Sentry® QCII O-ring Changeout and Tool Rebuild

Instructions for all Sentry QCII drum inserts

ORDERING INFORMATION

PART NUMBER	ITEM
151-148	O-ring removal tool
151-148R	Rebuild kit

O-RING REMOVAL PROCEDURE

NOTE: It is easiest to remove the o-rings if the drum insert is assembled in the drum; however, although unlikely, it is possible for particulates from the cut o-ring to fall into the container. An alternative method is to remove the drum insert from the drum, flush it with DI water to ensure neutralization, assemble the drum insert into a fixture and then remove the o-rings using the following procedure.

NOTE: Skipping the neutralization process could decrease the effectiveness of the tool.

NOTE: Contact Entegris for fixture information.

1. Remove shipping plug from drum insert.
2. Grasp the o-ring removal tool with two hands and push directly down into the drum insert cavity (see Figure 1). Make sure the o-ring removal tool is fully engaged in the drum insert. It is fully engaged when it reaches a stop.

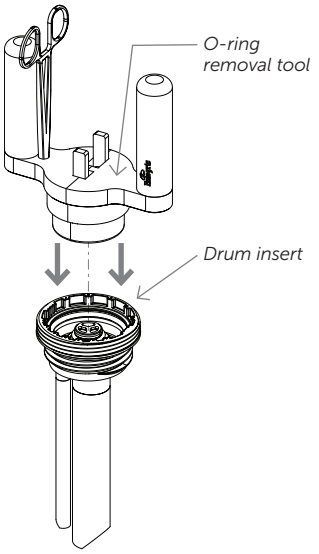

Figure 1.

3. Push each metal tab individually toward center of o-ring removal tool until it stops (see Figure 2). Release each tab.
4. Remove o-ring removal tool from the drum insert.
5. Remove the cut dispense and vent o-rings (two smallest o-rings) using the hemostat provided (see Figure 2).
6. Once the dispense and vent o-rings are removed, use the hemostat to remove the uncut nitrogen o-ring (largest o-ring).

O-RING INSTALLATION PROCEDURE

Vent Port O-ring

Install the vent port o-ring first to prevent damage to the other sealing surfaces as the remaining o-rings are installed (see Figure 3).

1. Before installing, place the o-ring in hot (74°–93°C [150°–200°F]) DI water. Heating the o-ring gives it more elasticity, preventing it from damage during installation.
2. Place one side of the heated o-ring into the o-ring groove. Push the o-ring down into the groove by moving your thumbs in opposite directions. Continue pushing until the entire o-ring snaps into the groove.

Dispense Port O-ring

1. Repeat installation steps 1 and 2 above, this time for dispense port o-ring.

Nitrogen Port O-ring

Unlike the vent port and dispense port o-rings, the nitrogen port o-ring does not have to be heated before installation (see Figure 3).

1. Place one side of the o-ring into the o-ring groove. Push the o-ring into the groove by moving your thumbs in opposite directions. Continue pushing until the entire o-ring snaps into the groove.

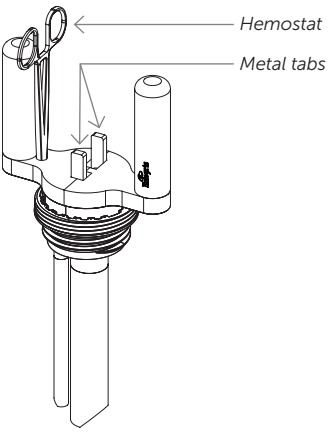

Figure 2.

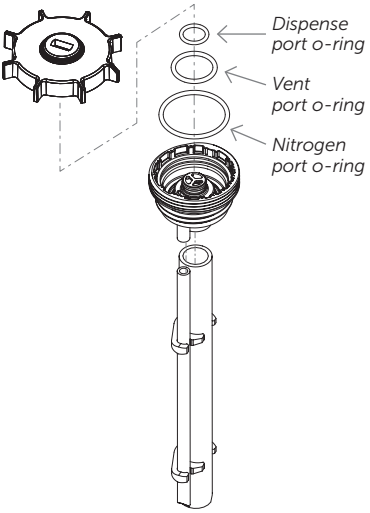

Figure 3.

