



INSTALLATION INSTRUCTIONS
RDO2903 POWER DOOR OPERATORS
FULL SIZE CHEVROLET VAN, SIDE; SWING KIT # 01269

- # Be certain that these supplemental instructions are read and understood completely before installation is attempted. You should also refer to the Service/Owner Manual for additional installation instructions and safety precautions.

- # Check contents of this kit and notify Ricon immediately of any missing parts. Claims for damages that have occurred during shipping must be made to the shipper.

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I. INTRODUCTION

The RDO2903 Power Door Operator is designed to be used in conjunction with a Ricon lift.

The following pages contain installation instructions for the RDO2903 Power Door Operator into a full-size Chevrolet van (Refer to **Figure [1]**). Please follow these instructions carefully and do not cut any corners, eliminate any steps, or modify the equipment. Call our service department if you need assistance.

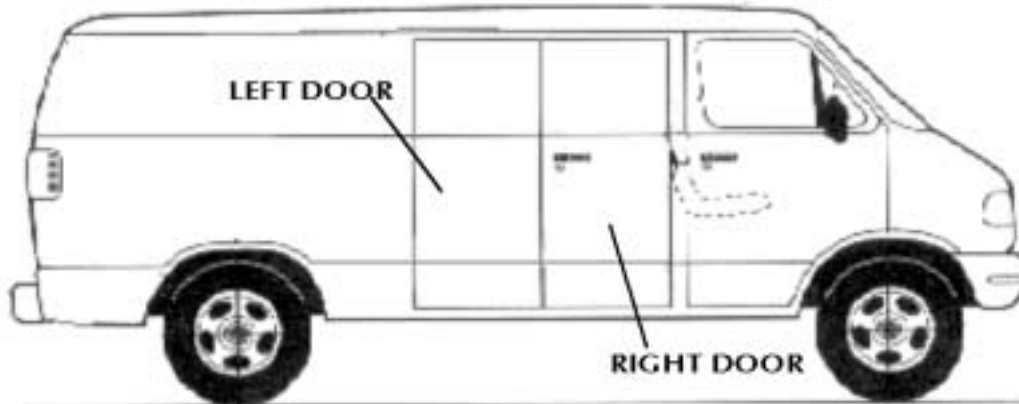


FIGURE [1]: CHEVROLET FULL-SIZE VAN

II. TOOLS REQUIRED

Drill Bits (3/16", 9/32")
Hole Saws (3/4", 1")
Screw Drivers (Phillips, Flat)
Side Cutters

Hammer
Jig Saw
Wrenches (7/16", 1/2")
Wire Crimping Tools

Jig Saw Blades
Electric Drill
File
Wire Strippers

III. PREPARATION OF VAN

A. SAFELY PARK VAN ON A FLAT, LEVEL SURFACE AND TURN OFF ENGINE.

▲ WARNING

BATTERIES CONTAIN ACID THAT CAN BURN. WEAR PROTECTIVE CLOTHING AND EYE PROTECTION AT ALL TIMES. IF ACID COMES IN CONTACT WITH SKIN, FLUSH AFFECTED AREAS WITH WATER AND WASH WITH SOAP.

B. AT THE VEHICLE ENGINE COMPARTMENT, DISCONNECT THE POSITIVE (+) CABLE FROM THE BATTERY TERMINAL.

C. PREPARE THE DOORS:

1. Remove the door panels. Clear doors of any loose material.
2. Remove all door stops and latches.
3. Doors should open and close freely.
4. Remove interior panels from the doorposts.

IV. INSTALLATION

Please follow these instructions carefully and do not eliminate any steps, or modify the equipment. For installation, Refer to **Figures [2], [3]**, and the following sections:

