

MERITOR WABCO

Technical Bulletin

Installing the Meritor WABCO Trailer ABS with InfoLink™ Tag Axle Option to Support the Meritor WABCO PLC Display

Kit 400 850 642 0, Kit 400 850 643 0
Must be used with the following Meritor WABCO InfoLink™-equipped ECU/Valve assemblies:
400 500 105 0 (2S/2M – 4S/3M)
400 500 106 0 (2S/1M)

Hazard Alert Messages

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 Maintenance, Service and Product Information

Refer to Technical Bulletin TP-0685, PLC Display Kit Installation Instructions. Call OnTrac's Customer Service Center at 866-OnTrac1 (668-7221) to obtain this publication. Meritor WABCO publications are also available on our website:

www.meritorwabco.com

How to Obtain Tools, Kits and Supplies

To obtain parts, call Meritor's Commercial Vehicle Aftermarket at 888-725-9355.

Kit 400 850 642 0

- 472 170 997 0 — 3/2 solenoid valve
- 449 518 010 0 — 1-meter solenoid valve cable
- 449 442 010 0 — Multiple generic I/O cable
- 449 428 030 0 — 12-volt analog input cable

Kit 400 850 643 0

- 472 170 997 0 — 3/2 solenoid valve
- 449 518 030 0 — 3-meter solenoid valve cable
- 449 442 010 0 — Multiple generic I/O cable
- 449 428 030 0 — 12-volt analog input cable

NOTE: The difference between the kits is the length of the solenoid valve cable.

Other Components Sold Separately

- 110591 — SEALCO lift axle control valve (required)*
- Optional, 449 518 120 0 — 12-meter solenoid valve cable
- Optional, 1300-05 — Residual pressure valve*
- Optional, 400 850 614 0 PLC Display
- Optional, 715152 — Check valve*

*Call SEALCO Commercial Vehicle Products at 602-253-1007 to obtain this part.

Software File

NOTE: The software file is preloaded from your trailer OEM. It can also be accessed on www.meritorwabco.com and downloaded through TOOLBOX™ Software.

Introduction

The Meritor WABCO Trailer ABS InfoLink™ Tag Axle Option uses the generic I/O capability to control the tag axle function of a trailer that is in compliance with FMCSA 393.207. It controls the operation of a tag axle by using driver input from the tractor cab as well as wheel speeds to exhaust air out of the tag axle air bags to maneuver the trailer with ease around corners at low speeds.

By activating a cab-mounted switch, the driver signals the ECU to deflate the tag axle bags when the vehicle is below 10 mph (16 kph). Once the vehicle exceeds 10 mph (16 kph), the bags automatically reinflate to the correct ride height. If the switch is activated and the vehicle speed exceeds 30 mph (48 kph) for 30 seconds or more, the ECU will not allow the driver to deflate the air bags unless the switch is cycled and the speed is less than 10 mph (16 kph).

The PLC display by Meritor WABCO mounts to the vehicle's instrument panel enabling the driver to monitor the status of the tag axle. Installation of the PLC is covered in TP-0685, PLC Display Kit Installation Instructions. Figure 1 and Figure 2.

