

WHELEN[®]

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Installation Guide: 1200D Series Strobe Beacon

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!**

The **1200D Series Strobe Beacon** features a combination base which may be used for either 1" (NPT) Pipe Mount, or Permanent Mount. The threading for a 1 inch (NPT) pipe mounting is precast in the die-cast base. Magnetic Mount and Spade Mount models are also available.

FEATURES:

- **Input Voltage:** 12VDC and 24VDC
- **Input Current:** 2.5A @12.8V and 1.5A @ 25.6V
- **Output Power:** 25 Watts
- **4 Selectable Flash Patterns**
- **Selectable Manual Hi/Low Intensity Mode**
- **Automatic Photocell Hi/Low Intensity Mode (Optional).**
- **Permanent / Pipe Mounting Standard.**
- **Spade Bolt and Magnetic Mounting (Optional).**
- **Hi / Off / Low Intensity Switch (Optional).**
- **4 Pattern Beacon Controller with Diagnostic & Manual**
- **Hi/Low Intensity Control (Optional).**
- **Factory Installed Cruise Light (Optional).**

Installation: Permanent Mount

1. Using the base gasket as a template, mark the 2 mounting holes and the center wire access hole onto the mounting surface (Fig. 3).
2. First drill holes for the two 10 X 5/8" pan head sheet metal screws (supplied in parts bag). **IMPORTANT:** Be very careful not to drill the holes too large.
3. Next drill the wire access hole with a 1/2" drill. **NOTE:** You should also install a rubber grommet in the wire access hole to protect the wires.
4. Place base gasket on mounting surface aligned with the holes in the mounting surface. After connecting the strobe beacon to the power cable, feed the wires through the wire access hole. Place strobe beacon into proper position, align the 2 holes in the aluminum base with the 2 mounting holes in the base gasket and mounting surface. Use the 2 enclosed sheet metal screws to attach the strobe light beacon securely to the mounting surface.

Installation: Pipe Mount

1. Feed power cable through the 1 inch pipe. Connect the cable to the wires of the 1200D Series strobe beacon.
2. Screw the strobe beacon into the threads on the 1 inch pipe, taking precaution not to damage the connected wires.

Installation: Spade Bolt Mount

This mounting of the 1200D Series strobe beacon is a tamper proof way to secure the unit to the mounting surface. If you want this feature, you must have the "Spade Bolt Mount" model. This model will have the bolts already installed into the aluminum base. The mounting screws are hidden inside the base, and are not accessible unless the strobe beacon is disassembled.

