

WHELEN[®]

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Installation Guide Edge 10000 Lightbar

Automotive: Serial Communication

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 product is mounted with 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 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.**
- **If this product contains strobe light(s), halogen light(s) or high-intensity LED's, 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. Lens' 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!**

IMPORTANT!!!

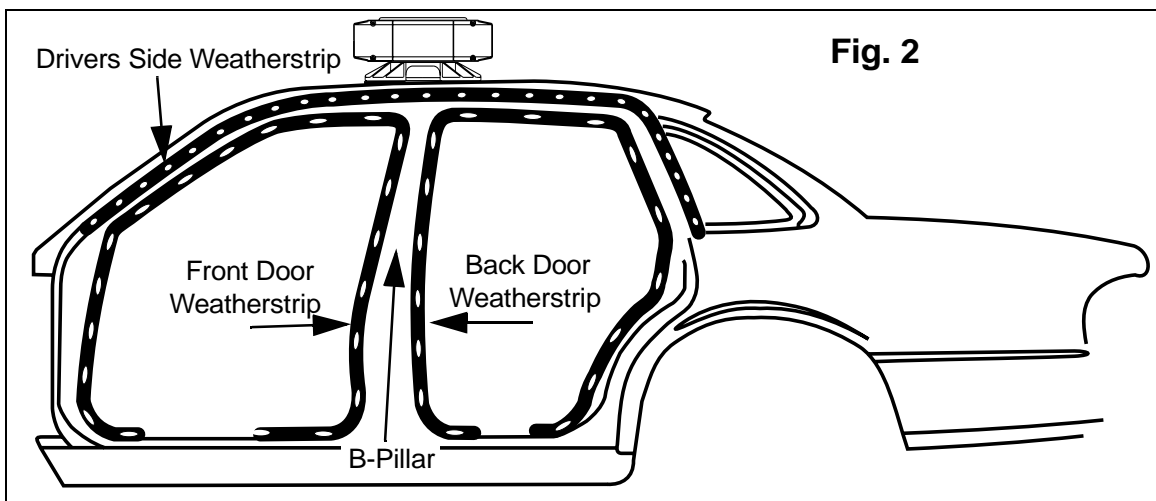
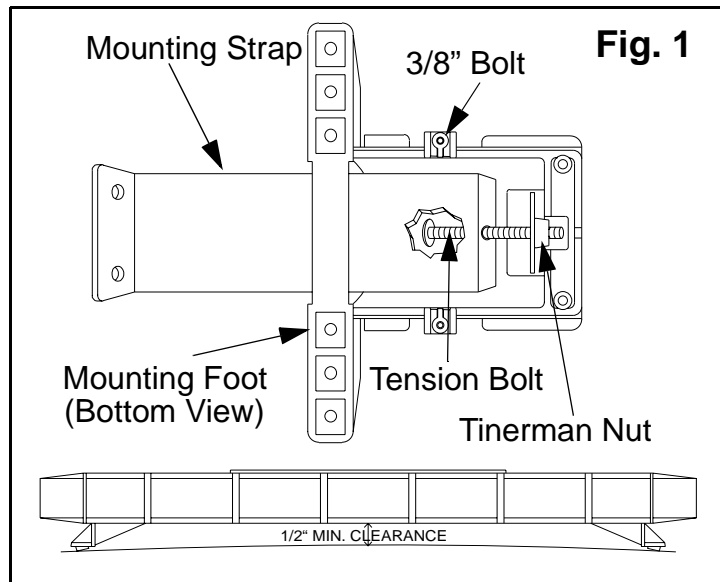
Be sure to not only read this entire manual but also SAVE this and all Serial Communication manuals. They contain important data that may need to be referenced in the future. Consider storing these manuals in a 3-ring binder for easy referencing.

Please note that the installation procedure outlined in this manual is drawn from information supplied by factory authorized installation technicians. Although this network can be installed on any vehicle, all manuals demonstrate the installation procedure using a 1995 Ford Crown Victoria as example. The basic procedures, however, do apply to most other vehicles. This manual is written with the assumption that the MPC01 Multi-Purpose Controller and BLDISTI Power Distribution Center have already been installed and wired in your vehicle.

