



# Installation Instructions

BENDIX® SR-7™ SPRING BRAKE  
MODULATING VALVE  
INTERNAL CHECK VALVE  
CARTRIDGE RETROFIT KIT

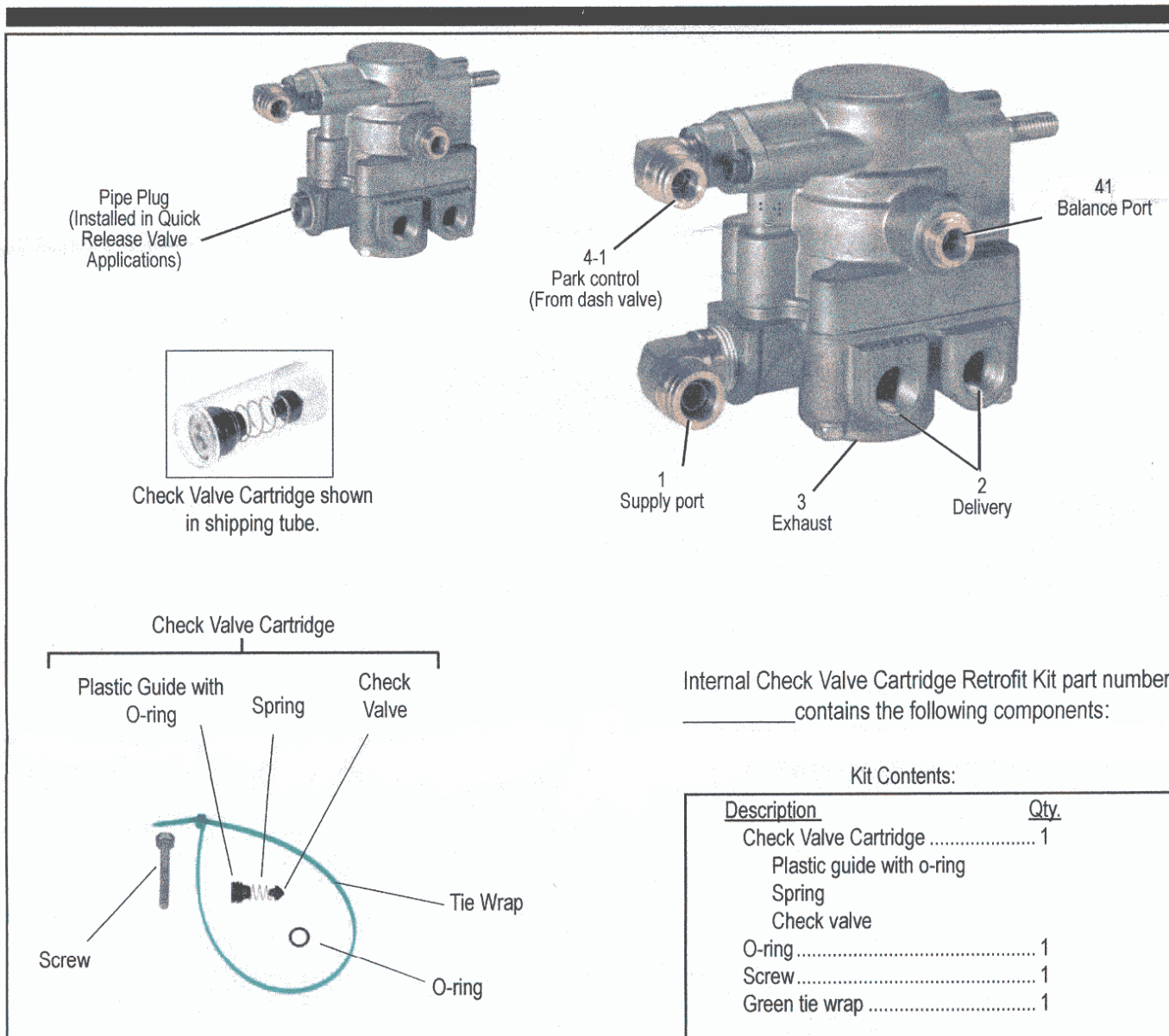


Figure 1 - BENDIX® SR-7™ SPRING BRAKE MODULATING VALVE PORT DESIGNATIONS AND KIT CONTENTS

## GENERAL

This instruction sheet is intended to provide the necessary information to service the Bendix® SR-7™ spring brake modulating valve with a retrofit inlet check valve cartridge. This is in connection with recall campaign number \_\_\_\_\_

