

Figure 1

1. INTRODUCTION

Repair tool kits 2152179-[], shown in Figure 1, are designed to be used to install replacement diodes into SOLARLOK Z-Rail junction boxes.

Reasons for reissue of this instruction sheet are provided in Section 5, REVISION SUMMARY.

2. DESCRIPTION

Each repair tool kit consists of a repair tool, replacement diode, and 2 spring clips. See Figure 1.

The replacement diode features a polarity ring that indicates proper orientation and 2 legs that support it in place on the contact rails of the junction box. Two spring clips (1 per leg) secure the replacement diode to the contact rails of the junction box.

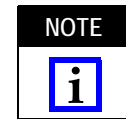
The repair tool:

- holds one replacement diode so that it is properly positioned for installation,
- mounts onto the contact rails of the junction box so that the replacement diode is properly positioned for installation, and
- supports the spring clips so that they are properly oriented and guided into position for installation.

A flat-blade screwdriver (not included) will be needed to move the spring clips into place.

3. USING THE TOOL KIT

3.1. Diode Removal



The junction box contains 3 diodes. It is highly recommended to replace all 3 diodes; however, it is permissible to replace 1 or 2 diodes only.

1. Locate the diode(s) to be removed from the junction box. Take note of the orientation of the diode polarity ring of each diode for proper orientation of the replacement diode(s) during installation. Refer to Figure 2.

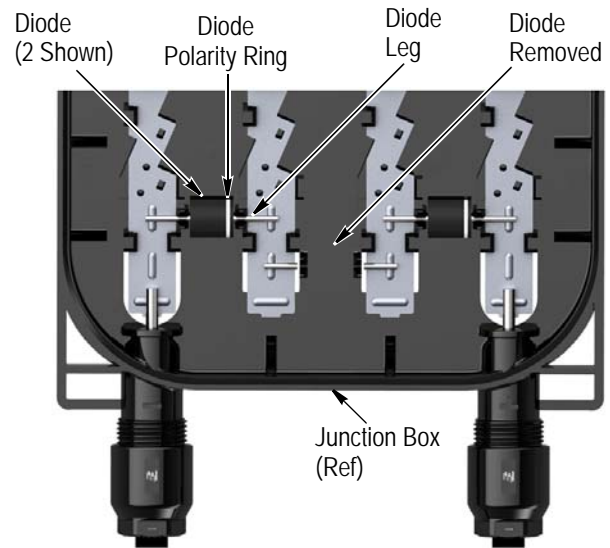


Figure 2

2. Using a power hand tool with a circular type cutting wheel (or a pair of cutting pliers thin enough to access the diode legs), cut each leg of the diode to be replaced on the inside of the "V" notch. **BE CAREFUL** not to damage the contact rails of the junction box during cutting. Refer to Figures 3 and 4.

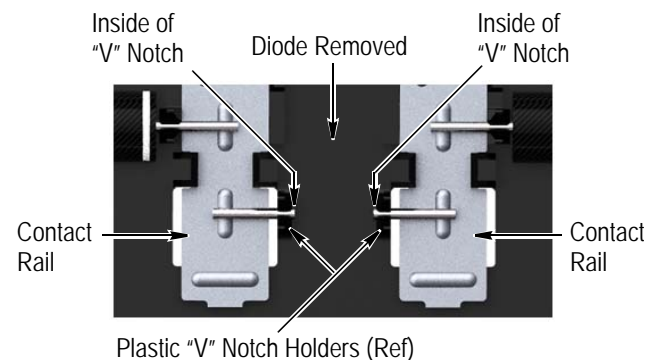


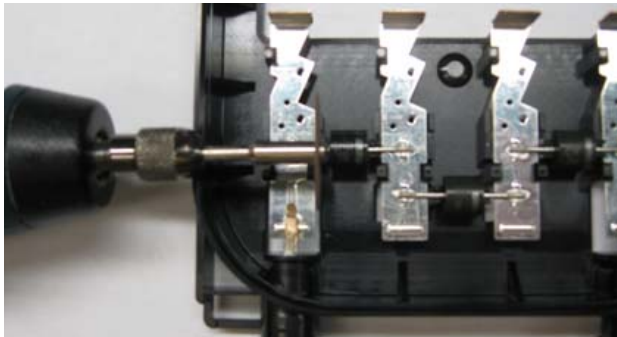
Figure 3

NOTE

If it is not possible to access the inside of the "V" notch, it is permissible to cut through the "V" notch; however, BE CAREFUL to not damage the contact rails. Damage to the plastic "V" notch holders that secure the diode to be replaced is permissible.

