

Installation Instructions



BENDIX® AD-2® AIR DRYER CHECK VALVE REPLACEMENT AND MAINTENANCE KITS

Check Valve
Maintenance Kit

Bendix® AD-2® Air Dryer

Check Valve Replacement Kit
(items 1-7 pre-assembled)

Kit Contents		
Item No.	Description	Qty.
1	Valve	1
2	O-Ring	1
3	Spring	1
4	Sealing Washer	1
5	Spring Guide	1
6	Body Half	1
7	Body Half	1
8	Tube of Lubricant	1

Figure 1 – Bendix® AD-2® CHECK VALVE KIT CONTENTS

GENERAL

This instruction sheet covers two different kit types; a check valve rebuild kit and a check valve replacement kit. The replacement kit contains the components shown above as an assembly.

REMOVAL AND DISASSEMBLY

1. Loosen the delivery line from the delivery port or outlet of the air dryer. After the pressure drops, remove the delivery line. Loosen the delivery check valve from this port to relieve any trapped air above the desiccant plate assembly.
2. Remove the check valve assembly from the air dryer.
3. If servicing with a complete check valve assembly, go to the INSTALLATION section.



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 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.

4. Remove and discard o-ring (2).
5. Separate the body halves (6 and 7).
6. Discard the following: valve (1), sealing washer (4), spring (3), and spring guide (5). Retain the body halves (6 and 7).

ASSEMBLY

1. Install o-ring (2) on the body half (6).
2. Stand the body half (6) on a flat surface with the hex head down.
3. Install the sealing washer (4) on the body half (6).
4. Install the spring guide (5) in the body half (6) with the center end outside edges pointed "up".
5. Install the spring (3) and the valve (1) in the body half (6).
6. Install the remaining body half and torque to 300–325 in-lbs (25–27 ft-lbs).



WARNING

This air dryer is intended to remove moisture and other contaminants normally found in the air brake system. Do not inject alcohol, anti-freeze, oil or other de-icing substances into or upstream of the air dryer. Use of these substances can damage the air dryer and may void the warranty.

LEAKAGE TEST

1. Apply 120 psi air pressure to the threaded outlet port. Apply a soap solution around the sealing washer and the inlet port. No leakage is permitted.
2. Remove the air pressure from the outlet port and using a blunt instrument, note that the ball valve can be moved off the seat.

INSTALLATION

1. Lubricate the o-ring (2) with the lubricant (8) included in the kit.
2. Install the check valve assembly into the air dryer and torque to 125–135 in-lbs (10.4–11.25 ft-lbs).
3. Reconnect the outlet air line to the check valve assembly in the air dryer.



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