

# WHELEN<sup>®</sup>

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**Installation Guide:**  
**Pan and Tilt Beacon**  
**Models: PT360PW**  
**PT360FW**

### 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!**

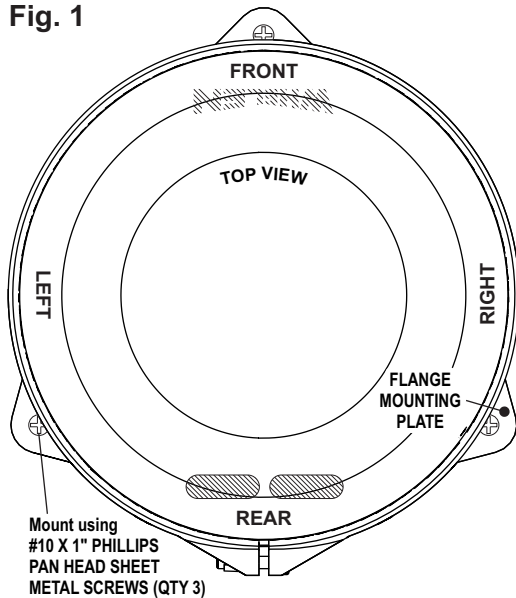
## Mounting:

**Caution:** Permanent mounting of this product will require drilling. It is absolutely necessary to make sure that no other vehicle components could be damaged by this process. Check both sides of the mounting surface before starting. If damage is likely, select a different mounting location. It is the responsibility of the installation technician to make sure that the installation and operation of this product will not interfere with or compromise the operation or efficiency of any vehicle equipment! Before returning the vehicle to active service, visually confirm the proper operation of this product, as well as all vehicle components/equipment.

### Flange Mounting:

1. Secure the flange mount plate to the beacon base using the supplied 8 X 1/2" Phillips Flat Head Sheet Metal Screws (Fig. 1).
2. Place the beacon onto the mounting surface and mark off the 3 mounting hole locations onto the mounting surface.

Fig. 1



3. Drill the 3 mounting holes (sized for the supplied screws) and secure the beacon to the mounting surface using the supplied 10 X 1" Phillips Pan Head Sheet Metal Screws.

Fig. 2

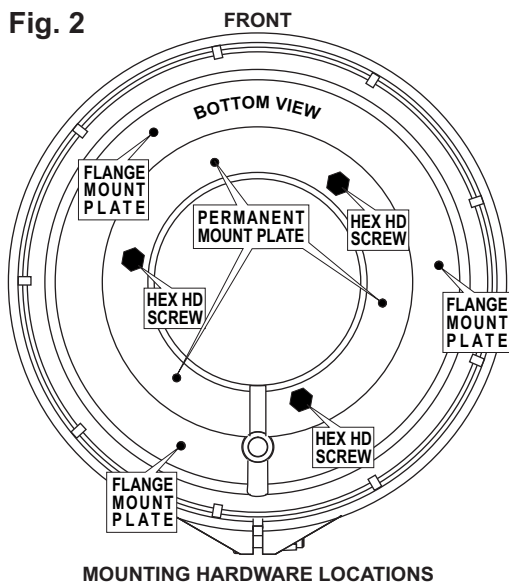
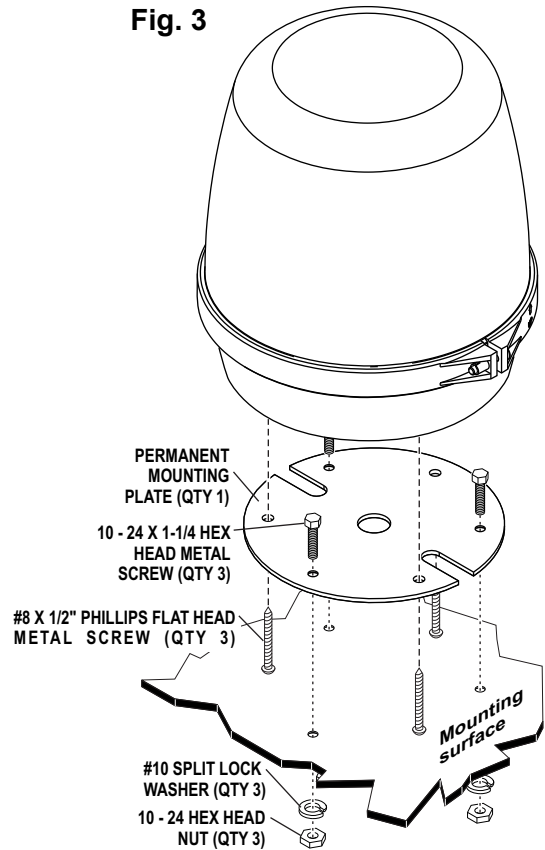


