



Challenger 60" & 70" Tow Series

Installation & User Manual

Contents

Chapter 1 Safety & Precautions for Installers & Users	5
Safety Messages to Installers & Users Before Installation.....	5
Safety Messages to Installers & Users During Installation.....	6
Chapter 2 Introduction to the Whacker Technologies Challenger Tow Series	7
Features & Options.....	7
Technical Specifications.....	7
Chapter 3 Installing the Whacker Technologies Challenger Tow Series	8
Installing the Mounting Feet.....	8
Installing the Lightbar and Mounting Brackets.....	9
Chapter 4 Wiring the Whacker Technologies Challenger Tow Series	10
Routing the Wire Harnesses to the Cabin and Power Source.....	10
Mounting and Connecting the Control Panel/Box.....	10
Hardwiring the Lightbar to Non Factory Control Panel/Box.....	11
Customer & Technical Support Information	12

CHAPTER 1

Safety and Precautions for Installers & Users

For the safety of installers and users please read this manual thoroughly before installing, operating and servicing the Whacker Technologies Challenger Tow Series. The safety guidelines and instructions throughout the user manual are reminders to exercise caution and care at all time. Please make sure to keep this user manual at hand for quick reference. To download copies or updates of this manual please visit www.whackerusa.com. For questions related to this or other Whacker Technologies products please contact us at techsupport@whackerusa.com or call the Whacker Technologies Technical Department at 888-250-4144.

Note: This equipment is intended for use by authorized personnel only. It is the responsibility of the owner/operator to obey all laws regarding emergency safety equipment. Whacker Technologies, Inc and any of its subsidiaries are not responsible or liable for any loss resulting from improper or unauthorized use of this equipment.



The proper use and installation of all Whacker Technologies products is important to guarantee that you get full use from safety product. It is important that the installer and user read and follow all instructions shipped with this product.

Before Installation and/or Service

- To prevent damage to products, please ensure that all equipment operates properly before installation. Also carefully plan where to mount and wire the equipment.
- Verify that the lightbar and mounting hardware fit the vehicle (*Note: Universal brackets may not fit the vehicle perfectly*).
- Determine the location to mount the equipment, locate the route for wiring the equipment power cable, locate the route for the function cable.
- The LEDs and lighting components of this equipment including but not limited to the LEDs, strobe tubes, lenses and housing get hot during operations. Please allow all components to cool before installing and/or servicing equipment.

LED & Light Warning

- This equipment produces bright lights that can be hazardous to your eyesight when viewed within close proximity and/or for extended periods of time. Do not stare directly into this emergency lighting equipment within close proximity and/or for extended periods of time as permanent damage to your eyesight may occur.
- Do not install this or any emergency lighting equipment in an area that would block and/or interfere with the operator's driving ability. Care should be taken to make sure that components of the vehicle are not blocking the warning equipment to ensure maximum visibility from all directions.

Electrical & Wiring Warning

- Public safety and warning equipment require high electrical voltages. Ensure that all wiring and connections are properly protected/insulated.
- Good electrical connections to chassis positive and ground are necessary for optimum efficiency. Separate positive and ground connections must be made. Ensure that all wires are rated correctly to handle the

amperage requirements of the requirement.

During Installation and/or Service

- Ensure that all equipment and wiring do not interfere with any airbag equipment or its ability to function properly.
- Separate all equipment from two-way radio equipment even if the equipment is equipped with the proper insulation. To avoid interference with some equipment make sure that the two-way radio antennas are a minimum of 50 cm away from warning equipment.
- Do not connect the equipment to the battery until all other connections have been made and tested to ensure no shorts in the system exist.
- If mounting the equipment requires that the installer drills holes, the installer must make sure that no vehicles components can be damaged during the drilling process. To prevent electrical shorts or damage to any of the equipment components ensure that all drilled holes have grommets installed. Also ensure that all mounting screws and components do not damage any of the wires.
- During the drilling process ensure that metal shaving do not get inside the equipment. Metal shavings can damage the internal wiring and parts of the equipment.
- Locate the control equipment so that the user can safely operate the vehicle and the emergency equipment under all driving conditions.

After Installation and/or Service

- Test all equipment to ensure that all functions work properly. Check to make sure that during the installation of the equipment no systems or parts of the vehicle were damaged or altered.

Failure to follow all safety warnings and instructions located in this manual may result in damage to the equipment and/or vehicle, serious injury or death. Please retain this user manual for future reference.

Introduction to the Whacker Challenger LED Tow Series Light Bar

The Whacker Challenger Tow Series is an exterior, roof mounted 360 degree warning light system that can be utilized by professionals in a wide range of industries. The Challenger is currently available in 60" & 70" models with universal or vehicle specific mounting equipment.

