

WHELEN[®]

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Installation Guide: Century™ Elite Lightbar

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 instructions and securely fastened to vehicle elements of sufficient strength to withstand the forces applied to the device. Driver and/or passenger air bags (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 injury. Whelen assumes no liability for any loss resulting from the use of this warning device. PROPER INSTALLATION COMBINED WITH OPERATOR TRAINING IN THE PROPER USE OF EMERGENCY WARNING DEVICES IS ESSENTIAL TO INSURE THE SAFETY OF EMERGENCY PERSONNEL AND THE PUBLIC.

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.

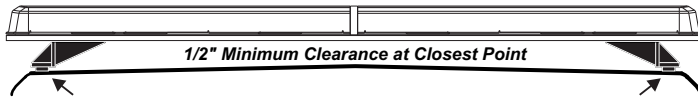
Safety First

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.

- **Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures.**
- **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 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 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!

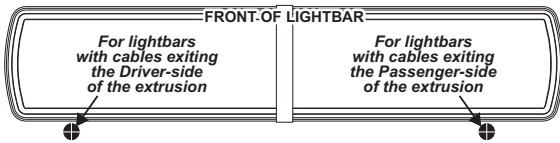
Caution: Permanent mounting of this product will require drilling. It is absolutely necessary to make sure that no other vehicle components could be damaged by this process. Check both sides of the mounting surface before starting. If damage is likely, select a different mounting location.



NOTE: Unless otherwise specified, the lightbar mounting feet must be sitting as close to the edge of the roof as possible. Mounting feet must also be in full contact with the roof and not be hanging off the edge.

Be sure you have the right sized lightbar for your vehicle. The lightbar should be approximately the same width as the vehicle roof. If the lightbar is too large or small it will not mount properly to the vehicle and may shift or come loose during driving.

DRILLING THE CABLE ACCESS HOLE



STRAP MOUNTING (optional)

NOTE: Mounting foot and anchor plate both slide into extrusion

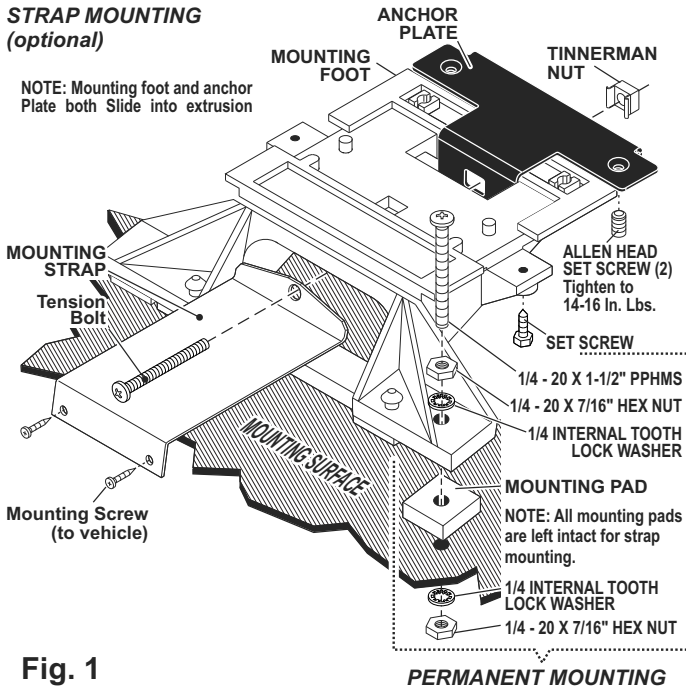


Fig. 1

Permanent Mounting:

- Once you determine the mounting location for your lightbar, remove either the two outer or inner rubber mounting pads from the mounting foot. Carefully remove the mounting pad's guide dart so that the hole through the center of the pad is exposed.
- Place the lightbar into its exact mounting location and mark the mounting hole locations onto the mounting surface. Use the holes in the mounting feet as a template.
- Remove the lightbar and drill the mounting holes with a 1/4" drill. Also drill a 1/2" wire exit hole (see above). It is recommended you install a rubber grommet (customer supplied) into the wire exit hole
- Position the mounting pad between the mounting foot and the mounting surface on each end of the lightbar.
- Insert the mounting bolt through the mounting foot, hardware and mounting surface as shown above.
- Repeat for remaining bolts and tighten all hardware.

