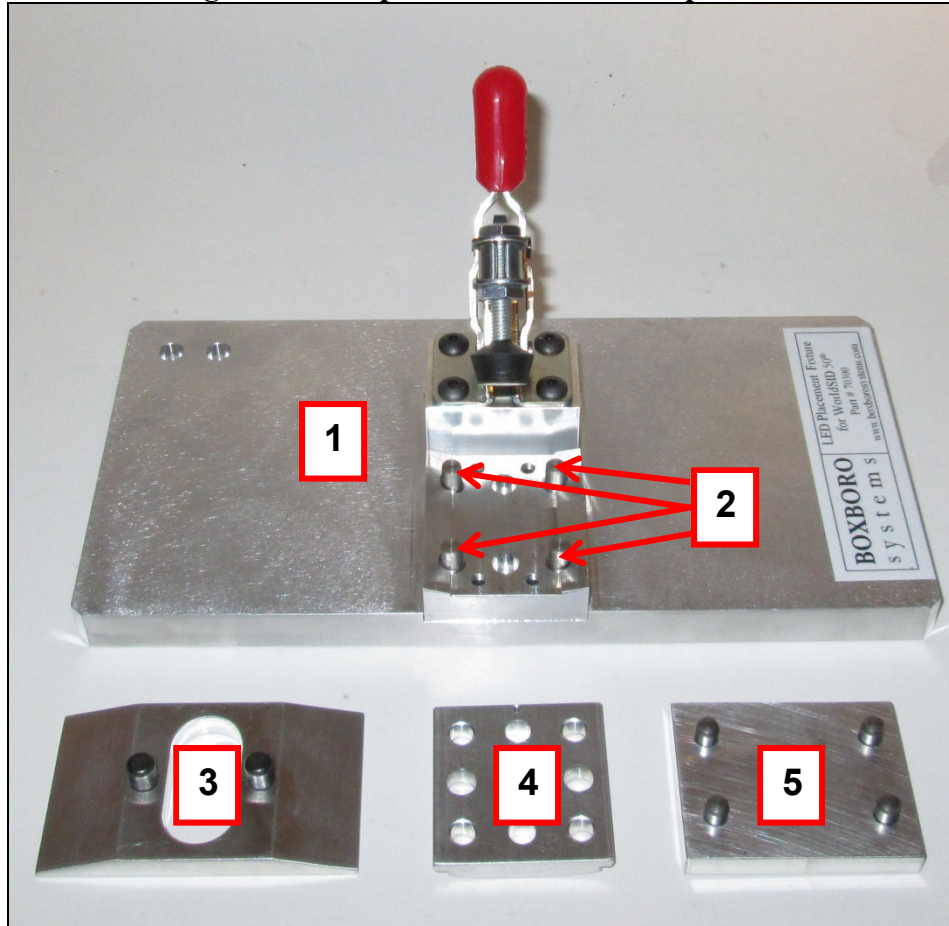


Boxboro Systems WorldSID 50th RibEye LED Placement Fixture #70300

Figure 1. LED placement fixture components



- 1: Fixture base
- 2: Locator pins
- 3: LED spacer plate
- 4: Rib clamp
- 5: Mounting hole spacer

This fixture is used for applying the 3M VHB #4952 double-sided tape on the ribs so that the forward and rearward LEDs will be in the proper positions. The fixture holds the rib in place while the tape is applied to the rib.

The thoracic and abdominal ribs are placed on the fixture over the four locator pins. For the shoulder rib, remove two of the locator pins and place the other two pins in the center holes.

For all ribs, do the following steps to properly place the tape on the ribs:

1. Place the rib over the locator pins as shown in Figure 2. You may have to spread the spine end of the ribs slightly to fit the rib over the locator pins.
2. Place the rib clamp over the locator pins. The curved face of the rib clamp lies downward, facing the rib.
3. Place the LED spacer plate onto the rib clamp so that the two dowel pins fit into clamp's holes.
4. Pull the red handle forward to lock the rib and the rib clamp in position.
5. Put the mounting hole spacer on the top of the rib, with the four dowels fitting through the rib's spine mounting holes. The assembly with all of the components in position is shown in Figure 3.