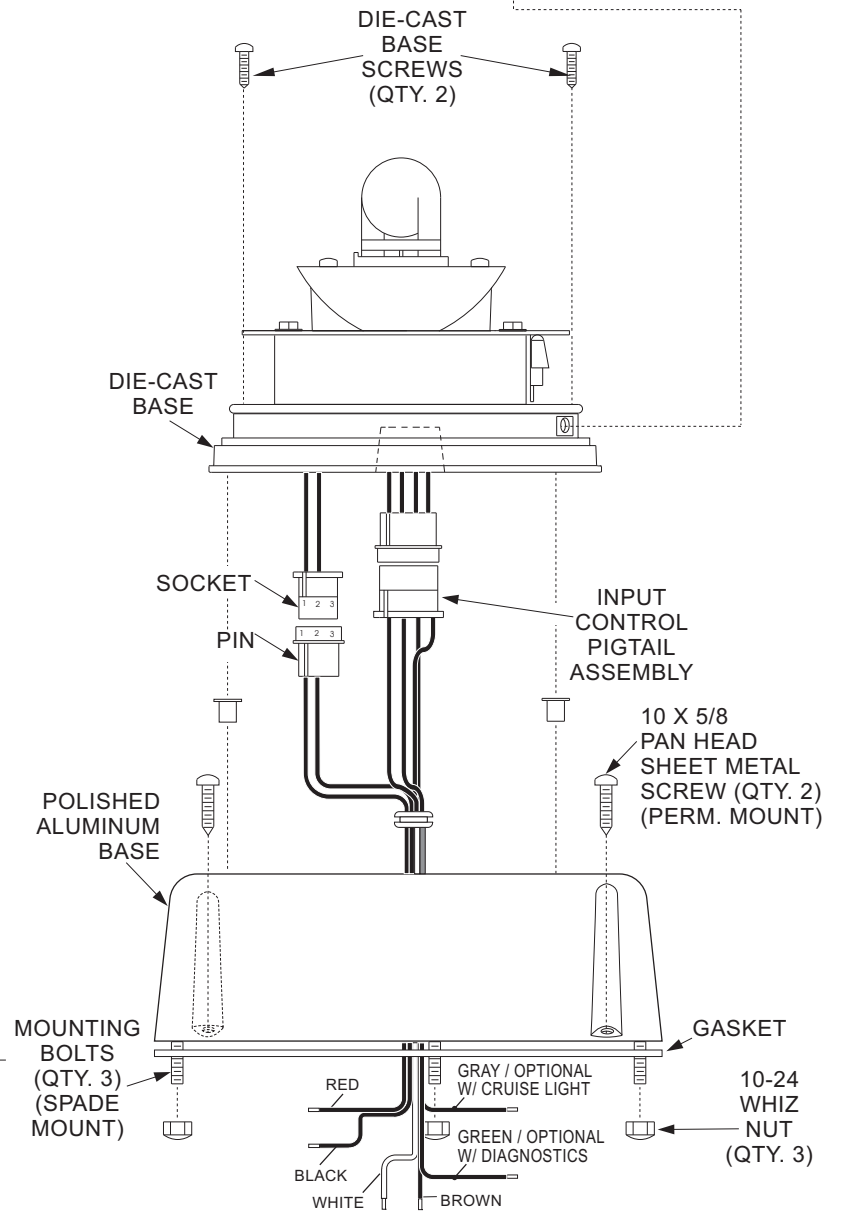
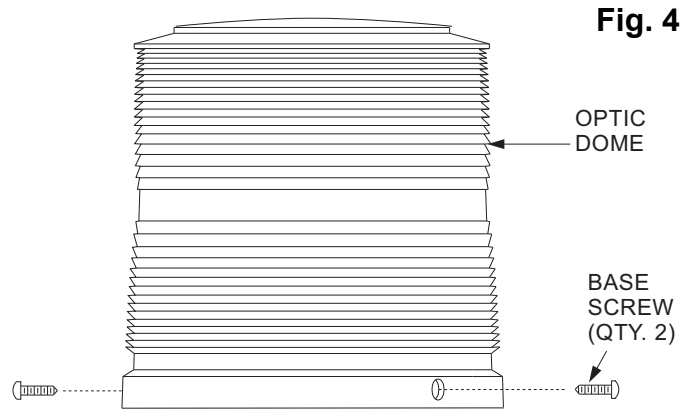
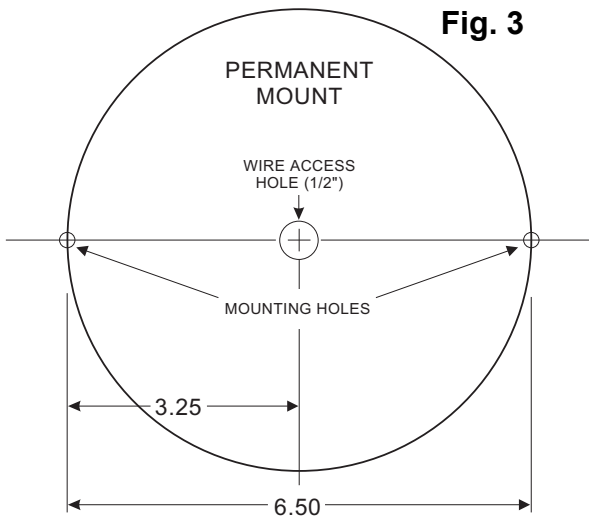
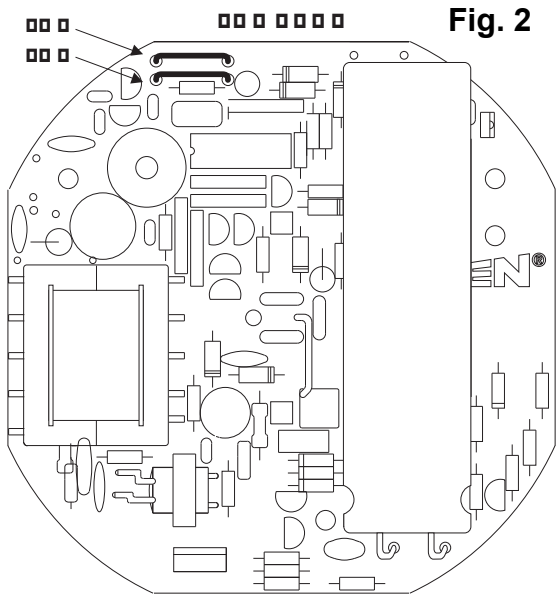
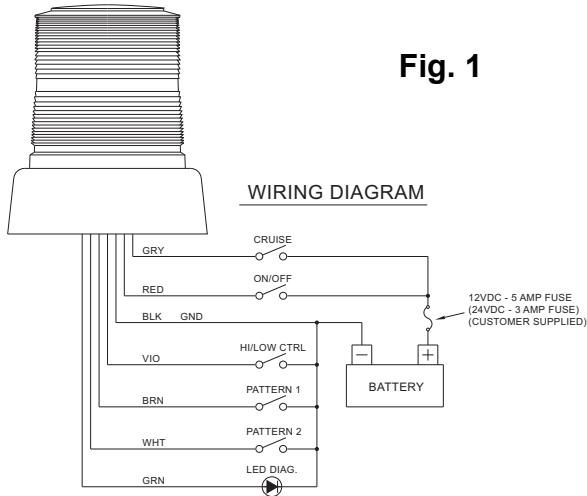
1. Using the base gasket as a template, mark the 3 mounting holes and the center wire access hole onto the mounting surface. **IMPORTANT:** You must have access to the other side of the mounting area to attach the nuts to the mounting bolts.
2. Drill the three holes for the mounting bolts.
3. Next drill the wire access hole with a 1/2" drill. Install a rubber grommet in the wire access hole to protect the wires.
4. Put your gasket in place on the mounting surface, run the wires through the mounting hole and connect the beacon to your power source.
5. Now take your beacon and slip the 3 bolt ends (coming from the aluminum base) into the 3 mounting holes.
6. Attach and tighten the 3 nuts (Fig. 4) and your beacon is ready.