Features & Options

The Whacker Challenger LED Tow Series Light bar comes standard with 33 self contained warning patterns. The Challenger 60" contains a total of 20 warning modules and the Challenger 70" contains a total of 24 warning modules. Both models contain two rear worklights, two alley lights and 2 rear stop/turn lights.

Features:

- Color options: Amber
- 60" Model Contains 144 Generation III warning LEDs
- 70" Model Contains 168 Generation III warning LEDs
- 33 Flash Patterns including steadyburn
- Integrated arrowstick
- Rear worklights
- Rear stop/turn lights
- Front and rear cutoff

Technical Specifications:

- Dimensions: 59.5"L x 12.6"W x 3.27"H
- Dimensions: 69.5"L x 12.6"W x 3.27"H
- Weight: 50 lb
- Weight: 55 lb
- Wire Harness: 19.5'
- Universal Mounting Equipment (*Vehicle specific mounting hardware is available separately*).

Installing the Whacker Challenger Tow Series

After unpacking the Whacker Challenger Tow Series light bar, carefully inspect the unit for damage that may have occurred during transit. If any damage has been found report the damage to the carrier and keep the original shipping carton until the claim has been resolved and do not install the product. Contact your dealer or distributor to find out how to resolve the issue beyond what the shipping carrier handles. If you are missing parts, contact customer service at 888-250-4144.

Test the unit before installation. To test the unit touch the black wire to the ground and the other wires to the +12 volt DC on the automotive battery. If any problems occur at this point do not install the light bar and contact the factory at 888-250-4144.



Only use the mounting equipment and screws supplied with the unit. Installing this unit with non-factory equipment or modifying the mounting equipment may result in damage to the unit and the loss of warranty coverage.

IMPORTANT: Plan all cable routing before beginning the installation of this unit. Ensure that the light system controls for this unit are located in a place where they do not interfere with any vehicle safety equipment and where the control can be safely operated by the end user under all driving conditions. Failure to do so can result in driver errors while operating the vehicle.

Preparing to Install Mounting Feet



Use proper lifting techniques when removing or installing this product. Improper lifting techniques and avoiding this warning could result in personal injury.

1. Place the lightbar with the smooth surface (top) of the light bar facing up on soft rags or cardboard material to avoid scratching or denting of the aluminum housing.
2. Remove each endcap by removing the six screws on each endcap. There are three screws on the top and three screws on the bottom of each endcap.
3. After installing the mounting feet position the endcaps back in the appropriate location and attach to the body of the bar with the four screws.

Installing the Mounting Feet

1. Place the light bar upside down on soft rags or cardboard material to avoid scratching or denting of the aluminum housing.
2. Take the mounting foot and insert four bolts (eight total) through the four access holes on the mounting foot

surface plate.

3. Position the four bolts at the opening to the mounting track and slide the mounting foot into the desired location on the track.
4. Install four flat washers, lock washer and nuts on the bolts, leaving the bolts just loose enough to reposition the mounting foot if necessary. Do not tighten the nuts yet.
5. Repeat this process for the second mounting foot.

Installing the Lightbar on the Vehicle Roof

1. Place the lightbar on the vehicle roof in the desired location. The lightbar is usually centered on the door center post (B-pillar).
2. Adjust both mounting feet in or out as necessary until the foot pads rest near the edge of the roof or gutter where the roof is the most rigid. Make sure that the lightbar and the mounting feet are centered left to right on the vehicle.
3. Check that the lightbar is level by shifting the lightbar slightly forward or back.
4. Carefully remove the lightbar from the vehicle roof and place it upside down on soft rags or cardboard material to avoid scratching or denting to the aluminum housing. Ensure that the mounting feet do not shift their position.
5. Tighten the nuts that secure the mounting feet in place to the lightbar.

Installing the Universal or Vehicle Specific Mounting Bracket

1. Place the lightbar on the vehicle roof. The assembly is usually centered over the B-pillar.
2. Determine where the mounting bracket will attach to the vehicle.
3. Place the mounting bracket on the roof sheet metal.
4. Place the mounting bolt from the mounting feet through the desired position on the mounting bracket and tighten in place with the flat washer and nut.
5. Secure the mounting bracket to the vehicle using a 5/16" - 18 bolt of the appropriate length.
6. Repeat this process to install the second vehicle mounting bracket.

IMPORTANT: Frequently inspect the lightbar, mounting feet and mounting brackets to ensure that all fasteners and brackets are tight.

CHAPTER 4

Wiring the Whacker Challenger Tow Series

Before wiring the lightbar in the vehicle, ensure that the lightbar is properly installed and secured to the vehicle with the factory included mounting kit.