3. Remove the diode. DO NOT re-use diodes that have been removed.

Cutting Diode Legs Using Power Hand Tool



Cutting Diode Legs Using Cutting Pliers

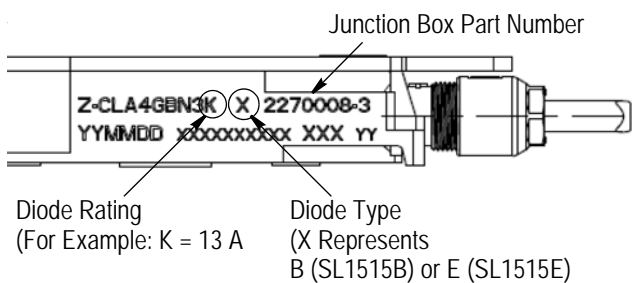


Figure 4

3.2. Replacement Diode Installation



CAUTION
 Ensure that the diode type included with the repair tool kit matches the diode type of the junction box. Refer to the specific customer drawing for the junction box. The diode type mounted in the junction box is identified by the markings on the side of the junction box. See below.



To allow for easiest installation, facing the junction box, begin installing the replacement diodes from left to right.

Perform the following steps for each replacement diode:

1. Position the legs of the replacement diode against the leg holders of the repair tool. Make sure to orient the replacement diode so that the polarity ring will be in the proper position when it is installed. Then "snap" the replacement diode into the repair tool as shown in Figure 5.

2. Mount the repair tool onto the contact rails that correspond to the diode being replaced by aligning the round stems of the repair tool (shown in Figure 5) with the holes in the contact rails (shown in Figure 6), then push the repair tool so that the round stems enter the holes. Figure 7 shows the repair tool properly mounted onto the contact rails of the junction box.

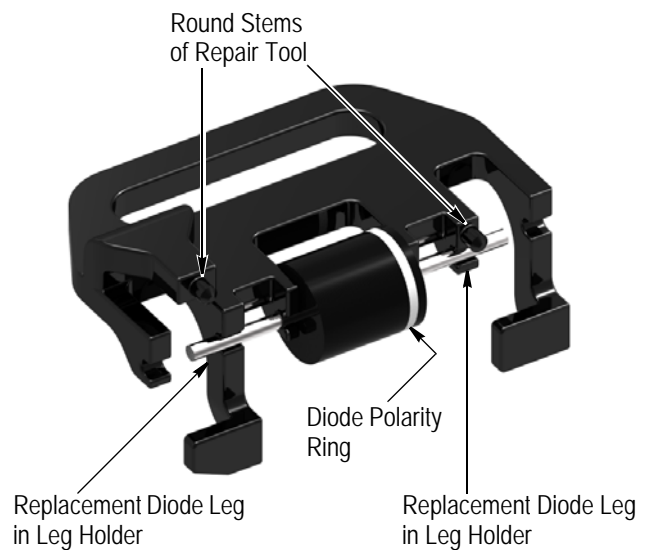


Figure 5

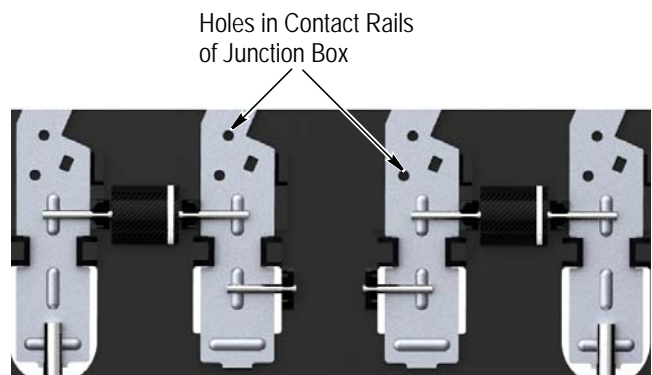


Figure 6

3. Carefully place one spring clip, flat side down with the open end facing the leg of the replacement diode, onto one of the pads of the repair tool. Refer to Figure 7. Ensure that the spring clip is positioned so that it sits flat on the pad.