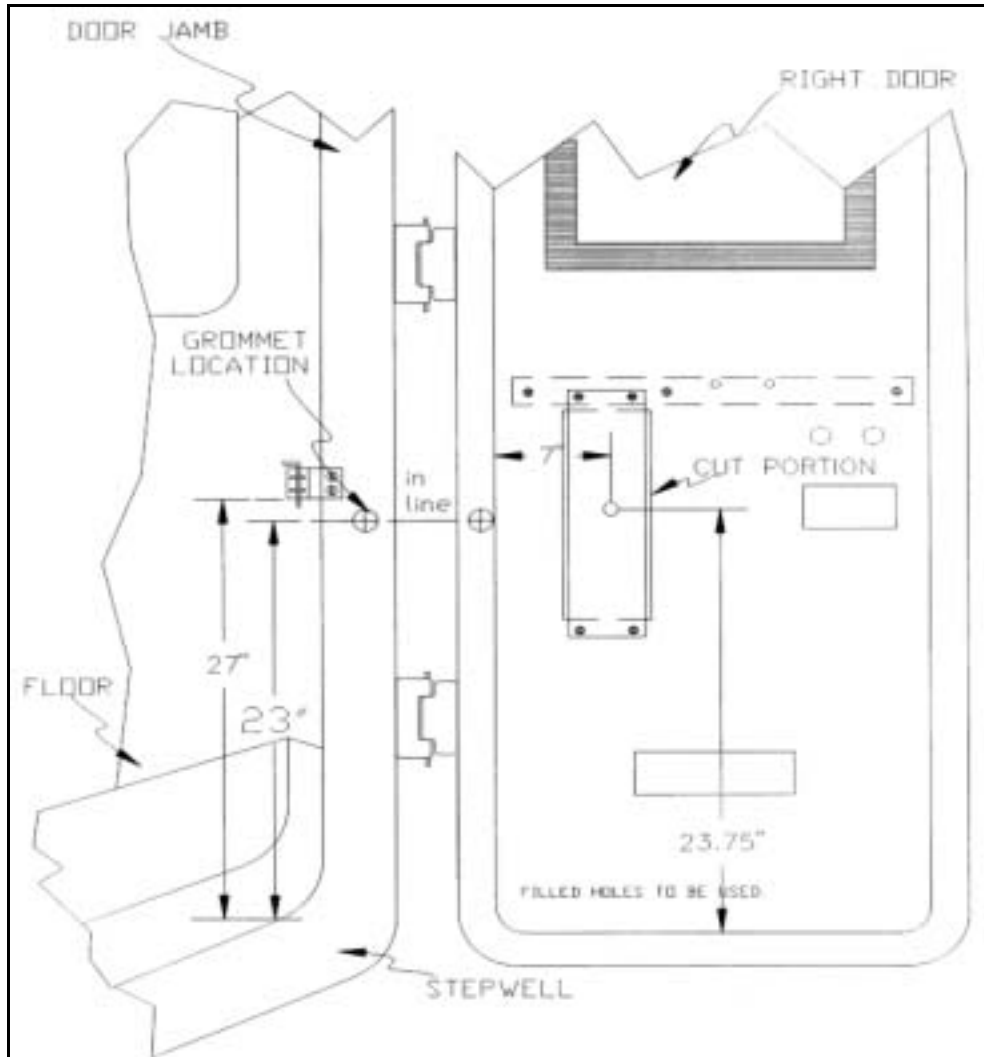


FIGURE [2]: RIGHT-DOOR INSTALLATION DIAGRAM

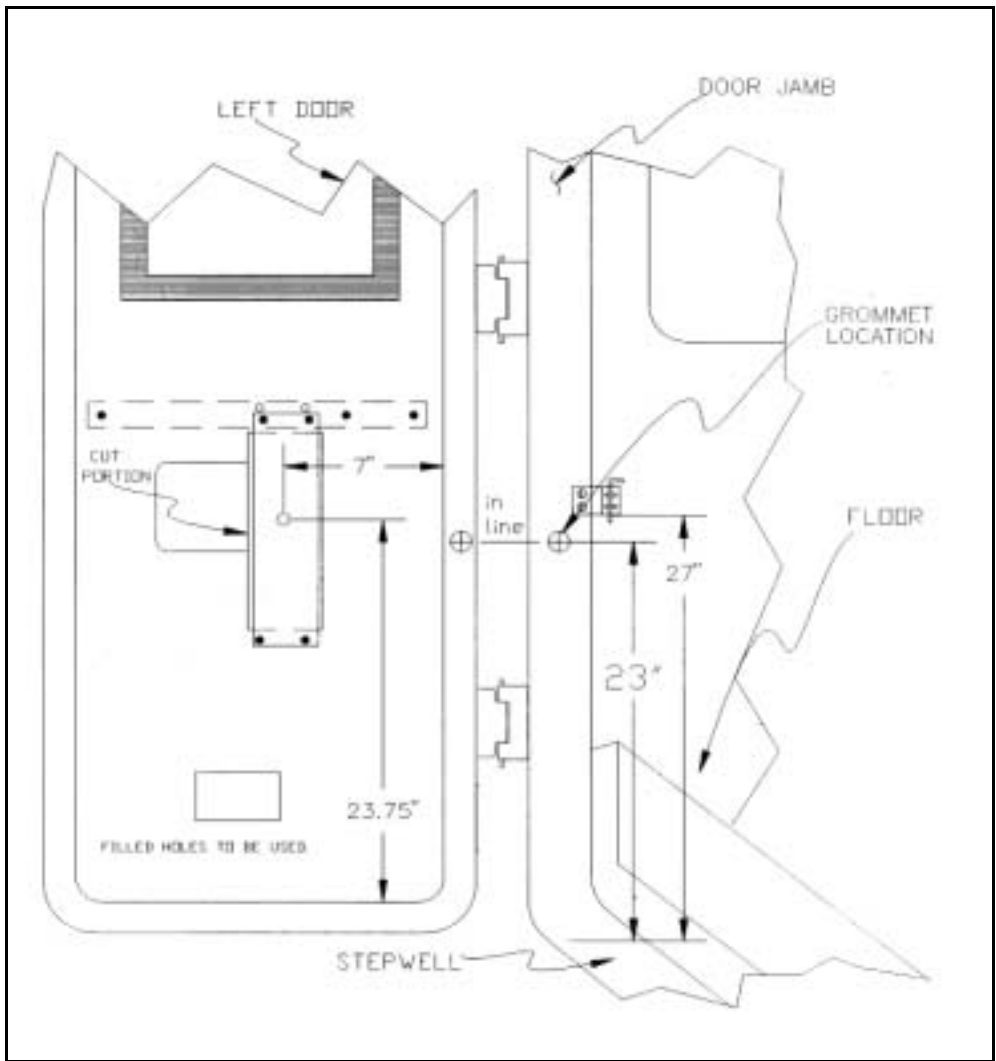


FIGURE [3]: LEFT-DOOR INSTALLATION DIAGRAM

A. LEFT OR RIGHT-DOOR ANGLE/CLEVIS BRACKET ASSEMBLY INSTALLATION:

1. Refer to **Figure [4]**. Assemble the Angle Bracket to the Clevis Bracket with the supplied bolt.



FIGURE [4]: ANGLE/CLEVIS BRACKET ASSEMBLY

2. Refer to **Figure [5]**. Locate the bottom of the Angle/Clevis Bracket Assembly 27" above the vehicle floor.
3. Refer to **Figure [6]**. Fasten the Angle/Clevis Bracket Assembly to the door jamb using the supplied sheet metal screws.

