

Installation Guide: Century™ Mini Lightbar Models: MC23\*\*, MC16\*\* and MC11\*\*

#### 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 they can operate the system without taking their 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 lags (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 in

### **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.

- · 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 hook and loop fastener, 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!

IMPORTANT! The lightbar should be a minimum of 16" from any radio antennas!

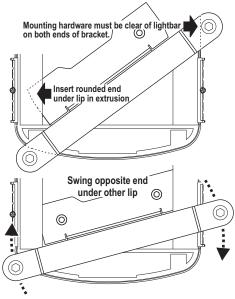
## Permanent Mounting / Bracket or Stud Mount:

This mounting style requires removal of the headliner. There may be a roof support member that runs from the drivers to the passengers side of the vehicle. *Do not drill through this member.* 

Caution: Permanent mounting of this product will require drilling. Be absolutely 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.

 Insert the 2 stud mounts (or brackets) under the lip in the bottom of the extrusion. (rounded end first) and pivot the bracket so that the other end slides under the other lip in the extrusion (Fig. 1). The mounting hardware must be clear of the lightbar to get the bracket into the extrusion.

Fig. 1



- Make sure that the brackets are sitting all the way at each end of the extrusion, then secure them with the supplied allen set screws.
- 3. Place the lightbar in the exact mounting location. Mark the location of the 2 (or 4) mounting holes onto the mounting surface, and the area for the wire passage hole. This hole should be located directly below where the wires exit the extrusion.

STUD MOUNT Fig. 2 3/8 - 16 HEX NUT (1) 3/8" SPLIT LOCK WASHER (1) 3/8" FLAT WASHER (1) 3/8' mounting 1/4 - 20 X 1/2 ALLEN SET SCREW (1) MOUNTING SURFACE STUD MOUNT BRACKET (1) **BRACKET MOUNT** 1/4" Mounting 1/4 - 20 X 7/16 HEX NUT (2) MOUNTING SURFACE 1/4" INTERNAL TOOTH WASHER (2) Š 1/4 - 20 X 1/2 ALLEN SET RUBBER BUMPER (2) SCREW (2) ١ Mounting Hole ١

1/4 - 20 X

1-1/2" PPHMS (2)

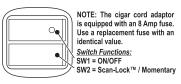
- 4. Remove the lightbar and drill the mounting holes (Fig. 2) as well as the 5/ 16" dia. wire passage hole. De-burr all the holes and install a rubber grommet (customer supplied) into the wire passage hole.
- Route the wires through the grommet and to the necessary switches and power source as shown in the wiring diagram.
- Secure the lightbar to the vehicle using the hardware provided. From the underside of the mounting surface, apply RTV around each mounting hole and the grommeted wire passage hole.

IMPORTANT! 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.

# Temporary Mount (Magnetic or Suction Cup):

WARNING: The use of any magnetically mounted warning device on the outside of a vehicle in motion is not recommended and is at the sole risk and responsibility of the user.

Magnetic/suction: Thoroughly clean the proposed mounting surface prior to mounting. For suction cup mounting, wipe the suction cup clean, place the beacon onto its mounting surface and apply gentle pressure to ensure a good seal has

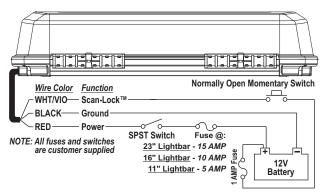


been achieved. The Magnetic/Suction Cups mount the same way as standard suction cups but are best suited to a flat, steel surface. **Magnetic:** Place the lightbar onto the mounting surface and plug it into the vehicle cigar lighter.

NOTE: Insert into the base the same as the permanent mount brackets.

## Wiring:

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 the load. DO NOT USE CIRCUIT BREAKERS WITH THIS PRODUCT!



### Scan-Lock™:

To operate Scan-Lock™, switch the lightbar on. Magnetic and Suction mount models use a momentary switch on the cigar plug instead of a Scan-Lock wire.

**TO CHANGE PATTERNS:** To cycle forward apply +12 VDC to the WHT/VIO wire (or switch) for less than 1 second and release. To cycle back to the previous pattern apply +12 VDC to WHT/VIO wire for over 1 second.

