

WHELEN[®]

ENGINEERING COMPANY INC.

Route 145, Winthrop Road,

Chester, Connecticut 06412

Phone: (860) 526-9504

Fax: (860) 526-4078

Internet: www.whelen.com

Sales e-mail: autosale@whelen.com

Canadian Sales e-mail: autocan@whelen.com

Customer Service e-mail: custserv@whelen.com

Installation Guide: Model(s) MGC01 / MGC02 Messenger™ Control Head

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 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 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 LEDs, 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!**

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

The MGC01 & MGC02 Control Heads are used to operate Messenger systems MGM01, MGM02, MGM03 & MGM13. Although both control heads contain the same basic control keys (power On/Off, message display, etc.), the MGC02 also features a soft-touch key pad that allows direct access to any particular message without having to scroll through all its preceding messages.

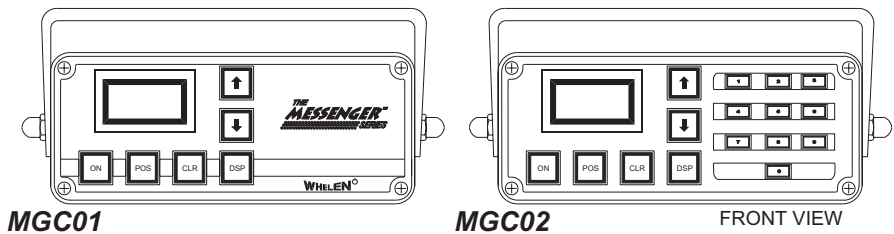


FIG. 1

INSTALLATION: Mounting Control Head

1. Position the Bail Strap in the selected mounting location. Using an Bail Strap as a templet, scribe the surface with an awl or other suitable tool where the mounting holes are to be drilled.

Caution: As mounting the MGC01/02 will require drilling, it is absolutely necessary to make sure that no other vehicle components could be damaged in the process. Check both sides of the mounting surface before starting and if damage is likely, select a different mounting location.

2. Carefully drill the mounting holes in the areas scribed in step 1. The size of the drill bit should be determined by the size of the mounting hardware (customer supplied).
3. Using the customer supplied mounting hardware, secure the bail strap to the mounting surface.

NOTE: There are two sets of holes on either side of the bail strap that can be used when installing the MGC01/ MGC02, to position the control head at two different heights (see figure 3).

4. With the Bail Strap in place, insert the carriage bolt along with the external tooth lockwasher (supplied) into the assembly hole from the inner side of the Bail Strap as shown in Figure 3.
5. Place the split lockwasher and the acorn nut on the protruding bolt on the outer side of the Bail Strap. Loosely secure the acorn nut to the carriage bolt.
6. Slide the control head onto the carriage bolts. When the control head is in the desired position, tighten the acorn nuts firmly.

Wiring the Messenger Control Head

1. Connect the YELLOW wire to a +12VDC source that is activated with the vehicle’s ignition switch (see figure 4).
2. Extend the RED and BLACK wires to the battery.
3. Connect the RED wire to one end of the user supplied fuse block. Do not connect this unit to the battery yet!
4. Connect the BLACK wire directly to the vehicle’s chassis ground (typically adjacent to the battery).
5. Extend the BLUE and GRAY twisted pair wires to the Messenger Display(s) and connect the wires to the Display(s) using 2-position connectors.

The MGC01 & MGC02 models offer a “Pursuit Mode” feature. This feature allows the MGC control head to be powered up displaying a pre-programmed message by a primary systems control head (refer to your operating manual for more information).

To complete this connection, extend the BROWN wire to a user supplied switch. Connect the BROWN wire to the switch and then extend the wire to the battery and connect directly to the Vehicle’s chassis ground (see figure 4).

The installation of the Messenger Control Head (models: MGC01 & MGC02) will be complete after the fuse block is connected to the POSITIVE (+) terminal of the battery. After this connection has been made, inspect the fuse at the battery. If the fuse is blown, carefully inspect all of the circuit wires and make sure that they are wired correctly. Replace the blown fuse with one of an identical amp rating as the original. If this fuse blows again, contact Whelen Engineering Technical Support.

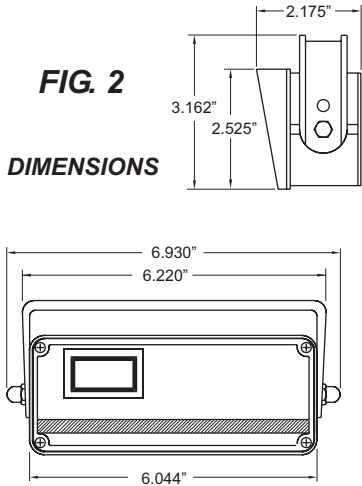
UNIT SPECIFICATIONS

INPUT VOLTAGE	13.5 VDC ±20%
BACK LIGHT VOLTAGE	13.5 VDC ±20%
BACK LIGHT CURRENT	40MA (TYP) 60MA (MAX)
UNIT OFF I	0 MA
UNIT ON I	60MA (TYP) 100MA (MAX)

REPLACEMENT PARTS LIST

ITEM	QTY.	PART #	DESCRIPTION
1	1	01-0668270-00	MESSENGER CTRL HEAD (MGC01)
x	1	01-0668471-00	MESSENGER CTRL HEAD (MGC02)
2	1	01-0416161-00	INSTALLATION KIT
3	1	07-241559-000	BAIL STRAP
4	1	46-0742344-00	INPUT PIGTAIL (MGC01)
5	1	46-0742534-00	INPUT PIGTAIL (MGC02)

FIG. 2



ITEM #2.

