TP-1159
Issued 07-11

MERITOR WABCO

Technical Bulletin

Service Procedures for Stoplight Switch

Hazard Alert Messages

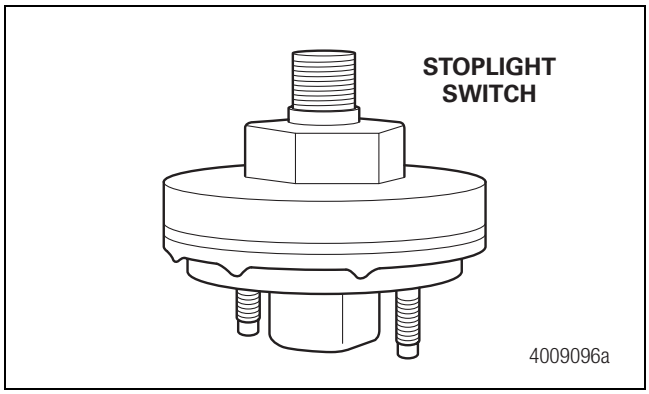
Read and observe all Warning and Caution hazard alert messages in this publication. They provide information that can help prevent serious personal injury, damage to components, or both.

How to Obtain Additional Maintenance and Service Information

If you have any questions about the material covered in this publication, or for more information about the Meritor WABCO product line, please contact the OnTrac Customer Service Center at 866-OnTrac1 (668-7221) or visit our website, meritorwabco.com.

Description and Function

The Meritor WABCO stoplight switch is used in trucks and buses to control the vehicle's stoplight indicating lamps. It is installed in the system such that it will be actuated by pressure from the primary, secondary, or hand control circuits. The switch is a 12- or 24-volt DC, single-throw, two-terminal, normally-open device. It closes when it senses air pressure of 2-6 psi (0.14-0.41 bar). When this pressure is reached, it closes and remains closed until the brake application is released. Normally, it is located in the cab but may also be mounted in the engine compartment or at the tractor protection valve.



Service Procedures

Before servicing the Meritor WABCO stoplight switch, carefully read and follow all outlined procedures.

⚠ WARNING

To prevent serious eye injury, always wear 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.

Open drain valves on all reservoirs to remove all pressurized air from the air system before you disconnect any component. Pressurized air can cause serious personal injury.

Removing the Stoplight Switch

1. Wear safe eye protection.
2. Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving.
3. Drain the total air system. Open all of the drain valves on all of the reservoirs.
4. Follow the vehicle manufacturer's recommendations for removing all electrical power from the vehicle.
5. Identify electrical connections and mark corresponding information on the wiring to ensure that the replacement switch is connected correctly.
6. Disconnect the wiring and remove the switch by turning the switch in a counterclockwise direction. Cover the open fitting to protect against contamination.

Installing the Stoplight Switch

1. Install the new switch by turning the switch in a clockwise direction.
2. Connect the wiring to the corresponding terminals identified during removal.
3. Before operating the vehicle, be sure all components and systems are restored to their correct operation.

Function and Leakage Test

1. Install the switch on a test stand where 125 ±5 psi (8.62 ±0.34 bar) air pressure can be applied slowly at a rate of approximately 2 psi (0.14 bar) per second. Install a test gauge and an ohmmeter or similar device to the switch. Apply 125 ± 5 psi (8.62 ±0.34 bar) slowly at a rate of approximately 2 psi (0.14 bar) per second and measure and record the switch closing pressure. Switch contacts must initially be open. They must close and remain closed when pressure reaches 2-6 psi (0.14-0.41 bar). With 125 ±5 psi (8.62 ±0.34 bar) applied to the switch, apply a soap solution to the switch. A one-inch bubble in six seconds is permissible.
2. Release pressure slowly from 125 ±5 psi (8.62 ±0.34 bar) to 0 psi at a rate of approximately 2 psi (0.14 bar) per second. Measure and record the switch opening pressure. Switch contacts must initially be closed. They must open and remain open when pressure decreases to 2-6 psi (0.14-0.41 bar).

Troubleshooting the Stoplight Switch

⚠ WARNING

The stoplight switch is an important part of the air system. Never ignore any symptom such as leakage or a change in operation. Loss of stoplight may result in an accident and serious personal injury.

1. Conduct the Function and Leakage Test when there is leakage or a change in operation.
2. Replace the switch if it does not meet the requirements of the Function and Leakage Test.

MERITOR WABCO

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Printed in USA

TP-1159
Issued 07-11
(16579)