This lightbar is completely wired at the factory and does not need any additional internal wiring. Most standard functions of this lightbar can be controlled by the factory included control panel/box.



AIRBAG DEPLOYMENT

Do not install equipment or route any wiring of this unit where it may interfere with the deployment of the vehicle installed airbag or other safety equipment.

Failure to observe this warning will reduce the effectiveness or operation of the airbag and any other vehicle safety equipment and can cause serious injury or death.



BATTERY WARNING

To avoid a battery explosion, disconnect the negative cable first and reconnect it last when installing or maintaining the equipment. Avoid an electrical interference or sparks when connecting the equipment or working near the battery.

1. Ensure that all lines are properly fused with 20 amp fuse (if required). From the lightbar, route the user control wire harness into the vehicle's cab near the eventual location of the factory included control panel/box.
2. Route the power wire harness to the vehicle's battery and connect the red +12 positive wire and black negative wire to the battery.

Mounting and Connecting the Control Panel/Box



Light control systems including all control panels/boxes must be located in the vehicle so they can be operated safely under all driving conditions. Light control systems must be positioned so as not to interfere with all vehicle safety equipment.

1. Prepare the mounting area by ensuring that the quick connect wire harness from the control panel/box reached the quick connect wire harness from the light bar. Ensure that the mounting area is large enough to fit the control panel/box. The factory included control panel box dimensions are: 6 1/8" x 5" x 2 1/8" not including the mounting bracket.
2. Position the factory included control panel/box mounting bracket in the desired location and mark the location in the vehicle for drilling two holes. Once marked and the holes are drilled install the mounting bracket with the included screws.
3. Connect the wire harness from the control panel/box and the lightbar together before installing the control

panel/box to the mounting hardware.

4. Install the control panel box to the mounting hardware using the two factory included bolts and adjust the angle of the control panel/box to desired position before tightening the mounting bolts.

Wiring to Non-Factory or User Owned Control Panel/Box

IMPORTANT: Whacker Technologies does not provide installation instructions for controllers that do not come with its units. Whacker Technologies is not responsible and can not guarantee the functionality of this unit with other control systems.

Hardwiring the Lightbar

IMPORTANT: Whacker Technologies recommends using only the installation equipment and quick connections provided with this unit. If you choose to hardwire this unit Whacker Technologies is not responsible for any damage to the unit. Any damage done to the unit during custom installation is not covered under any warranty.

1. To hardwire this lightbar to a control system other than the factory included control panel/box remove the quick connector from the wire harness.
2. Choose the functions and connect the appropriate wire to the control system located in your vehicle. Depending on the control system, not all functions may be available or function properly.

Wire Color	Function
Red	Positive VDC
Black	Ground
Purple	Alley Lights
Brown	Left Arrow
Grey	Center Out Arrow
Orange	Right Arrow
Yellow	Flash Pattern Selection
Small Red	Rear Cutoff
Small Black	Front Cutoff
White	Main Flash Pattern On/Off
Green	Right Turn Light
Light Green	Left Turn Light
Blue	Brake Lights
Light Blue	Rear Work Lights

Ordering Replacement Parts

To order replacement parts, please contact your local dealer/distributor unless you purchased the equipment directly

from Whacker Technologies, Inc.

Customer Support

Whacker Technologies, Inc.

Phone: 888-250-4144 Option 1

Email: info@whackerusa.com

Hours: 9:30 AM - 5:00 PM (ET) Monday - Thursday

9:30 AM - 1:00 PM (ET) Friday

Technical Support

If your product is under warranty please contact your local/distributor first. If you purchased the unit directly from Whacker Technologies and are experiencing issues contact:

Technical Support

Whacker Technologies, Inc.

Phone: 888-250-4144 Option 2

Email: techsupport@whackerusa.com

Hours: 9:30 AM - 5:00 PM (ET) Monday - Thursday

9:30 AM - 1:00 PM (ET) Friday

Returning a Product to Whacker Technologies

Before returning a product to Whacker Technologies call your local dealer or distributor. If you purchased the unit directly from Whacker Technologies call 888-250-4144 to obtain a Return Merchandise Authorization number (RMA number). To expedite the process please be prepared with the following information:

- Your customer number or account number.
- The order number.
- The quantity of the product being returned.
- Reason for the return.

When you receive your RMA number:

- Write the RMA number on the outside of the box.
- Include the RMA paperwork which will be emailed to you or can be downloaded from our website.
- Write the RMA number down so you can easily check on the status of your equipment.

Send all material with the issued RMA number to:

Whacker Technologies, Inc

1529 Dean Street

Suite 102

Brooklyn, NY 11213

ATTN: Returns Department



1529 Dean Street, Suite 102 Brooklyn, NY 11213

Phone: 888-250-4144

www.whackerusa.com