**Before installing this cartridge verify that the valve being serviced qualifies for the SR-7™ recall campaign per the Bendix SR-7 Spring Brake Modulating Valve Identification guidelines (BW2646).**

## 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 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. Always wear safety glasses.
2. Stop the engine and remove 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.

3. 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.
4. 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 an AD-IS® air dryer system or a dryer reservoir module, be sure to drain the purge reservoir.
5. Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in a manner that safely removes all electrical power from the vehicle.
6. Never exceed manufacturer's recommended pressures.
7. 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.
8. Use only genuine Bendix® replacement parts, components and kits. Replacement hardware, tubing, hose, fittings, etc. must be of equivalent size, type and strength as original equipment and be designed specifically for such applications and systems.
9. 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.
10. Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.
11. For vehicles with Antilock 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.

### EXTERNAL CHECK VALVE REMOVAL

**CAUTION:** Do not disconnect air lines and fittings unless specified. Installation of this kit does not require that the valve be removed or that all the air lines be disconnected.

1. Locate the SR-7™ spring brake modulating valve on the vehicle. Typically it is located near the rear axle mounted on the frame rail or cross member.
2. Identify the supply (SUP 1) port. Note: this port will contain a check valve or a pipe plug. Refer to Figure 1.

3. If an external check valve is present, disconnect the air line to the check valve and remove the check valve. See Figures 2 through 5. **Note:** Some SR-7™ valves may have a fitting between the check valve and the SR-7™ valve.
4. If the SR-7™ is a quick release type with a pipe plug in this port, do not remove it. Installation of this kit does not require the plug be removed.

### INTERNAL CHECK VALVE REMOVAL

5. Using a 7/16" wrench remove the four screws that secure the upper and lower bodies. Do not disconnect additional hoses or fittings. The separation between the upper and lower body should be approximately three inches to allow adequate room to install this kit.
6. Locate the plastic guide in the upper body of the SR-7™ valve directly above the supply port. The o-ring seal from the lower body may stick to the plastic guide when the bodies are separated. If so, remove it from the guide and place it back into the lower body. An o-ring has been included in this kit in the event that the o-ring is lost during servicing. Refer to Figure 6.
7. Remove the plastic guide, spring and check valve from the valve bore and discard. **Note:** The check valve may stick to its seat in the upper body. Be sure that all of the components are removed before going to the next step.

