



Dealer Installation Instructions: DC-DC Charger Cord Set

Overview:

This document outlines the steps required to build and install the cord set for the DC-DC charging system. Each camper ordered with the 600AH Lithium package will come with a DC charger pre-installed and a **female connector** pre-wired to receive:

- 12V Positive (Charging Power)
- 12V Negative (Ground)
- 12V Ignition Signal (Trigger)

Each camper will include a **matching male connector and insulating cover**, shipped loose, for dealers to wire into the customer's truck.

Materials Required:

- Male connector (3-pin) Plug with insulating cover (supplied with the camper)
- Minimum 6 AWG wire – **12V Positive**
- Minimum 6 AWG wire – **12V Negative (Ground)**
- Minimum 16 AWG wire – **12V Ignition**
- Proper wire terminals or soldering supplies (as per connector type)
- Wire loom or split conduit for protection
- Zip ties or mounting clips
- Heat shrink and dielectric grease (for waterproofing and corrosion resistance)
- 60A Fuse holder and appropriate fuse (recommended: 60A MIDI , ANL or Maxi Fuse for positive wire)

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Pin Configuration for Connector:

Use the following 3-pin layout (when viewing the pins head-on from the front of the male connector):

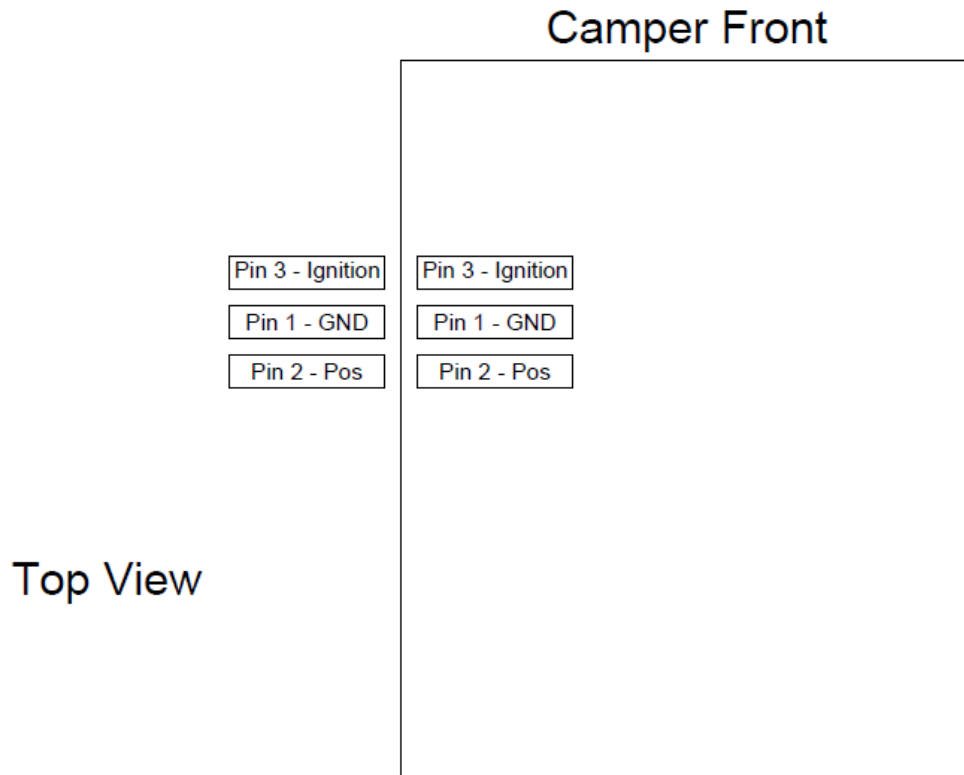


Figure 1 - Wire Pin Out

Pin	Function	Wire Gauge	Wire Color Recommendation
Pin 2	12V Positive	6AWG	Red
Pin 1	12V Negative (Ground)	6AWG	Black
Pin 3	12V Ignition Signal	14AWG	Any

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Installation Steps:

Running the charge line from the Truck Battery to the Charging port.

- Note the position of the DC-DC Charging port on the camper, this is where your truck to charger cable will terminate.
- Determine the routing of the 6AWG Cables from the battery to this port to determine the length of wire you will require.
- Once you've determined the best route, cut one length of 6AWG Black, and one length of 6AWG Red, adding 3 additional feet of cable, in case of any slight deviations in routing requires addition cable.
- You will need to install the battery ring terminals that you've chosen on one end of the cable. These should be attached to the cable as designed, being either a soldered or crimped connection.

- On the positive conductor, you will need to install a 60amp fuse or breaker. This device needs to be located within 12 inches of the Battery. Note; due to the high amperage of this circuit, ensure that the fuse holder you select, is rated for 60A.



