



Installation Instructions

KIT
PC. No. 282098

FIELD MAINTENANCE KIT LQ-2 LIMITING AND QUICK RELEASE VALVE

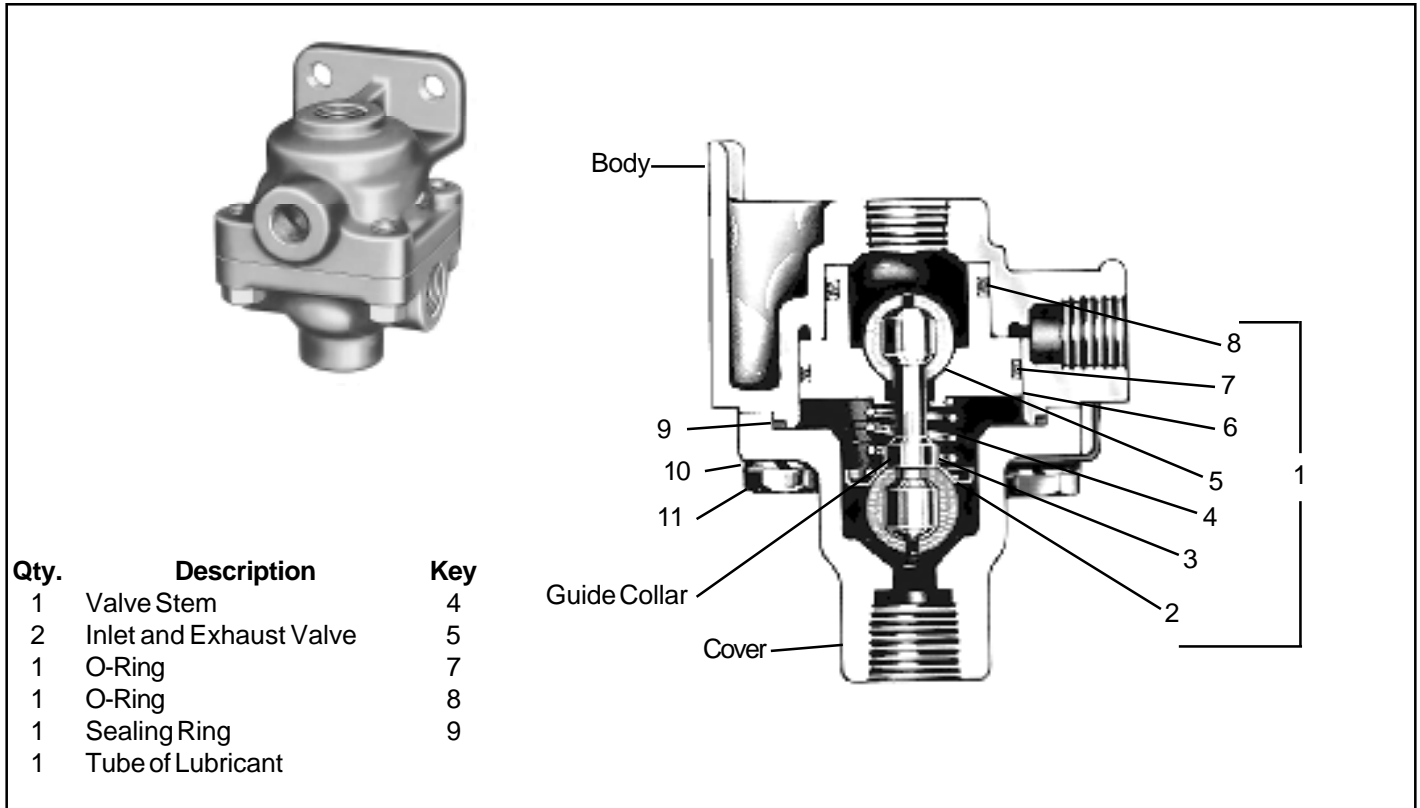


Figure 1 This kit consists of the parts listed above.

**IMPORTANT! PLEASE READ AND FOLLOW
THESE INSTRUCTIONS TO AVOID
PERSONAL INJURY OR DEATH:**

When working on or around a vehicle, the following general precautions should be observed at all times.

