

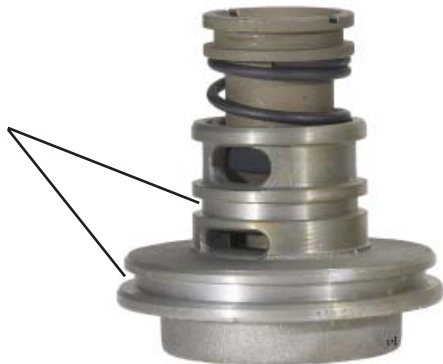


Installation Instructions

AD-IS[®] and AD-IP[®]
Air Dryer
Purge Valve
Replacement Kits

Purge Valve Identification

2 O-ring grooves



**AD-IS[®] or AD-IP[®]
Purge Valve - Standard
(OLD STYLE)**



2 O-ring grooves



**AD-IS[®] or AD-IP[®]
Purge Valve - Standard
(NEW STYLE)**

1 O-ring groove



**AD-IS[®] or AD-IP[®]
Purge Valve - DLU
(OLD STYLE)**



1 O-ring groove



**AD-IS[®] or AD-IP[®]
Purge Valve - DLU
(NEW STYLE)**

Caution: Do not interchange the Standard and DLU air dryer purge valves or kits.

FIGURE 1 - AIR DRYER PURGE VALVE IDENTIFICATION

Standard Purge Valve Replacement Kit:

Item	Description	Qty.
1	Standard Purge Valve Assembly (with protective cap)	1
2	Retaining Ring	1
3	Purge Valve Housing O-ring	1
4	Lubricant	1
5	Installation Ring	1
6	Purge Valve Housing O-ring (small)	1

DLU Purge Valve Replacement Kit:

Item	Description	Qty.
1	DLU Purge Valve Assembly (with protective cap)	1
2	Retaining Ring	1
3	Purge Valve Housing O-ring	1
4	Lubricant	1
5	Installation Ring	1

FIGURE 2 - STANDARD AND DLU PURGE VALVE REPLACEMENT KITS

KIT DESCRIPTION

The purge valve replacement kit provides the necessary components to replace the air dryer purge valve assembly. This kit is to be used on AD-IS® or AD-IP® air dryers only. See Figure 1 to verify the correct purge valve replacement kit is being installed.

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.**

VEHICLE PREPARATION

1. Park the vehicle on a level surface and prevent movement by means other than the brakes.
2. Drain all reservoirs, including the AD-IS® air dryer purge reservoir, to 0 p.s.i.
3. Clean the exterior of the air dryer.

DISASSEMBLY

General

The following maintenance procedures do not require removal of the air dryer from the vehicle; however, if it is removed the following caution should be observed to prevent damage.

Caution: While performing service on the air dryer, it is not recommended that a clamping device (vise, C-clamp, etc.) be used as damage may result to the air dryer. To hold the air dryer body, install a pipe nipple in the supply port and clamp the nipple into a vise.

Note: If the air dryer is removed, disconnect the electrical connection and be sure to mark all of the air line connections before removal.

1. Loosen the compressor discharge line at the air dryer inlet port.
2. Remove and discard the retaining ring(2) that secures the purge valve assembly(1) in the air dryer body.
3. Remove the purge valve assembly(1) from the air dryer body. Compare the purge valve assembly removed to the purge valve assembly supplied in this kit, to make sure it is the proper replacement. Discard the old purge valve assembly. Refer to Figure 1.

CLEANING & INSPECTION

1. Clean the exterior of the air dryer body.
2. Using a clean rag, wipe the body bores clean.
3. Thoroughly clean the purge valve bore with a clean rag, removing all the grease.
4. Inspect for physical damage to the body, broken and/or missing parts.
5. Inspect the interior and exterior of the body for severe corrosion, pitting and cracks. Superficial corrosion and/or pitting on the exterior portion is acceptable.
6. Inspect the bores, valve seats and o-ring contact areas for deep scuffing or gouges or nicks that would not permit an airtight seal.
7. Any component exhibiting a condition described in step 4 to 6 should be replaced.