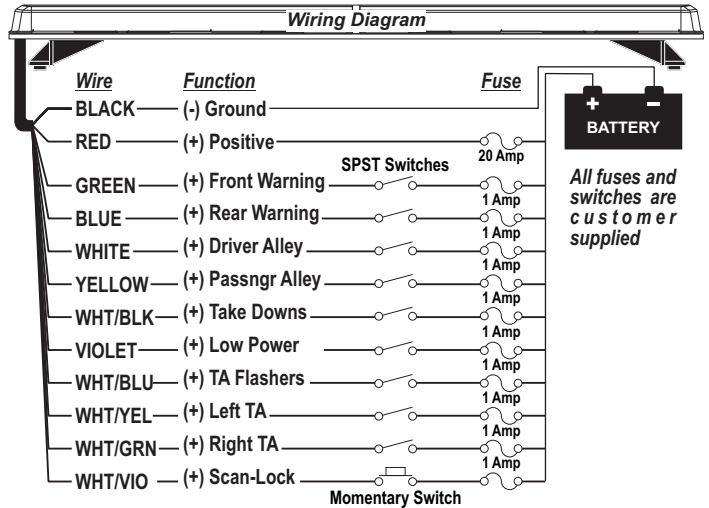
Strap Mounting:

Strap mounting uses a mounting strap which is purchased separately and is available for most vehicles. This strap attaches to the mounting foot as shown in fig. 1 and is secured to the vehicle with 2 sheet metal screws.

Wiring and Operation:

The lightbar is controlled through the control cable which should be connected to a customer supplied switch box. Wire functions and fusing are shown in the wiring diagram.

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!



Low Power:

Applying +12 volts DC to the Violet wire for more than 1 second holds the lightbar in low power mode until that voltage is removed. A toggle switch is best suited for this.

Scan-Lock™:

To operate Scan-Lock™, switch the lightbar on and activate the control wire of the function that requires flash pattern selection.

TO CHANGE PATTERNS: To cycle forward apply +12 VDC to the WHT/VIO wire 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. While continuing to apply power to Scan-Lock™ turn lighthead(s) on. The factory default pattern will be displayed.

A normally open momentary switch is best suited for this.

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

Flashing Take-Down and Alley Light Patterns:

#	Pattern	Lamps
1	SingleFlash 240	Take-Down & Alley Lights
2	DoubleFlash 120	Take-Down & Alley Lights
3	SingleFlash 240	Take-Down Only
4	DoubleFlash 120	Take-Down Only
5	SingleFlash 240	Alley Lights
6	DoubleFlash 120	Alley Lights
7	OFF	

Lightbar Patterns:

1. ActionScan™	6. LongBurst™ 75	12. ActionFlash™ 75
2. SignalAlert™	7. SingleFlash 60	13. ActionFlash™ 150
3. CometFlash®	8. SingleFlash 90	14. PingPong™ 75
4. DoubleFlash 75	9. SingleFlash 120	15. FilmFlam™
5. SingleFlash 75	10. SingleFlash 300	16. ModuFlash™
	11. DoubleFlash 120	17. Off

QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
	*		01-0687190-__	CENTURY LIGHTBAR 44"
*			01-0687190-__	CENTURY LIGHTBAR 50"
-	1	1	11-36D421-041	BASE, EXTRUDED CENTURY 41.100" MACHINED
1	-	2	11-36D421-047	BASE, EXTRUDED CENTURY 47.400" MACHINED
1	1	3	21-11245004-1	GROMMET, 1.562" THERMOPLASTIC RUBBER
2	2	4	21-7263998-00	PLUG, VENT .750 DIA HOLE LIGHTBAR
1	1	5	14-104216-160	SCREW, 10-24 X 1" PPHMS SS
1	1	6	46-076D061-00	ASSY, INPUT CABLE 12/C 17" ECONO JUSTICE LC I/O
1	1	7	26-0115037-06	CABLE CLAMP, 3/8"D, 1/2"W, .203" MTG HOLE, BLACK
1	1	8	13-104111-063	NUT, 10-24 CAD PLATED WHIZ OR STEEL ZINC PLATED
1	1	9	26-0215001-06	TY WRAP, 6" BLACK
1	1	10	01-026D625-00	SUB ASSY, CENTURY ELITE I/O BASEPLATE 12V
10	10	11	21-17060704-3	GROMMET, PLASTI- #8/10 .275-.290 SQ HOLE, .057 HD HT
10	10	12	15-081416-080	SCREW, 8 X 1/2 PPHMS 410 SS
2	2	13	07-76D360-000	PLATE, LR11 & L32 CORNER MOUNT CENTURY LIGHTBAR
A/R	A/R	14	01-026D364-30	SUB ASSY, LR11 ALLEY LIGHT CENTURY LIGHTBAR
A/R	A/R	15	01-026D523111	SUB ASSY, 6 LED CORNER AMB/AMB CENTURY LIGHTBAR
A/R	A/R	16	01-026E054122	SUB ASSY, 6LED CORNER BLU/BLU L32 12V CENTURY MLE
A/R	A/R	17	01-026E054133	SUB ASSY, 6LED CORNER WHT/WHT L32 12V CENTURY MLE
A/R	A/R	18	01-026E054144	SUB ASSY, 6LED CORNER GRN/GRN L32 12V CENTURY MLE
A/R	A/R	19	01-026E054155	SUB ASSY, 6LED CORNER RED/RED L32 12V CENTURY MLE
2	2	20	14-040285-063	SCREW, 4-40 X 3/8 TORX PH TRILOBULAR 410 SS, BLACK OXIDE
A/R	A/R	21	01-026D367-30	SUB ASSY, LR11 TAKE DOWN LIGHT CENTURY LIGHTBAR

A/R	A/R	22	01-026E017-10	SUB ASSY, 12LED LT HEAD AMBER CENTURY LIGHTBAR
A/R	A/R	23	01-026E017-20	SUB ASSY, 12LED LT HEAD BLUE CENTURY LIGHTBAR
A/R	A/R	24	01-026E017-30	SUB ASSY, 12LED LT HEAD WHITE CENTURY LIGHTBAR
A/R	A/R	25	01-026E017-40	SUB ASSY, 12LED LT HEAD GREEN CENTURY LIGHTBAR
A/R	A/R	26	01-026E017-50	SUB ASSY, 12LED LT HEAD RED CENTURY LIGHTBAR
1	2	27	46-0787067-00	ASSY, HARNESS FRONT 44" CENTURY ELITE
1	-	28	46-0787067-01	ASSY, HARNESS FRONT 55" CENTURY ELITE
-	1	29	46-0786829-00	ASSY, HARNESS TRAFFIC ADVISOR 44" JUSTICE ECONO
1	-	30	46-0786829-01	ASSY, HARNESS TRAFFIC ADVISOR 50" JUSTICE ECONO
A/R	A/R	31	26-0215001-03	TY WRAP, 3" BLACK
2	2	32	02-0341742-01	ASSY, MTG FOOT W/PADS/HARDWRE
2	2	33	02-0344217-00	SUB ASSY ENDCAP, CENTURY LIGHTBAR
4	4	34	14-104286-16J	SCREW, 10-24 X 1.25" WAX DIP SHOULDER PHTX TRI POINT SS
9.38	8.27	35	38-0523713-00	SEAL, EXTRUDED CENTURY LT BAR
1	2	36	68-1986987-*0	DOME, OPTIC OPEN END CENTURY LIGHTBAR
1	-	37	68-196D587-30	DOME, CLEAR SINGLE CTR 6.062" CENTURY LIGHTBAR
4	2	38	38-046D289-00	SEAL, DIVIDER CENTURY LIGHTBAR
2	1	39	38-046D288-00	DIVIDER, LENS CENTURY LIGHTBAR
14	12	40	19-36D291-000	CLAMP, SLIDE-LOCK LENS MOUNT CENTURY LIGHTBAR
4	4	41	15-04541A-080	SCREW, 4 X 1/2 PPH PLASTILOOC ZINC BLACK, SS
1	1	42	10-0322935-00	LABEL, "FRONT" LIGHTBAR ASSYS
1	1	43	10-0523732-00	LABEL, MODEL & SERIAL NO. CENTURY
2	2	44	02-0344331-00	SUB ASSY, ANCHOR PLATE, CENTURY SERIES
-	A/R	45	01-026D679-10	SUB ASSY, 6 TIR ARRAY AMBER 10D X 30D CENTURY LT BAR

