

**MERITOR WABCO**

## Installation Guide

## Installation Instructions for Meritor WABCO Wheel Speed Sensor Replacement Kit

This bulletin contains the instructions for replacing a wheel speed sensor. For complete service information covering Meritor WABCO truck and tractor ABS, refer to the appropriate maintenance manual:

MM28	C Version Pneumatic ABS
MM30	D Version Pneumatic ABS
MM0112	E Version Pneumatic ABS
MM38	C Version Hydraulic ABS
MM39	D Version Hydraulic ABS

This wheel speed sensor replacement kit contains the following:

(1) Sensor with cable lead	(1 pkg) Meritor WABCO lubricant
(1) Spring clip	(1) Installation Guide (TP-02102)

When replacing a Meritor WABCO ABS sensor, you **MUST** also replace the spring clip and lubricate the bore of the sensor bushing or mounting block. All parts, as well as the lubricant, are included in this replacement kit. Follow the instructions in this installation guide to replace the front or rear wheel speed sensor and spring clip. If you require technical assistance, contact our Customer Service Center at 800-535-5560. Meritor WABCO maintenance and service publications are posted on our web site: [www.meritorwabco.com](http://www.meritorwabco.com).

### Replacement Procedure — Front Axle Wheel Speed Sensor

#### **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.

Release all air from the air systems before you remove any components. Pressurized air can cause serious personal injury.

#### **CAUTION**

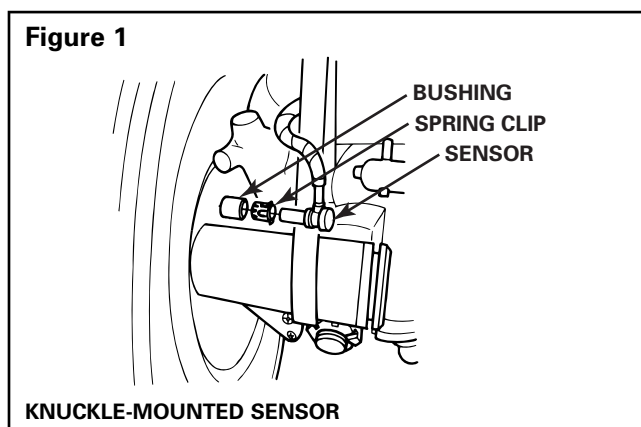
Use the following procedures to avoid damage to the electrical system and ABS/ATC components.

### Remove the Wheel Speed Sensor from the Front Axle

1. Put blocks under the rear tires to stop the vehicle from moving. Apply the parking brake.
2. If necessary, raise the front tires off the ground. Put safety stands under the axle.

3. Disconnect the fasteners that hold the sensor cable to other components.
4. Disconnect the sensor cable connector from the chassis harness connector.
5. Remove the sensor from the mounting bushing. Use a twisting motion if necessary. **Do not pull on the cable. Figure 1.**
6. Remove and discard the old spring clip from the sensor bushing.

Figure 1



### Install the New Spring Clip and Wheel Speed Sensor on the Front Axle

1. Apply the Meritor WABCO lubricant included in the replacement kit to the sensor spring clip, sensor and in the bore of the sensor bushing.
2. Install the new sensor spring clip in the bushing. Make sure the spring clip tabs are on the inboard side of the vehicle.
3. Push the sensor spring clip into the bushing in the steering knuckle until the spring clip tabs contact the bushing.
4. Push the sensor completely into the sensor spring clip until it contacts the tooth wheel.

**NOTE:** After installation, there should be no gap between the sensor and the tooth wheel. During normal operation, a gap of up to 0.04-inch is allowable.

5. Use a clean, soft rag to wipe any excess lubricant from the back and front of the sensor.
6. Attach the sensor cable connector to the chassis harness connector. Route cable along air hose. Allow sufficient length for steering and suspension travel.
7. Install the fasteners used to hold the sensor cable in place, supporting the cable every 8 to 12 inches.
8. Excess cable should be secured lengthwise in the frame rail. Do not coil the excess cable.
9. Remove the blocks and safety stands.

## Replacement Procedure — Rear Axle Wheel Speed Sensor

### Remove the Wheel Speed Sensor from the Rear Axle

1. Put blocks under the front tires to stop the vehicle from moving.
2. Raise the rear tire off the ground. Put safety stands under the axle.
3. Release the parking brake and back off the slack adjuster to release the brake shoes.
4. Remove the wheel and tire assembly from the axle.
5. Remove the brake drum.
6. Disconnect the fasteners that hold the sensor cable to other components.
7. Disconnect the sensor cable connector from the chassis harness connector.
8. Remove the sensor from the mounting block on the axle housing. Use a twisting motion if necessary. **Do not pull on the cable.**
9. Remove and discard the sensor spring clip from the mounting block.

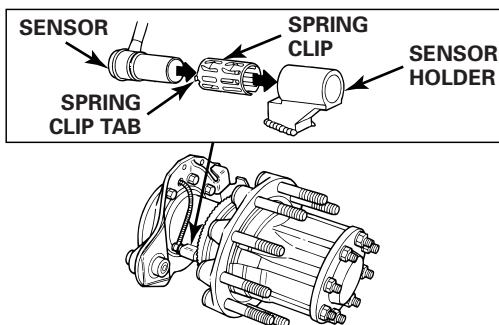
### Install the Wheel Speed Sensor on the Rear Axle

1. Apply the Meritor WABCO lubricant included in the replacement kit to the sensor spring clip, sensor and in the bore of the sensor mounting block. This is the bore where the spring clip and sensor will be installed.
2. Install the new sensor spring clip in the mounting block. Make sure the spring clip tabs are on the inboard side of the vehicle.
3. Push the sensor spring clip into the mounting block until the spring clip tabs contact the mounting block.
4. Push the sensor completely into the sensor spring clip until it contacts the tooth wheel. **Figure 2.**

**NOTE:** After installation, there should be no gap between the sensor and the tooth wheel. During normal operation, a gap of up to 0.04-inch is allowable.

5. Use a clean, soft rag to wipe any excess lubricant from the back and front of the sensor.
6. Insert the sensor cable through the hole in the spider and axle housing flange. Route the cable to the frame rail. Be sure to route the cable in a way that will prevent pinching or chafing and will allow sufficient movement for suspension travel.
7. Attach the sensor cable connector to the chassis harness connector.
8. Install the fasteners that hold the sensor cable in place, supporting the cable every 8 to 12 inches.
9. Excess cable should be secured lengthwise in the frame rail. Do not coil excess cable.
10. Install the brake drum on the wheel hub.
11. Adjust the rear axle brakes per the vehicle manufacturer's specifications.
12. Remove the blocks and safety stands.

**Figure 2**



**ArvinMeritor**<sup>™</sup>  
Commercial Vehicle Systems

**Meritor WABCO**  
Vehicle Control Systems  
3331 West Big Beaver Road, Suite 300  
Troy, MI 48084 USA  
800-535-5560  
meritorwabco.com

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