

## Instructions for Replacing the Adsorber of the Model 1020R/RW Compressor

### Purpose

For use with the Model 1020R/RW Compressor adsorber kit (CTI-CRYOGENICS Kit No. 8080260K001).

### Kit Contents

Item Number	Description	Quantity
1	Adsorber	1
2	Instruction Sheet (No. 8040090)	1

To replace the Model 1020R/RW Compressor adsorber, proceed as follows:

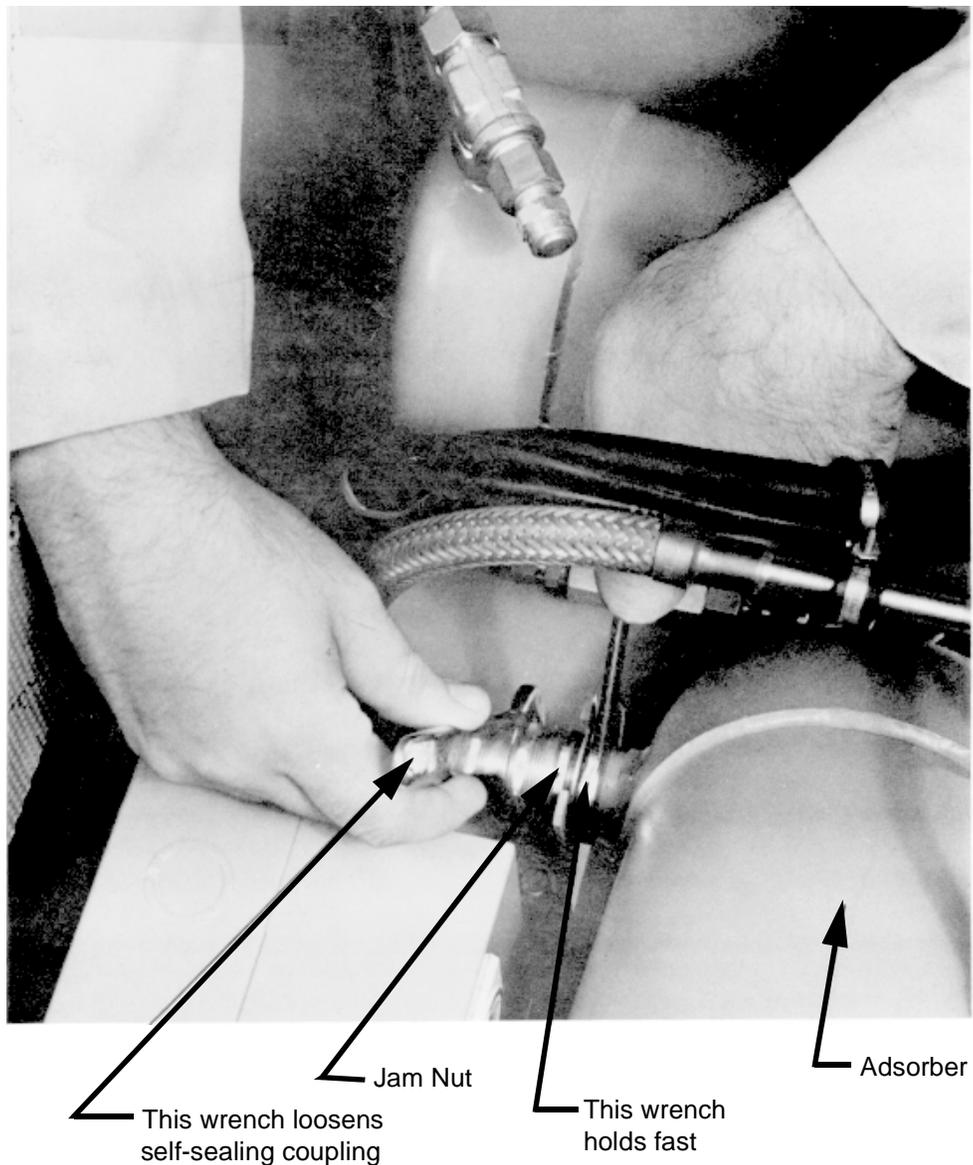
	<h3 style="margin: 0;">WARNING</h3> <p style="margin: 0;">Always disconnect the compressor input power and control power cables from their sources of electrical power before replacing the adsorber.</p>
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1. Shut down the compressor.
2. Disconnect the compressor input power cable and control power cable (when applicable) from its electrical power source.
3. Disconnect the flexlines from the gas-return and gas-supply connectors at the rear of the compressor. Disconnect the self-sealing couplings per Figure 1.
4. Remove the rear panel.
5. Remove the two screws from the under side of the top panel that pass through the two brackets at the top of the rear frame, and secure the top panel in place.