NOTE: Visually inspect each of the o-rings to ensure it is positioned completely in the groove before inserting the shipping plug or dispense head.

O-RING REMOVAL TOOL REBUILD INSTRUCTIONS

Tool Disassembly Instructions

1. Remove hemostat and set aside (hemostat not shown).
2. Remove cap screw (P1) located on the side of the o-ring removal tool using the large Allen wrench (P9).
3. Pull the two halves apart.
4. Using the small Allen wrench (P10), remove the four cap screws (P3) holding the o-ring cutting blades (P4) to the right body and handle half, and remove blades.
5. Remove the spring (P8).
6. Remove large o-ring pick (P2) and small dowel pin (P5).
7. Remove small o-ring pick (P7) and small dowel pin (P5).
8. Remove two large dowel pins (P6)

   NOTE: When you pull the tool halves apart in step 3, the dowel pins could end up on either half. A needle nosed pliers (S1) may be needed to remove the dowel pins.

Tool Rebuild Instructions

1. Identify the body half with two pair of threaded holes. Use this body half to reassemble the replacement components.
2. Insert large dowel pins (P6) in corresponding holes.
3. Insert small dowel pins (P5) in corresponding holes.
4. Assemble large o-ring pick (P2) over the small dowel pin (P5) on the left side of the body half as shown in Figure 4 so the counter bore is facing towards the center of the assembly.
5. Assemble small o-ring pick (P7) over the small dowel pin (P5) on the right side of the body half as shown in Figure 4 so the counter bore is facing towards the center of the assembly.
6. Insert an end of the spring (P8) into one of the counter bores on an o-ring pick. Compress spring and insert the spring into the other counter bore of the remaining o-ring pick.
7. Place o-ring cutting blades (P4) over threaded holes on body half. Point sharp edges toward the center and bottom of the body. Insert cap screws (P3) and torque to 8 inch ounces. Overtightening cap screws may cause threads to strip on the plastic body half.
8. Align the remaining body half with the dowel pins on the other body half. Press together.
9. Insert cap screw (P1) and secure the two body halves. Torque to 48 inch ounces.

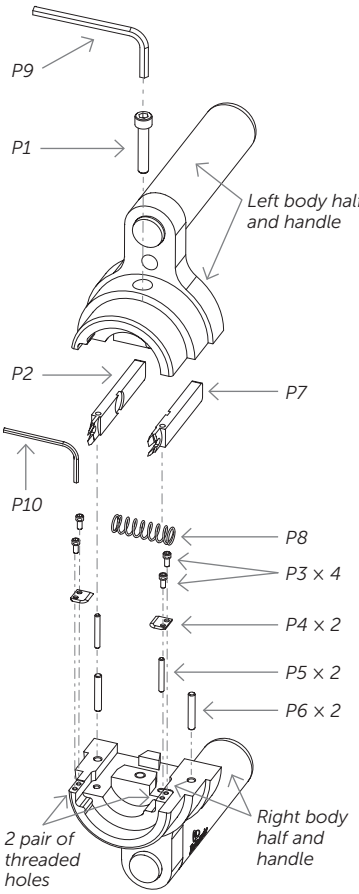

Figure 4.

Rebuild kit *(part number 151-148R)*

ITEM	DESCRIPTION	QUANTITY
P1	Large cap screw	1
P2	Large o-ring pick	1
P3	Small cap screws	4
P4	O-ring cutting blades	2
P5	Small dowel pins	2
P6	Large dowel pins	2
P7	Small o-ring pick	1
P8	Spring	1
P9	Large Allen wrench	1
P10	Small Allen wrench	1

Customer supplied items

ITEM	DESCRIPTION
S1	Needle nose pliers

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