

# Kwikkee<sup>®</sup> PRODUCTS

by  Lippert Components<sup>®</sup>

## KWIKEE STEP 4-WAY PIGTAIL DIAGNOSTIC AND TROUBLESHOOTING MANUAL

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## Introduction

The following step test procedures are designed to initially check basic functions separately from the RV wiring to determine whether or not the step is malfunctioning. The procedures test various components of the step until the source of the malfunction is located.

## Safety

### **WARNING**

The “WARNING” symbol is a sign that precedes a service, maintenance or operational procedure containing a possible personal safety risk that could result in serious injury or death if stated safety precautions and procedural steps are not followed as set forth in this manual.

### **CAUTION**

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

## Resources Required

### **WARNING**

**A 12 volt automotive battery contains sulfuric acid, which can cause severe burns. Avoid contact with skin, eyes and clothing. A 12 volt automotive battery can produce hydrogen gas, which is explosive. Keep cigarettes, open flames and sparks away from the battery at all times.**

Some portions of the test procedures require additional equipment. This equipment includes:

- A Voltmeter
- A fully charged 12V DC automotive battery
- A 4-way Pigtail Connector (Power Gear part number 909306000 / LCI 369243)

## Preparation

Prior to beginning the test procedures, check to make sure that all ground connections are securely fastened with good metal-to-metal contact. A good ground is required for proper step operation.

1. Inspect the step for visible damage that might restrict operation.
2. Disconnect the 4-way connector on the underside of the step.
3. Connect the step-side of the connector to the 4-way pigtail connector.
4. Place a fully charged 12V DC automotive battery beside the step.
5. Ground the control unit by attaching the long green ground wire from the control unit to the negative terminal of the battery. The step will not operate without a good ground connection.
6. For power supply, connect the red wire from the pigtail to the positive terminal of the battery.

## Step Test



**Keep fingers, arms, and legs clear of the step mechanism while performing these tests.**



**Do not allow the battery terminals to come in contact with the Step.**

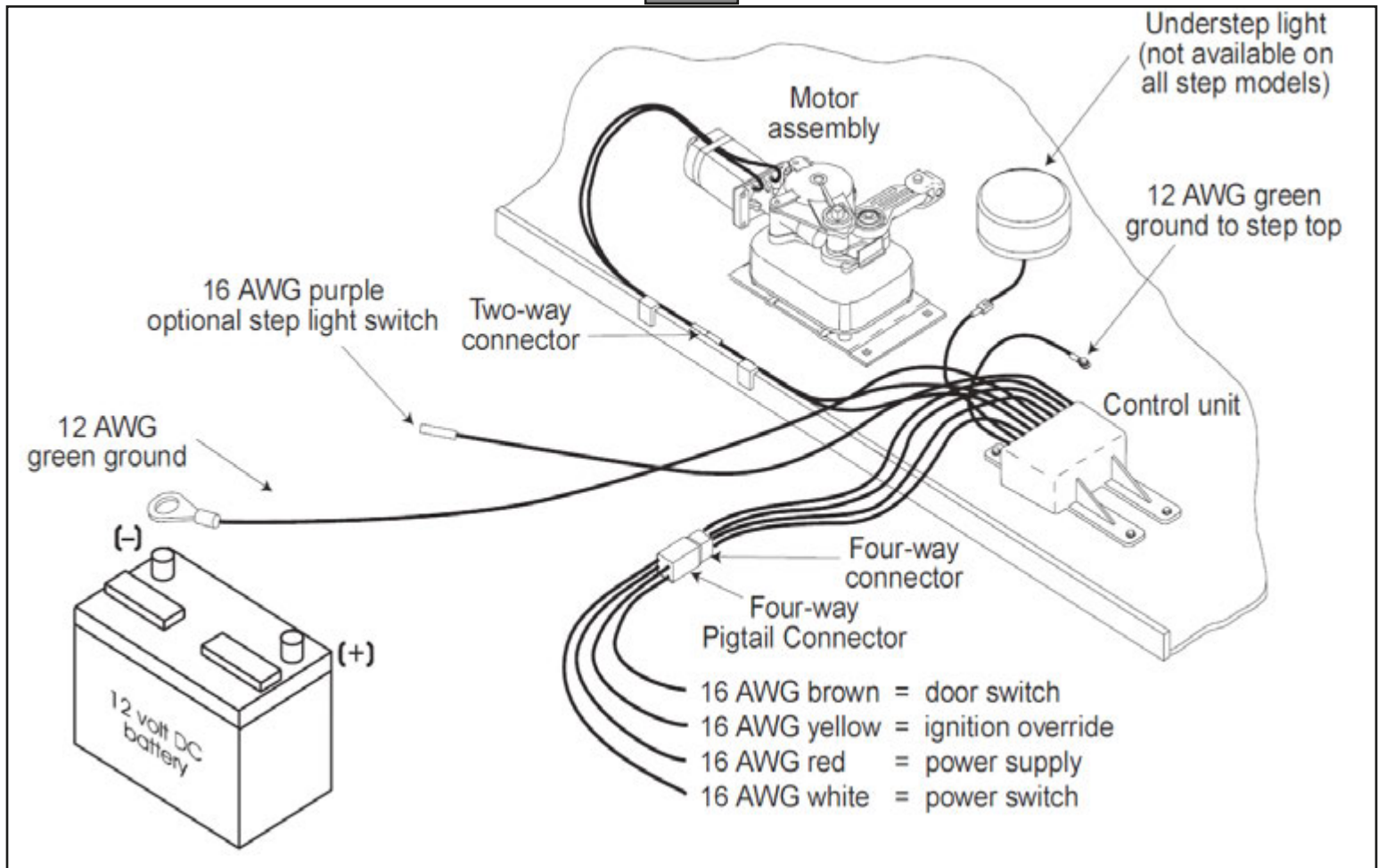
Refer to Figure 1 for circuit connection and component identification while doing this test.

