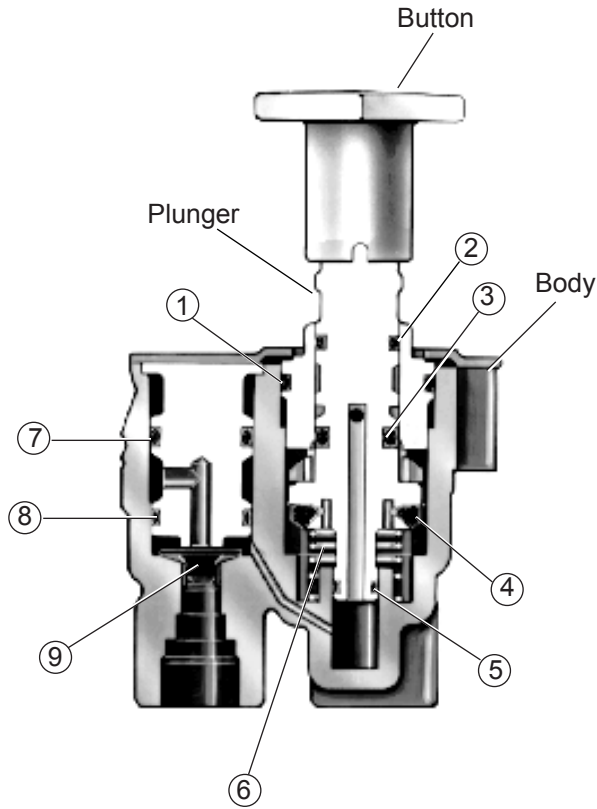




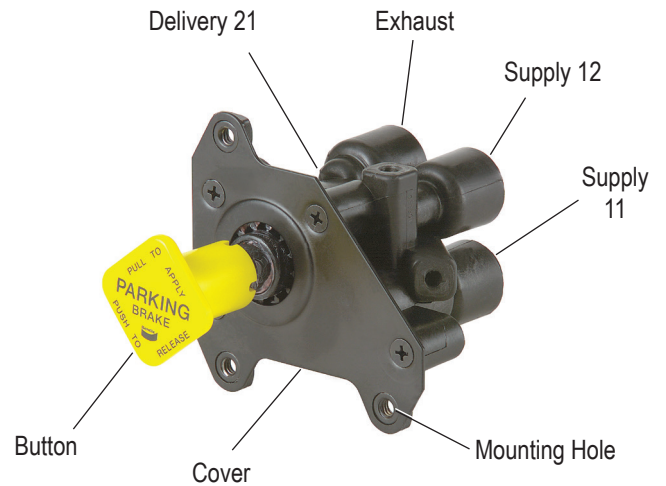
Installation Instructions

MAINTENANCE KIT FOR BENDIX® PP-DC® PARK CONTROL VALVE

**Sectional
View**



**Exterior
View**



Kit Contents

Key No.	Description	Qty.
1	O-ring	1
2	O-ring	1
3	O-ring	1
4	Exhaust Seal	1
5	O-ring	1
6	Plunger Spring	1
7	O-ring	1
8	O-ring	1
9	Check Valve	1
Not Shown	Silicone Grease	1

Figure 1 - Bendix® PP-DC® Park Control 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.
- ▲ 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.
- ▲ Use only genuine Bendix® brand 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.
- ▲ 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 Bendix® Wingman® Advanced™-equipped vehicle.
- ▲ You should consult the vehicle manufacturer's operating and service manuals, and any related literature, in conjunction with the Guidelines above.

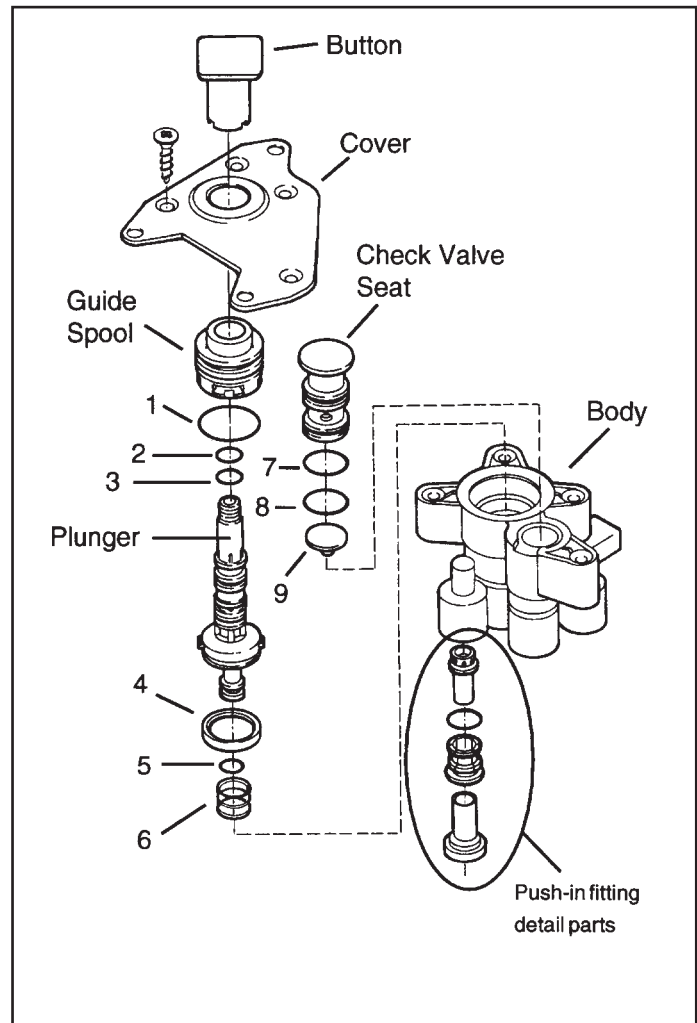


Figure 2 - Bendix® PP-DC® Valve Exploded View

REMOVAL

1. Identify and mark or label all air lines and their connections on the valve.
2. Remove the Bendix® PP-DC® control valve from the vehicle and save the mounting hardware.

