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Installation Guide Model WS610HPD Siren System Honolulu Police Depart

DANGER! Sirens produces extremely loud emergency warning tones! Exposure to these tones without proper and adequate hearing protection, could cause ear damage and/or hearing loss! The Occupational Safety & Health Administration (www.osha.gov) provides information necessary to determine safe exposure times in Occupational Noise Exposure Section 1910.95. Until you have determined the safe exposure times for your specific application, operators and anyone else in the immediate vicinity should be required to wear an approved hearing protection device. **FAILURE TO FOLLOW THIS RECOMMENDATION COULD CAUSE HEARING LOSS!**

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 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 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 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.**
- 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!**

ACTIVATION OF THIS SIREN MAY DAMAGE UNPROTECTED EARS!	
 Wear Protection!	CAUTION Loud siren noise can cause hearing damage and/or loss. Refer to OSHA Section 1910.95 prior to putting ANY siren into service!

For warranty information regarding this product, visit www.whelen.com/warranty

Part One: Amplifier Mount

When selecting a mounting surface, consider the following:

- Will this location expose the unit to excessive moisture or extreme temperatures?
- Does mounting surface have bends, curves, or irregularities?
- Will using this location compromise the operations or functionality of other vehicle components?

If the answer to any of these questions is "Yes", select a different location.

1. Position the amplifier on the proposed mounting location. Using an awl or other suitable tool, scribe the surface where the mounting holes are to be drilled.
2. Carefully drill the mounting holes in the areas scribed in step 1. The diameter of these holes will be determined by the size of the mounting hardware (#10 x 3/4") and the thickness of the mounting surface.
3. Using the supplied #10 x 3/4" sheet metal screws and #10 external tooth lock washers, secure remote amplifier to the mounting location.

Part Two: Control Head Mount

1. Select a suitable mounting location for the Control Head. Be sure that it does not interfere with any vehicle components.
2. Position the control head on the proposed mounting location. Using an awl or other suitable tool, scribe the mounting surface where the mounting holes are to be drilled.
3. Carefully drill the mounting holes using an appropriately sized drill bit, based on the size of the mounting hardware and the thickness of the mounting surface.
4. Using the supplied #6 x 1/2" phillips pan head sheet metal screws, secure the control head to the mounting surface.

Part Three: System Wiring

Plug the interconnect cable connector into the remote amplifier connector. Push these two connectors together until the retaining fingers of the interconnect cable connector "clicks" into position. With the connectors firmly engaged, proceed with the installation (Fig. 1).

Connecting to Power:

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!

1. Extend the Red and Black wires to the battery. Connect the Red wire to one end of the user supplied fuse block. Do not connect this unit to the battery yet!
2. Connect the Black wire directly to the vehicle's chassis ground (typically adjacent to the battery).

Connecting to your Speaker (100 Watt):

Route the White and Black wires along the factory wiring harness towards your speaker. Connect the White wire to the Positive (+) speaker terminal. Connect the Black wire to the Negative (-) speaker terminal.

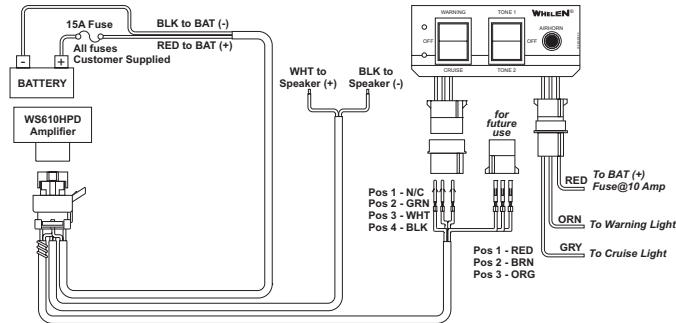
Connecting to the Control Head:

1. Route the 6-conductor harness to the control head.
2. Insert the contact wires into their assigned positions in the female plug connector as follows:

Pos 1 N/C Pos 2 GREEN
Pos 3 WHITE Pos 4 BLACK

Push the contact wire straight into the appropriate circuit cavity as far as it will go.

Fig. 1



NOTE! The remaining wires are for future use. Do not cut these wires!

Caution: Be sure that all contact wires for the amplifier have been placed in their correct location. A wire in the wrong place can cause serious damage to the operations of the system.

3. Pull back on the contact wire with a force of 1 or 2 lbs. to be sure the retention fingers are holding the contact.
4. Now that the wires are secured in the connector, affix the plug connector to the 4-position connector on the back of the control head. Push the connectors together until you hear a click. This will insure that the connection is secure.

NOTE: A strobe/cruise light can be wired to the control head via the 3-position connector on the back of the control head. See figure 1 for wiring.

For a Light Connection:

The RED wire from the 3-position connector must be routed to the battery and fused by the customer following the switch specifications. When installing a strobe and or cruise light, instead of routing their input voltage lines directly to the battery, connect them to the control head. The control head will enable a 10 amp current for light activation (see Fig. 1).

The installation of your siren amplifier will be complete after the fuse block wire is connected to the POSITIVE (+) terminal of the battery. After this connection has been made, visually inspect all of the circuit wires and make sure they wired correctly. Replace any blown fuses with one of an identical amp. rating as the original. If these fuses blow after installation or activation, contact Whelen Engineering Technical Support.

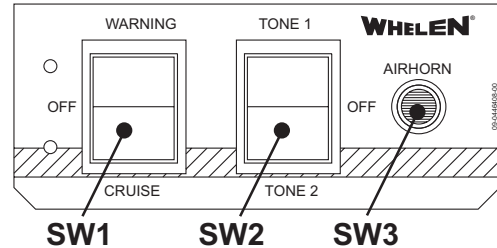
Part Four: Operation

The WS610HPD siren system is designed to be a quick and accessible warning system. If installed properly, a siren tone can be initiated with a simple flip of a switch at your finger tips.

Control Head Functions:

1. The WS610HPD Control Head is comprised of two, 3-position/double-pole, double-throw (DPDT) center-off rocker switches (SW1 & SW2) and a single, momentary switch (SW3) as shown in the control head face diagram. (Fig. 2)

Fig. 2



SW1: Offers the customer two different light options marked as "WARNING" and "CRUISE".

- **Warning** - activates the warning light.
- **Cruise** - activates the cruise light.

SW2: Designates the basic operation of the two siren options.

- **Tone #1** - activates the "Wail" tone.
- **Tone #2** - activates the "Yelp" tone.

NOTE: The warning and cruise light functions are not part of the WS610HPD Series Siren System. Their operation and installation should be outlined in their own manuals.

SW3: Activates a simulated AirHorn tone. Pressing the momentary switch will activate the simulated AirHorn tone, this tone will be generated for as long as the momentary switch is pressed.

NOTE: The AirHorn function overrides both "Wail" and "Yelp" siren tones.

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CAUTION

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WS610™ SIREN SPECIFICATIONS

Input Voltage 12.8 VDC ±20%

Input Current(off) 0 mA

Input Current (siren) 8 amps (typ.)

Output Voltage 34 V RMS (Max.)

Speaker (1) 11ohm

Output Power @15 VDC 105 Watts (Max.)

Operating Temp. -30° C. to 60° C.

Operating Humidity 99% condensing