

Installation Instructions



Bendix® AD-HF® and AD-HF®i Cartridge Pressure Protection Valve Replacement Kit

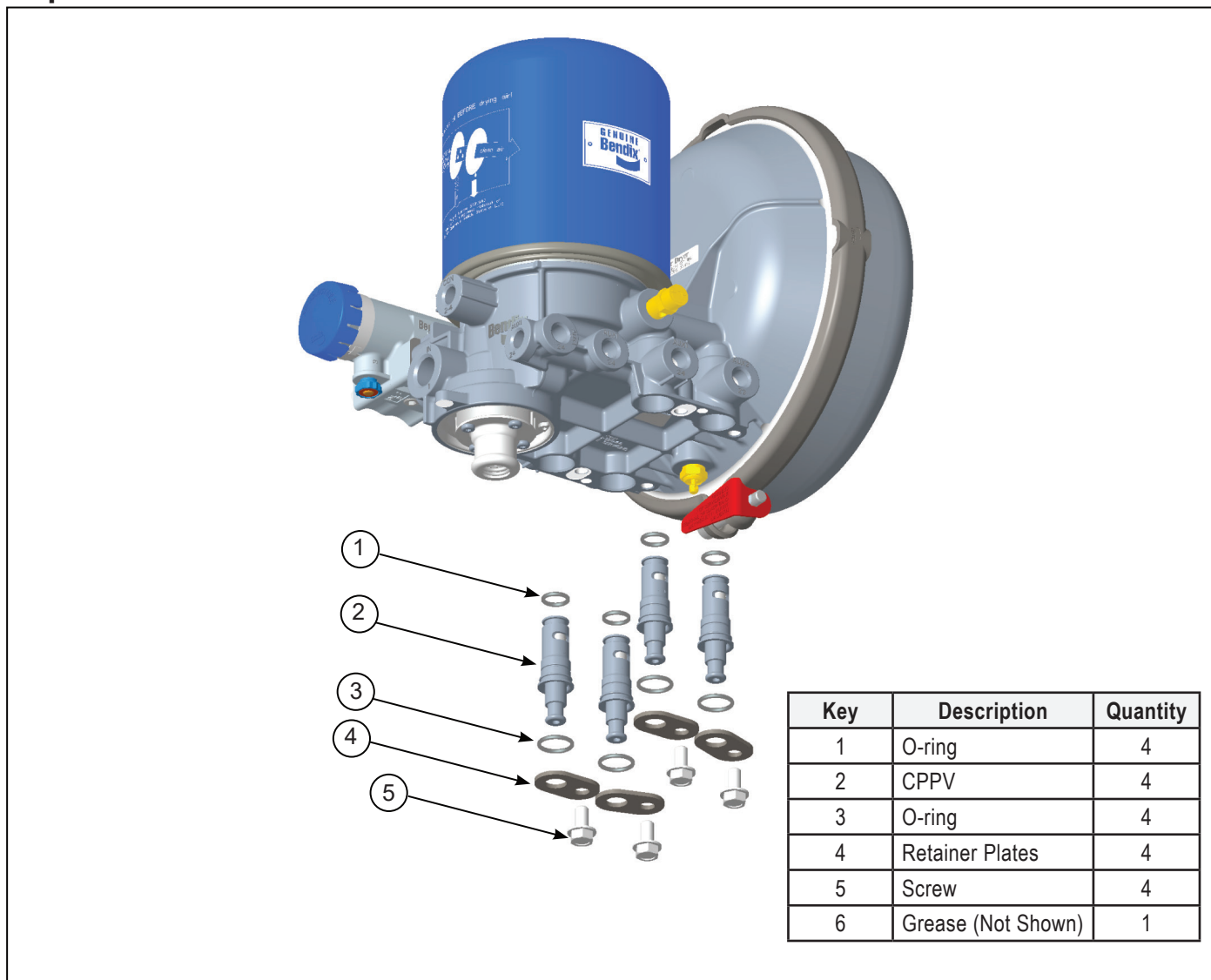


Figure 1 - Bendix® AD-HF® and AD-HF®i Cartridge Pressure Protection Valve (CPPV) Kit



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-HFⁱ 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.



WARNING

When working on or around a vehicle, the following general precautions should be observed **AT ALL TIMES**.

VEHICLE PREPARATION

1. Park the vehicle on a level surface and prevent movement by means other than the brakes.
2. See *Figure 2*. Drain all reservoirs including the air dryer purge reservoir to 0.0 psi (0.0 kPa). Use the lanyard drain valve to drain the purge reservoir.
3. Clean the exterior of the air dryer.

DISASSEMBLY

This maintenance kit does not require removal of the air dryer from the vehicle. See *Figures 1 and 2*.

1. Remove and discard the four screws (5) that secure the cartridge pressure protective valve (CPPV) retainer plates (4) to the air dryer body.
2. Remove and discard the four retainer plates (4).
3. Mark the location and nominal pressure setting of each CPPV (2) as it is removed. Remove each CPPV (2) by twisting and pulling from the air dryer body. Discard the removed CPPVs (2) along with their o-rings (1 and 3).

