

MODEL 164 up to Model Year 8**Measuring mileage**

To calculate the mileage and the vehicle speed, the processor in the instrument cluster (A1) evaluates the following wheel speed signals:

- Left front rpm sensor (L6/1/)
- Right front rpm sensor (L6/2/)
- Left rear rpm sensor (L6/3/)
- Right rear rpm sensor (L6/4/)

The instrument cluster (A1) receives the wheel speeds in rpm from the ESP control unit via the CAN-engine compartment (N47-5). The system also includes tire size in its calculations of speed and distance. The tire size is encoded using the STAR DIAGNOSIS tool.

Saving mileage counts

The total mileage figure remains stored for at least 5 years, even if the voltage supply is disconnected. Functional integrity is guaranteed under normal conditions over the full service life of the vehicle (15 years or 10,000 operating hours). Every change in the least significant digit position is saved and protected against loss.

Displaying the trip mileage

The trip mileage is displayed as a 5-figure number on the main screen of the multifunction display (A1p13) in kilometers or miles as soon as the instrument cluster (A1) is activated.

The range for the trip mileage odometer is from 0 to 9999.9 kilometers or miles. The display is reset to 0 once the maximum mileage is reached.

Resetting the trip mileage odometer

The trip odometer is reset to "0" by pressing the trip odometer reset button (A1s3) for more than $t = 2$ s.

Displaying the total mileage

The 6-digit display appears in kilometers or miles in the start screen below the multifunction display (A1p13) as soon as the instrument cluster (A1) is activated.

The range for the total mileage odometer is from 0 to 999999 kilometers or miles. If the maximum mileage is reached, the counter is not reset to "0".

The internal counter continues to operate up to a maximum of 1,677,721 km or 1,000,000 miles. Processing always takes place in kilometers, the display in miles is converted. It is then necessary to replace the instrument cluster (A1).

Requirements:

- The instrument cluster (A1) is activated and the A1p13 basic display (total mileage and trip mileage) is shown in the multifunction display.

Switching between kilometers and miles

The driver can switch the display from kilometers to miles using the "Settings" function.

i If implausible CAN messages are received for all wheel speed signals, the total and trip mileage displays are "frozen" and an error bit is set. The instrument cluster (A1) also relays the current odometer reading to the interior compartment CAN.

Storage of data

With the battery disconnected, the overall mileage reading remains stored for a period of at least 10 years. The trip mileage is also protected against data loss if the battery is removed for a short period of time.