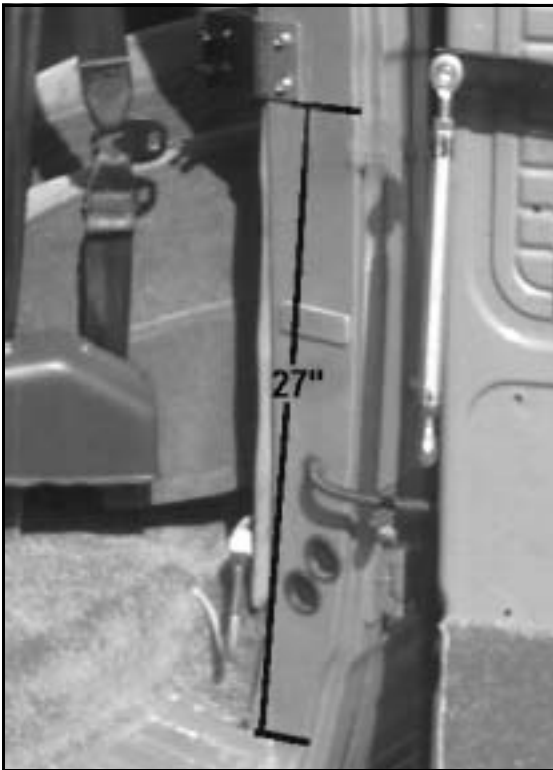


FIGURE [5]: ANGLE/CLEVIS BRACKET ASSEMBLY MOUNTING LOCATION



FIGURE [6]: MOUNTED ANGLE/CLEVIS BRACKET ASSEMBLY

4. For LEFT-DOOR installations, refer to **Figure [7a]**. Insert the supplied spacer between the rear of the Angle/Clevis Bracket Assembly and interior of the vehicle. Fasten the spacer using the two supplied bolts.

For RIGHT-DOOR installations, refer to **Figure [7b]**. Insert the supplied spacer between the rear of the Angle/Clevis Bracket Assembly and interior of the vehicle. From outside of the vehicle, fasten the spacer using the supplied socket-cap bolt.