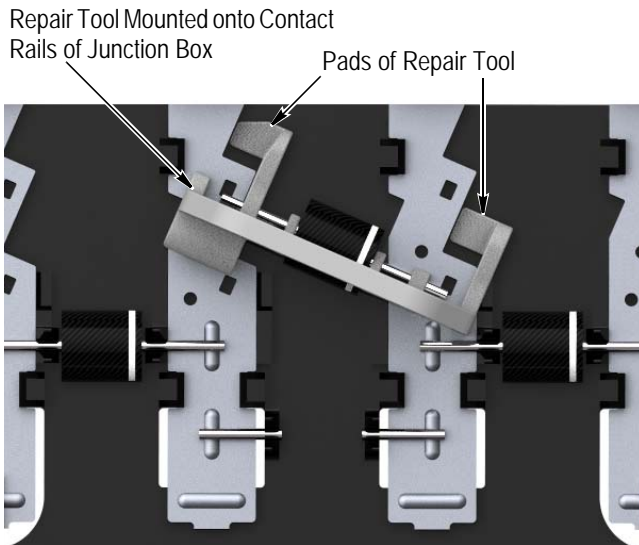
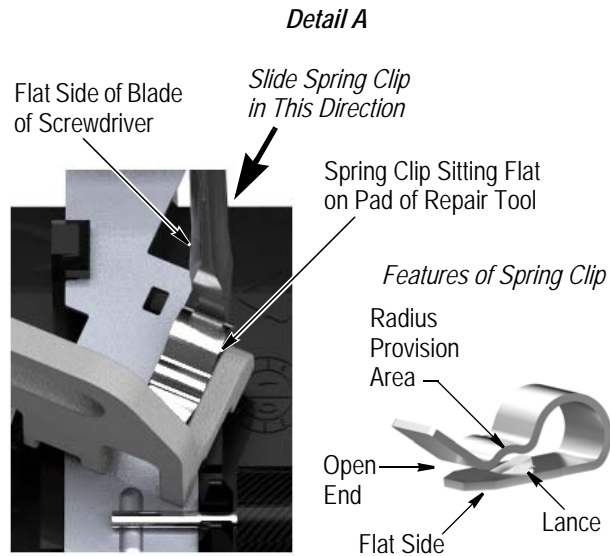


Figure 7



Detail A

4. Using the flat side of the blade of a screwdriver, slide the spring clip over the contact rail and onto the leg of the replacement diode. See Figure 8, Detail A. Proper seating is achieved when the leg is captured in the radius provision area of the spring clip (shown in the Detail A) and the lance of the spring clip is sitting in the rectangular window of the contact rail. See Figure 8, Detail B.

5. Confirm proper seating of the spring clip by trying to lightly push and pull the spring clip. If the spring clip does not dislodge from position, it is properly seated. If it does dislodge, remove the spring clip and repeat Steps 3 and 4.

6. Install the second spring clip onto the replacement diode by following Steps 3, 4, and 5.

7. Pull the repair tool from the junction box. Figure 9 shows the replacement diode properly installed in the junction box.

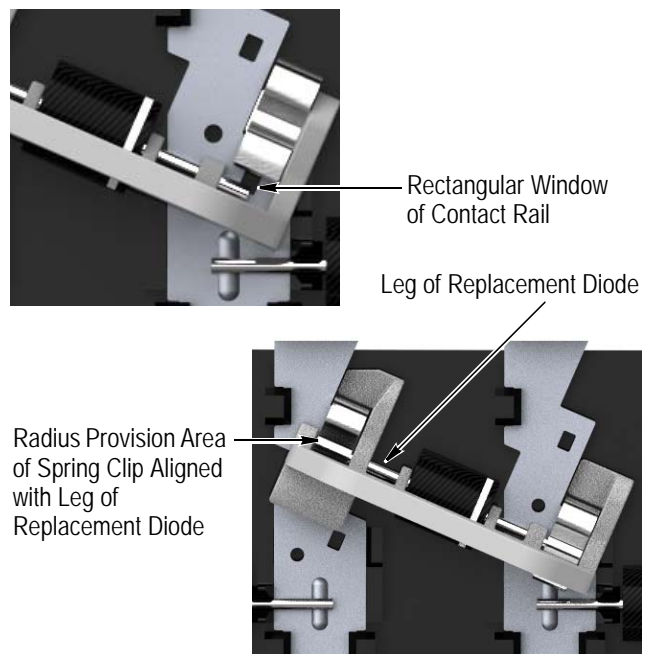


Figure 8

4. MAINTENANCE

Keep the repair tool clean. Remove dust, moisture, and other contaminants with a clean, soft brush, or lint-free cloth. Do not use objects that could damage the repair tool.

When components of the repair tool kit are not in use, store them in a clean, dry area.

5. REVISION SUMMARY

Revisions to this instruction sheet include:

- Removed junction box part numbers from Section 1
- Changed quantity of spring clip and diode
- Added CAUTION to Paragraph 3.2

Spring Clips Properly Seated and Securing Replacement Diode to Contact Rails of Junction Box

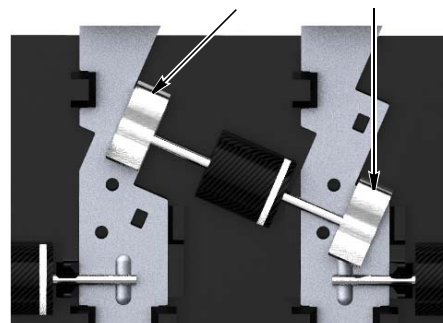


Figure 9