

MERITOR WABCO

Technical Bulletin

Installation Instructions for Meritor WABCO's Desiccant Cartridge Replacement Kit

Hazard Alert Messages

At various locations in this publication you will see **WARNINGS** against procedures that could result in an accident or bodily injury. It also contains **CAUTIONS** against procedures that could result in vehicle damage.

Read and observe all Warning and Caution hazard alert messages in this publication. They provide information that can help prevent serious personal injury, damage to components, or both.

How to Obtain Additional Kits

This replacement kit replaces competitive desiccant cartridge part numbers 107796 and 107794X. Call ArvinMeritor's Commercial Vehicle Aftermarket at 888-725-9355.

Replacement Kit R107796

The replacement kit includes a desiccant cartridge, end cover O-ring, cartridge O-ring and Meritor WABCO lubricant. All other components shown must be carefully removed and retained for use in reassembly. Meritor WABCO does not provide these parts with the replacement kit. Figure 1.

NOTE: Parts not included in replacement kit should be inspected and if damaged or otherwise inappropriate for reassembly, should be replaced.

Tools Required

Before beginning the installation, gather the following tools.

- Wrench
- Wire markers to identify air lines
- Strap wrench or chain wrench (for removal of old cartridge ONLY)
- Vise
- Pipe nipple for supply port (to facilitate clamping of air dryer in a vise)

Installation Instructions

NOTE: This bulletin covers replacement of the desiccant cartridge only. For complete service and maintenance instructions, refer to the component equipment manufacturer's service manual.

I. Remove the Air Dryer from the Vehicle

⚠ WARNING

To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.

Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. Do not work under a vehicle supported only by jacks. Jacks can slip and fall over. Serious personal injury and damage to components can result.

⚠ WARNING

The compressor discharge line may contain residual pressure.

Remove all pressure from the air system before you disconnect any component, including the desiccant cartridge. Pressurized air can cause serious personal injury.

1. Wear safe eye protection.
2. Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving.
3. Drain all system reservoirs to 0 psi.

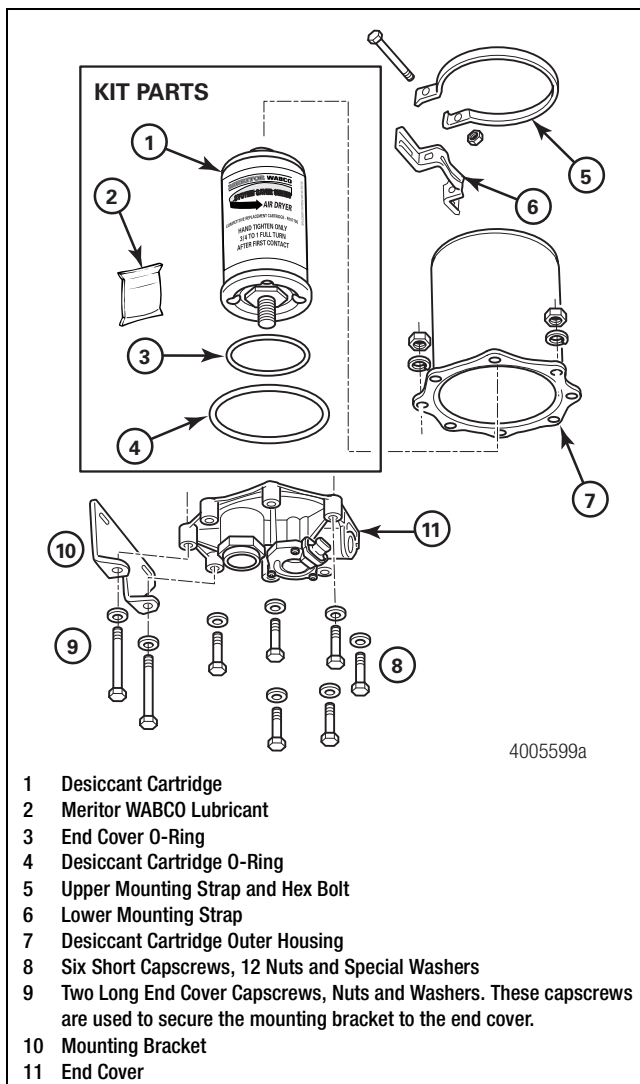


Figure 1

- Identify, mark and disconnect the three air lines from the end cover. Make a note of the position of the end cover ports relative to the vehicle.
- Disconnect the vehicle wiring harness from the heater and thermostat assembly connector.
- Loosen the hex bolt and nut that secure the upper mounting strap to the desiccant cartridge outer housing.
- Remove, mark and retain the two long end cover capscrews, locknuts and four special washers that secure the lower mounting bracket to the end cover.
- Lift the air dryer off of its mounting location.

