

TRS - Trailer Roll Stability



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TRS – Trailer Roll Stability



- TRS is a Trailer ABS system with the added function of Roll Stability for trailers with constant power and air suspensions.
- It operates independently of the towing vehicle system.
- It does not require the driver to apply the brakes. The system automatically applies the brakes to slows the vehicle down when a roll event is detected.
- It will reduce the chance of a rollover. Any vehicle may overturn in certain situations with or without TRS.

Current Available Applications

- Single, Tandem, or Tri-Axle Semi Trailers, Full Trailers, Canadian B-Trains and LCVs
- Disc or Drum Foundation Brakes
- Air Suspension or Spring Suspension
- New Equipment (OEM Installed / Standard at Several OEMs)
- Used Equipment (Retrofitted)

Configurations

- 4S / 2M or 2S / 2M
- Side-by-Side

Technology Used



New Technology

- Added 1 lateral accelerometer
- Added 1 brake apply solenoid
- Added 1 port to connect the air bags
- Added 5 pressure transducers

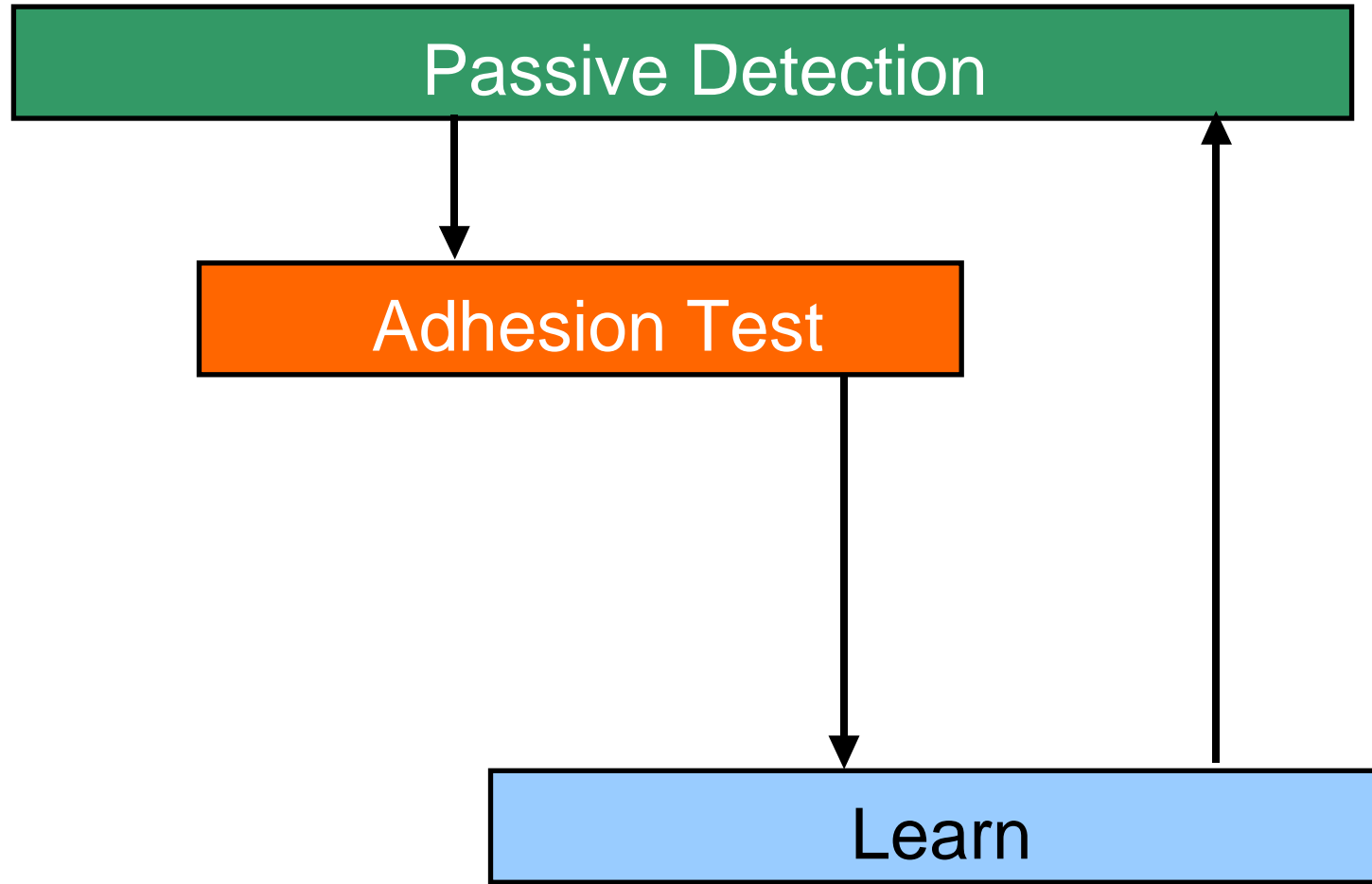
Existing ABS Technology

- Service brakes using standard relay pistons
- ABS using standard hold & dump solenoids
- Electronic Controller
- Electronic Odometer
- PLC



Under TRS braking, the ECU receives input from the rollover stability accelerometer of an unstable vehicle condition. The ECU then looks at the trailer's wheel slip to determine if there is an impending roll event. Depending upon how the wheels are responding, the ECU will decide if the trailer's brakes need to be applied to **Slow Down** the vehicle combination.

TRS – No Roll Event



TRS – Exit Ramp / Lane Change