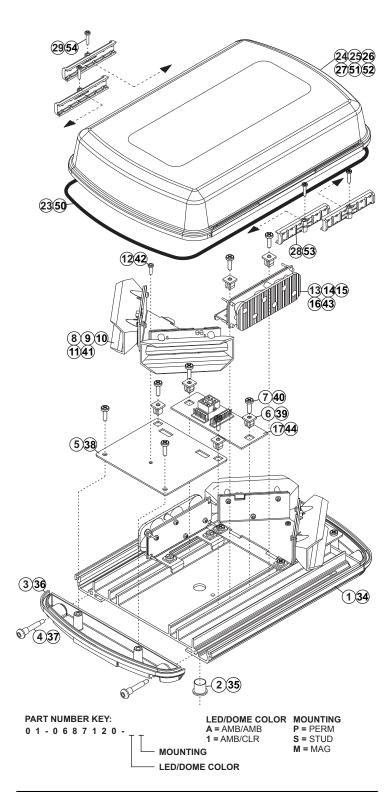
**TO CHANGE THE DEFAULT PATTERN:** When the desired pattern is displayed, allow it to run for more than 5 seconds. The lighthead will now display this pattern when initially activated.

**TO RESTORE THE FACTORY DEFAULT PATTERN:** With power off, apply +12 VDC to the WHT/VIO wire (or switch). While continuing to apply power to Scan-Lock™ turn lighthead(s) on. The factory default pattern will be displayed.

Available Flash Patterns: LongBurst™ 75 12. DoubleFlash 150 SignalAlert™ 75 7. PingPong™ 75 13. ComAlert™ 150 2 CometFlash® 75 SingleFlash 60 14. ActionFlash™ 50 8. 3. DoubleFlash 75 15. ActionFlash™ 150 SingleFlash 90 SingleFlash 75 10. SingleFlash 120 16. ModuFlash™ ComAlert™ 75 11. SingleFlash 300 17. ActionScan™

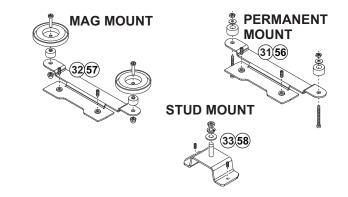
### IMPORTANT WARNING!

CAUTION! DO NOT LOOK DIRECTLY AT THESE LED'S WHILE THEY ARE ON.
MOMENTARY BLINDNESS AND/OR EYE DAMAGE COULD RESULT!



		wil	ITEM	PART NUMBER	DESCRIPTION
		*		01-0687308P	CENTURY, 11" PERM MT
	*			01-0687308S	CENTURY, 11" STUD MT
*				01-0687308M	CENTURY, 11" MAG MT
1	1	1	1	11-36D692-008	EXTRUSION, MACHINED 11" CENTURY LIGHTBAR
1	1	1	2	21-27101404-0	BUSHING, .437 MTG HOLE .312 ID BLACK NYLON
2	2	2	3	02-0344217-00	ENDCAP EXTRUSION COVER CENTURY LIGHTBAR
4	4	4	4	14-104286-16J	SCREW, 10-24 X 1.25" WAX DIP SHLDR PHTX TRI PT SS
2	2	2	5	07-76D682-000	PLATE, CORNER MOUNT DUAL L32 CENTURY LIGHTBAR
10	10	10	6	21-17060704-3	GROMMET, PLASTI-#8/10 .275290 SQ HOLE, .057 HD HT
14	14	14	7	15-081416-080	SCREW, 8 X 1/2 PPHSMS 410 SS
A/R	A/R	A/R	8	01-026E054122	SUB ASSY, 6 LED CORNER BLUE/BLUE CENTURY LT BAR
A/R	A/R	A/R	9	01-026E054133	SUB ASSY, 6 LED CORNER WHT/WHT CENTURY LT BAR
A/R	A/R	A/R	10	01-026E054144	SUB ASSY, 6 LED CORNER GRN/GRN CENTURY LT BAR
A/R	A/R	A/R	11	01-026E054155	SUB ASSY, 6 LED CORNER RED/RED CENTURY LT BAR
2	2	2	12	14-040285-063	SCREW, 4-40 X 3/8 TORX PH TRILOBULAR 410 SS, BLK OXIDE
A/R	A/R	A/R	13	01-026E055-20	ASSY, 6 TIR 10 X 30, BLUE, CENTURY LIGHTBAR
A/R	A/R	A/R	14	01-026E055-30	ASSY, 6 TIR 10 X 30, WHITE, CENTURY LIGHTBAR
A/R	A/R	A/R	15	01-026E055-40	ASSY, 6 TIR 10 X 30, GREEN, CENTURY LIGHTBAR
A/R	A/R	A/R	16	01-026E055-50	ASSY, 6 TIR 10 X 30, RED, CENTURY LIGHTBAR
1	1	1	17	02-016D408-06	ASSY, PCB 4 CH FLASHER 6 WIRE CENTURY LTBAR
-	1	1	18	46-0744279-00	ASSY, INPUT PIGTAIL, CENTURY MINI
1	-		19	02-0243700-02	CORD, CIGAR PLUG DUAL SWITCH-AMP SCKT'S 10' 20 GA
1	-		20	39-0406324-04	HOUSING, 6 POS SOCKET MOTOR MT COMM MATE-N-LOK
1	1	1	21	46-0787081-00	ASSY, HARNESS WARNING LIGHTS MINI CENTURY
1	1	1	22	26-0215001-03	TY WRAP, 3" BLACK
34.25"	34.25"	34.25"	23	38-0523713-00	SEAL, EXTRUDED CENTURY LTBAR
A/R	A/R	A/R	24	68-1987111-20	DOME, BLUE OPTIC 11" CENTURY
A/R	A/R	A/R	25	68-1987111-30	DOME, CLEAR OPTIC 11" CENTURY
A/R	A/R	A/R	26	68-1987111-40	DOME, GREEN OPTIC 11" CENTURY
A/R	A/R	A/R	27	68-1987111-50	DOME, RED OPTIC 11" CENTURY
4	4	4	28	19-36D291-000	CLAMP, SLIDE-LOCK LENS MOUNT CENTURY LIGHTBAR
4	4	4	29	15-04541A-080	SCREW, 4 X 1/2 PPH PLASTILOC ZINC BLACK, SS
1	1	1	30	10-0523732-00	LABEL, PN/MN/SN CENTURY SERIES
-	-	1	31	01-0444306-00	KIT, PERM MOUNT, CENTURY
1	-	-	32	01-0444307-00	KIT, MAGNETIC MOUNT, CENTURY
	1	_	33	01-0444251-01	KIT, STUD MOUNT, CENTURY





