



**26 SERIES STEP
IMGL AND 9510 CONTROL
REPLACEMENT KIT
INSTALLATION MANUAL**

**L I P P E R T
C O M P O N E N T S[®]**

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Safety Information

WARNING

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

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.

WARNING

The coach **MUST** be supported per manufacturer's specifications before working underneath. Failure to do so may result in death or serious injury.

CAUTION

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

WARNING

There is an electric shock hazard associated with this procedure. Disconnect power before working on this unit. Failure to follow all safety procedures and all procedures in this manual could cause serious injury or death.

Product Information

NOTE: Part Number **909774000** (Kwikee) or **379801** (LCI) Replacement Kit Linkage C; applies to 26 Series Steps.

Replacement Kits contain an IMGL (Integrated Motor/Gearbox/Linkage assembly, a control unit, 4-way pigtail, and fastener kit. Replacing the motor, gearbox, and linkage with the IMGL on a step that has **any control unit other than a 909510000 (Kwikee) or 379146 (LCI) Control Unit** (as included), requires the installation of the 909510000 Controller included in the Replacement Kit.

NOTE: Any control unit or motor repair needed on steps using a Delco Field Wound motor (Part Numbers 8002, 8279, 8278, 8287) requires the IMGL and control unit included in the Replacement Kit.

A new **#888 Owners Manual** ships with all steps that have the improved step components. **Improved control unit logic.** The step is always open when the door is open. The step can be locked in the extended position. The step cannot be locked in the retracted position. Automatic ignition override makes the step follow the door position.

An important change covered in the **#888 Owners Manual** is the **"Override Switch"** (previously called the "Power Switch" in Kwikkee #880 manuals). The name of the switch changed because of a change in functionality from the former "Power Switch". The new control units are equipped with an override system designed to prevent the vehicle from being driven with the steps in the extended position. When the step is locked in the extended position (OVERRIDE SWITCH IS IN THE 'ON' POSITION), the door is closed, and the ignition is turned on; the ignition override system will engage and the step will automatically retract.

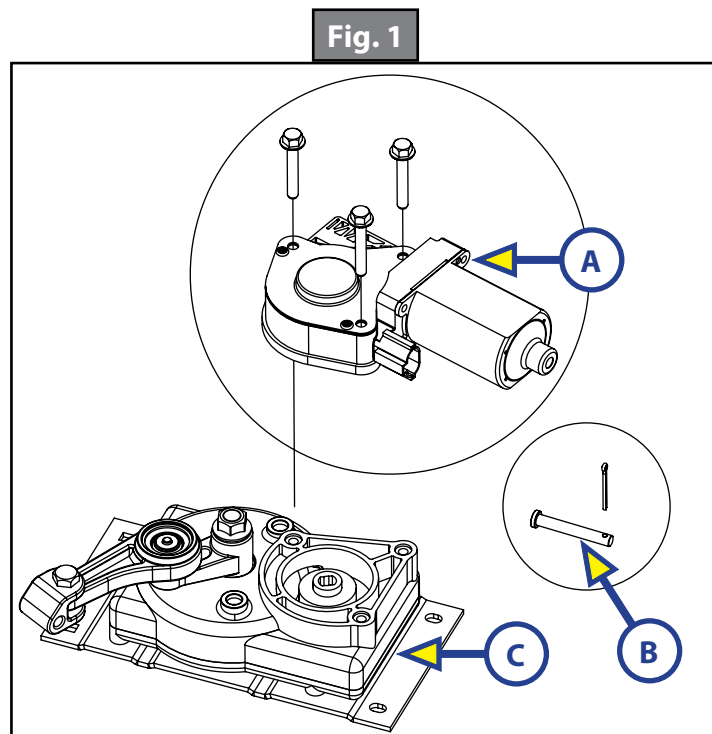
NOTE: Please note the change from the old "Power Switch," which needed to be in the "OFF" position to lock the step assembly out.

Removal and Replacement of IMGL Assembly (Integrated Motor/Gearbox/Linkage)

⚠ CAUTION

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

1. On van steps, remove plastic splash cover if so equipped. If the step is locked in the retracted (up) position where the plastic cover cannot be removed, the step tread will have to be disassembled to access the plastic cover. To disassemble the tread, remove the (8) $\frac{1}{4}$ " - 20 x 1" long hex head bolts in the tread side rails connecting the tread and the sliding blocks to the side rail. This will allow the tread to be dropped out of the way to access the plastic cover. Reassemble the tread after removing the cover.
2. To remove the IMGL assembly from the step it is easiest if the step is partially or fully extended. If possible extend the step with the standard door switch operation.