FIGURE [7a]: LEFT-DOOR ANGLE/CLEVIS BRACKET ASSEMBLY INSTALLATION

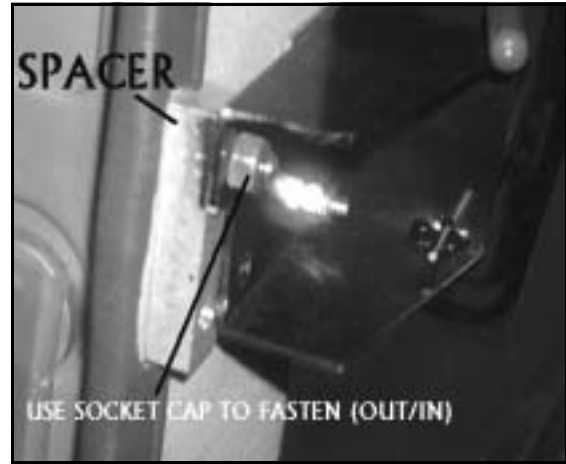


FIGURE [7b]: RIGHT-DOOR ANGLE/CLEVIS BRACKET ASSEMBLY INSTALLATION

B. LEFT-DOOR OPERATOR INSTALLATION

1. Position, align and tape template (example template shown in **Figure [8]**) to the right door, and mark all lines to be cut.

| |
|--|
| ▲ CAUTION |
| BEFORE CUTTING DOOR, CHECK AND MAKE SURE ALL MARKS MATCH THE TEMPLATE. CUT ALONG MARKINGS CAREFULLY TO AVOID ERRORS. |

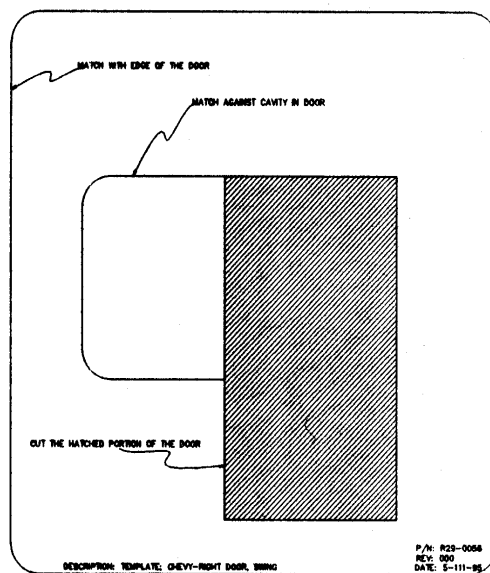


FIGURE [8]: LEFT-DOOR TEMPLATE EXAMPLE

2. Refer to **Figure [9]**. Cut door inside sheet metal according to template marked lines.

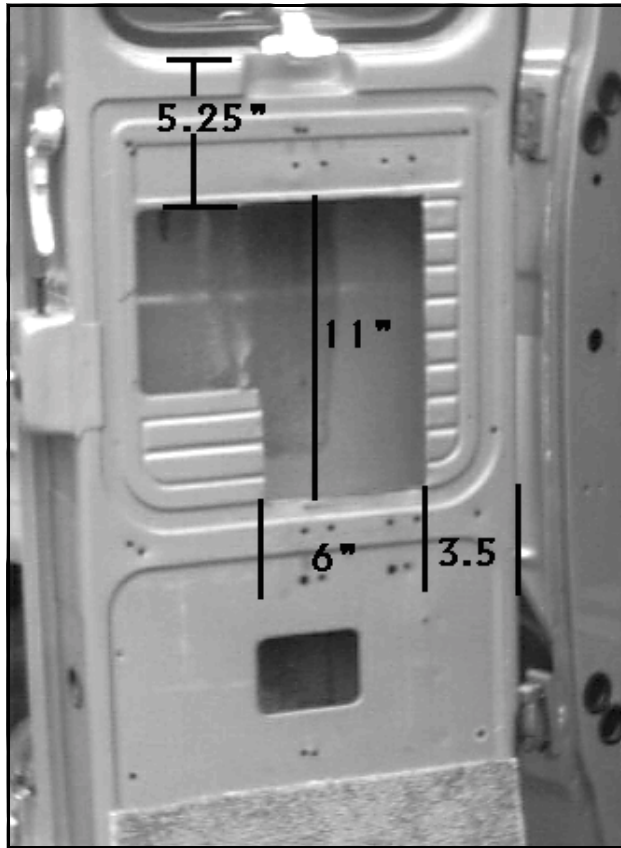


FIGURE [9]: LEFT-DOOR CUT-OUT AREA

3. Position the door operator inside the door frame.
4. Mount and bolt the door operator to the top mounting bracket **Figure [10]** inside the door frame.