Fig. 3



### Permanent Mounting:

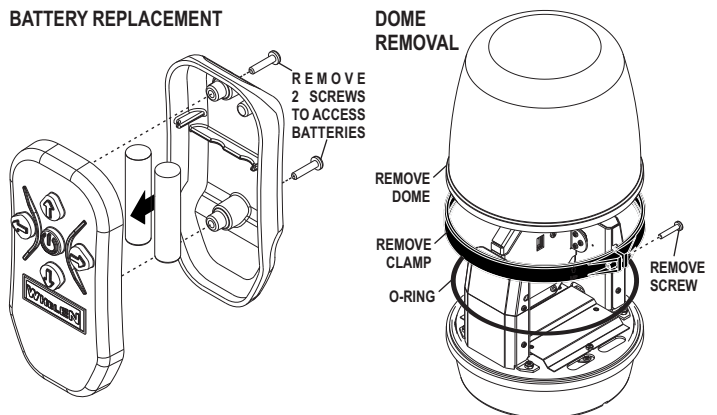
1. Place the mounting plate onto the mounting surface and mark the 3 mounting hole locations off onto the mounting surface. Make sure the mounting plate is oriented correctly (Figs. 2 & 3).
2. With the beacon upside down, insert the 3 supplied 10 - 24 X 1 Hex Head Machine Screws into the hexagon shaped indentations in the base.
3. Slide the mounting plate over the 3 Hex Head Screws (line up the slot in the plate with the wire exit slot in the base) and secure the plate to the beacon base using the supplied 8 X 1/2 Phillips Flat Head Sheet Metal Screws.

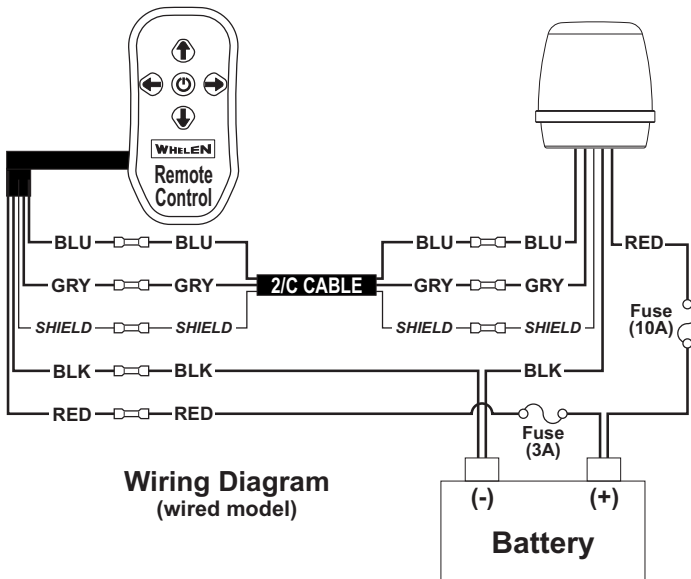
**NOTE:** Before mounting, make sure the hex screws line up with the mounting hole locations you marked off in step 1.

4. Drill the 3 mounting holes and secure the beacon with the supplied 10 - 24 Hex Head Nuts and #10 Split Lock Washers.

**NOTE:** For either style of mounting, wire hole location and where to route the wires is up to the installer as this may change depending on the application.

### BATTERY REPLACEMENT





**Wiring Diagram**  
(wired model)

		22	20	18	16	14	12
Current	5 Amps	6	9.5	15	24.5	39	62
Draw	10 Amps	3	5	7.5	12	19.5	31
		Maximum Recommended Wire Length (in Feet)					

**Wiring:**

**IN STANDARD MODELS** there are 5 wires exiting the controller and 5 wires exiting the beacon. Connect these wires as shown in the wiring diagram. Butt splices are included in the mounting kit. There is also a 2 conductor cable included (see wiring diagram)

**IN WIRELESS MODELS**, extend the **RED (+)** beacon wire to the positive terminal of the battery (Fuse @ 10 AMPS) and the **BLACK (-)** beacon wire to the ground terminal of the battery.