3. **Steps using a Control Unit:** Unplug the 4-way connector (Fig. 2B) to the control unit (Fig. 2). Disconnect the wiring between the motor and the control unit (Fig. 2A).
Steps without a Control Unit: Cut the wires at the butt connectors approximately 12" from the motor.
4. Remove the cotter pin (Fig. 1B) from the clevis pin at the linkage assembly (Fig. 1C).
5. Remove the clevis pin (Fig. 1B) from the cast "U" block in the end of the linkage assembly (Fig. 1C). Note the direction the clevis pin goes into the cast block. If the step is in its locked position, the pin may have to be pried or driven out of the block. The step tread(s) should now swing freely; if not, check for a bent step frame or jammed pivot point(s).

6. Unbolt the motor assembly (Fig. 1) from the step frame.
7. Install new IMGL assembly on step frame and tighten all mounting bolts.
8. Install the clevis pin (Fig. 1B) through the drive arms attached to the step frame and the cast block in the linkage assembly (Fig. 1C). Be sure to reinstall the clevis pin in the same direction it was removed. Install the cotter pin in the clevis pin.
9. Reconnect the wiring:
 - A. **Wiring to a 909510000 (Kwiksee) or 379146 (LCI) Control Unit** - Plug the motor connector from the Control Unit into the motor.
 - B. **Wiring to toggle switch only** - Using the motor adapter pigtail to connect the mating connector to the connector on the motor. Connect the red and yellow pigtail wires to the vehicle switch wires using heat shrink insulated butt connectors.
10. Plug in the 4-way connector between the control unit and the vehicle.

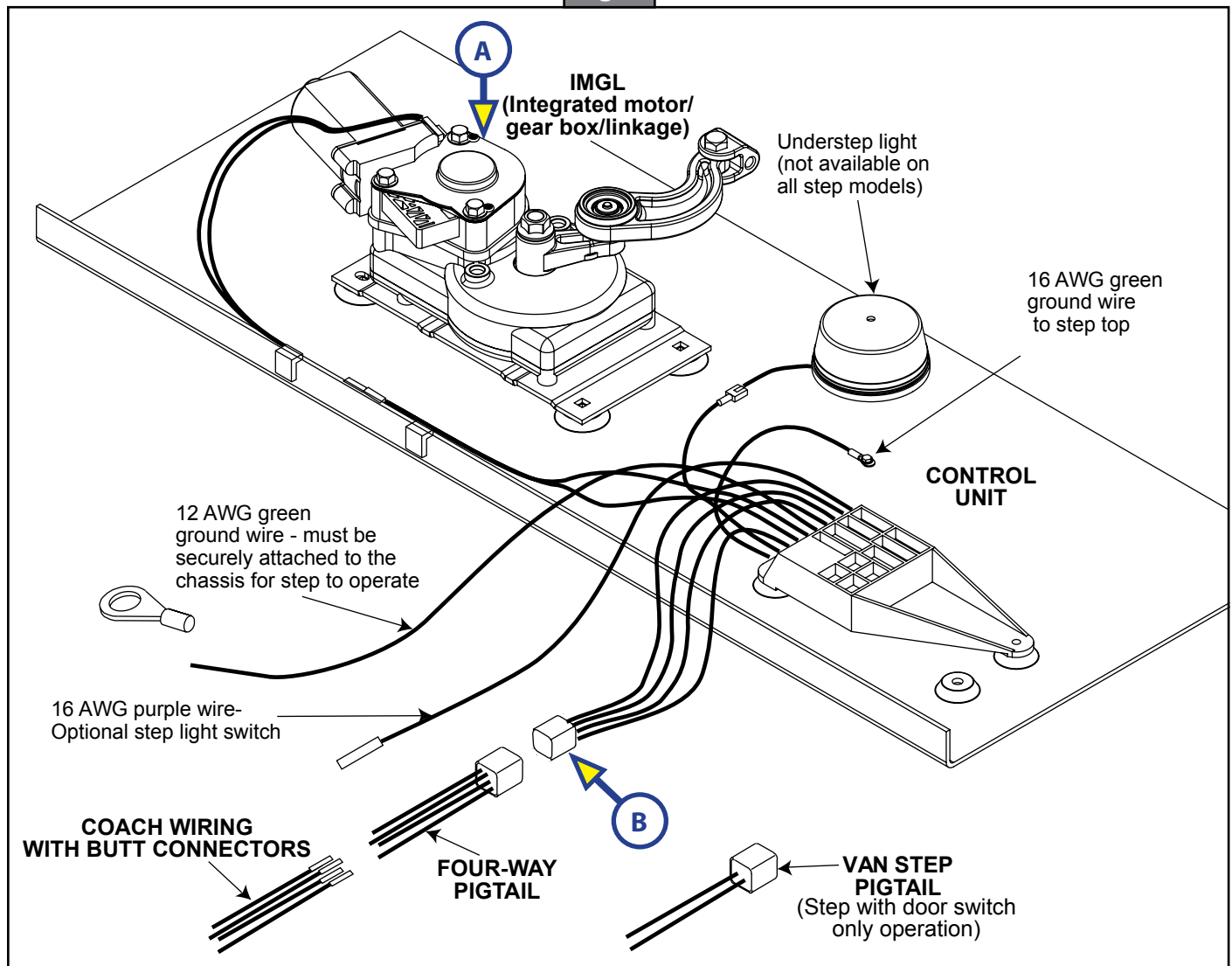
Removal and Replacement of the Control Unit

⚠ CAUTION

The Part Number 909510000 (Kwiksee) or Part Number 379146 (LCI) Control Unit requires a normally open switch. If you are replacing a 9513, 9516, 9590 Control Unit you **MUST** also replace the door switch. The new controller will not work with older, normally closed switches.

