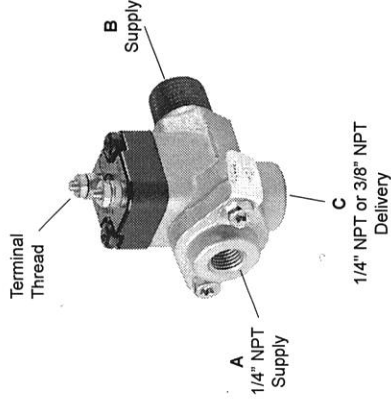
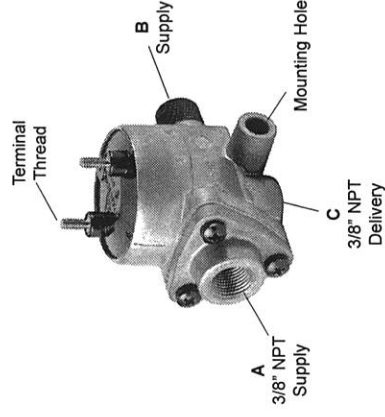


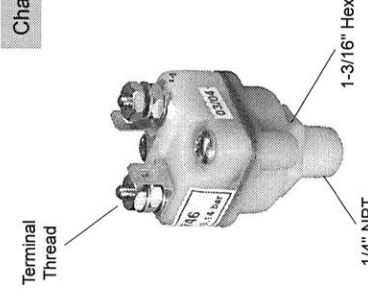
Installation Instructions



Bendix® DS-1™ Double Check Valve and Stoplight Switch

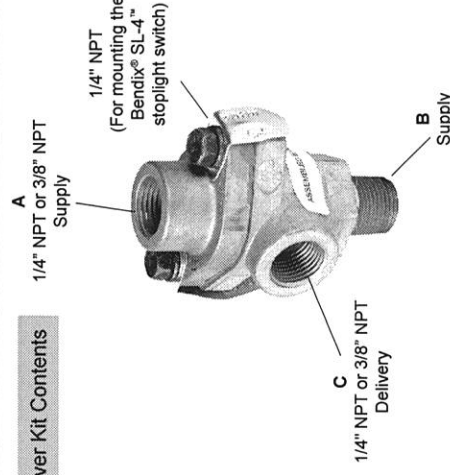


Bendix® DS-2™ Double Check Valve and Stoplight Switch



Bendix® SL-4™ Stoplight Switch

Changeover Kit Contents



Bendix® DC-4® Double Check Valve

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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-1S® air dryer system, a Bendix® DRM™ dryer reservoir module, or a Bendix® AD-9s™ 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.

- GENERAL**
 This instruction sheet is intended to provide the necessary information to replace the obsolete Bendix® DS-1™ and DS-2™ double check valve and stoplight switches with a Bendix changeover kit. This changeover kit includes a Bendix® SL-4™ stoplight switch and a Bendix® DC-4™ double check valve. Some kits also include a coupling to facilitate the installation.
- REMOVAL**
1. Locate the DS-1 or DS-2 double check valve and stoplight switch on the vehicle.
 2. Identify and mark the wires to the terminals of the stoplight switch. Disconnect the wires.
 3. Identify and mark the air lines to each port. Disconnect the air lines.
 4. Remove the double check valve and stoplight switch from the vehicle.
- INSTALLATION**
1. Install the new SL-4 stoplight switch into the 1/4" delivery port of the new DC-4 double check valve. Tighten to 35-53 in-lbs (4-6 N-m).
 2. Compare the ports from the removed DS-1 or DS-2 double check valve and stoplight switch to the DC-4 valve and SL-4 stoplight switch assembly. A coupling is included in some kits to facilitate the installation. See Figure 2.
 3. Install the valve on the vehicle and connect the air lines to their appropriate ports. Tighten the fittings as illustrated in Figure 2.
 4. Connect the wires to the terminals as previously connected. Keep the stoplight switch terminals away from the frame to avoid grounding.
- TESTING**
OPERATING AND LEAKAGE TEST
1. Apply the brake valve and note that the stoplight illuminates before the delivery pressure reaches 6 psi.
 2. Release the brake valve and note that the stoplight is no longer illuminated.
 3. With the brakes fully applied the maximum allowable leakage is 20 sccm.