II. Remove the Existing Desiccant Cartridge

⚠ CAUTION

To avoid damage to die cast aluminum components, do not use a clamping device (vise, C-clamp, etc.) to hold any die cast aluminum components. To hold the end cover, install a pipe nipple in the supply port and clamp the pipe nipple in a vise.

- Remove and retain the six short capscrews, locknuts and 12 special washers that secure the end cover to the outer housing.
- Separate the end cover and desiccant cartridge from the outer housing.
- Remove and discard the end cover O-ring.
- Place a strap or chain wrench around the desiccant cartridge approximately 2-3-inches (50.8-76.2 mm) away from the end cover. Rotate the cartridge COUNTERCLOCKWISE until it completely separates from the end cover. Torque of up to 50 lb-ft (67 N•m) may be required.
- Remove and discard the desiccant cartridge O-ring from the end cover.

III. Install the Meritor WABCO Replacement Desiccant Cartridge

- Install the new desiccant cartridge O-ring in the groove in the end cover.
- Use the lubricant provided in the replacement kit to lightly lubricate the bottom of the replacement desiccant cartridge in the area that will contact the O-ring and cover.

⚠ CAUTION

To avoid damaging the cartridge, do not use a tool to tighten the cartridge — **HAND TIGHTEN ONLY.**

- Install the replacement desiccant cartridge into the end cover until contact is made between the cartridge and O-ring. Hand tighten $\frac{3}{4}$ -to-one full turn after first contact. Do not use a tool to tighten the cartridge — **HAND TIGHTEN ONLY.**

- Install the end cover-to-outer housing O-ring onto the shoulder in the end cover.
- Place the outer housing over the desiccant cartridge. Align the holes, then install the six short capscrews, locknuts and 12 special washers. Verify that they are in the correct position as marked during disassembly. Tighten the six capscrews in the numeric sequence shown to 270-385 lb-in (30.51-43.5 N•m). Figure 2. ⚠

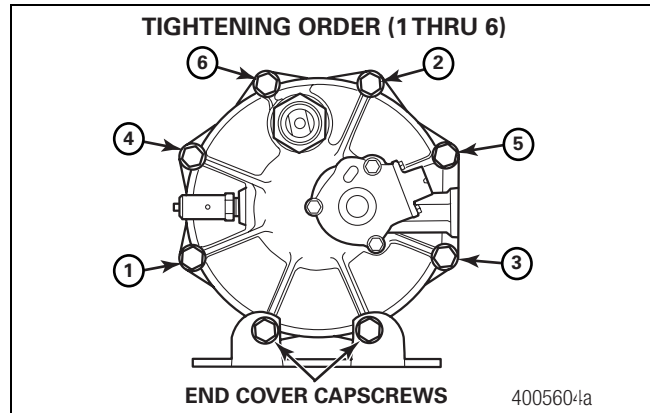


Figure 2

- Remove the air dryer from the vise.
- Remove the pipe nipple from the air dryer supply port.

IV. Replace the Air Dryer

- Install the assembled air dryer back onto the vehicle by slipping it into the upper mounting bracket.
- Align the two unused holes in the end cover with the bottom mounting bracket so that the bracket supports the air dryer. The end cover should rest on the bracket.
- Use the two long end cover capscrews, locknuts and special washers to secure the air dryer to the bottom bracket. Tighten the screws to 270-385 lb-in (30.5-43.5 N•m). Figure 2. ⚠
- Tighten the upper mounting strap hex bolt and nut to 80-120 lb-in (9.0-13.6 N•m). Refer to Figure 1. ⚠
- Reconnect the three air lines to the correct ports on the end cover.
- Reconnect the vehicle wiring harness to the air dryer heater and thermostat assembly connector. To ensure a correct connection, plug the harness connector into the air dryer until the lock tab snaps into place.

V. Test the Installation

Follow standard service procedures to perform the operation and leak tests as recommended by the component manufacturer's service literature.



MERITOR WABCO

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