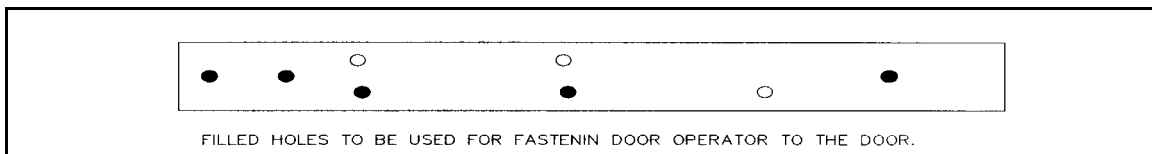


FIGURE [10]: LEFT-DOOR MOUNTING BRACKET

5. Refer to **Figure [11]**. Attach and fasten the actuator arm to the door operator and clevis bracket.

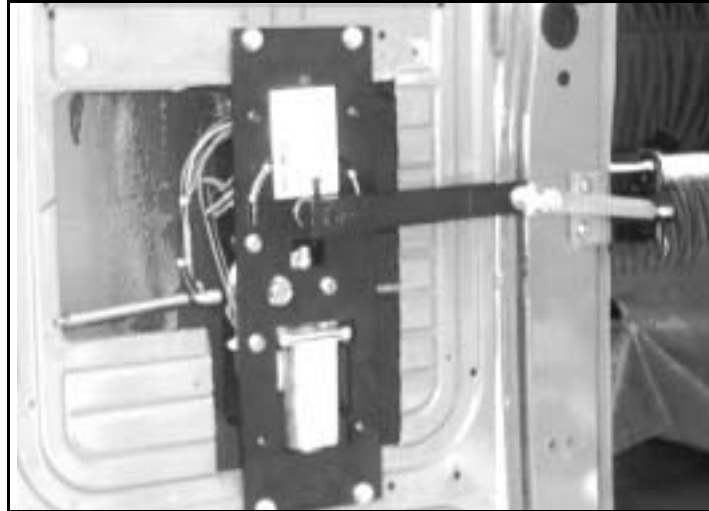


FIGURE [11]: ATTACH LEFT-DOOR ACTUATOR

C. RIGHT-DOOR OPERATOR INSTALLATION

1. Position, align and tape template (example template shown in **Figure [12]**) to the right door, and mark all lines to be cut.

| |
|--|
| ▲ CAUTION |
| BEFORE CUTTING DOOR, CHECK AND MAKE SURE ALL MARKS MATCH THE TEMPLATE. CUT ALONG MARKINGS CAREFULLY TO AVOID ERRORS. |

