLIP AROUND ONE END OF TRANSISTOR MOUNTING BOSS PUSH OTHER END OF TRANSISTOR SPRING CLIP AROUND OTHER END OF TRANSISTOR MOUNTING BOSS