



Installation and Operation Instructions

*StreetLazer*TM

15 Series Minibars

IMPORTANT! Read all instructions before installing and using. Installer: This manual must be delivered to the end user.



WARNING!

Failure to install or use this product according to manufacturer's recommendations may result in property damage, serious injury, and/or death to those you are seeking to protect!



Do not install and/or operate this safety product unless you have read and understand the safety information contained in this manual.

1. Proper installation combined with operator training in the use, care, and maintenance of emergency warning devices are essential to ensure the safety of emergency personnel and the public.
2. Emergency warning devices often require high electrical voltages and/or currents. Exercise caution when working with live electrical connections.
3. This product must be properly grounded. Inadequate grounding and/or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or severe vehicle damage, including fire.
4. Proper placement and installation is vital to the performance of this warning device. Install this product so that output performance of the system is maximized and the controls are placed within convenient reach of the operator so that s/he can operate the system without losing eye contact with the roadway.
5. It is the responsibility of the vehicle operator to ensure daily that all features of this product work correctly. In use, the vehicle operator should ensure the projection of the warning signal is not blocked by vehicle components (i.e., open trunks or compartment doors), people, vehicles or other obstructions.
6. The use of this or any other warning device does not ensure all drivers can or will observe or react to an emergency warning signal. Never take the right-of-way for granted. It is your responsibility to be sure you can proceed safely before entering an intersection, drive against traffic, respond at a high rate of speed, or walk on or around traffic lanes.
7. This equipment is intended for use by authorized personnel only. The user is responsible for understanding and obeying all laws regarding emergency warning devices. Therefore, the user should check all applicable city, state, and federal laws and regulations. The manufacturer assumes no liability for any loss resulting from the use of this warning device.
8. This product contains high intensity LEDs, staring directly into these lights could result in temporary and/or permanent vision impairment.

Introduction:

ECCO's 15 Series Minibars offer a compact LED lighting solution. ECCO's unique LED module features advanced optics creating a wide-angle beam pattern and increased vertical light dispersion.

High output LED technology provides low current consumption and a long and maintenance free service life. Features include an extruded aluminum base and weather-sealed, impact resistant, polycarbonate lenses along with encapsulated power supplies for heightened protection against the environment.

Specifications:

Length (mm)	590
Height (mm)	53
Depth (mm)	310
Weight (kg)	4.5

Voltage: 12 VDC
Flash Rate: 1.25Hz Quad Flash
Current Draw: 0.2A Ave. per LED Lighthouse (Quad Flash)

Unpacking:

Carefully remove the minibar and place it on a flat surface. Examine the unit for transit damage and locate all parts. If damage is found, or parts are missing, contact the transit company or ECCO. Do not use damaged or broken parts. Parts included in box are the following:

- 1 Kit (P/N 140-0011-00) made up of :
- Nuts—4 each P/N 310-0011-00
 - Bolts—4 each P/N 330-0009-00
 - Washers—4 each P/N 340-0007-00
 - Rubber Spacer—4 each P/N 400-0009-00

Check that the minibar voltage is compatible with the planned installation.

Installation & Mounting

Permanent Mounting:

Before proceeding with installation, plan all wiring and cable routing. Select the mounting location for the minibar on a flat, smooth surface, light assembly should be centered across the width of the vehicle. If the minibar is to be mounted on a curved surface, such as on the roof of the vehicle, choose a placement with the least amount of curvature. The mounting location for the minibar should be chosen such that the minibar is level and there is maximum visibility to the oncoming traffic.



Caution:

When drilling into any vehicle surface, make sure that the area is free from any electrical wires, fuel lines, vehicle upholstery, etc. that could be damaged.

1. Determine the location of the minibar and the route for the wiring.
2. The spacing of the mounting hardware, from front to back, is 120mm. The spacing of the mounting hardware, left to right, can vary. It is suggested that the spacing be maximized. The mounting bolts are M8. Drill the mounting holes using a 8.5mm to 9.0mm drill.
3. Slide the four (4) mounting bolts in the bottom of the base extrusion. Push the rubber mounting feet over the bolts to hold them in place. Slide the bolts along the extrusion so they are symmetrical about the bar and line up with the holes in the roof.
4. Mount the minibar, with the bolts going through the holes drilled in Step 2, routing the wire as planned in Step 1. See the Wiring section of this manual for further wiring instructions. Install washers and nuts, and secure the unit. The use of thread locking compound is recommended.

Wiring Instructions:

Important! This unit is a safety device and it must be connected to its own separate, fused, power point to assure its continued operation should any other electrical accessory fail.

