



Installation and Operation Instructions EW2320 & EW2321 LED WORKLAMPS

ECCO's EW2320 and EW2321 Modular LED Worklamps feature five 10-watt LEDs that produce a high-intensity beam as well as an aluminum heatsink housing and tough polycarbonate lens. These modular worklamps include hardware for connecting multiple units together either horizontally or vertically (E94011 connector required) allowing the creation of a scene lighting system that is customized to the vehicle. Designed to perform in harsh work environments these robust worklamps also offer all the benefits of LED technology including the brightest white light output, a long, maintenance-free service life and extremely low current consumption.



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 bodily/personal injury, and/or death to you and 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 installation, use, care and maintenance of vehicle equipment accessories is essential to ensure the safety of you and those you are trying to protect.
2. 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 are vital to the performance of this worklamp. 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 work area.
5. It is the responsibility of the vehicle operator to ensure during use that all features of this product work correctly. In use, the vehicle operator should ensure the projection of the beam is not blocked by vehicle components (i.e., open trunks or compartment doors), people, vehicles, or other obstructions.
6. The manufacturer assumes no liability for any loss resulting from the use of this device.

NOTE: Black die cast Aluminum housing gets very hot to the touch after operating constantly for several hours.

Specifications:

| | | |
|----------|---------|----------------------------|
| Voltage: | EW2320: | 12-24 VDC |
| | EW2321: | 12-24 VDC |
| Current: | EW2320: | 2.2 Amps @ 12.8VDC |
| | EW2321: | 2.2 Amps @ 12.8VDC |
| Weight: | EW2320: | 1.3 lbs. |
| | EW2321: | 1.3 lbs. |
| Lumens: | EW2320: | 2400(Raw), 2100(Effective) |
| | EW2321: | 2400(Raw), 2100(Effective) |

Installation:

Single unit installation:

1. Select a mounting location for the unit on a flat surface. Place the unit bracket, flat side down, on the surface.
2. Use the two slots in the bracket as a template to mark two hole locations in the surface.
3. Drill two 0.257" diameter (F sized drill bit) holes at the locations marked.
4. Use 1/4" or M6 hardware (including bolts, lock washers, & nuts) to secure the unit to the surface.

Multiple units installation – vertical (see figure 1):

1. Placed two units face down on a flat surface. The units should be placed top to bottom. They have been placed correctly if the bottom edge ribs of one unit fit in-between the top edge ribs of the other unit.
 2. Place a 55x13x3.5mm plate over the two center holes (one on each unit) on the left side. Secure the plate to the two units using two M4x10mm screws and M4 lock washers.
 3. Repeat step 2 for the right side of the two units.
 4. Repeat steps 1-3 to add additional units to the array.
- WARNING: Do not connect more than six (6) units together in an array.**
5. Connect two units together electrically using an E94011 Y-connector. In the case of a 3+ unit array, continue connecting units together with E94011 connectors until you are left with a single female receptacle. (You may also need to use extenders to make all connections.) Plug a male receptacle (with black and red wired spades on the other end) in the remaining female receptacle.
 6. Select a mounting location for the array on a flat surface. For multiple unit arrays, plan to use one bracket for every two units connected. Place the unit bracket(s), flat side down, on the surface.
 7. Use the two slots in each bracket as a template to mark two hole locations for each bracket in the surface.
 8. Drill 0.257" diameter (F sized drill bit) holes at the locations marked.
 9. Use 1/4" or M6 hardware (including bolts, lock washers, & nuts) to secure the array to the surface.

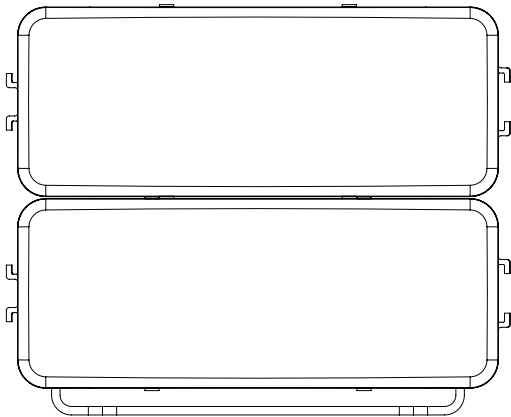


FIG. 1

Multiple units installation – horizontal (see figure 2):

