Installation Instructions



BENDIX® QR-1C® DIAPHRAGM REPLACEMENT KIT

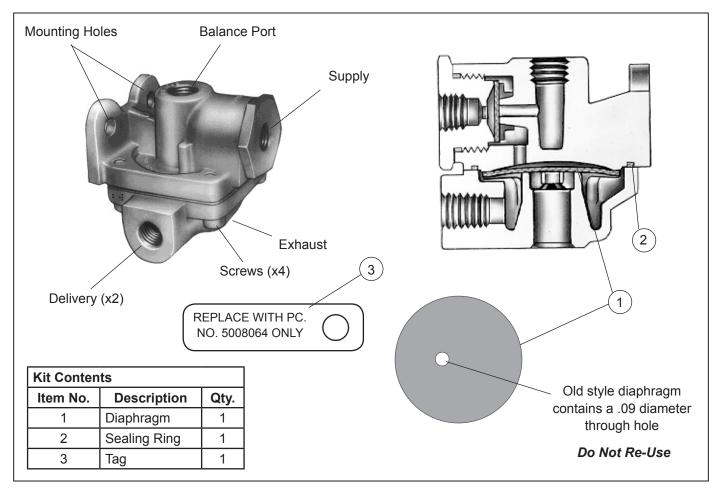


Figure 1 – Bendix® QR-1C® Exterior and Sectional Views

GENERAL

This kit contains all of the components required for replacing the diaphragm and sealing ring in a Bendix[®] QR-1C[®] Double Check and Quick Release Valve.

INSPECTION

1. Visually verify the vehicle is equipped with a QR-1C Quick Release Valve.

DISASSEMBLY

Removal of the valve from the vehicle is not necessary for installation of this maintenance kit.

- 1. With a clean shop rag, clean the exterior of the valve.
- 2. Remove the four T-30 Torx® screws that secure the lower body to the upper body housing.
- 3. Separate the two body halves and remove the sealing ring (2) and quick release diaphragm (1), discard both.

ASSEMBLY

- Install the sealing ring (2) on the upper valve body. If the sealing ring (2) does not stay on the upper body, lubricate the sealing ring (2) with a silicone lubricant equivalent to Dow Corning[®] #55.
- 2. Place the quick release diaphragm (1) in the lower valve body.
- 3. Install the lower body with the diaphragm (1) on the upper body. Make certain that all parts remain centered in the upper body and the sealing ring (2) stays in place. Secure using the four Torx screws removed during disassembly. Place the tag (3) on one of the front (opposite the mounting bracket) screws before assembly. Torque the four screws to 40-70 in-lbs.
- 4. Perform the "Operating and Leakage Tests" detailed on the next page before placing the vehicle in service.

GENERAL SAFETY GUIDELINES

WARNING! PLEASE READ AND FOLLOW THESE INSTRUCTIONS

TO AVOID PERSONAL INJURY OR DEATH:

When working on or around a vehicle, the following guidelines should be observed AT ALL TIMES:

- ▲ Park the vehicle on a level surface, apply the parking brakes and always block the wheels. Always wear personal protection equipment.
- ▲ Stop the engine and remove the ignition key when working under or around the vehicle. When working in the engine compartment, the engine should be shut off and the ignition key should be removed. Where circumstances require that the engine be in operation, EXTREME CAUTION should be used to prevent personal injury resulting from contact with moving, rotating, leaking, heated or electrically-charged components.
- ▲ Do not attempt to install, remove, disassemble or assemble a component until you have read, and thoroughly understand, the recommended procedures. Use only the proper tools and observe all precautions pertaining to use of those tools.
- ▲ If the work is being performed on the vehicle's air brake system, or any auxiliary pressurized air systems, make certain to drain the air pressure from all reservoirs before beginning ANY work on the vehicle. If the vehicle is equipped with a Bendix® AD-IS® air dryer system, a Bendix® DRM™ dryer reservoir module, or a Bendix® AD-9si® air dryer, be sure to drain the purge reservoir.
- ▲ Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in a manner that safely removes all electrical power from the vehicle.
- ▲ Never exceed manufacturer's recommended pressures.
- ▲ Never connect or disconnect a hose or line containing pressure; it may whip and/or cause hazardous airborne dust and dirt particles. Wear eye protection. Slowly open connections with care, and verify that no pressure is present. Never remove a component or plug unless you are certain all system pressure has been depleted.
- ▲Use only genuine Bendix® brand replacement parts, components and kits. Replacement hardware, tubing, hose, fittings, wiring, etc. must be of equivalent size, type and strength as original equipment and be designed specifically for such applications and systems.
- ▲ Components with stripped threads or damaged parts should be replaced rather than repaired. Do not attempt repairs requiring machining or welding unless specifically stated and approved by the vehicle and component manufacturer.
- ▲ Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.
- ▲ For vehicles with Automatic Traction Control (ATC), the ATC function must be disabled (ATC indicator lamp should be ON) prior to performing any vehicle maintenance where one or more wheels on a drive axle are lifted off the ground and moving.
- ▲ The power MUST be temporarily disconnected from the radar sensor whenever any tests USING A DYNAMOMETER are conducted on a vehicle equipped with a Bendix® Wingman® system.
- ▲ You should consult the vehicle manufacturer's operating and service manuals, and any related literature, in conjunction with the Guidelines above.

OPERATING & LEAKAGE TESTS

Before performing these tests, park the vehicle on a level surface and hold the vehicle by means other than the brakes.

- 1. With the park control valve in the released position, note that the spring brakes are released.
- 2. Apply a soap solution to the exhaust and balance port. A one (1) inch bubble in five seconds is permissible at either location.
- 3. Park the vehicle. Note a prompt application of the spring brakes with an exhaust of air at the Bendix® QR-1C® valve exhaust port when the vehicle is parked.
- If the valve does not function as described, or if leakage is excessive, replace with Bendix part number 5008064.





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