Notes:

1. Larger wires and tight connections will provide longer service life for components. For high current wires it is highly recommended that terminal blocks or soldered connections be used with shrink tubing to protect the connections. Do not use insulation displacement connectors (e.g., 3M Scotchlock type connectors).
2. Route wiring using grommets and sealant when passing through compartment walls. Minimize the number of splices to reduce voltage drop. High ambient temperatures (e.g., under-hood) will significantly reduce the current carrying capacity of wires, fuses, and circuit breakers. All wiring should conform to the minimum wire size and other recommendations of the manufacturer and be protected from moving parts and hot surfaces. Looms, grommets, cable ties, and similar installation hardware should be used to anchor and protect all wiring.
3. Fuses or circuit breakers should be located as close to the power takeoff points as possible and properly sized to protect the wiring and devices.
4. Particular attention should be paid to the location and method of making electrical connections and splices to protect these points from corrosion and loss of conductivity.
5. Ground termination should only be made to substantial chassis components, preferably directly to the vehicle battery.
6. Circuit breakers are very sensitive to high temperatures and will "false trip" when mounted in hot environments or operated close to their capacity.



CAUTION!

Disconnect the battery before wiring up the minibar, to prevent accidental shorting, arcing, and/or electrical shock.

General Wiring Instructions:

1. Route 14AWG or larger wires from the vehicle positive (battery, alternator, fuse block) to the switch panel in the cab. Use high-temperature wire if it passes through the engine compartment. Install an inline fuse close to the power take-off point. For each circuit use a fuse according to the table below.
2. Connect the wires to the positive side of the control switch or switches of the switch panel with quick-disconnect terminals or by soldering.
3. After the minibar has been mounted, route the control cable into the vehicle to the switch panel location.
4. Connect the 14 AWG wires of the minibar cable to the switched side of each switch. See the table below for wire color / function legend. Connect the minibar cable black wire to a solid ground connection on the vehicle. If

this wire needs to be lengthened, use a 14AWG or larger Black wire.

5. Use cable ties and grommets to secure and protect all cables and wires.

Important! This system must be connected to a separate, fused power point. Do not wire in parallel with any other accessory.


Wiring Harness			
FUNCTION	WIRE COLOR	CONNECT TO	FUSE VALUE
POWER	RED	+ 12 VDC	15 AMP
GROUND	BLACK	GND	N/A
PRIMARY FLASH PATTERN	ORANGE	+ 12 VDC	N/A
SECONDARY FLASH PATTERN	PINK	+ 12 VDC	N/A

Primary and secondary flash patterns vary by model type and number of LED modules. The quad flash mode operates in simultaneous, alternating, or sweep mode depending on configuration.

Maintenance:

The 15 series minibar requires little routine maintenance. Occasional cleaning of the lenses will ensure optimum light output. Take care when cleaning lenses – although tough, polycarbonate scratches easily. Clean the lens and base with soap and water, or a lens polish using a soft cloth. Do not use solvents as they may damage the polycarbonate. Do not subject the minibar to high pressure washers or automatic car washers.

Lens Removal and Installation and Bulb Replacement:

	<p>WARNING! Halogen bulbs are extremely hot! Allow to cool completely before attempting to remove.</p>
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1. Remove four (4) M4 end lens screws using a #2 Phillips head screwdriver. Using a small flat blade screwdriver or similar tool, lever open the latch on the middle lenses. Carefully lift the lens off the seal.
2. If the unit is equipped with a halogen bulb, use a #2 point Phillips head screwdriver to remove the reflector assembly and the screw retaining the H3 bulb. Replace the old bulb and retain the new bulb into the reflector assembly. Plug the bulb spade into the terminal. **Do not touch the glass portion of the bulb – natural skin oils can cause premature bulb failure.**
3. Re-install reflector assembly and replace lens. Wipe the lenses clean with a soft, clean rag

Troubleshooting:

Problem	Possible Cause	Suggested Remedy
Unit does not function when turned on.	Poor ground or power connection Fuse Blown No power / improper power Unit has been damaged	Check connections at the battery and the unit and repair Check fuse, replace if necessary Verify that 12 VDC is reaching unit Return to ECCO
Secondary Flash pattern does not function.	Primary function still connected	Primary function overrides secondary function – turn off primary function
LED Lighthouse does not flash (Corresponding LED on driver board does flash)	Open circuit wiring Poor ground connection Lighthouse is damaged	Repair wiring Tighten or replace mounting screw and star washer Return to ECCO
LED Lighthouse does not flash (Corresponding LED on driver board does not flash)	Driver Board Damaged	Return to ECCO

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