1. Park the vehicle on a level surface, apply the parking brakes, and always block the wheels.
2. Stop the engine when working around the vehicle.
3. If the vehicle is equipped with air brakes, make certain to drain the air pressure from all reservoirs before beginning ANY work on the vehicle.
4. Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in manner that removes all electrical power from the vehicle.
5. When working in the engine compartment the engine should be shut off. 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.
6. Never connect or disconnect a hose or line containing pressure; it may whip. Never remove a component or plug unless you are certain all system pressure has been depleted.
7. Never exceed recommended pressures and always wear safety glasses.
8. 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.
9. Use only genuine Bendix replacement parts, components, and kits. Replacement hardware, tubing, hose, fittings, etc. should be of equivalent size, type, and strength as original equipment and be designed specifically for such applications and systems.
10. Components with stripped threads or damaged parts should be replaced rather than repaired. Repairs requiring machining or welding should not be attempted unless specifically approved and stated by the vehicle or component manufacturer.
11. Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.

REMOVAL

1. Block and hold the vehicle by means other than air brakes on a level surface.
2. Drain the air pressure from all reservoirs.
3. Mark or identify all air lines to facilitate reinstallation.
4. Remove the mounting bolts and then the valve.
5. Mark the relationship of the body and cover.

DISASSEMBLY

1. Remove the four cap screws (11) and washers (10).
2. Separate the body and cover and discard the sealing ring (9).
3. Remove the piston assembly (1) from the body.
4. Remove and discard the piston O-Rings (7 and 8).
5. Push the exhaust valve into the piston (against the valve spring) and hold in this position. Using a pair of needle nose pliers, remove and discard the inlet valve (5) from the stem (3).
6. Separate the stem (3) and the attached exhaust valve from the piston.
7. Retain spring (4) and guide (2). Discard the stem (3) and exhaust valve (5).

ASSEMBLY

Prior to assembly, clean all parts in mineral spirits and thoroughly dry them. Lubricate all O-Rings, O-Ring grooves and body bores.

1. Very lightly lubricate bulbous ("ballooned") ends of the stem (3). Install the exhaust valve on the end of the stem where the guide collar is located. Center the hole in the exhaust valve over the stem and push onto the stem.
2. Install O-Rings (7 and 8) on piston (6).
3. Install spring (4) and guide (2) on the flat side of piston (6).
4. Insert stem (3), with exhaust valve previously installed, through the guide (2) and spring (4) and piston (6).
5. Push the stem and exhaust valve into the piston against the spring. Center the inlet valve hole over the stem (3) and push the inlet valve (5) onto the stem.
6. Install the assembled piston assembly (1) into the body and install the sealing ring (9) on the body.
7. Position the cover (as marked prior to disassembly) on the body and secure using cap screws (11) and washers (10). Torque to 100 inch pounds.

INSTALLATION

1. Remount the valve and tighten the mounting bolts.
2. Reconnect the air lines in the proper parts, noting the identification of the lines made during removal.

OPERATING AND LEAKAGE TESTS

Operating Test

For this check, two accurate test gauges will be needed. Install one gauge in a brake chamber delivery line, and the other in the foot valve delivery line.

1. Place the control valve in the "Dry Road" position and make a foot valve application. Readings on both gauges should be the same.
Release the application and note that air is exhausted promptly from the exhaust port of the Limiting and Quick Release Valve.
2. Place the control valve in the "Slippery Road" position and apply the foot valve. The pressure reading on the gauge in the brake chamber line should be 50% of the reading of the gauge in the foot valve delivery line.

Leakage Test

1. Place the control valve in the "Dry Road" position. Make and hold a foot valve application. Coat the exhaust of the Limiting and Quick Release Valve with soap suds; leakage should not exceed a one inch bubble in three seconds.
2. Place the control valve in the "Slippery Road" position. Make and hold a foot valve application. Coat the exhaust of the TW-1 Control Valve; leakage should not exceed a one inch bubble in three seconds.