DISASSEMBLY

The following disassembly and assembly procedures are for reference only. Always have the appropriate maintenance kit on hand and use its instructions in lieu of those presented here. *Refer to Figure 2 throughout the procedure.*

1. Turn the button counterclockwise to remove it from the plunger stem.
2. Remove the four screws that secure the cover to the body, and remove the cover.
3. Pull the plunger stem to remove the plunger and the guide spool from the body.
4. Remove the plunger spring (6) and discard.
5. If necessary, use a screwdriver to carefully remove the check valve seat from the body. Be sure not to damage the check valve seat nor the body.
6. Remove and discard the check valve seat o-rings (7) and (8).
7. Turn the body upside down and gently tap it on a flat surface to remove the check valve (9). Discard the check valve.

8. Remove the guide spool from the plunger. Remove and discard o-ring (1) from the guide spool.
9. Remove and discard o-rings (2), (3) and (5) from the plunger. Also, remove and discard the exhaust seal (4).

CLEANING & INSPECTION

1. Wash all metal parts in mineral spirits and thoroughly dry.
2. Inspect all reusable parts for excessive wear or damage. Inspect the body for gouges or deep scuffing. Replace key numbers 1 through 9 (and any parts not determined usable) with genuine Bendix replacements.

ASSEMBLY

Before assembly, lubricate all o-rings, o-ring grooves, rubbing surfaces and bores with the lubricant contained in the kit.

1. Place check valve (9) into its seat in the body with its flat surface facing upward. If necessary, reach into the body to make sure the valve is seated evenly in the bore.
2. Install o-rings (7) and (8) on the check valve seat and install the check valve seat into the body. Make sure the seat is fully seated—its surface should be even with the body's surface.
3. Install the plunger spring (6) into the body. Make sure it stands upright and is seated properly in the body bore. (It should surround the protrusion or "lip" at the bottom of the body bore.)
4. Install o-rings (2) and (3), the exhaust seal (4) and o-ring (5) onto the plunger then install the plunger into the body. Line up the plunger's index tabs with the spaces in the body bore for ease of installation.
5. Install o-ring (1) onto the guide spool. Then install the guide spool over the plunger and into the body. Press the guide spool into place firmly.
6. Place the cover onto the body and secure it with its four screws. Torque to 35 in-lbs.
7. Thread the button clockwise onto the plunger stem. It should take approximately three full button revolutions to install it on the plunger. The protrusions on the side of the plunger should line up with the button grooves. Push on the button a number of times to make sure the plunger moves freely throughout its range of motion.

INSTALLATION

1. Install the Bendix® PP-DC® valve in its location on the dash board. Using the mounting hardware saved in the section titled "REMOVAL," secure the valve to the vehicle.
2. Reconnect all air lines to the valve using the identification made in the "REMOVAL" section.
3. NOTE: BEFORE PLACING THE VEHICLE BACK INTO SERVICE, PERFORM "LEAKAGE AND OPERATIONAL TESTS" in this manual.

LEAKAGE AND OPERATIONAL TESTS

To perform the following tests, connect two separate 120 psi air sources to the PP-DC supply ports. Tee an accurate test gauge into the supply lines, and provide for a means to control supply line pressure. Connect a small reservoir volume with a gauge to the delivery port.

LEAKAGE TEST

1. Supply the valve with 120 psi from the primary reservoir supply port. With the button out, coat the exhaust port and the plunger stem with a soap solution. Leakage should not exceed a one inch bubble in five seconds. There should be no leakage from the secondary reservoir supply port.
2. With the button out, supply the valve with 120 psi from the secondary reservoir supply port. There should be no leakage from the primary reservoir supply port.
3. With the button in, coat the exhaust port and the plunger stem with a soap solution. Leakage at both areas should not exceed a one inch bubble in three seconds.

OPERATIONAL TEST

1. With the button out, provide either supply port with 120 psi of air. Then push the button in. The air pressure should rise in the delivery volume equivalent to supply pressure.
2. Pull the button out. The delivery pressure should exhaust to 0 psi.
3. Build each supply source to 120 psi. Decrease the supply pressure at the secondary service reservoir supply port at a rate of 10 psi per second. Primary supply pressure and delivery pressure should not drop below 100 psi. Repeat the test for decreasing primary service reservoir pressure.
4. Build each supply source to 120 psi then decrease both supply pressures to below 20–40 psi. The button should automatically "pop" out when the pressure drops within this range.

If the Bendix PP-DC control valve fails to function as described, or if leakage is excessive, repair the valve or replace it at the nearest authorized Bendix® parts outlet.

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