

LIPPERT COMPONENTS

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# **Safety Information**

# **AWARNING**

The "Warning" symbol above is a sign that an installation procedure has a safety risk involved and may cause death or serious personal injury if not performed safely and within the parameters set forth in this manual.

# **AWARNING**

The coach must be supported per manufacturer's recommendations before working underneath. Failure to do so may result in death, serious personal injury, severe product or property damage or voiding of the component warranty.

# **AWARNING**

There is an electric shock hazard associated with this procedure. Disconnect power before working on this coach. Failure to follow all safety procedures and all procedures in this manual could cause death, serious personal injury, severe product or property damage or voiding of the component warranty.

# **A** CAUTION

Before attempting any electric step assembly repair work, please read all of the following instructions. Disconnect the power at the vehicle battery after the step is extended.

# **A** CAUTION

Always wear eye protection when performing this installation procedure. Other safety equipment to consider would be hearing protection, gloves and possibly a full face shield, depending on the nature of the installation procedure.

# **A** CAUTION

Moving parts can pinch, crush or cut. Keep clear and use caution.

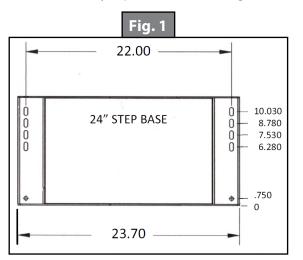
## **Preparation**

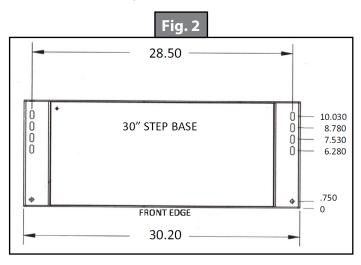
## **Resources Required**

- · Cordless or electric drill or screw gun
- Socket and Box End Wrench
- %16" Socket
- Four 3/8" 14 x 1" bolts, grade 2
- Four 3/8" 14 flange nuts, grade 2

#### Installation

- 1. Verify the location and squareness of the steps against the provided structure.
- **2.** Align the holes in the step (Fig. 1 & Fig. 2) with holes in the structure.
  - **A.** Insert two bolts and flange lock nuts per side.
  - **B.** Tighten until snug to allow for adjustments.
  - **C.** Re-verify squareness, then tighten the bolts to 20 ft-lbs of torque.





## Wiring Diagram

There are four operational inputs to the step controller consisting of:

- A door proximity switch input
- Hold/cycle step input
- · Porch light input
- Ignition on input

Outputs are bi-directional motor drive current and 12V DC brake release.

#### **Porch Light**

This input can be wired to a porch light switch. Any time the porch light is on, the step light will remain on (Fig. 3A).

#### **Chassis Ground**

This input connects to the chassis' ground (Fig. 3B).

#### **Door Proximity Switch**

Each time the door is opened, this input (wired to a step proximity switch) extends the step. When the door is closed, the step retracts (Fig. 3C).

#### **Hold/Cycle Input**

This is wired to a switch which is in turn wired to 12V DC. When the switch is Closed (Cycle), the step extends and retracts each time the door is open or closed. When moved to the Open (Hold) position, the step will remain extended until the switch is once again closed, or the ignition switch is turned on with the door closed (Fig. 3D).

#### **Ignition On**

This input is wired to the vehicle ignition system so when the ignition is turned on, and the vehicle door is closed, an extended step will retract, regardless of the position of the Hold/Cycle switch (Fig. 3E).

#### **12V DC**

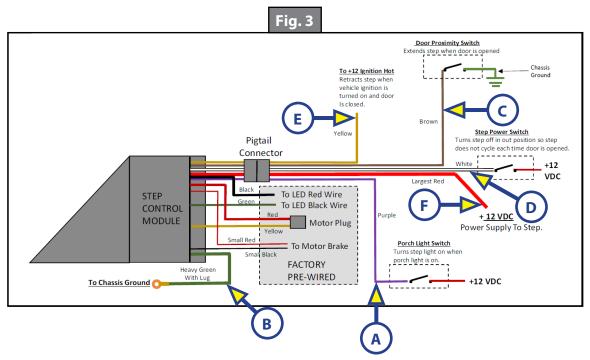
This input connects to 12V DC power supply (Fig. 3F).

#### **Safety Shut Off**

The step shuts off at the end of an extension or retraction cycle by sensing the spike in motor current. Such a spike will also occur, and the motor will shut off, if the step encounters an obstruction; rock, tree, person, etc. The step can then be retracted and the obstruction cleared.

## **Operating Current Draw**

- 2.5 3.0 Amps extending
- 2.8 3.5 Amps retracting
- 6 8 Amps spike current on start up
- 11 12 Amps spike current on shut off



# **Post-Install Inspection**

## Scratches

- 1. Clear any chipped paint or material adhering to scratched area.
- **2.** Apply automotive grade primer to scratch.
- **3.** Paint primed area with automotive high gloss paint.

## Lubrication

- 1. Remove all dirt and foreign matter from hinge areas.
- 2. Use a dry silicone lubricant to lubricate hinge areas in between the sheet metal portions of the steps.

**NOTE:** Do not use a wet lubricant. Wet lubricants will attract dirt and possibly cause damage to the hinge areas.

Notes	



# COMPONENTS

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