Figure 2. Rib on locator pins

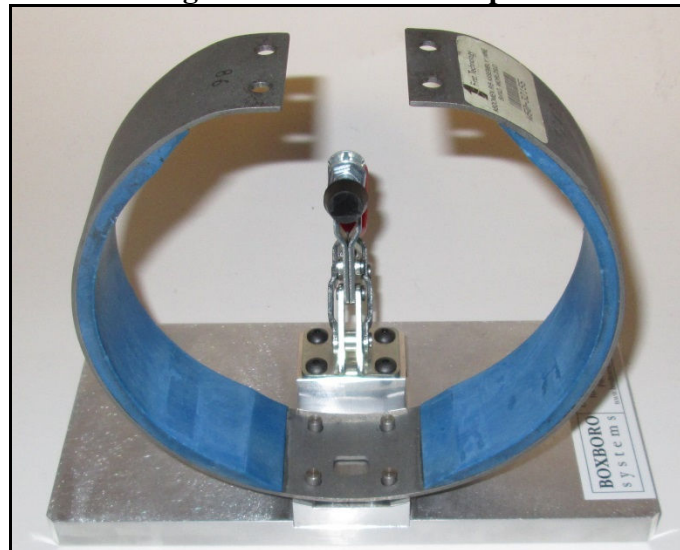
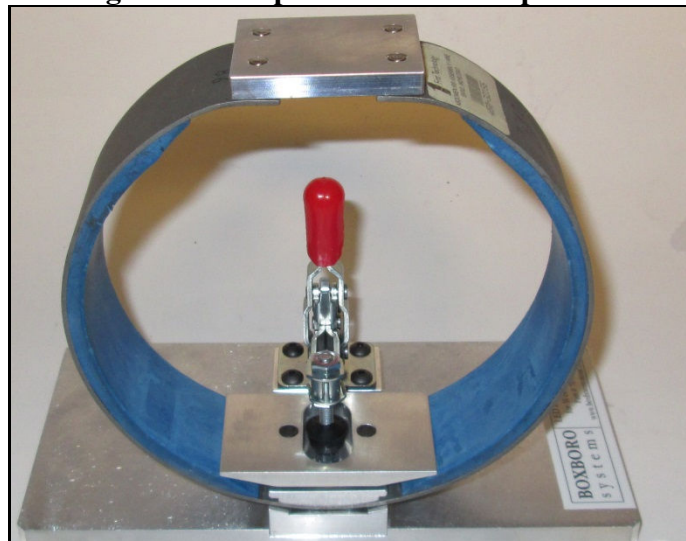
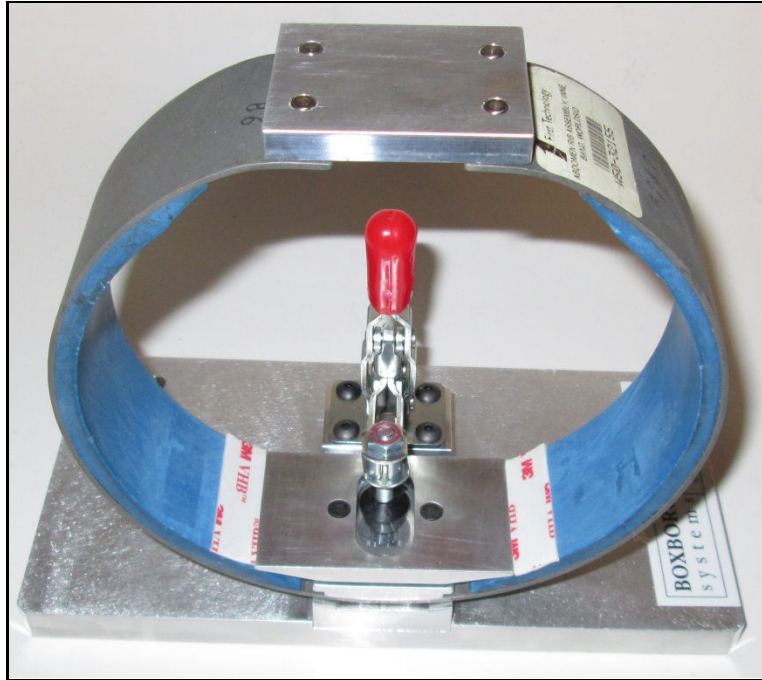


Figure 3. Components locked in position



6. For the thoracic and abdominal ribs, cut two pieces of the 3M VHB tape 40 mm long. For the shoulder rib, cut two pieces of tape 50 mm long.
7. Clean the rib damping material where the tape will be placed with alcohol. Place the tape on the rib, butted against the edges of the LED spacer plate as shown in Figure 4. Remember to squeeze the tape on the rib with 30 psi of force.

Figure 4. Tape placed on ribs



8. Remove the rib from the fixture, then place the forward and rearward LEDs on the rib in the locations as specified in the WorldSID 50th RibEye Hardware User Manual.

For ribs that use angled LED mounting blocks (Shoulder, Thoracic 2, Thoracic 3, and Abdominal 2 ribs), the inside edge of the mounting block should be placed along the inside edge of the tape, as shown in Figure 5.

For ribs with LEDs mounted flat (Thoracic 1 and Abdominal 1 ribs), place the edge of the LED circuit board along the inside edge of the tape.

For all ribs, squeeze the LED onto the tape with 30 psi of force. **Warning:** Do not touch the soft silicone face of the LED; this can damage it.

Note: When putting the heat-shrink sleeves on the rearward and forward LEDs, it is helpful to hold the inner rib clamp with the center LED to the rib using an M5 screw through the rib. For the shoulder rib, you will need an M5 screw and an M5 nut.

Figure 5. LED mounting blocks placed on inside edge of tape