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: The use of any magnetically mounted warning beacon on the outside of a vehicle while in motion is not recommended and is at the sole discretion and risk of the user

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. DO NOT USE CIRCUIT BREAKERS WITH THIS PRODUCT!

WARNING: The aluminum base has a small drain hole on the side, located toward the bottom. This hole must be positioned so that it faces the rear of the vehicle for proper drainage.

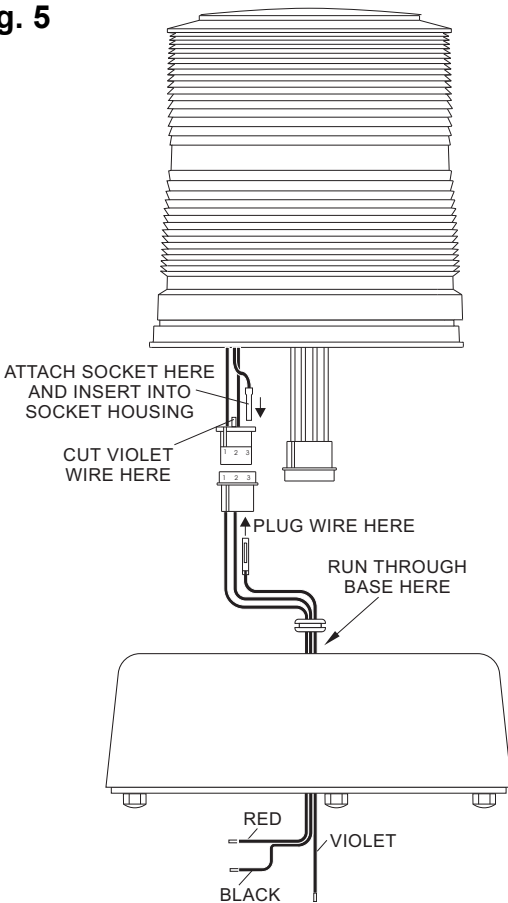


CUSTOMER OPTIONS

Hi/Low Intensity Option:

1. Take out the 2 base screws and remove the optic dome (Fig. 4).
2. Locate and remove the 2 screws holding the die-cast base to the aluminum base.
3. Separate the aluminum base and die-cast base so you have access to the wiring as shown in Fig. 4 (you will see that the violet and black wires run together).
4. Cut the violet wire as indicated in Fig. 5 (at pin 2). Attach the supplied socket to the end of the violet wire and insert it into the number 3 space in the socket. **NOTE:** Cut the wire close to the socket, so it doesn't stick out.
5. Next take the violet wire with the pin attached (included in the installation kit) and plug it into the connector as shown in Figure 5.
6. Run the wires out the bottom of the aluminum base and reassemble the beacon.
7. Now, if you ground the violet wire, your light will run at high intensity, and if you tape off the violet wire, your light will run at low intensity. You may want to install a two position switch so you can alternate between the two functions (see wiring options in Fig. 6).

Fig. 5



Flash Pattern Options:

The default flash pattern for the 1200D is CometFlash®. You may choose from several other patterns by making a few simple changes.