6. Raise the rear of the top panel slightly and push the panel toward the front of the compressor until the slots at the front of the top panel are free of the washer-head screws that project from the compressor frame. Remove the top panel.
7. Remove the adsorber from the compressor as shown in Figure 2, disconnecting the self-sealing couplings per Figure 1.

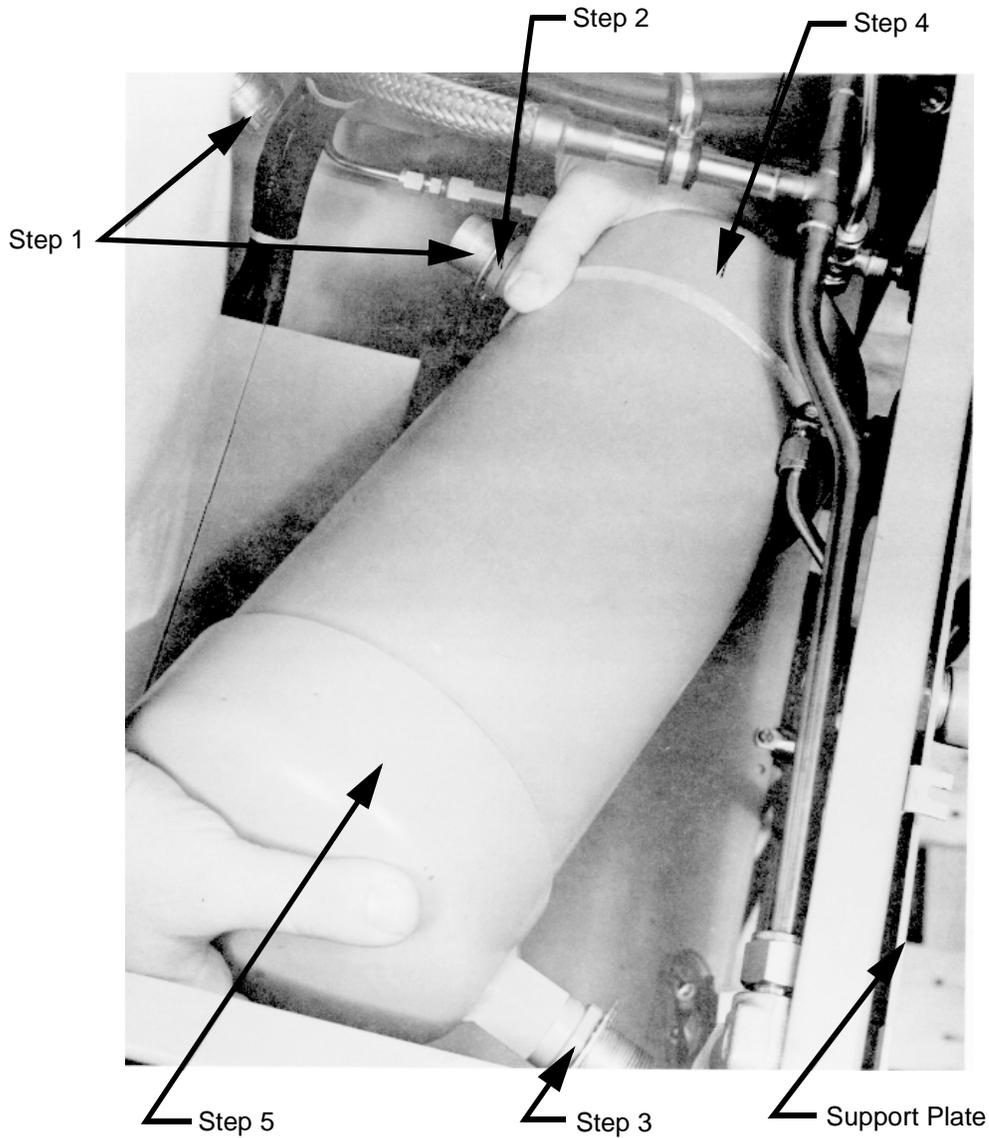
	<b>WARNING</b>
	Depressurize the adsorber before disposing of it, attach the depressurization fitting (included in the installation tool kit) to the coupling half at either end of the adsorber and tighten it slowly.