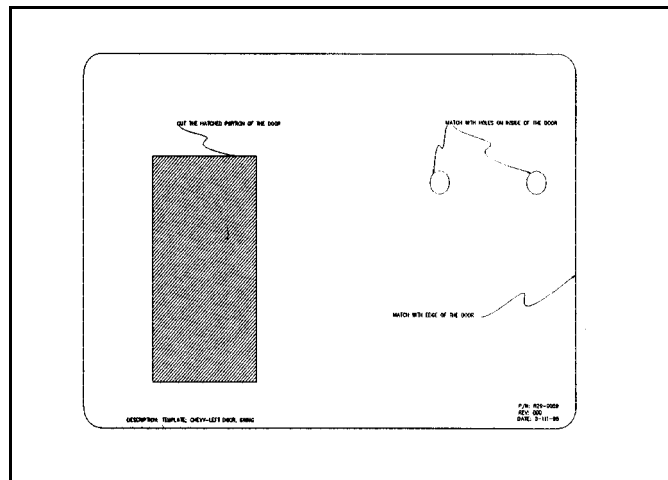


FIGURE [12]: RIGHT-DOOR TEMPLATE EXAMPLE

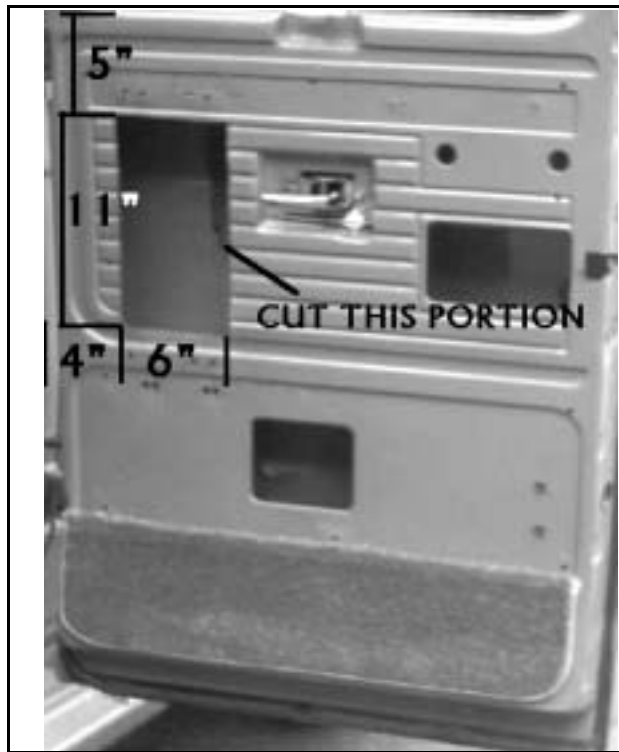


FIGURE [13]: RIGHT-DOOR CUT-OUT AREA

2. Refer to **Figure [13]**. Cut door inside sheet metal according to template marked lines.
3. Position the door operator inside the door frame.
4. Mount and bolt the door operator to the top mounting bracket **Figure [14]** inside the door frame.

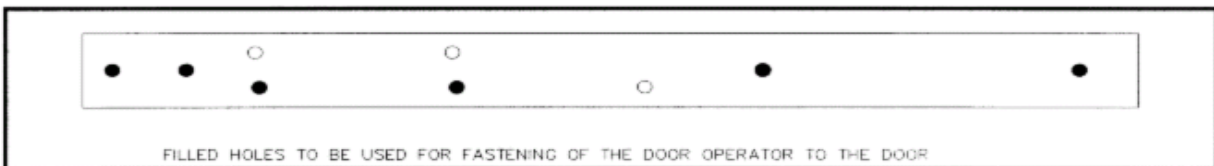


FIGURE [14]: RIGHT-DOOR MOUNTING BRACKET

5. Refer to **Figure [15]**. Attach and fasten the actuator arm to the door operator and clevis bracket.

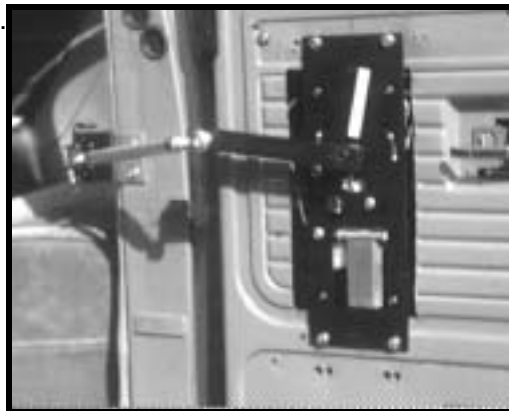
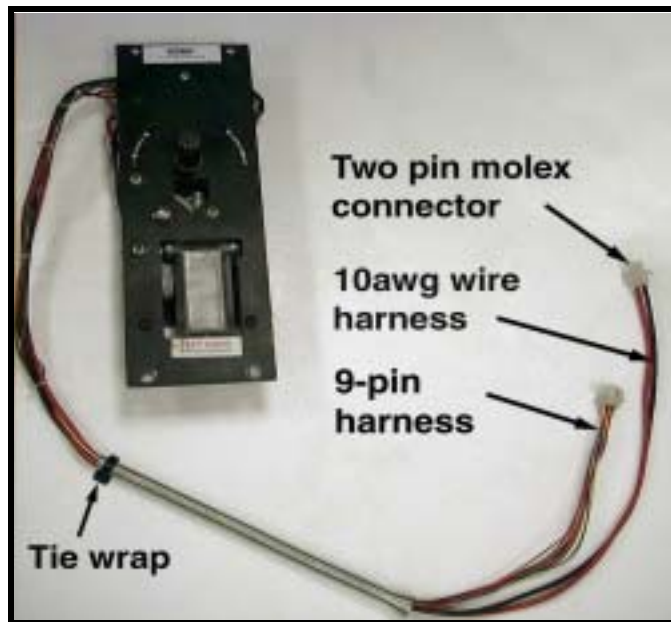