- There are a number of fuse holders such as the ones shown, which are capable of connecting 6AWG cables, and housing a 60amp Fuse.
- You will also need to run a 16AWG wire (or larger) to the camper's DC/DC Charge port. This wire will need to be tied into an ignition switched circuit on the truck. This wire must be ignition switched, otherwise the DC/DC charger has the ability to draw power from your truck battery at all times.
- Find a suitable location near the battery (12") and secure the fuse holder. Run the Red 6AWG to the fuse holder. Cut and strip the cable and connect it to the fuse holder.

Note: If your are going to be installing Loom or and insulated sleeve on the cables, this should be installed on the cable now. As it will make the installation much easier.

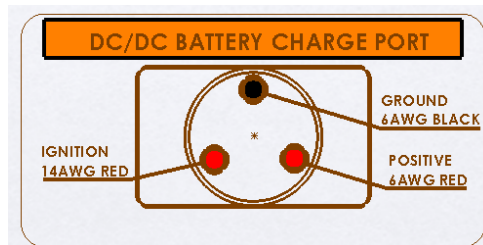
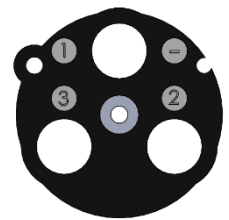
- Continue routing the cable to your desired position within the truck bed, which will enable you to make the connection to the truck camper DC-DC Charging

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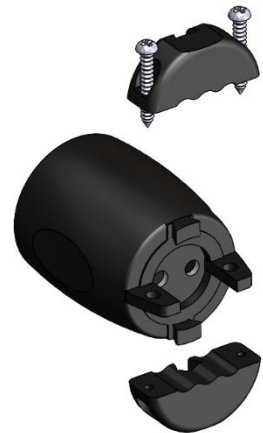
port. Avoid routing near exhaust or high temperature components, keeping the cable/loom away from sharp edges. Secure the cable every 12-18", to ensure damage will not occur.

Once your are satisfied with the cable installation, you can cut off any excess cable that is not required to make the connection to the camper.

- Locate the Maringo Male Plug connector supplied loose with your camper.
- Remove the three phillips head screws from the pin face, to allow you to remove the pin assembly.
- Once removed from the plug body you will see the three terminal sockets. These are identified on the retainer as pin "1", "-", "2", "+" and "3". These correspond to the connections made on the female charging port on the camper. Which are wired as shown.



1. Locate the body of the Maringo Plug, and remove the two cable retainers that are secured with two phillips screws. This will expose the rubber gasket that has two holes. Run the Black 6AWG cable through one of these holes.
2. Strip ½" of insulation, off of the 6AWG Black wire.
3. Loosen the two hex socket screws on PIN "1" / "-", and insert the bare wire into the terminal socket. Secure the wire in the terminal by re-tightening the hex sock screws. Prior to inserting the wire into the terminal socket, apply some dielectric grease into the socket, as this will provide a good connection, and prevent corrosion.



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4. Strip ½” of insulation off the Red 6AWG cable, and insert in into the Terminal socket for Pin 2/+, and secure using the two hex socket screws.
5. Insert the 16AWG (or larger) ignition wire through the opening in the gasket, along side of the 6AWG positive cable. Inserting dielectric grease into the terminal socket will provide a good connection and prevent corrosion.
6. Strip ½” of insulation off the 16AWG (or larger) ignition wire, and insert it into the terminal socket of Pin “3”. This is the ignition switched circuit, which signals the charger that it is OK to draw power from the truck, as the ignition is turned on.
7. Slide the connected terminal block back into the body of the plug, with the arrow on the face aligning with the arrow on the body.
8. Secure the terminal block by inserting the three long screws in the terminal block face.
9. Install the cable retainers onto the back of the plug assembly and secure using the two short screws.
10. Install the provided plug cover onto the body of the plug if the camper is not installed.



Note: The plug cover must be installed when the DC/DC Chargeline is not connected to the camper. Never operate the truck with the plug not connected to the camper, or with the plug cover removed.



11. Connect the Negative and Positive cable to the battery.
12. Connect the Ignition Signal wire to the Ignition source you've selected.

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Test the Connections;

- Use a multimeter to verify:
 - Voltage at the 12V Positive pin when vehicle is running.
 - Ground continuity.
 - Ignition pin only has power when the key is in RUN or START.

Final Check

- Connect the plug to the female charging port on the camper. Ensure that the DC-DC Charger in the camper, powers up with the truck ignition turned on. The blue light at the rear of the device will be illuminated when the charger powers on.