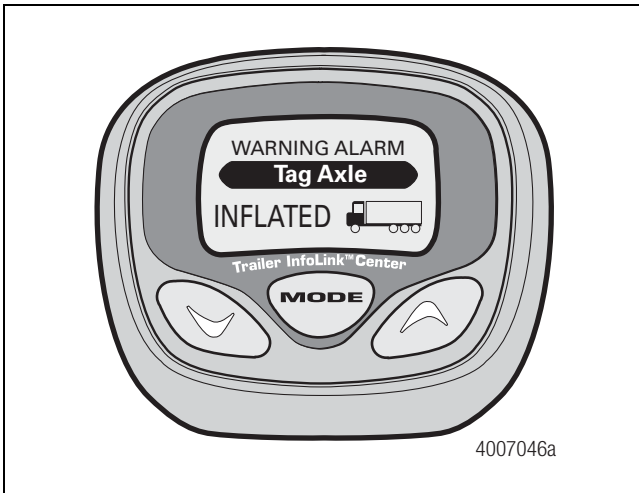


Figure 1

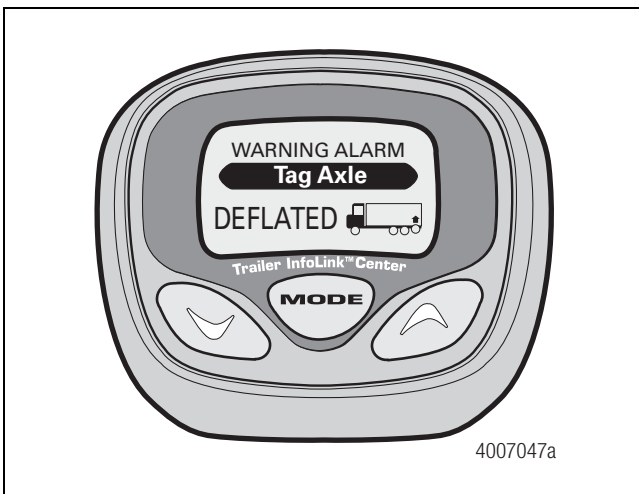


Figure 2

Refer to the instructions in this technical bulletin for installing the Meritor WABCO Trailer ABS with InfoLink™ Tag Axle Option.

Installation

⚠ WARNING

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

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