FIGURE [15]: ATTACH RIGHT-DOOR ACTUATOR

D. LEFT AND RIGHT SIDE DOOR ELECTRICAL HARNESS INSTALLATION.



DOOR MOTOR ASSEMBLY

- # **INSTALL TIE WRAP AT END OF SPRING ON BOTH DOOR MOTOR ASSEMBLIES.**
- # **NOTE 10AWGTWO WIRE HARNESS.**

1. Refer to **Figure [16]**. Drill a 1" diameter hole in the door FRAME 1" below the bottom-edge of the angle bracket.
2. Drill a 1.0" diameter hole on the door JAMB in line with the hole drilled in the above step.
3. Deburr all drilled holes.
4. Route harness through the drilled holes and into the vehicle.
- 5 Refer to **Figure [17]**. Install the supplied grommets around the spring and insert grommets into the holes previously made.

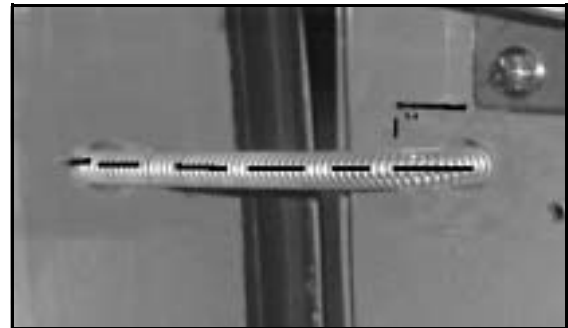


FIGURE [16]: GROMMET LOCATION

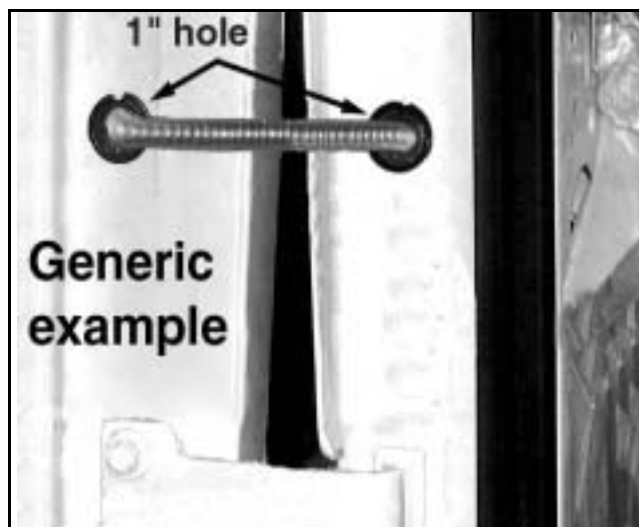


FIGURE [17]: GROMMET

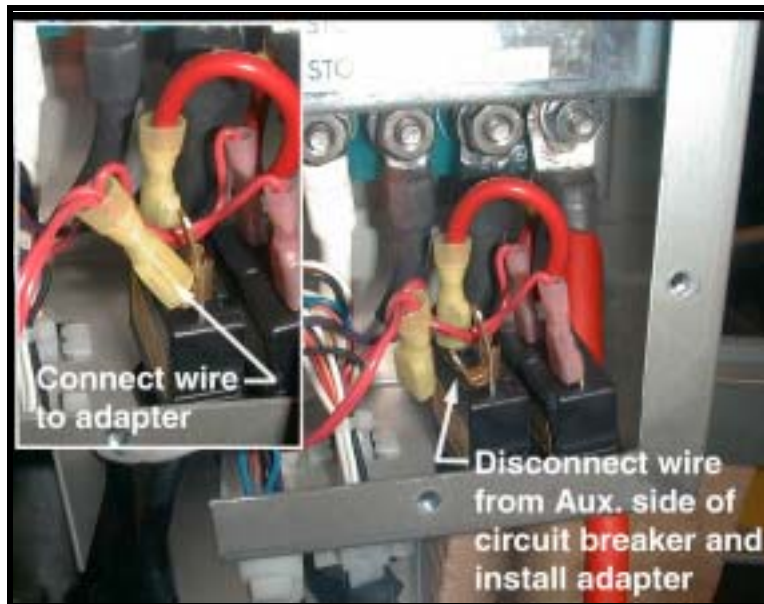


FIGURE 18
TYPICAL UNI-LITE CIRCUIT BREAKER

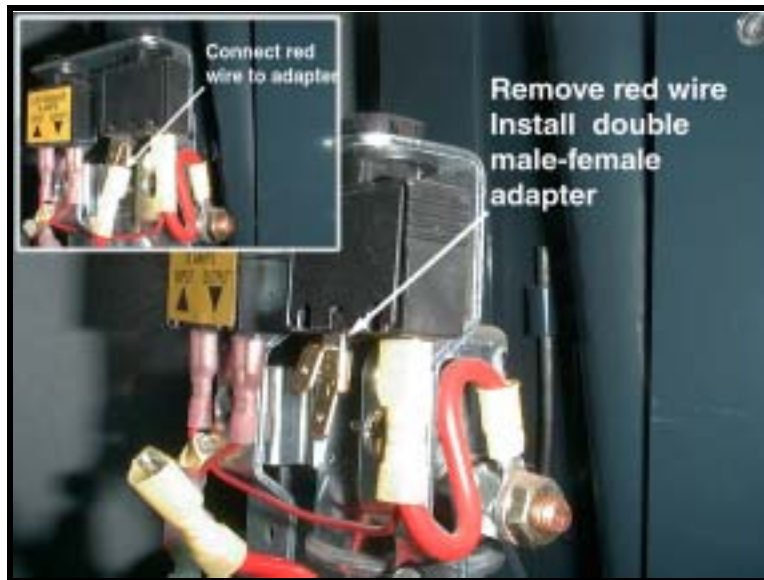


FIGURE 19
TYPICAL S-SERIES CIRCUIT BREAKER

6. Refer to Figure 18 and 19.
7. Disconnect wire from Aux side of 30amp circuit breaker.
8. Connect terminal adapter (double male-single female) to circuit breaker.
9. Reconnect wire that was removed from breaker and connect 10awg red wire to terminal adapter.
