

Freightliner Action Bulletin

FAB013

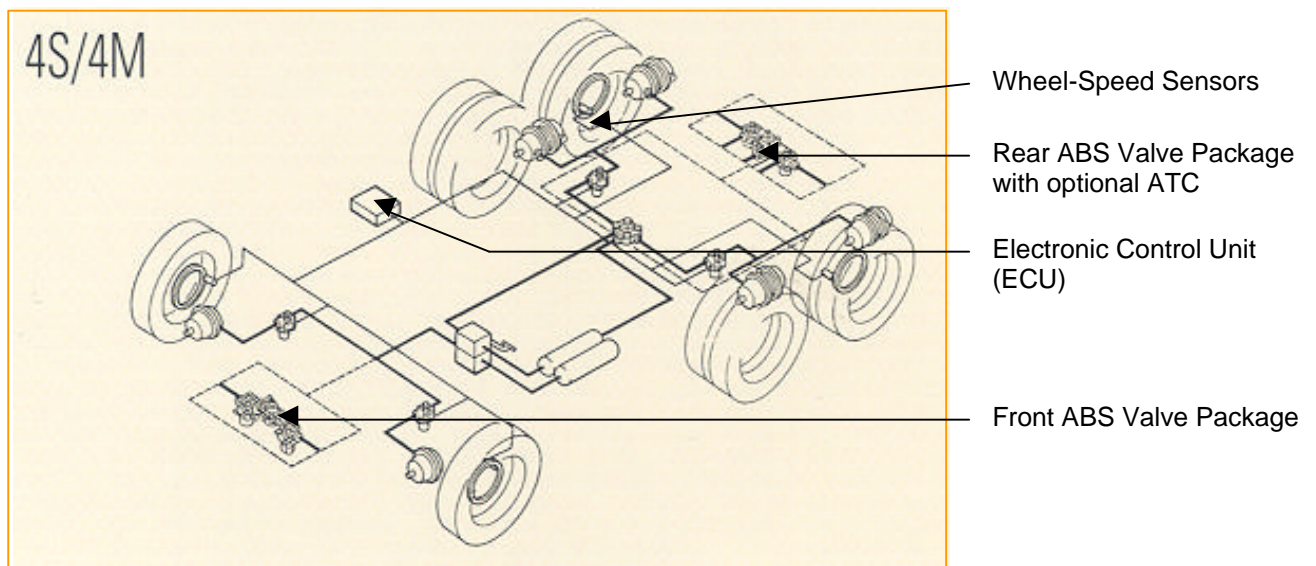
12/13/02

Anti-lock Braking System (ABS)

Meritor WABCO 4-channel Pneumatic Anti-lock Braking System (ABS) is standard on all Freightliner models, across the product line. There are many advantages to having ABS equipped trucks. The main advantage is vehicle control in extreme road conditions and accident or obstacle avoidance. There are three major components to an ABS system:

- Electronic Control Unit (ECU), the electronic brain of the system
- Wheel sensors that send constant wheel speed signals to the ECU
- Modulator valves

The ECU constantly monitors wheel speed. When it detects a difference in wheel speeds, such as a skidding wheel, the ECU sends a signal to the modulator valve to rapidly apply and release the brake on the skidding wheel, as needed. This helps the driver control the vehicle. This all happens in fractions of a second. The ECU can respond to more than one wheel at a time. Standard with Freightliner is a 4S/4M system. This means there are 4 sensors and 4 modulator valves and no traction control.



Freightliner also offers ABS with Automatic Traction Control (ATC). This feature is activated during acceleration on adverse road surfaces. If the ECU detects wheel speed difference between the driving and non-driving wheels, it automatically applies the brake to the spinning wheel. In severe cases, it even reduces the throttle to regain traction sooner. A 6S/4M system with and without ATC is also offered. On the Condor and some FLD SD models, a 6S/6M system is available.

Benefits

- Improved vehicle control in extreme conditions
- Reduced downtime from accidents
- Stabilized insurance costs
- Automatic Traction Control:
 - o Automatic – reduces the potential of jackknife caused by wheel over-spin on a curve
 - o Individual Braking – system rapidly applies and releases the brake on the spinning wheel
 - o Electronic engine control – reduces engine power to attain proper traction
 - o Axle – reduces potential strain and shock on the axle in impaired traction situations.

Availability

4S/4M without ATC is standard on all models.
Refer to the Data Book CD, as not all ABS configurations are available on all vehicles.

Data Code

490-100	4S/4M	Without ATC
490-101	4S/4M	With ATC
490-110	6S/4M	Without ATC
490-111	6S/4M	With ATC
490-024	6S/6M	Without ATC
490-035	6S/6M	With ATC

Further Information

Meritor WABCO Vehicle Control Systems
www.meritorwabco.com