Note: 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 ON THIS PRODUCT!

Mounting the Edge 10000...

1. Position the lightbar in the desired location. One often selected location is directly above the B-pillars. This area is the strongest part of the roof. Be sure that the lightbar is facing the proper direction. If you are not sure, remember that unless otherwise specially ordered, the cables from the lightbar will exit the extrusion via a hole drilled in the drivers side of the extrusion.
2. With the location determined, adjust the two mounting feet outboard so that they are as close to the edge of the roof as possible. Make sure that both mounting feet are in full contact with the roof and not hanging off the edge. Also, be sure that there is no less than 1/2" clearance between the roof and the lightbar at their closest point (see Fig.1). To adjust the mounting feet, loosen the two, 3/8" bolts that secure the feet to the extrusion. When the foot has been placed in it's desired location, re-tighten these bolts to hold the foot in place. Repeat this procedure for the opposite foot.
3. Open both of the drivers side doors. In the area directly below the mounting foot, carefully pull the drivers side weatherstrip away from the vehicle (Fig. 2). Remove enough weatherstripping so that the area where the mounting strap will be secured to the vehicle is exposed. Repeat this procedure for the passenger side.



4. Insert the mounting strap through the mounting foot as shown in Fig 1. Be sure that the strap fits flush against the gutter area where it will be secured onto the vehicle. Insert the Tension bolt through the mounting strap and into the tinerman nut on the actuator plate. Tighten slightly with a long shafted, Phillips screwdriver. Repeat procedure for the passenger side.
5. If your mounting strap has mounting holes in the gutter end of the strap, use these holes as a template to drill two, appropriately sized pilot holes through the strap and into the vehicle. Repeat for passenger side of the vehicle.
6. Insert the supplied mounting screws into these holes and tighten firmly. Repeat for passenger side of the vehicle.
7. Firmly tighten the tension bolts to secure the Edge 10000 to the vehicle.

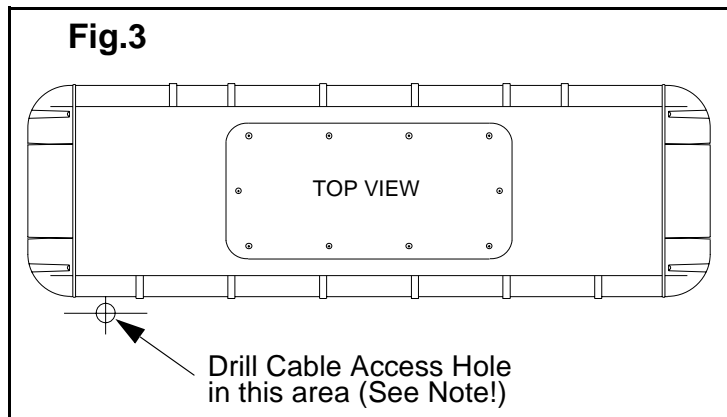
Wiring the Edge 10000...

1. Before wiring the Edge 10000, the following *drivers side* interior components must be removed:
 - a) Front and rear sill plates.
 - b) Front and rear door weatherstrips.
 - c) Front kick panel.
 - d) B-pillar trim panels (upper and lower).

Note: *To remove the upper B-pillar trim panel, the upper seat belt guide must be removed.*

- e) Rear seat cushion and rear seat back.
 - f) The drivers side rear quarter trim panel (This is only necessary for Crown Victoria installations, as this panel houses the factory wiring harness).
 - g) Quarter roof trim panel.
 - h) Coat hook.
2. To protect the headliner from damage caused by drilling the cable access hole through the vehicle roof, allow a 5" to 7" distance between the roof and the headliner by lowering the headliner before drilling.
3. Refer to Fig. 3 to help determine a drilling location.
4. Using a 1" hole saw, drill the cable access hole in this location.