1. First remove the optic dome by removing the 2, die-cast base screws (Fig. 4).
2. Remove the 2 screws holding the die-cast base to the aluminum base and separate them, exposing the wires.
3. Find the input control pigtail assembly in your parts bag, and plug it in to the extra connector coming out of the die-cast base.
4. Run the brown and white wires out through the center of the base as shown in Figure 4. **IMPORTANT:** Be sure to tape off any unused wires.
5. Reassemble the unit and you are ready to choose your options.

To Select SingleFlash: Ground the white wire and tape off the brown wire.

To Select DoubleFlash: Ground the brown wire and tape off the white wire.

To Select ActionFlash™: Ground both the white and brown wires.

Jumper Options:

There are several options you can utilize by cutting one, both or neither of the jumpers located inside the unit (the jumpers are labeled JU1 and JU2. see Fig. 3).

- A. You may run your strobe at either high or low intensity. To accomplish this you simply leave both jumpers intact and follow the instructions under "Hi/Low Intensity Option".
- B. Your strobe may also be equipped with the optional "Photocell function". This will automatically adjust the intensity of the strobe light according to the ambient light (darkness switches the beacon to low power, while daylight switches the beacon to high power). To engage this function you must cut the JU2 jumper and leave the JU1 jumper intact. Then clip the violet wire and tape it off (see "Hi/Low Intensity Option"). Now the photocell option is always engaged. If you want to be able to turn this function on or off manually, you must also attach the violet wire to a switch that will ground or disconnect it. When you switch to "ground" the light will always be at high intensity. When you switch to "disconnect" the light will return to the photocell function.
- C. If you want your strobe to turn on automatically during the day and off at night, cut the JU1 jumper and leave JU2 jumper intact.
- D. If you want your strobe to turn off automatically during the day and on at night, cut both the JU1 and JU2 jumpers.

IMPORTANT NOTE: Both "C" and "D" are usually used for remote applications. Once you convert to either of these functions you will not be able use the light any other way.

Fig. 6

SWITCH CONTROL WIRING SCHEMATICS FOR THE 1200D STROBE LIGHT SERIES

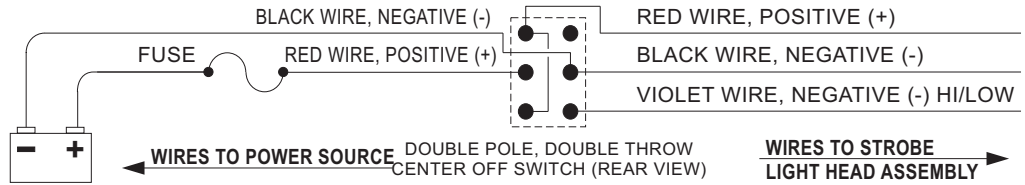
NOTES: ALL SWITCHES AND FUSES ARE CUSTOMER SUPPLIED. USE **5 AMP FUSE** FOR 12 VDC OPERATION, AND **3 AMP FUSE** FOR **24 VDC** OPERATION.

MODEL 1200D STANDARD. ON/OFF SWITCHING FOR HIGH POWER ONLY.



MODEL 1200D STANDARD. HIGH/OFF/LOW SWITCHING.

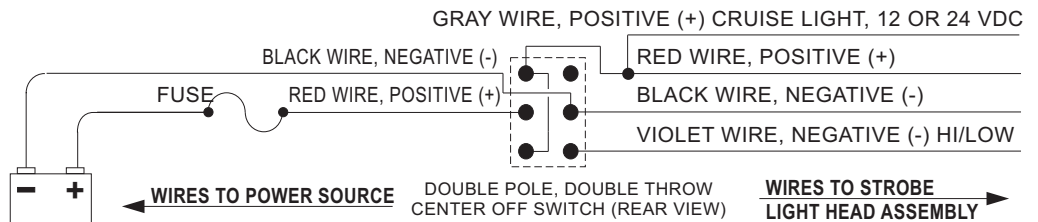
NOTE: Cut Violet (looped) wire, run it out of unit with black and red wires. When the violet wire is grounded, you are in the high mode and when the violet wire is floating you are in the low mode.



MODEL 1200D WITH CRUISE LIGHT OPTION.

NOTE: Strobe light and cruise light are connected to same DPDT CENTER OFF switch control.

IMPORTANT: Cruise light is 12 VDC or 24 VDC bulb.



MODEL 1200D WITH CRUISE LIGHT OPTION.

NOTE: Strobe light is controlled by DPDT CENTER OFF switch control, and cruise light is controlled by ON/OFF switch control.

IMPORTANT: Cruise light is 12 VDC or 24 VDC bulb.