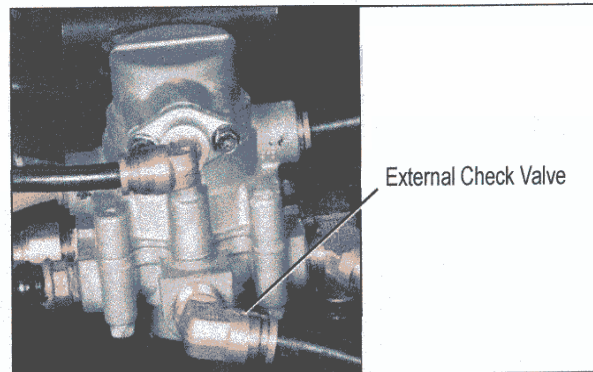


Figure 2 - SR-7™ VALVE AND EXTERNAL CHECK VALVE

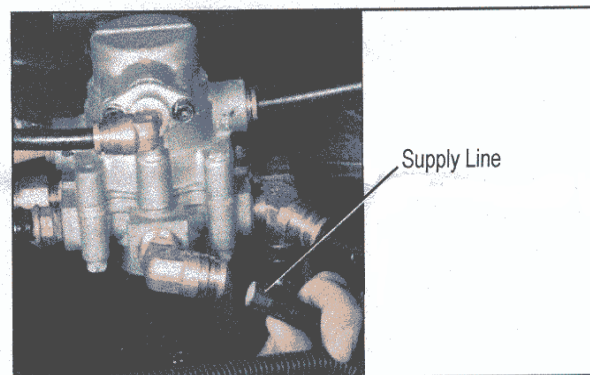


Figure 3 - DISCONNECTING THE SUPPLY LINE



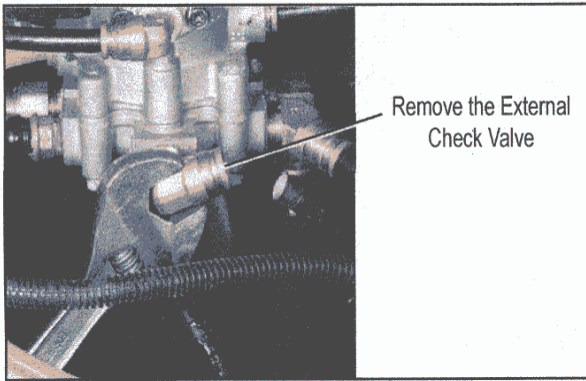


Figure 4 - REMOVING THE EXTERNAL CHECK VALVE

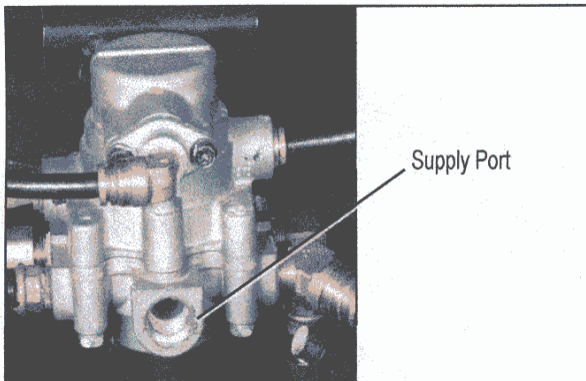


Figure 5 - EXTERNAL CHECK VALVE REMOVED

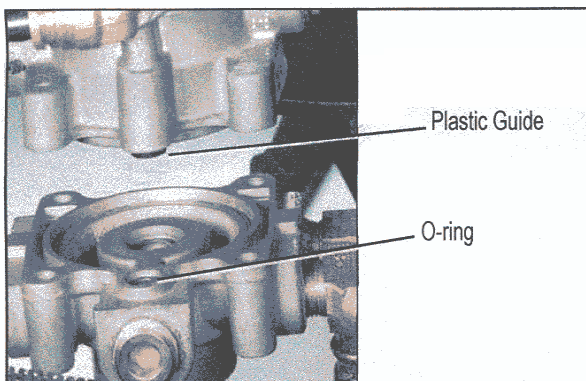


Figure 6 - PLASTIC GUIDE AND O-RING SEAL

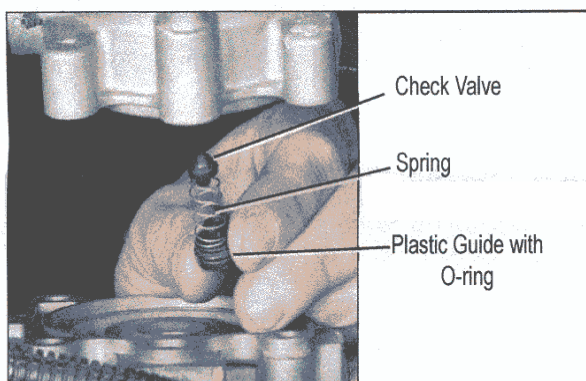


Figure 7 - INTERNAL CHECK VALVE

## CARTRIDGE INSTALLATION

1. Insert the replacement cartridge in the bore where the check valve, spring and plastic guide were removed. Note: Be sure to remove the replacement cartridge from its shipping tube prior to installation. Push the cartridge into position until it stops as shown in Figure 8. A portion of the cartridge will stick out as shown in Figure 6. **DO NOT FORCE THE CARTRIDGE FURTHER INTO THE BORE.**
2. As shown in Figure 9, align the valve lower body with the upper body. Push the body halves together. Insert two of the four screws (finger tight) into the lower body mounting holes closest to the supply port first. This will help with alignment. One screw is included in this kit in the event one is lost during installation.
3. Insert the remaining two screws and tighten finger tight.
4. Tighten all four screws to 80-100 in-lbs.
5. Using pipe sealant, reinstall the check valve and fittings that were removed. Be sure that orientation of the fittings is the same. Teflon tape is not an acceptable substitute for pipe sealant. Install fittings finger tight, then tighten 1.5 - 2 turns. For shaped fittings, such as tees and elbows, tighten no more than one additional turn to the final position.

