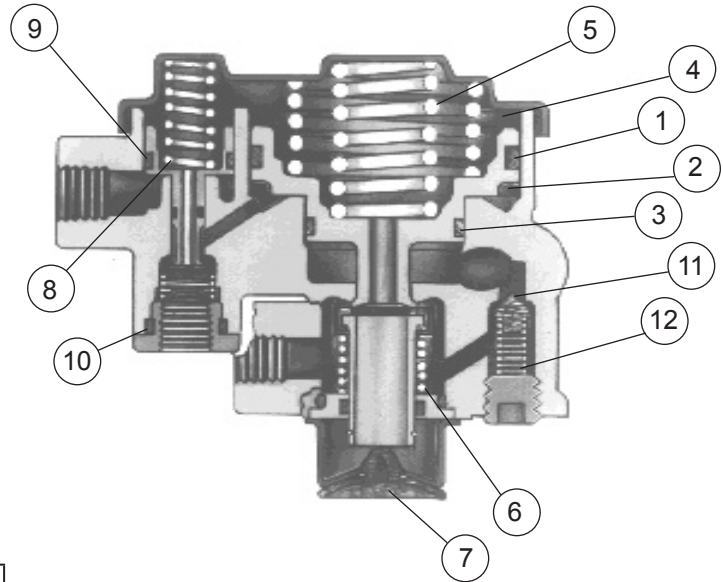


Installation Instructions



BENDIX® TYPE SR-3™ INVERSION RELAY VALVE MAINTENANCE KIT



Kit Contents		
Item No.	Description	Qty.
1	O-Ring	1
2	O-Ring	1
3	O-Ring	1
4	Piston Spring	1
5	Piston Spring	1
6	Inlet & Exhaust Valve Assy.	1
7	Diaphragm	1
8	Piston Spring	1
9	O-Ring	1
10	O-Ring	1
11	Check Valve	1
12	Check Valve Spring	1
13	Lubricant	2

Figure 1 – Bendix® Type SR-3™ Inversion Relay Valve Maintenance Kit Contents

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.
- ▲ You should consult the vehicle manufacturer's operating and service manuals, and any related literature, in conjunction with the Guidelines above.
- ▲ 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.

The tools necessary to disassemble and repair this valve are as follows:

- 1 #2 Phillips® head screwdriver
- 1 #3 Phillips head screwdriver
- 1 1/4" hex wrench
- 1 7/8" open end wrench
- 1 vise

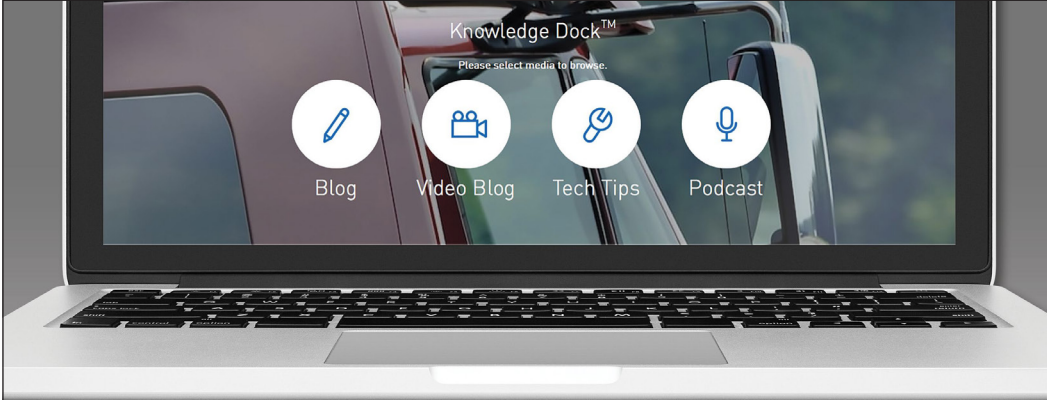
DISASSEMBLY OF VALVE

1. Using the #2 Phillips head screwdriver, remove the two #10-24 screws holding the exhaust cover and diaphragm (7) in place. Pop out the inlet and exhaust valve assembly (6). Discard items (6) and (7).
2. Using the 7/8" open end wrench, remove the hex cap nut and discard the o-ring (10).
3. Remove the 1/4" recessed hex pipe plug and discard items (11) and (12).
4. Place the valve horizontally in a vise and lightly compress the cover to the body. Using the #3 Phillips head screwdriver, remove the four 1/4-20 screws. **Cautiously release the vise, as the cover of the valve is internally spring loaded.** Remove the cover and discard items (1, 2, 3, 4, 5, 8, and 9).


PRIOR TO ASSEMBLY OF THE NEW PARTS IN THE VALVE, CLEAN ALL INTERNAL PARTS AND PASSABLES WITH A SUITABLE SOLVENT EQUIVALENT TO MINERAL SPIRITS. GREASE ALL O-RINGS, BORES, PISTONS, AND INTERNAL PARTS WITH BW-650-M LUBRICANT SUPPLIED IN KIT (13).

REASSEMBLY OF VALVE

5. Install the o-ring (9) in its proper groove on the small piston.
6. Place the spring (8) and the small piston assembly in the bore of the body.
7. Place the o-rings (1 and 2) in their proper grooves of the sleeve and insert the sleeve assembly into the valve.
8. Position the o-ring (3) in its groove on the large piston and install the piston assembly into the sleeve.
9. Insert the springs (4 and 5) in their proper position using the cover to hold them in place. Using the vise, slowly compress the cover to the body, **MAKING SURE ALL SPRINGS ARE PROPERLY ALIGNED IN THEIR BORES.** Install the four 1/4-20 screws and torque from 50 to 80 in-lbs.
10. Twist the spring (12) over the neck of the check valve (11) and place the assembly into the body. Reinstall the 1/4" pipe plug and torque from 130 to 170 in-lbs.
11. Position the o-ring (10) on the cap nut, install and tighten the nut from 100 to 250 in-lbs.
12. Snap the diaphragm (7) in position on the exhaust cover.
13. Drop the inlet and exhaust valve cartridge (6) in place. Position the exhaust cover assembly and torque the two #10-24 screws from 20 to 30 in-lbs.



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