



Installation Instructions

KIT
PC. No. 287367

FIELD MAINTENANCE KIT FOR PP-7 TRAILER SUPPLY VALVE

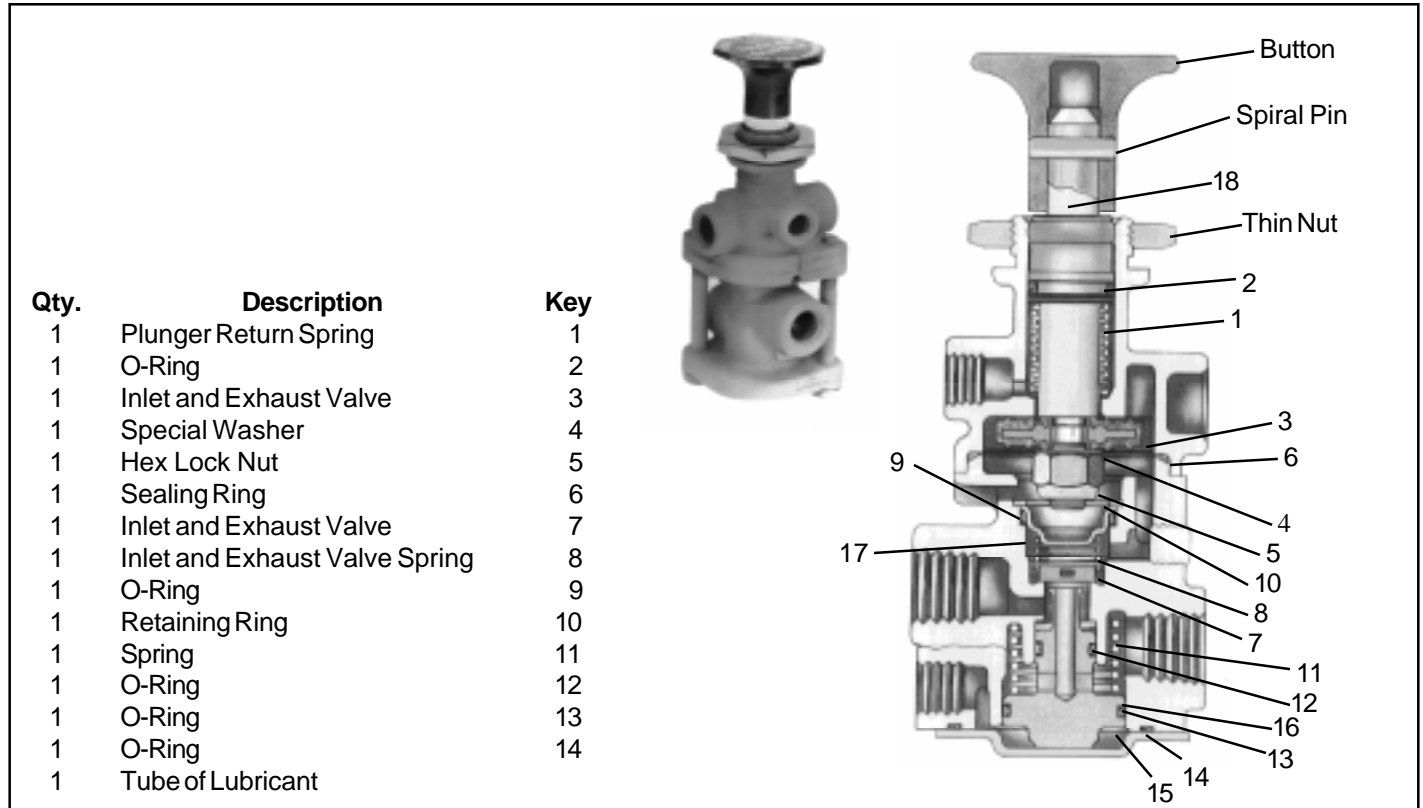


Figure 1 This kit consists of the parts listed above.

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. Chock the vehicle wheels and drain all air system reservoirs completely.
2. Disconnect all air lines leading to and from the PP-7 and mark them for proper reconnection.
3. Using a drift pin punch, remove the spiral pin which secures the button to the plunger. Remove the button.
4. Using a 1-5/16 inch wrench, remove the special thin nut which secures the PP-7 to the panel and remove the valve.