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.

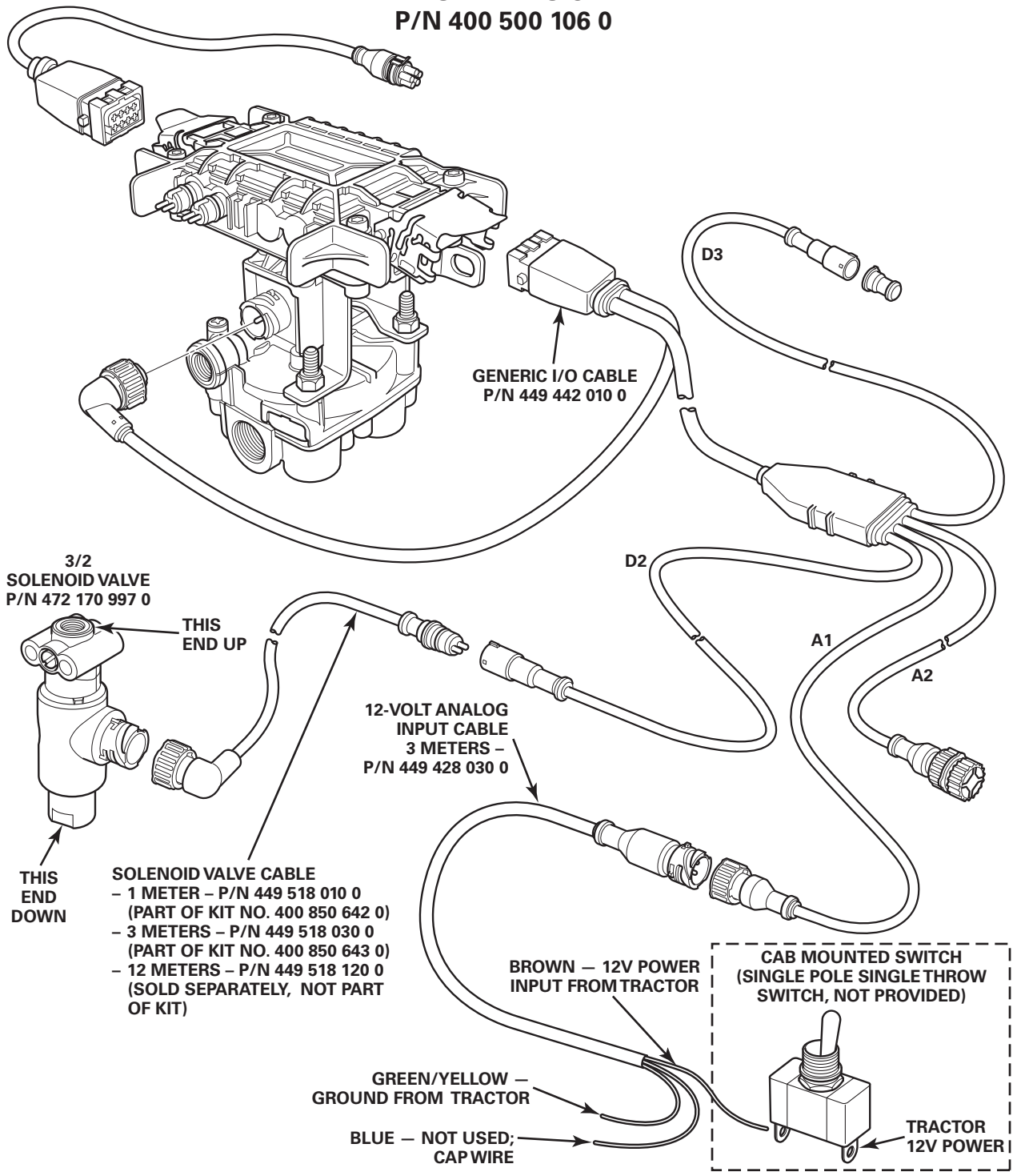
When you work on an electrical system, the possibility of electrical shock exists, and sparks can ignite flammable substances. You must always disconnect the battery ground cable before you work on an electrical system to prevent serious personal injury and damage to components.