1. Placed two units face down on a flat surface. The units should be placed side to side, with the top edges flush to each other. They have been placed correctly if (when looking at them face down) the left edge ribs of one unit fit in-between the right edge ribs of the other unit.
2. Place a 55x32x3.5mm plate over the four holes (two on each unit) in-between the units. Secure the plate to the two units using four M4x10mm screws and M4 lock washers.
3. Repeat steps 1-2 to add additional units to the array. **WARNING: Do not connect more than six (6) units together in an array.**
4. Connect two units together electrically using an E94011 Y-connector. In the case of a 3+ unit array, continue connecting units together with E94011 connectors until you are left with a single female receptacle. (You may also need to use extenders to make all connections.) Plug a male receptacle (with black and red wired spades on the other end) in the remaining female receptacle.
5. Select a mounting location for the array on a flat surface. For multiple unit arrays, plan to use one bracket for every two units connected. Place the unit bracket(s), flat side down, on the surface.
6. Use the two slots in each bracket as a template to mark two hole locations for each bracket in the surface.
7. Drill 0.257" diameter (F sized drill bit) holes at the locations marked.
8. Use 1/4" or M6 hardware (including bolts, lock washers, & nuts) to secure the array to the surface.

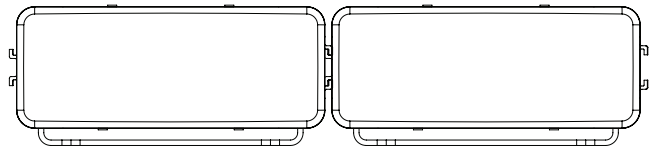
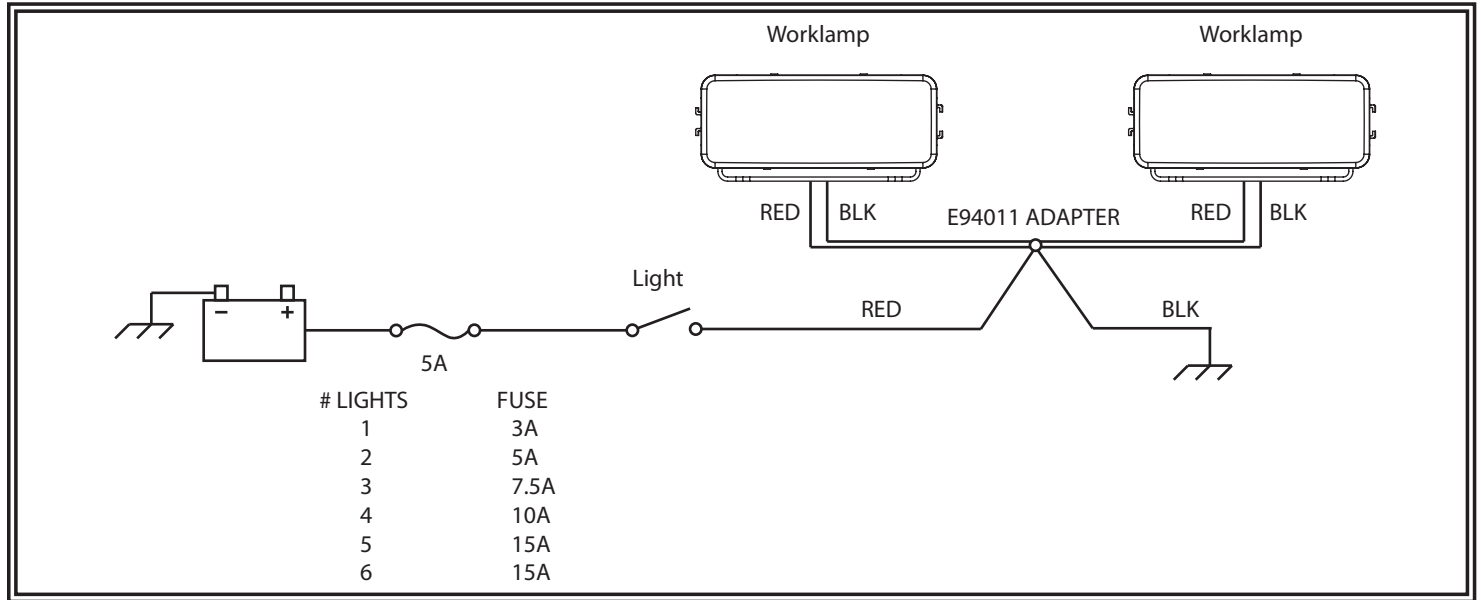


FIG. 1

Wiring Instructions:

Black Wire: Ground
 Red Wire: Connect to fused power

See wiring diagram for further instruction



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