QTY	QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
		*		01-0687120P	CENTURY AMBER ESSENTIALS, 11" PERM MT
	*			01-0687120S	CENTURY AMBER ESSENTIALS, 11" STUD MT
*				01-0687120M	CENTURY AMBER ESSENTIALS, 11" MAG MT
1	1	1	34	11-36D692-008	EXTRUSION, MACHINED 11" CENTURY LIGHTBAR
1	1	1	35	21-27101404-0	BUSHING, .437 MTG HOLE .312 ID BLACK NYLON
2	2	2	36	02-0344217-00	ENDCAP EXTRUSION COVER CENTURY LIGHTBAR
4	4	4	37	14-104286-16J	SCREW, 10-24 X 1.25" WAX DIP SHOULDER PHTX TRI POINT SS
2	2	2	38	07-76D682-000	PLATE, CORNER MOUNT DUAL L32 CENTURY LIGHTBAR
10	10	10	39	21-17060704-3	GROMMET, PLASTI- #8/10 .275290 SQ HOLE, .057 HD HT
14	14	14	40	15-081416-080	SCREW, 8 X 1/2 PPHSMS 410 SS
2	2	2	41	01-026D523111	SUB ASSY, 6 LED CORNER AMB/AMB CENTURY LIGHTBAR
2	2	2	42	14-040285-063	SCREW, 4-40 X 3/8 TORX PH TRILOBULAR 410 SS, BLACK OXIDE
2	2	2	43	01-026D679-10	ASSY, 6 TIR 10 X 30, CENTURY LIGHTBAR
1	1	1	44	02-016D408-06	ASSY, PCB 4 CH FLASHER 6 WIRE CENTURY LTBAR

-	1	1	45	46-0744279-00	ASSY, INPUT PIGTAIL, AMBER ESSENCIALS MINI
1	-		46	02-0243700-02	CORD, CIGAR PLUG DUAL SWITCH W/AMP SCKT'S 10' 20 GA
1	-		47	39-0406324-04	HOUSING, 6 POS SOCKET MOTOR MT COMM MATE-N-LOK
1	1	1	48	46-0787081-00	ASSY, HARNESS WARNING LIGHTS MINI CENTURY
1	1	1	49	26-0215001-03	TY WRAP, 3" BLACK
34.25	34.25"	34.25"	50	38-0523713-00	SEAL, EXTRUDED CENTURY LTBAR
A/R	A/R	A/R	51	68-1987111-10	DOME, AMBER OPTIC 11" CENTURY
A/R	A/R	A/R	52	68-1987111-30	DOME, CLEAR OPTIC 11" CENTURY
4	4	4	53	19-36D291-000	CLAMP, SLIDE-LOCK LENS MOUNT CENTURY LIGHTBAR
4	4	4	54	15-04541A-080	SCREW, 4 X 1/2 PPH PLASTILOC ZINC BLACK, SS
1	1	1	55	10-0523732-00	LABEL, PN/MN/SN CENTURY SERIES
-	-	1	56	01-0444306-00	KIT, PERM MOUNT, AMBER ESSENTIALS, CENTURY
1	-	-	57	01-0444307-00	KIT, MAGNETIC MOUNT, AMBER ESSENTIALS, CENTURY
-	1	-	58	01-0444251-01	KIT, STUD MOUNT, AMBER ESSENTIALS, CENTURY