8. The adsorber is symmetrically designed, so that either of the self-sealing couplings can serve as an inlet or outlet connection. Install the replacement adsorber as follows:
  - a. Remove the dust caps from the self-sealing coupling halves at each end of the replacement adsorber.
  - b. Install the adsorber following the steps in Figure 2 in the reverse order. Reconnect the self-sealing couplings per Figure 3.
9. Replace the top panel, rear panel, flexlines and power cables by reversing the order of procedures (3) through (6) above. Make sure that the rear panel depresses the safety interlock switch. The compressor cannot be started unless the switch is depressed.
10. Ensure that the supply pressure gauge reads 195-205 psig (1365-1435 kPa). If additional gas pressure is required, follow the instructions given in the applicable Cryo-Torr<sup>®</sup> Cryodyne<sup>®</sup> Installation, Operation and Servicing Instructions.
11. Add 4,500 hours to the reading on the elapsed-time meter, and write this total on the identification decal attached to the replacement adsorber.



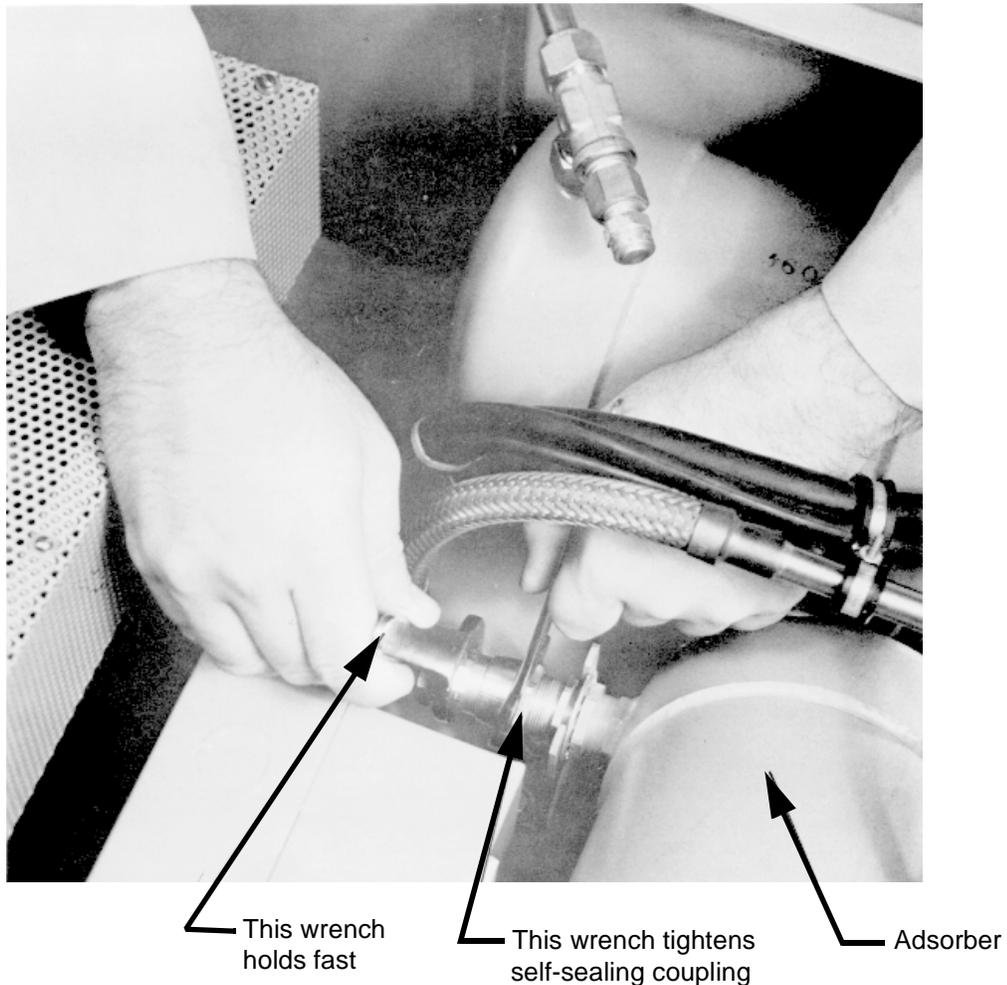
1. Use two wrenches (supplied) to avoid loosening the body of the coupling from its adapter.
2. Unscrew the two self-sealing coupling halves. Minor gas leakage may occur while turning the connecting half. Complete the disconnection quickly to minimize gas loss.