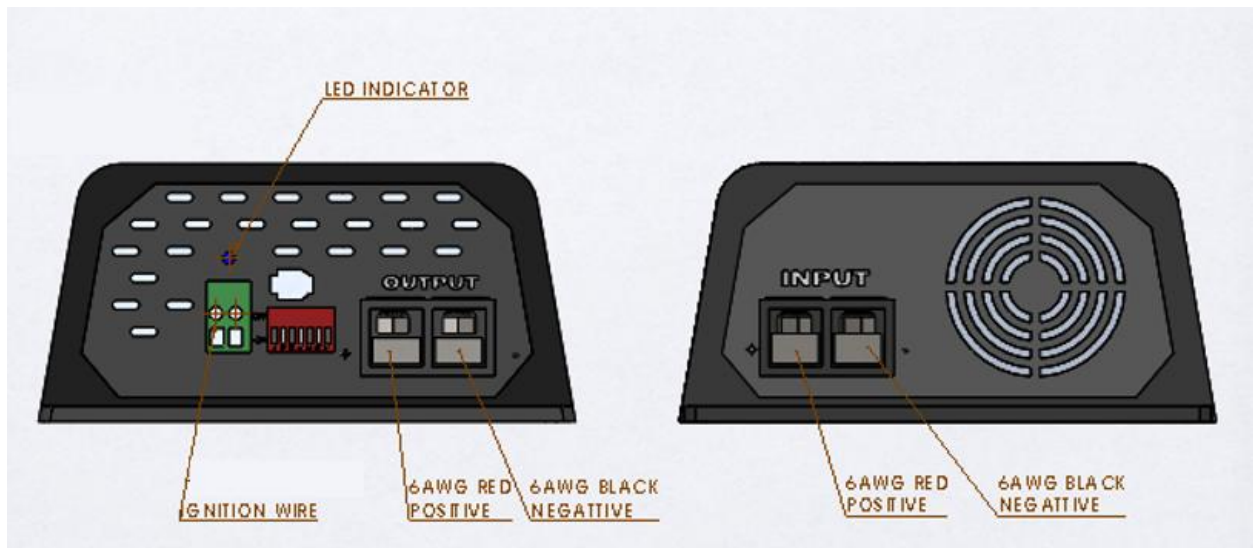


Figure 2 - DC Charger

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Wiring Schematic

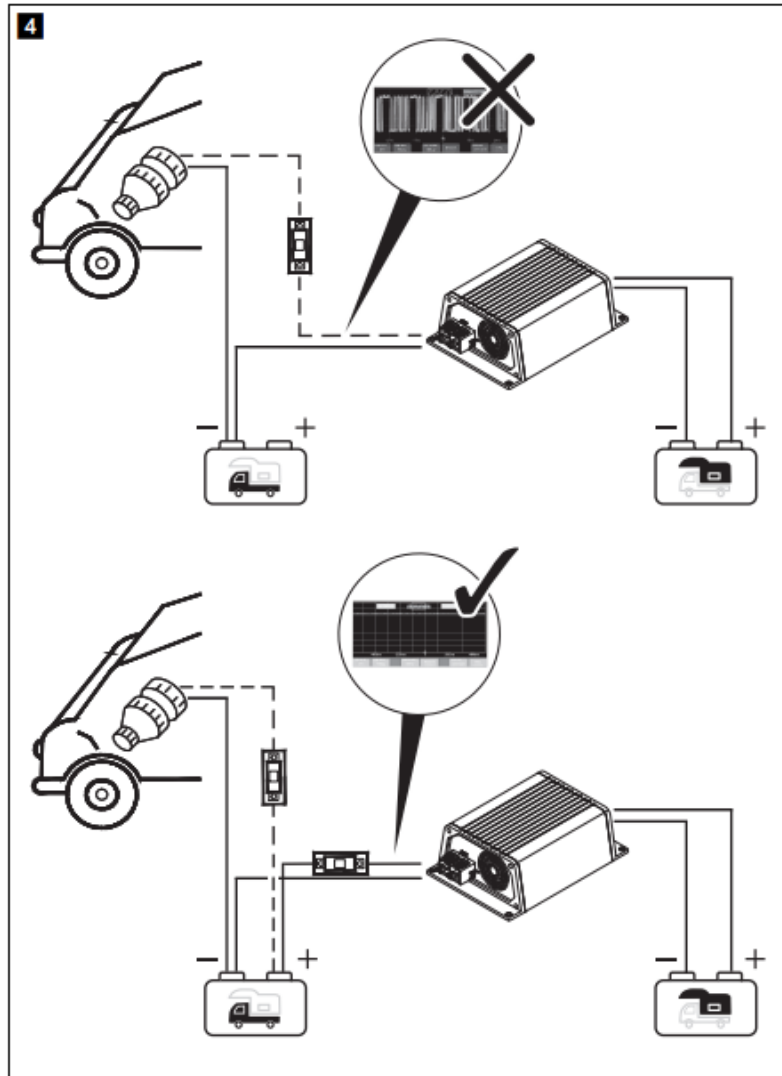


Figure 3 – Wiring Routing (Dometic Manual Except)