10. Plug interconnecting harness to lift.
11. Connect 9-pin molex connectors at door pillars to interconnecting harness.
12. Connect 10awg harness to molex connector of left door opener.
13. Route 10awg harness to 30amp circuit breaker.
14. Connect red 10awg wire to adapter on circuit breaker.
15. Connect black 10awg wire to suitable ground.
16. **Note that for right door, 2-pin connector is not used.**

E. SPACER INSTALLATION

Refer to **Figures [20]** and **[21]**. Cut the supplied rubber spacer in half. Detach the Hex Rod at the clevis bracket, place the half-spacer in between the clevis and Hex Rod. Insert the pin through the spacer and the Hex Rod.

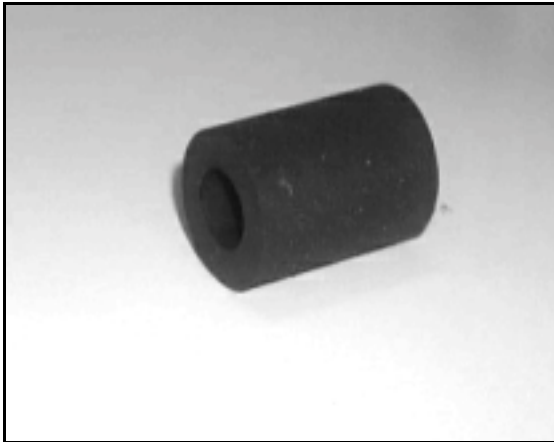


FIGURE [20]: CUT SPACER

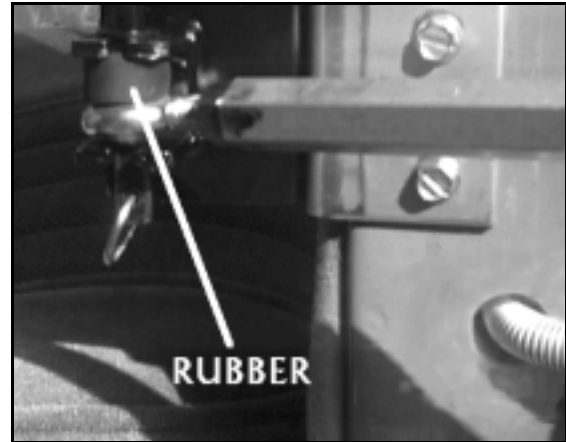


FIGURE [21]: INSERT HALF-SPACER

F. INSTALLATION VERIFICATION AND ADJUSTMENT

Verify proper operation of door operators. The door operators are set at the factory. However, if adjustments are necessary, refer to the Service/Owner Manual Section 2 Page 6 Part 'C' for instructions.

G. REFIT AND REINSTALL INTERIOR DOOR PANEL

1. Cut the interior panel to clear all bracket assembly locations, use door flange (P/N: 01618) to cover the hole around the actuator arm.
2. Install stepwell trim.