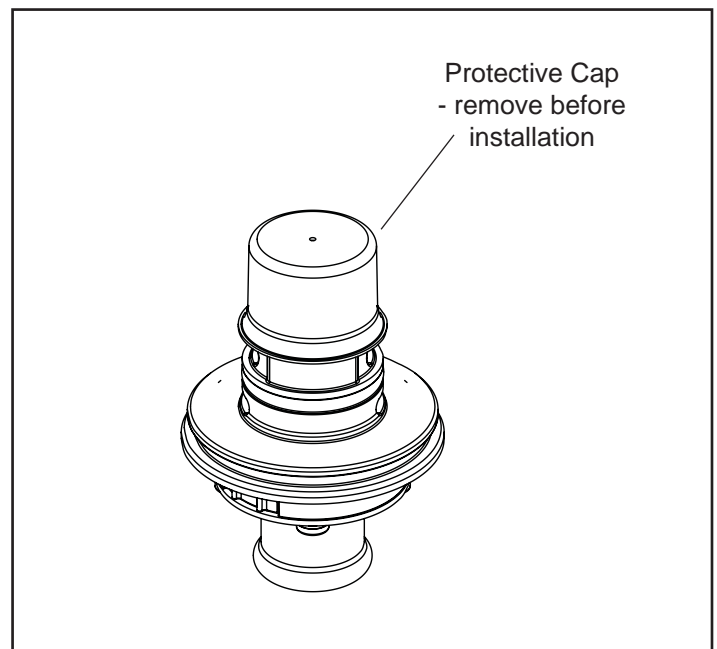


FIGURE 3 - PURGE VALVE PROTECTIVE CAP

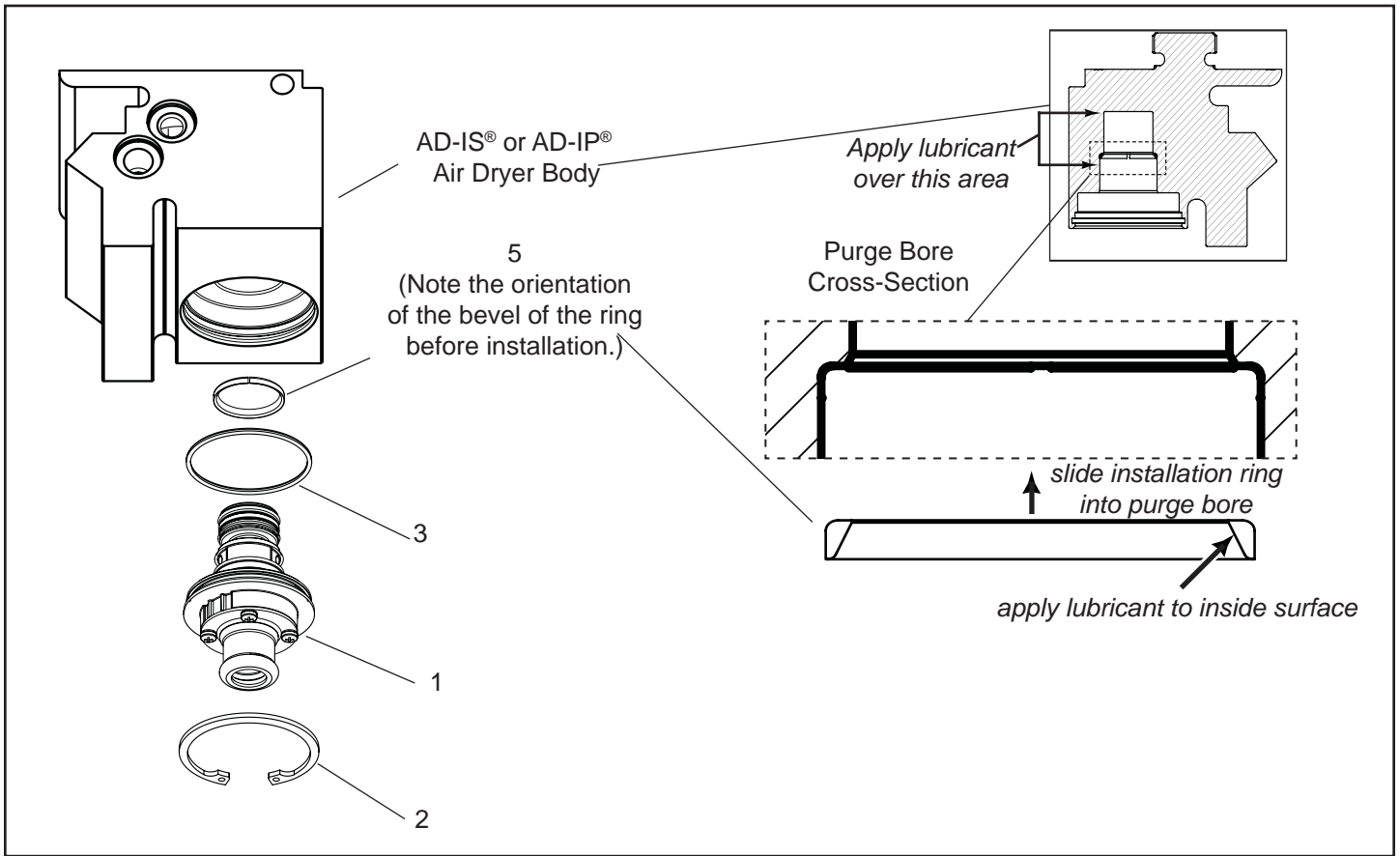


FIGURE 4 - KIT INSTALLATION GUIDE

ASSEMBLY

1. Place the installation ring(5) into the bore with the tapered side (large diameter) facing out. Refer to Figure 4. Slide the installation ring(5) up into the bore until the ring makes contact with and is seated against the shoulder. **Note: The installation ring(5) is required to allow for proper installation of the purge valve. Severe damage to the seals can occur if the installation ring is not properly installed.**
2. Apply lubricant to the large o-ring(3); working the lubricant (4) into the surface. Install the o-ring(3) in its appropriate location on the purge valve assembly(1). **Important: Use only the lubricant packaged with this kit.**
3. Lubricate the air dryer bore for the purge valve assembly(1). Apply a liberal amount of lubricant (approximately 1/2 of the tube provided) to the inside surface of the installation ring. See figure 4. **Important: Use only the lubricant packaged with this kit.**
4. Remove and discard the protective cap from the new purge valve assembly(1). See Figure 3. This will expose the seals on the purge piston. Lubricate the seals and o-rings of the purge valve assembly. The purge piston seals and small o-ring(6) (standard style) are pre-installed. **Important: Use only the lubricant packaged with this kit. Install the purge valve assembly immediately after removal of the protective cap and application of lubrication to the seals and o-rings. Delaying installation of purge valve assembly into the dryer may result in damage to the purge piston seals.**

5. Install the purge valve assembly(1) in the air dryer. **CAUTION: Carefully ease the purge valve assembly(1) into position using a gentle twisting motion. Do not force the purge piston, as serious damage may be caused to the seals.** Make certain the purge valve assembly(1) is fully seated against the air dryer body.
6. Secure the purge valve assembly(1) in the air dryer using the retaining ring(2). Make certain the retaining ring(2) is fully seated in its groove.
7. Before placing the vehicle back into service, perform the following TESTING procedures.

TESTING

1. Close all reservoir drain cocks. Build up system pressure to governor cutout and note that the air dryer purges with an audible escape of air. "Fan" the service brakes to reduce system air pressure to governor cut-in. Note that the system once again builds to full pressure and is followed by an air dryer purge.
2. Check for excessive leakage. With the compressor in the loaded mode (compressing air), apply a soap solution around the retaining ring that secures the purge valve assembly in the air dryer and over the exhaust diaphragm (bore where purge valve is installed). Leakage should not exceed a 1 inch bubble in 1 second. If the leakage exceeds the maximum specified, remove the purge valve assembly and reinstall. If leakage persists replace the air dryer assembly.