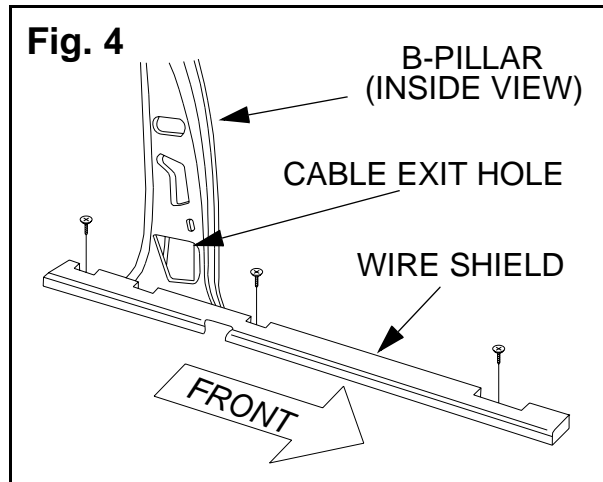
Note: *There is a roof support member that spans the distance between the driver's and passenger's side. DO NOT DRILL THROUGH THIS MEMBER! Adjust the location until the hole can be drilled without contacting this support member.*



5. Use a round file to smooth and de-burr the edges of the hole.
6. Insert a 1" grommet (user supplied) into the cable access hole.
7. Insert both cables (communication and power) through the cable access hole into the vehicle. Use RTV silicone to weatherproof the access hole after the cables are pulled completely into the vehicle.
8. Route the cables (one at a time) down through the B-pillar. The cables must make a 90° turn to enter the B-pillar. Although routing the cables in this manner may be difficult, this has been determined to be the best procedure. It is up to the installation technicians discretion whether to route the cables as recommended or use an alternative route. Pull the full length of the cable out of the hole at the base of the B-pillar (Fig. 4).
9. Remove the 3 screws from the wiring shield that is located under the sill plate locations. Be sure to only remove the screws that secure the wiring shield lid and NOT the screws that secure the wiring shield to the vehicle.

Connecting the power cable...

1. Open the wiring shield lid (Fig. 4) and route the power cable into the wiring shield and towards the firewall.
2. Follow the factory wiring harness through the firewall. It may be necessary to drill a hole in the firewall. If so, be absolutely sure that there are no components that could be damaged by drilling. After the hole has been drilled, insert a grommet to protect the cable.
3. Route the cable along the factory wiring harness towards the battery.
4. Install a 40 amp fuse block (customer supplied) on the end of the RED wire in the power cable.



Note: Remove the fuse from the fuse block before connecting any wires to the battery.

5. Connect the fuse block to the POSITIVE (+) terminal on the battery. There can not be more than two (2) feet of wire between the fuse block and the battery. As the wire between the fuse block and the battery is “unprotected”, do not allow this wire to come into contact with any other wires!

Note: 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 be fused “at the battery” to carry that load.

6. Connect the BLACK wire to the factory ground adjacent to the battery.

Connecting the communication cable...

1. Route the communication cable into the wiring shield, along the factory wiring harness and into the trunk.
2. Route the communication cable towards the central communication port on the power distribution block. Cut the communication wires to length.
3. Strip approximately 1/4” of insulation off both the BLUE and the GREY wires.
4. Insert these wires into the central communication port on the power distribution block.
5. Secure these wires with a small, flat-blade screwdriver.

Troubleshooting...

Your Edge 10000 should now be fully operational. If your lightbar is not functioning properly, check your connections for the following:

- The positive wire (RED) is properly connected to the battery, by way of the user supplied fuse block.
- A working fuse of the correct amperage (40 amp.) is installed in the fuse block.
- The ground wire (BLACK) is properly connected to the factory ground. Be sure that the wire is fully grounded to this location.
- The two communication wires (BLUE and GREY) are properly connected to the central communication ports on the power distribution block.

If all of these connections are good, contact your Whelen representative for further assistance.

Control of your lightbar is handled through the MPC01. Although your MPC01 has been programmed to your specifications at the factory, be sure to familiarize yourself with its controls and their functions before initial field operation.