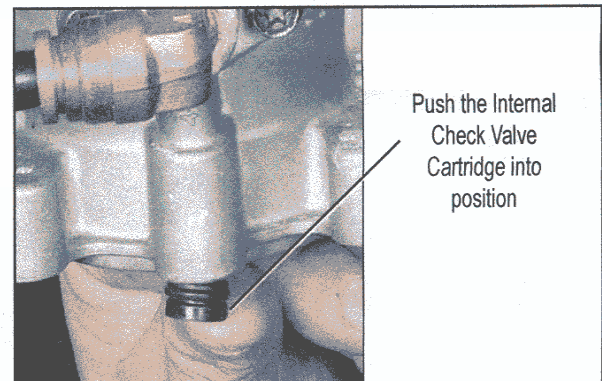


Figure 8 - CARTRIDGE INSTALLATION

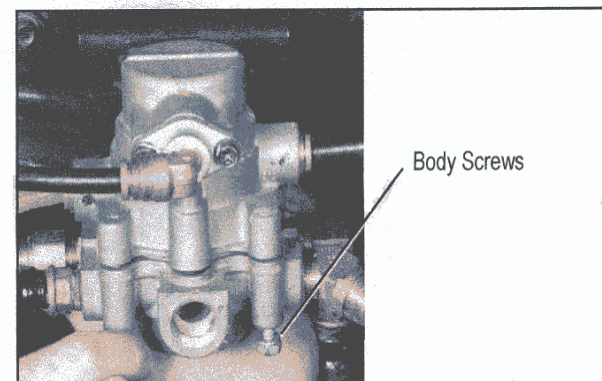


Figure 9 - SECURING THE UPPER & LOWER BODY

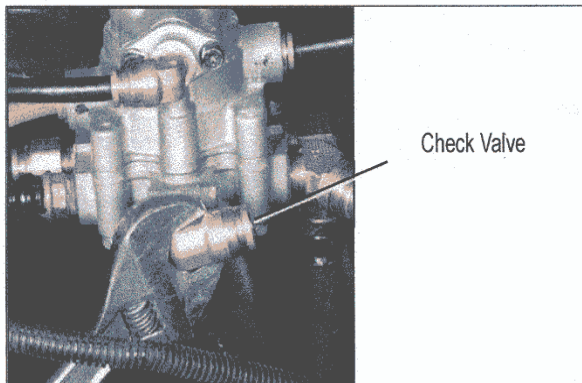


Figure 10 - INSTALLING THE EXTERNAL CHECK VALVE

## TESTING THE SR-7™ SPRING BRAKE MODULATING VALVE

Perform operating and leakage tests as outlined below.

### OPERATING TEST

Block vehicle and hold by means other than vehicle brakes.  
Charge air brake system to governor cut-out pressure.

Place parking control valve in "release" position. Observe that spring brake actuators release fully.

Place parking control valve in "park" position. Observe that spring brake actuators apply promptly, within 3 seconds.

Once the system is functioning normally, the field repair is considered complete

## LEAKAGE TEST

Place the park control valve in the "release" position; using a soap solution, coat all ports including the exhaust port and external check valve, if applicable. A 1" bubble in 3 seconds is permitted (175 SCCM).

If the SR-7™ valve does not function as described, or if leakage is excessive, it is recommended that it be replaced with a new unit available from a Bendix parts outlet.

Once the system is functioning normally, place the included tie wrap on the valve or fitting in a conspicuous location to identify that the field repair is considered complete.

## LABOR REIMBURSEMENT

Complete and submit Labor Reimbursement Form BW????.