**Figure 1: Procedure for Disconnecting a Self-Sealing Coupling**



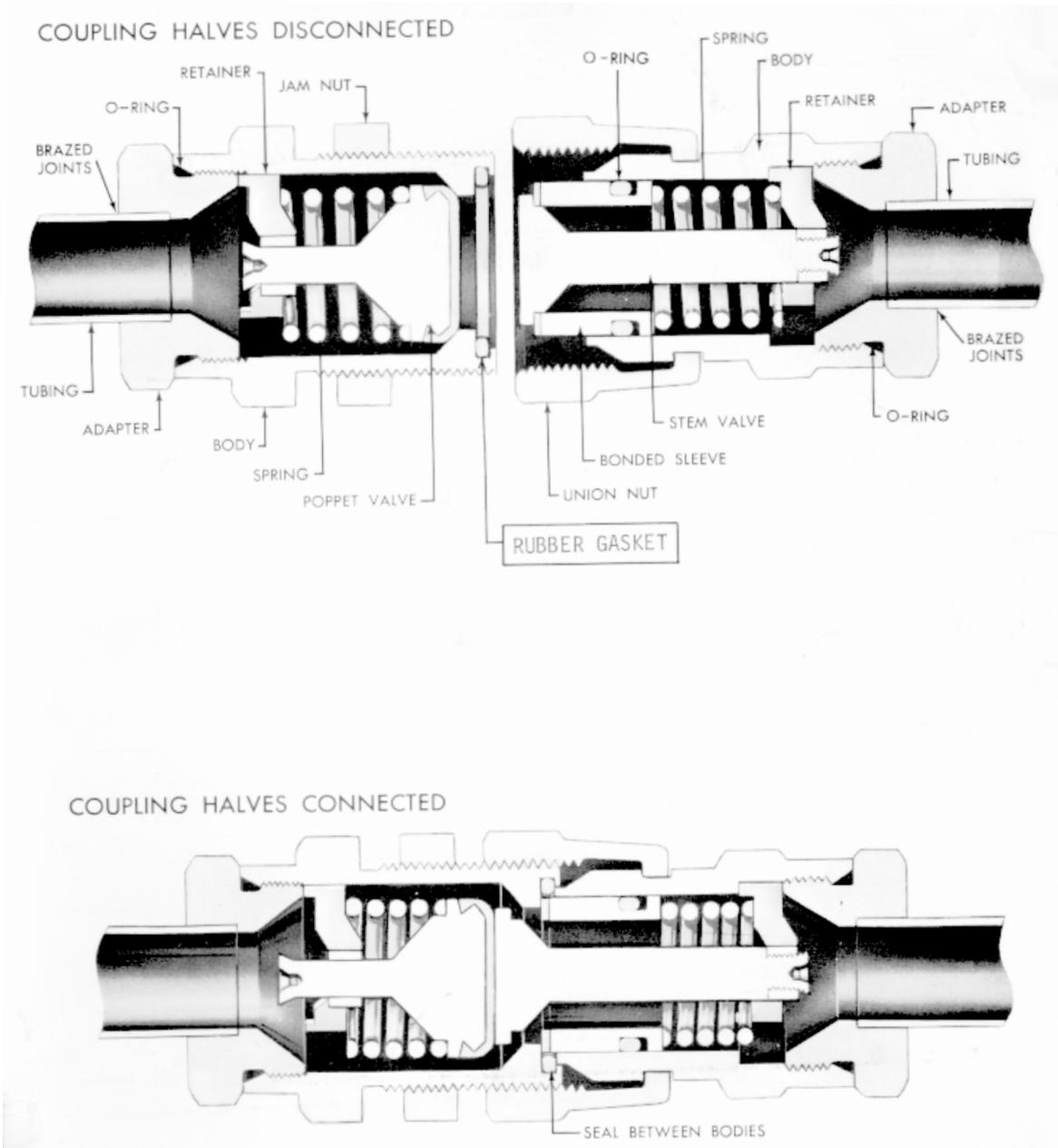
1. Disconnect the adsorber-inlet self-sealing coupling.
2. Remove the jam nut that secures the adsorber-inlet self-sealing coupling half to its support bracket.
3. Remove the jam nut that secures the adsorber-outlet self-sealing coupling half to its support plate.
4. Raise the inlet end of the adsorber until it clears the support bracket.
5. Move the outlet end of the adsorber inward until it clears the support plate. Then remove the adsorber, retaining all hardware.

**Figure 2: Removing the Adsorber from the Model 1020R and 1020RW Compressors**



1. Ensure that the flat rubber gasket is clean and in place before connecting a self-sealing coupling. (See Figure 4, COUPLING HALVES DISCONNECTED).
2. Use two wrenches (supplied) to avoid loosening the body of the coupling from its adapter.
3. Screw the two self-sealing coupling halves together (make the first few turns by hand). Minor gas leakage may occur while turning the connection half. Complete the connection quickly to minimize gas loss.
4. Be sure the coupling is firmly seated; do not apply more than 35 foot-pounds of torque.

**Figure 3: Procedure for Connecting a Self-Sealing Coupling**



**Figure 4: Cutaway Views of a Self-Sealing Coupling (Aeroquip)**