DISASSEMBLY

1. Using the 7/16 inch open-end wrench, remove the two 1/4"-20 hex head screws. Remove the end plate (15), piston (16), and spring (11). Discard items (11, 12, 13 and 14) .
2. Separate the upper and lower half of the valve and discard the sealing ring (6).
3. Using the snap ring pliers, remove the small internal snap ring (10), O-Ring retainer (17), O-Ring (9), spring (8) and valve (7). Discard items (7, 8, 9 and 10).
4. Insert the drift punch in the spiral pin hole of the plunger (18) and using the 7/16 inch open-end wrench, remove the 1/4" ESNA lock nut (5), remove the plunger (18), valve (3), spring (1) and washer (4). Discard items (1, 2, 3, 4 and 5).

ASSEMBLY

Prior to assembly, wash all parts retained during disassembly in a suitable solvent, such as mineral spirits. Coat all O-Rings, grooves and body bores with the lubricant provided in this kit.

1. Install O-Ring (2) on plunger (18).
2. Install spring (1) on plunger (18).
3. Insert a drift punch in the spiral pin hole of the plunger (18) and insert the plunger in the upper valve body.
4. Install inlet and exhaust valve (3) on the plunger (18). (Both sides of the valve are the same.)
5. Install washer (4) on the plunger (18).
6. Using a 7/16 inch wrench, install self-locking nut (5) on the plunger (18) and torque to 20-25 inch pounds.

IMPORTANT: When assembling the lower body:

7. Drop the inlet and exhaust valve (7) into position. Make sure it is laying flat.
8. Slide the O-Ring (9) into the proper bore of the body.
9. Place the spring (8) on top of the four ears of valve (7).
10. Place the O-Ring retainer (17) on top of spring (8), compress the retainer into the spring and O-Ring Lock into place with retaining ring (10).
NOTE: DO NOT attempt to place the O-Ring (9) on the O-Ring retainer (17) for installation into body. Damage to the O-Ring often occurs when assembly is attempted in this manner.
11. Install O-Rings (12 and 13) on piston (16).
12. Install spring (11) in lower valve body.
13. Install O-Ring (14) in the lower body.
14. Install piston (16) and hold in place with cover (15).
15. Install sealing ring (6) in upper valve body and join the upper and lower body halves and hold.

16. Install the two 1/4"-20 hex head screws to secure the upper and lower body halves together.
17. Torque the screws to 30-60 inch pounds.

INSTALLATION

1. Secure the PP-7 to the vehicle dash using the 1-5/16 inch thin nut.
2. Install the button and secure with the spiral pin.
3. Reconnect the air lines to the proper valve ports using the identification made during disassembly.
4. Before placing the valve in service, perform the "Operating and Leakage Checks."

OPERATING AND LEAKAGE CHECKS

To perform the following test, an accurate vehicle test gauge installed in a spare hose coupling is required. The vehicle dash gauge(s) should be checked for accuracy against the test gauge prior to making these tests.

1. Block or hold the vehicle by means other than the service air brakes.
2. With the PP-7 trailer supply valve button out and the parking control valve in the exhaust, or "brakes applied" position, build the air system pressure to governor cut-out.
3. Apply a soap solution to the exhaust vent and plunger stem of the PP-7 to check for leakage. Leakage should not exceed a 1 inch bubble in 5 seconds at either point.
4. Depress the control button of the PP-7 and apply a soap solution to the exhaust vent and the exhaust port. Leakage should not exceed a 1 inch bubble in 5 seconds at either point.
5. Install the test gauge and coupling on the trailer supply coupling (tractor emergency hose coupling) at the rear of the tractor.
6. Place the tractor parking control valve in the "brakes released" position and observe an immediate rise in pressure on the test gauge. The pressure registered on the test gauge should equal dash gauge or system pressure.
7. Apply a soap solution to the exhaust port of the PP-7. Leakage should not exceed a 1 inch bubble in 5 seconds.
8. With the tractor air system at governor cut-out pressure, shut off the engine and note the dash gauge pressure. Quickly disconnect the test gauge and hose coupling from the tractor-trailer supply line coupling. Leakage from the tractor-trailer supply line should cease when button of the PP-7 "pops" out. Dash gauge air pressure after the performing of the preceding test should be between 60-70 psi.
9. Reconnect the test gauge to the tractor-trailer supply line and depress the button of the PP-7. Open the drain cocks of No. 1 and No. 2 service reservoirs slightly. Note at what pressure (descending) the button of the PP-7 pops out and exhausts the tractor-trailer supply line. This should occur between 20-45 psi air system pressure.