1. Wear safe eye protection.
2. Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving.
3. Raise the vehicle so the wheels to be serviced are off the ground. Support the axle to be serviced with safety stands.

NOTE: The trailer must not be loaded during this component installation.

4. Drain the brake and suspension systems of air before starting this procedure.
5. Disconnect the electrical power before starting this procedure.
6. Connect the multiple generic I/O cable, part number 449 442 010 0, to the ECU and secure it with the locking tab. Refer to Figure 3 for the 2S/1M Basic ECU or Figure 4 for the 2S/2M to 4S/3M Premium ECU.

**2S/1M BASIC
P/N 400 500 106 0**



4007005c

Figure 3

**2S/2M TO 4S/3M PREMIUM
P/N 400 500 105 0**

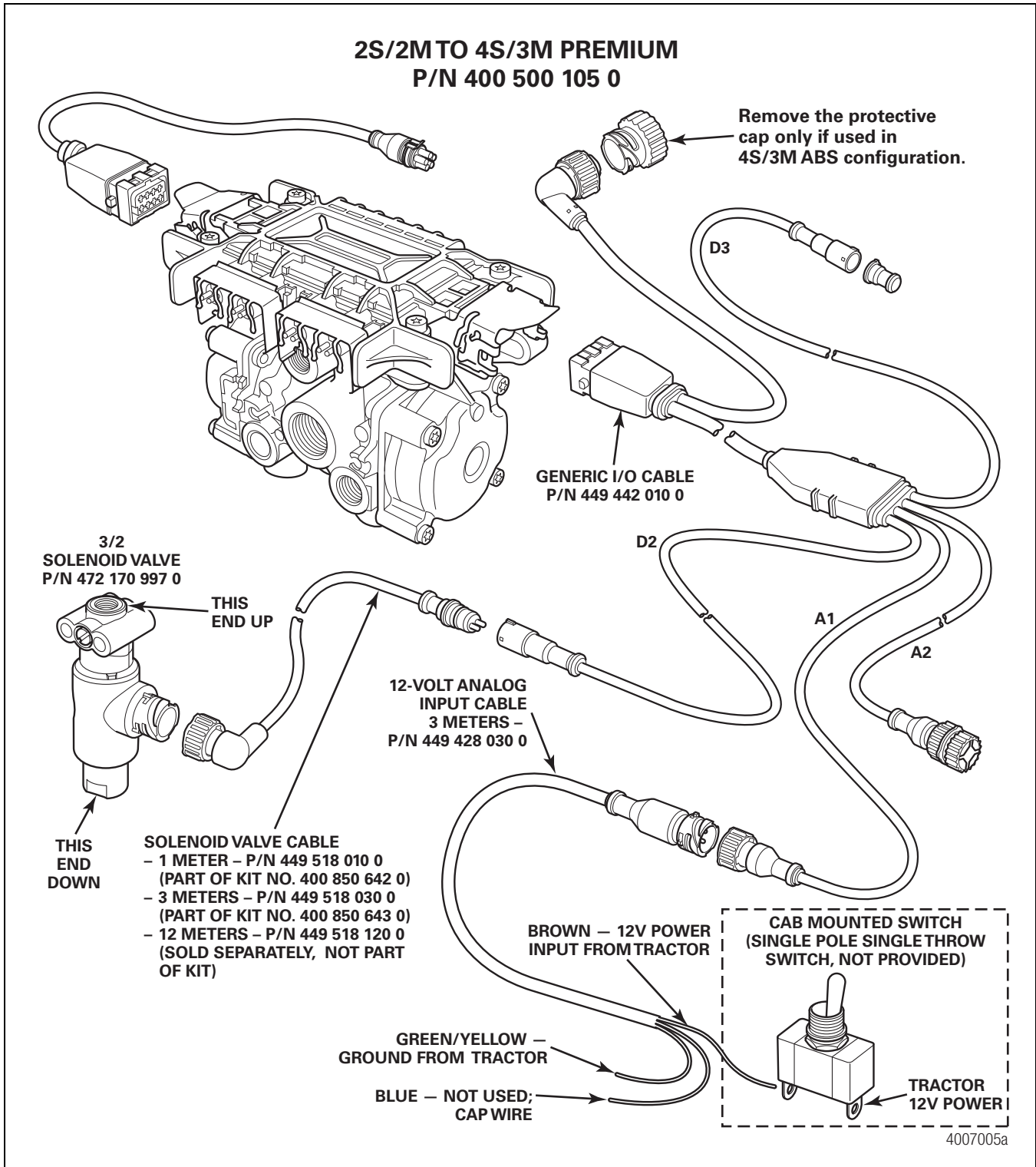


Figure 4

7. Connect the solenoid valve cable, part number 449 518 010 0 or 449 518 030 0 depending on the kit, to the "D2" digital output of the multiple generic I/O cable. NOTE: "D2" lettering is stamped in white on the female end of the multiple generic I/O cable. Refer to Figure 3 for the 2S/1M Basic ECU or Figure 4 for the 2S/2M to 4S/3M Premium ECU.
8. Connect the 3/2 solenoid valve, part number 472 170 997 0, to the solenoid valve cable, part number 449 518 010 0 or 449 518 030 0 depending on the kit. Refer to Figure 3 for the 2S/1M Basic ECU or Figure 4 for the 2S/2M to 4S/3M Premium ECU.

CAUTION

Ensure the thread sealant does not enter inside any of the ports as it could damage the solenoid valve and affect system performance. Figure 5.