1. With the power and ground connections complete, all functions of the control unit can be checked using the four wires of the pigtail.
  - A. The red wire is for the power supply.
  - B. The brown wire is the door switch.
  - C. The white wire is the power switch.
  - D. The yellow wire is the ignition override.
2. To extend the step:
  - A. Touch the white wire to the positive terminal.
  - B. The step should extend and remain extended.
3. To retract the step:
  - A. Hold the white wire to the positive terminal.
  - B. Touch the brown wire to the negative terminal.
4. To test the Ignition Override feature:
  - A. Extend the step as in step 2.
  - B. Disconnect the white wire from the battery.
  - C. Attach the brown wire to the negative terminal.
  - D. Touch the yellow wire to the positive terminal. The step should retract.
  - E. Remove the brown wire. The step should extend.
5. To test the 'last-out' feature:
  - A. Touch the brown wire to the negative terminal. The step should retract.
  - B. Hold the brown wire to the negative terminal.
  - C. Remove the yellow wire from the positive terminal. The step will stay retracted.
  - D. Remove the brown wire. The step should extend.

6. If any of the step functions do not work, the source of the malfunction is either in the control unit and/or the motor. Reference Testing the Motor section in [Kwikee® IMGL Step Control Testing Procedure #82-ST0500](https://www.lci1.com/support-kwikee-steps). To obtain this information online, go to: <https://www.lci1.com/support-kwikee-steps>. Then click on the Manuals tab. Look for Kwikee® IMGL Step Control Testing Procedure #82-ST0500 in the listing.
7. If all of the step functions do work, the malfunction is either in the door switch, step lockout switch, or the vehicle wiring. Reference Testing the Four-Way Connector section in [Kwikee® IMGL Step Control Testing Procedure #82-ST0500](https://www.lci1.com/support-kwikee-steps). To obtain this information online, go to: <https://www.lci1.com/support-kwikee-steps>. Then click on the Manuals tab. Look for Kwikee® IMGL Step Control Testing Procedure #82-ST0500. in the listing.

## Test Circuit Diagram

Fig. 1







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Over the years of running a mobile RV repair service, having a dedicated place to access service manuals for all the different appliances and components found on RVs was something that I always had a desire to create.

I hope this resource makes your RV repairs easier, as it has mine, but please be careful and follow proper safety practices when attempting to repair your own RV.

If in doubt, please consult with a professional RV technician!



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