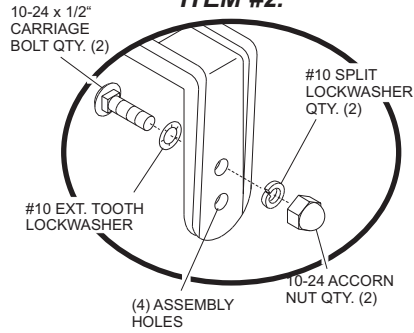
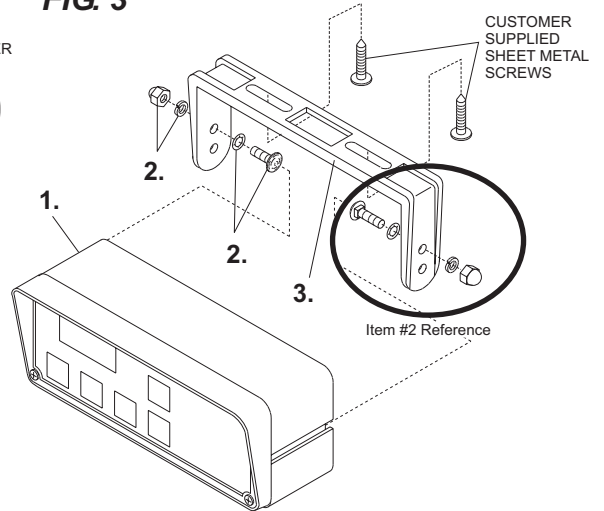
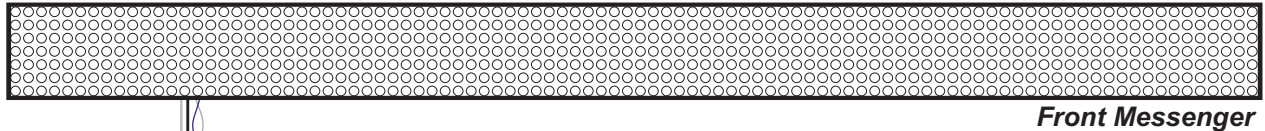


FIG. 3



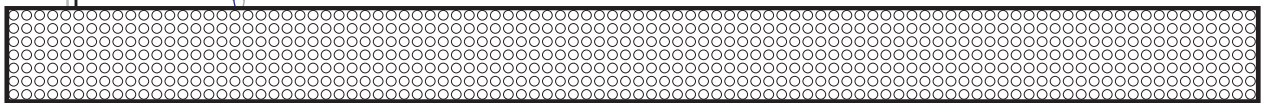
WARNING!

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 TO LOAD.

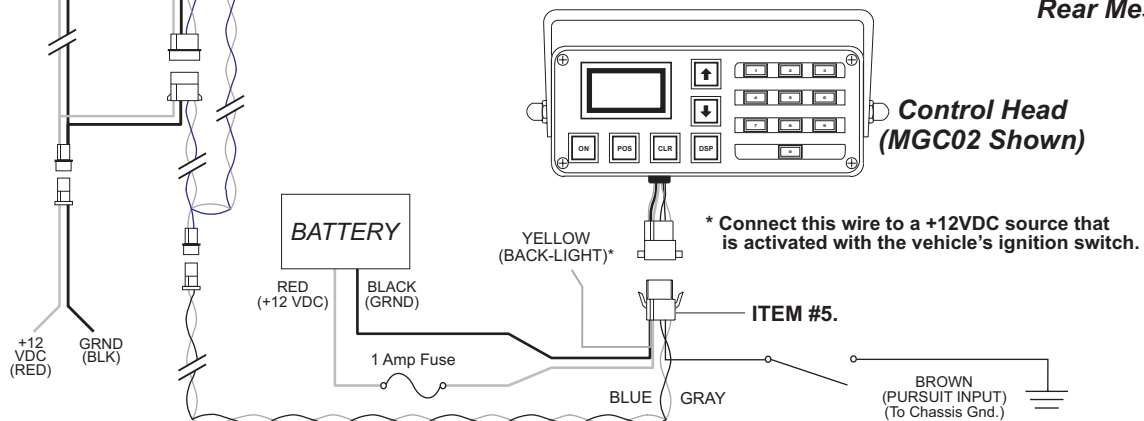


Front Messenger

FIG. 4



Rear Messenger



Control Head (MGC02 Shown)