9. Ensure that the solenoid valve is installed correctly. Figure 3, Figure 4 and Figure 5.

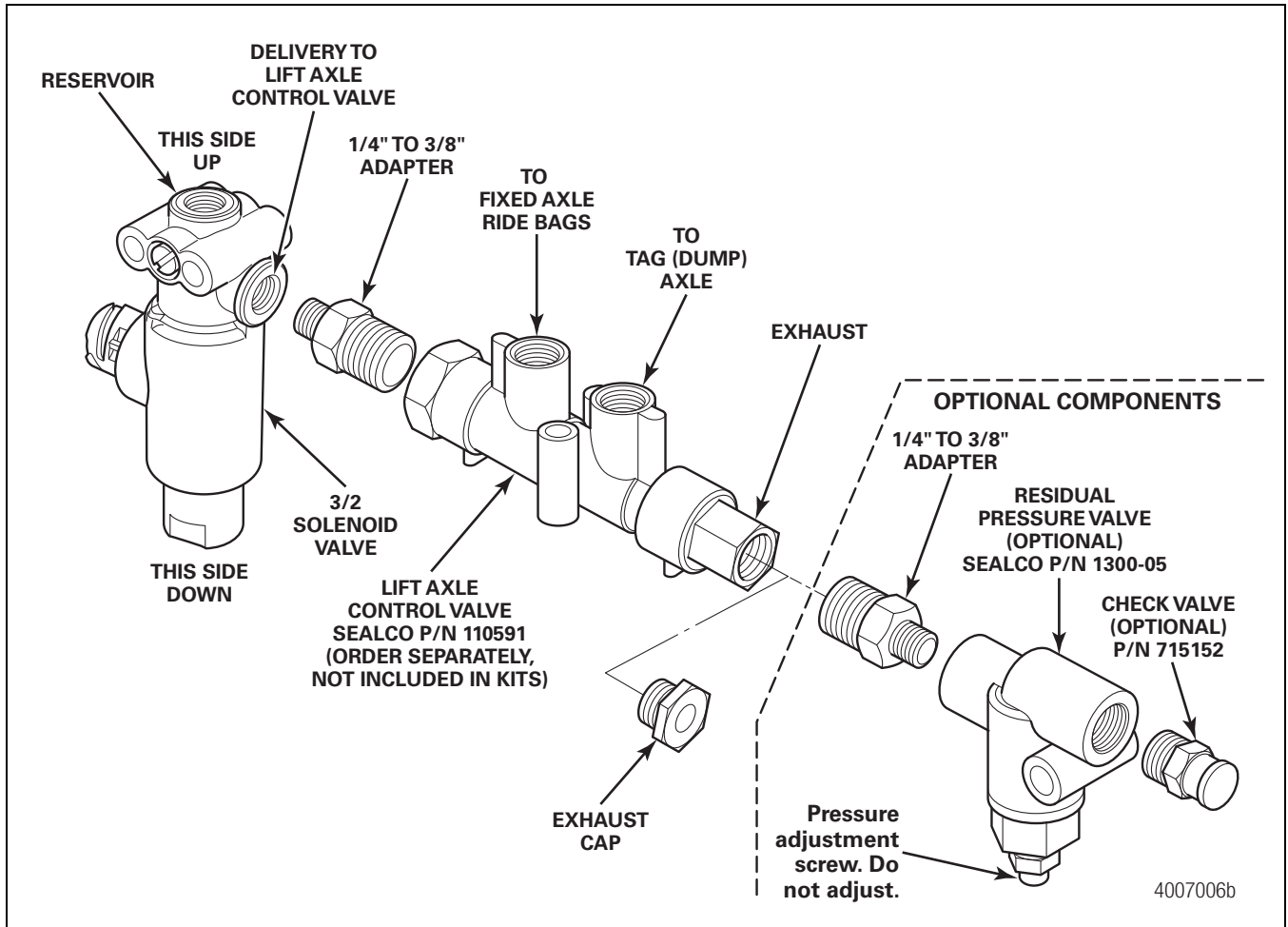


Figure 5

10. Connect the 12-volt input analog cable, part number 449 428 030 0, to the "A1" analog input of the multiple generic I/O cable. NOTE: "A1" lettering is stamped in white on the female end of the multiple generic I/O cable. Twist the cables together to ensure they lock. Refer to Figure 3 and Figure 4.

NOTE: The brown wire of cable part number 449 428 030 0 is to be connected to 12 volts, supplied through the tractor-mounted tag axle switch. This will require a separate connector and cable from the front of the trailer to the tractor cab. **These connectors and cabling are not supplied.** All connections and terminations must use some form of weatherproof protection.

11. Mount a single pole, single throw toggle switch in a driver accessible area of the tractor's cab. Connect the brown wire of the 12-volt analog input cable to one side of the switch. Connect 12-volt vehicle power to the other side of the switch. Connect the green/yellow wire to ground. Cap the blue wire as it is not used. Refer to Figure 3 and Figure 4.
12. Apply a thread sealant and install the 1/4-inch to 3/8-inch adapter fitting from the solenoid valve to the lift axle control valve, SEALCO part number 110591. Figure 5.
13. Optional: Install the residual pressure valve (SEALCO part number 1300-05) to prevent air bag damage. This will allow 5 psi (0.34 bar) of air to remain in the air bags of the tag axle. Figure 5.

NOTE: Do not attempt to adjust or tamper with the adjustment screw on the residual pressure valve. It is preset to the correct pressure.

14. Optional: Install the check valve (SEALCO part number 715152) onto the residual pressure valve. This will prevent water and contamination from entering into the residual pressure valve.
15. The PLC display will activate when switched ignition power is applied in the tractor.

MERITOR WABCO

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