NOTE: Proceed to the following steps after completing IMGL Assembly Removal.

Fig. 2



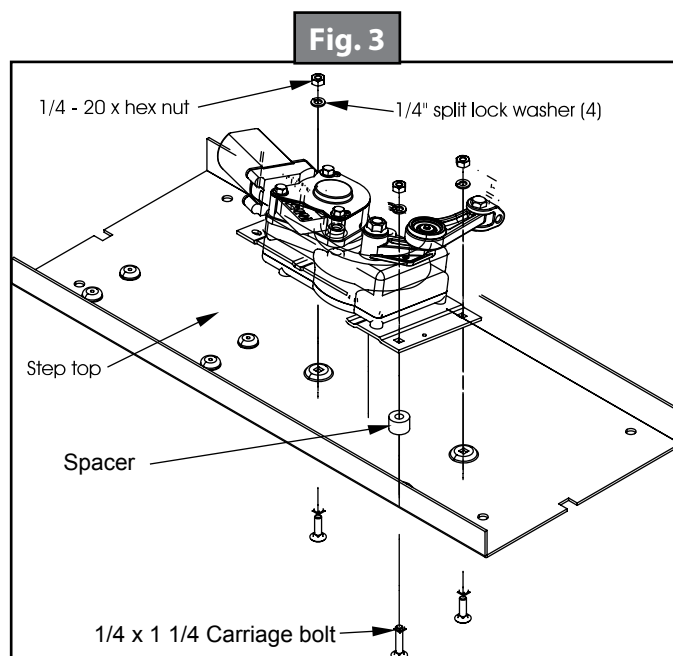
1. **Controls prior to the 4-way Packard style connector** - Cut the molded rubber 4-way connector pigtail off just above the vehicle half of the butt connectors. Since all manufacturers use different colored wires for vehicle wiring, take a moment to note what color wires from the vehicle are connected to the white, red, brown and yellow wires of the pigtail. Strip the vehicle wires back and connect the new Packard style pigtail connector to the vehicle wiring using heat shrink insulated butt connectors. Make sure that the vehicle wires that were connected to the old pigtail are reattached to the new pigtail in the identical way.

NOTE: Steps using door switch only operation will have 2 wires coming from the vehicle. Cut the wires just above the connector and butt connect the pigtail wires to the vehicle wiring. Make sure that the vehicle wires that were connected to the old pigtail are connected to the new pigtail in the identical way.

2. Disconnect the black wire leading from the Control Unit to the under-step light at the connector. **Do not cut this wire.**

NOTE: Not all steps are equipped with an under-step light.

3. On steps with a blue, red, green, yellow, brown, or orange Control Unit, remove the screw securing the green wire from the control unit to the step frame. Save the screw for securing the green wire on the new Control Unit. On orange Control Units manufactured after 1991, remove the screw securing the 31" long 10 gauge green ground wire from the Control Unit to the vehicle chassis.
4. Remove the old Control Unit from the step frame. Save the mounting screws for mounting the new Control Unit to the step frame.
5. Using the screws saved from the old controller, mount the new controller to the step frame.
6. Reconnect the wiring:
 - A. Ground the 16 gauge green wire from the Control Unit to the step frame. Remove any corrosion at the attachment point. Attach it placing the external tooth lock washer supplied with the new Control Unit between the ring terminal on the end of the green wire and the step frame.
 - B. Attach the 31" long 12 gauge green wire to the vehicle chassis. Scrape the connection point clear for a good ground connection. On steps with a braided ground cable, the braided cable may be removed.



- C. Connect the black wire from the Control Unit to the under-step light. On steps not equipped with an under-step light, wrap the black wire to protect it from the weather and secure it from dangling.
- D. Connect the wiring to the step motor.

NOTE: The Part Number 909510000 (Kwikkee) or Part Number [379146](#) (LCI) Control Unit is to be used only with the AM Equipment 214 motor. The number 214 will be on a sticker located on the motor.

7. Reinstall the splash cover if the step was so equipped.
8. Reconnect the vehicle battery.
9. Test the step functions.

26 Series Steps pre-February 2006

1. On 26 Series Steps built prior to February 2005, it is necessary to install the spacer and 1-1/4" long carriage bolt, as shown (Fig. 3) to complete the step conversion. This will tilt the gearbox, allowing the step to extend fully.



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