Installation Instructions



BENDIX® PP-DC® PARK CONTROL VALVE



Figure 1 – Bendix[®] PP-DC[®] Park Control Valve Port Identification

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, a Bendix[®] AD-9si, AD-HF[®], or AD-HF[®]i 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 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.
- ▲ You should consult the vehicle manufacturer's operating and service manuals, and any related literature, in conjunction with the Guidelines above.

DESCRIPTION

This instruction sheet covers the installation of the Bendix[®] PP-DC[®] control valve.

REMOVAL

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

INSTALLATION



Inspect the exhaust port for the presence of a non-metallic port. If this port is non-metallic, verify that this port is used for non-pressurized exhaust air only. A pressurized exhaust line could cause the non-metallic port to fail resulting in a sudden application of the parking brakes.

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

LEAKAGE AND OPERATIONAL TESTS

To perform the following tests, connect two separate 120 psi air sources to the PP-DC valve supply ports. Tee an accurate test gauge into the supply lines and provide for a means to control supply line pressure. Connect a small volume reservoir 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 1" bubble in 5 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 1" bubble in 3 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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