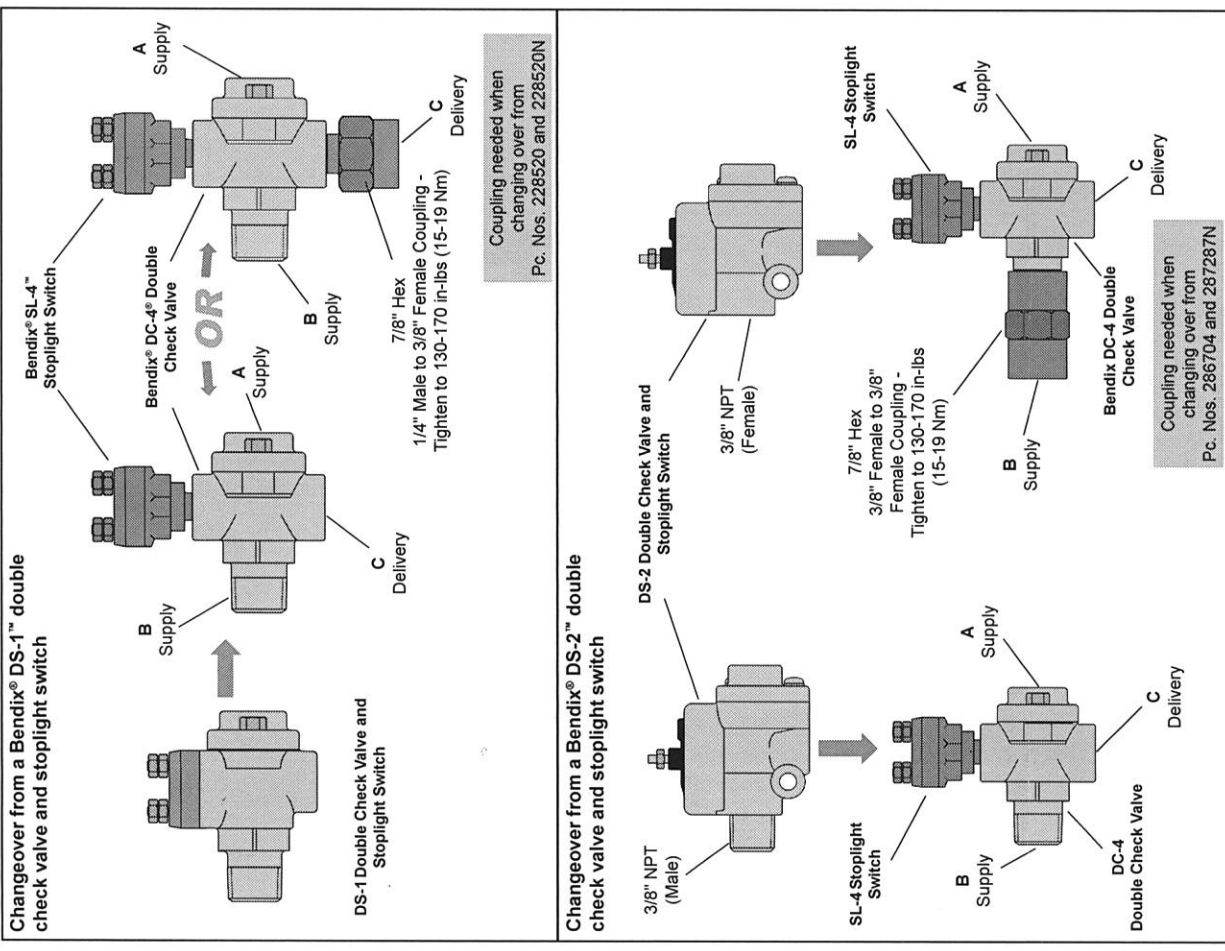


FIGURE 2 - CHANGEOVER KIT CONFIGURATIONS