

Enabling of Tire Pressure Monitoring System on A4/A5 (B8)

1.) Prerequisite:

The ABS unit exists in two versions (which can be found on a sticker in the service book or in the trunk where the spare wheel is located - look in section #5 like on the sticker below)

- 1AT - ESP ready for TPMS
- 1AS - ESP not ready for TPMS

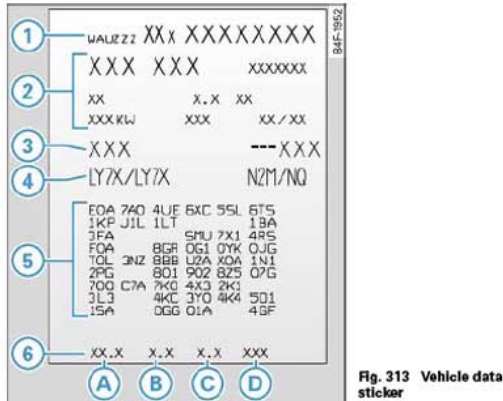


Fig. 313 Vehicle data sticker

The sticker lists the following data:

- 1 Vehicle identification number (chassis number)
- 2 Vehicle type / engine power / gearbox type
- 3 Engine and gearbox code letters
- 4 Paint No. / Interior equipment No.
- 5 Optional equipment codes
- 6 Fuel consumption and emissions

Fuel consumption and emissions

Information on the vehicle's fuel consumption and emissions is given at the bottom of the vehicle data sticker **6**:

- A Urban cycle consumption (ltr./100 km)
- B Extra-urban cycle consumption (ltr./100 km)
- C Combined cycle consumption (ltr./100 km)
- D Combined CO₂ emissions (g/km)

The pattern seen until now shows that 1AS won't work.

Known to work on ABS units:

Part No: 8KO 907 379 AH
Component: ESP8 quattro H04 0230

Part No: 8KO 907 379 S
Component: ESP8 quattro H04 0210

Part No: 8KO 907 379 R
Component: ESP8 front H04 0210

Part No: 8KO 907 379 AQ
Component: ESP8 front H03 0210

2.) The retrofit/enabling:

Enable the TPMS MMI item (*the menu item will be grayed out – disabled for now*):

MMI high (MMI 2G):

```
[07 - Control Head]
[Adaptation - 10] -> Channel 01
add 16 to the existing value
```

MMI basic (MMI 2G):

```
[07 - Control Head]
[Coding - 07]
xxxx?xx
add 2 to the existing value of the 3rd to last digit
```

MMI Navi Plus (MMI 3G):

```
[5F - Information Electr.]
Not know yet how to enable the TPMS menu item with VCDS....

BUT can be enabled through the "hidden menu":
- select 'RDK' in 'car/cardevicelist'
- put 'Tires Air Pressure Control' on 5 in 'car/carmenuoperations'
```

non-MMI (symphony/concert radio):

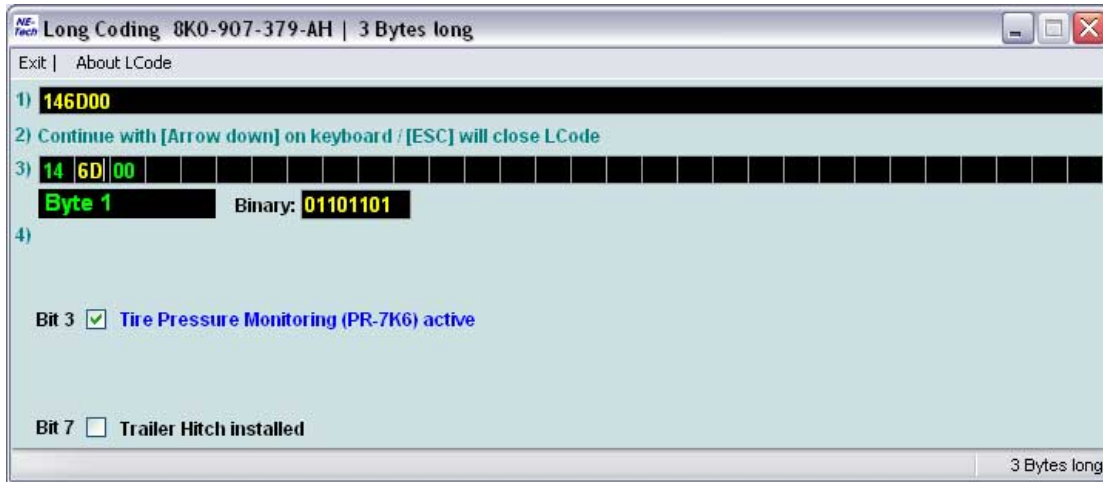
```
[56 - Radio]
[Coding - 07] -> Long Coding Helper -> Byte 8

Bit 6 - Tire Pressure Monitoring Settings active
```

Enable the 'connection' between ABS/ESP and the TPMS MMI menu item (*the menu item get activated*), by setting:

```
[03 - ABS Brakes]
[Security Access - 16] (probably with login code: 61378)
[Coding - 07] -> Long Coding Helper -> Byte 1

Bit 3 - Tire Pressure Monitoring (PR-7K6) active (1 = active)
```



The TPMS need to be enabled in the Instrument Cluster:

```
[17 - Instruments]
[Coding - 07] -> Long Coding Helper -> Byte 4

Bit 0 - Tire Pressure Monitoring (TPMS) installed (1 = active)
```

MMI should now be restarted.

Restarting the MMI system (Reset)

You can restart the MMI system and restore full normal operation by pressing a combination of buttons.



Fig. 42 Combination of buttons for restart

- Press the **SETUP** button ①, the rotary pushbutton ② and the top right control button ③ *simultaneously*.
- Then release the buttons. The MMI system will switch off and then restart. ■

The TPMS MMI menu then look like this:



3.) Testing the TPMS system:

After the 'teach-in process', I lowered the tyre pressure twice - first by 0.2 bar, and then by another 0.2 bar (it is not a real life scenario, but it was working) - I drove 10 to 15 km on a motorway, no error with the first 0.2 bar, but with the second I got this warning in my DIS almost right away after about 3 km:



The message "Please check tyre pressure (xxx)" will flash a couple of times together with a warning sound - after that only the small tyre symbol on the top will be shown, and it will continue to flash, until the system has been reset (tyre pressure fault has been solved).

The teach-in process:

The teach-in process is performed once after the SET key is pressed for the low tyre pressure indicator.

During the next trip, the control unit saves the measured wheel speeds and the vibration characteristics of the wheels in various vehicle-operating states. The vehicle operating states are basically defined by the following parameters: vehicle speed, steering angle, transverse acceleration and yaw velocity. These teach-in values subsequently make up the target data, which is used for monitoring.

After approximately 10 minutes of driving, it is already possible to detect a breakdown (rapid loss of pressure). Approximately 60 minutes of driving are required to detect diffusion loss (slow loss of pressure).

The following displays are possible:

- In the event of a rapid loss of pressure at a single wheel (tyre damage), the red warning lamp is activated. If the vehicle has a driver information system, an additional text display appears indicating the position of the wheel affected.
- In case of slow loss of pressure, which occurs gradually at multiple wheels due to diffusion, the red warning lamp is also activated. In this case, the optional text display appears but no positional information is given. The displays are activated when the tyre pressure drops below a coded minimum value.
- When system faults are detected, the yellow warning lamp is activated.

Source: "Self-Study Programme 381 - Audi TT Coupe '07 - Suspension System" page 36 - 43