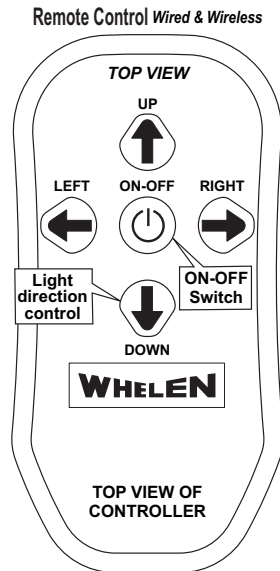
**WARNING: All customer supplied wires that connect to the positive terminal of the battery must be sized to supply at least 125% of the maximum operating current and FUSED at the battery to carry that load. DO NOT USE CIRCUIT BREAKERS WITH THIS PRODUCT!**

**Operation:**

- Press the center switch to turn the beacon on or off.
- When the beacon is switched off, it will go through an orientation sequence for approximately 30 seconds. When completed, the light will be facing forward.

**Battery Replacement:**

The wireless remote control uses two (2) AAA batteries. To replace the batteries, remove the battery cover, secured with 2 screws, from the remote control. Install the new batteries in the orientation shown and reinstall the battery cover.



**Dip Switch Settings (Wireless models-only):**

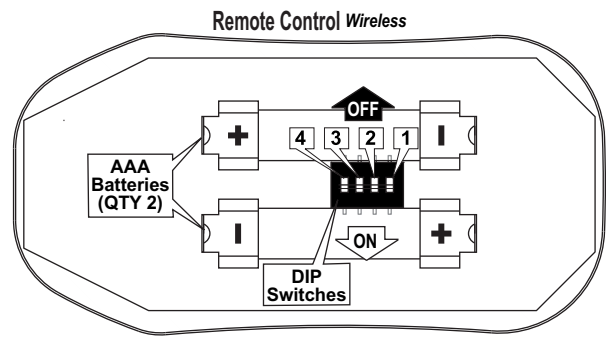
As shipped, the DIP switches are in the "OFF" position. In the event that two or more Wireless Pan and Tilt Beacons are operating in close proximity, interference may occur. In this situation, changing one of the beacons operating frequency should alleviate any interference. **Note that the switches on both the beacon and remote must be set identically.**

**To Change Operating Frequency:**

On the Remote: Remove the back cover (2 screws) and remove the Batteries. Set the DIP switches to a new setting. **NOTE: Do NOT set all the dip switches to ON.**

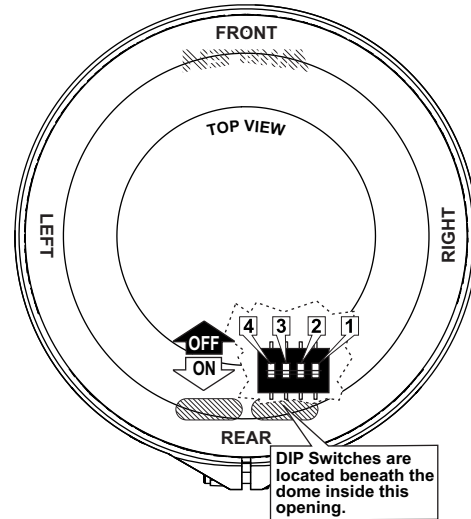
On the Beacon: Remove the screw from the clamp ring and remove the dome (be careful not to damage the o-ring). Set the DIP switches to a new setting. **NOTE: Do NOT set all the dip switches to ON.**

Replace the batteries in the remote and test the beacon to confirm normal beacon operation without interference. If the Beacon operates properly, replace the back cover on the remote and reassemble the beacon dome. Be careful not to damage the O-Ring during reassembly.



**BOTTOM-INSIDE VIEW**

**Beacon**  
Wireless with dome removed



**Specifications:**

- RANGE:** 200 Ft. Line of sight (wireless remote)
- Operation Frequency:** 915 MHZ ISM BAND: 902.0 MHZ to 928.0 MHZ. (wireless remote)
- Power:** 12 Volts DC 5 AMPS MAX.

**IMPORTANT WARNING!**  
**CAUTION! DO NOT LOOK DIRECTLY AT THESE LEDS WHILE THEY ARE ON. MOMENTARY BLINDNESS AND/OR EYE DAMAGE COULD RESULT!**