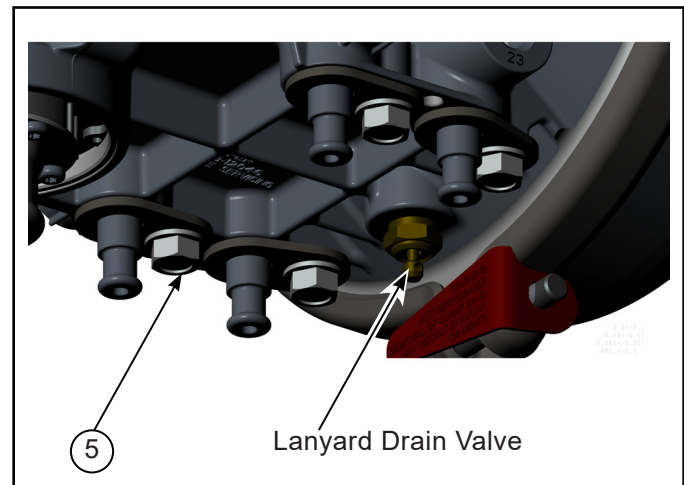


Figure 2 - CPPV Disassembly

CLEANING AND INSPECTION

1. Use a suitable solvent and a cotton swab to clean the four CPPV bores. Superficial external corrosion and/or pitting is acceptable. **Note:** DO NOT USE ABRASIVES OR TOOLS TO CLEAN THE BORES. ANY SCRATCHES CAUSED MAY NECESSITATE REPLACING THE AIR DRYER.
2. Inspect for physical damage to the bores.
3. Inspect all air-line fittings for corrosion and replace as necessary.

ASSEMBLY

See Figure 1.

1. Lubricate the o-rings (1 and 3) with the supplied grease (6). **Note:** Use only the grease packaged with this kit.
2. Install the smaller o-ring (1) into the groove on the upper portion of the CPPV body (2). Install the larger o-ring (3) into the groove on the lower portion of the CPPV body (2).
3. See Figure 3. **Note** the nominal opening pressure of each CPPV included in this kit and install each CPPV in the appropriate bore as recorded in step 3 of the disassembly procedure.
4. Secure each CPPV with a retainer plate and screw. Torque each screw to 80-120 in-lbs.

OPERATIONAL TESTS

1. Close all drain valves and fully charge the system to governor cut-out pressure.
2. Check all lines and fittings leading to and from the air dryer for leakage and integrity and correct as required.

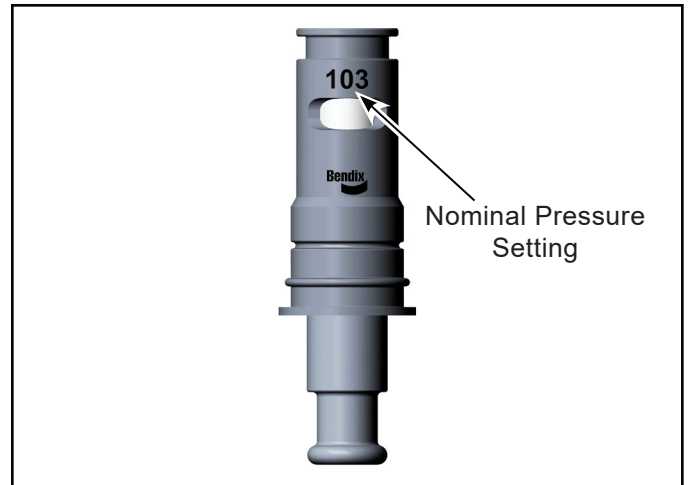
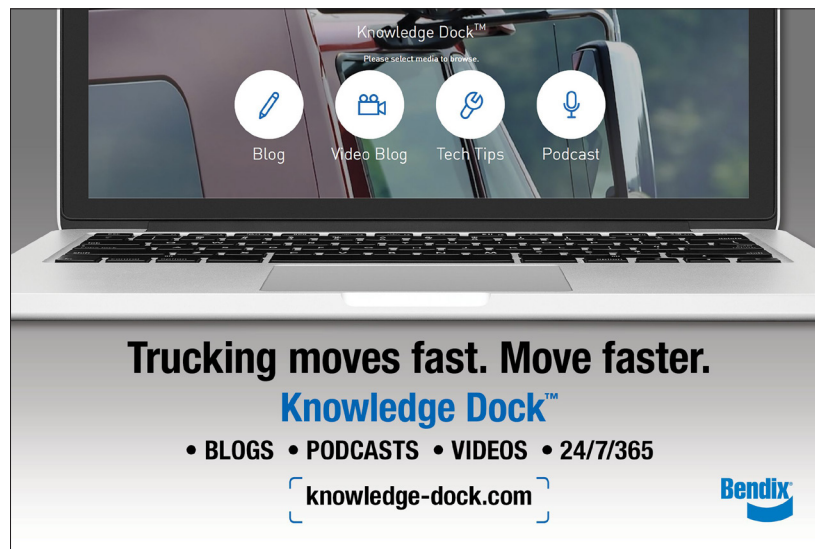


Figure 3 - CPPV Pressure Setting



Log-on and Learn from the Best
On-line training that's available when you are —24/7/365.
Visit brake-school.com.

