Tyre pressure monitoring systems – Also a genuine gain for the Volkswagen dealer

Built-in safety
Tyre pressure monitoring systems are pre-fitted in all new Group vehicles. This promotes strong customer retention. The Volkswagen dealership enjoys a unique position as a result of its advisory and service competence.

Competitive advantage
Two systems, which are simple to operate, are offered extensively throughout the Volkswagen Group. So Volkswagen dealers not only have a great advantage in terms of know-how but can also work in a time-efficient manner as a result of the high availability of the direct measuring systems.

Service and After Sales
The authorised workshop offers optimum, made-to-measure replacement and service for the Volkswagen systems, so it is a good opportunity to tie the customer to the dealership in the long term.

The task is to communicate all these advantages clearly in communications to the retail trade and to the consumer – so that continuous monitoring and a high level of safety will in future also be guaranteed in service and the retail trade, thanks to TPMS.

Das Auto.

Tyre pressure monitoring system.
Continuous monitoring for a high level of safety.

For internal use only

Safety factor tyre pressure

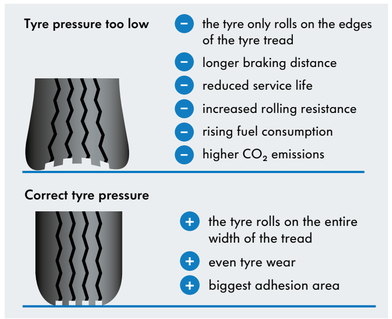
Most drivers know that tyre pressure should be checked regularly. In spite of that they often neglect to check their tyre pressure – with dramatic consequences for road safety. For example, experts* estimate that around 41 % of all accidents involving personal injury can be attributed to tyre problems. And these, in turn, are often caused by inadequate tyre pressure.

The tyre pressure monitoring system (TPMS) helps out in this respect, making an important contribution to greater safety on our roads, because it keeps the driver continuously informed about the current tyre pressure, before setting off and while driving. Should they fall below the recommended value, the driver can respond immediately and in so doing help to avoid accidents.

* DEKRA

Advantages of tyre pressure monitoring systems
Powerful arguments for TPMS are easily found: correct tyre pressure also contributes to lower fuel consumption, reduced CO_2 emissions and a noticeably longer service life for the tyres, as a result of reduced abrasion.

So there are lots of good reasons for introducing tyre pressure monitoring systems across the board. All cars and motorhomes first registered from November 2014 will have to be equipped with them. Use the information in this brochure to convince your Volkswagen dealers that correct tyre pressure is much more than just a technicality for their customers – it is in fact a crucial factor for improved road safety and environmental protection.



Source: BRV

Source: Huf Hülsbeck & Fürst

Why the correct tyre pressure is so important

→ **When tyre pressure is too low, danger lurks:** Tests have shown that even when the pressure is just 0.5 bar too low, directional stability when cornering can be reduced by up to 50 % and the braking distance can be significantly extended. Apart from which, when the tyre pressure is too low the tyre can heat up to the extent that the tread starts to detach and the tyre may even burst.

→ The front wheel on the outside of the corner comes under especially great loads when **cornering in the wet.** If the tyre pressure is too low by just 0.5 bar, then the tyre can only transmit around 80 % of the forces in comparison with a correctly filled tyre – and when the pressure is too low by 1.0 bar, this figure actually falls to below 70 %. In consequence, the vehicle may drift out of the corner or start to fishtail when changing lanes. An effect that even the ESP system can no longer completely compensate for.

→ The **braking distance** becomes **considerably longer** when even just one front wheel has inadequate tyre pressure – for example by around 10 % on a wet road surface when the pressure is 1.0 bar too low. Under emergency braking from 100 km/h, the vehicle in question would still be travelling at around 27 km/h when its counterpart with the correct tyre pressure had come to a standstill. The braking distance in this case would be 4.5 m longer.

→ **Punctures and tyre failures** can be attributed to low tyre pressure or gradual pressure loss in over 80 % of cases. This is effectively prevented by the use of tyre pressure monitoring systems.

Correct tyre pressure:
Good for safety – good for the environment!
More than 35 % of all motor vehicles are driving with inadequate tyre pressure – with shocking consequences: when tyre pressure is just 0.6 bar too low, fuel consumption increases by around 4 %. In Germany alone, with an average fuel consumption of 6.6 l per 100 km, this corresponds to additional fuel consumption amounting to around 40 litres per vehicle per year. Approximately 3.1 billion litres excess fuel are consumed in the whole of Europe every year as a result of inadequate tyre pressure. Harmful emissions and environmental pollution are similarly increased. The service life of the tyre falls away rapidly: with a tyre pressure that is 0.6 bar too low, the longevity of the tyre can be reduced by up to 45 %.

Source: BRV

Measuring systems

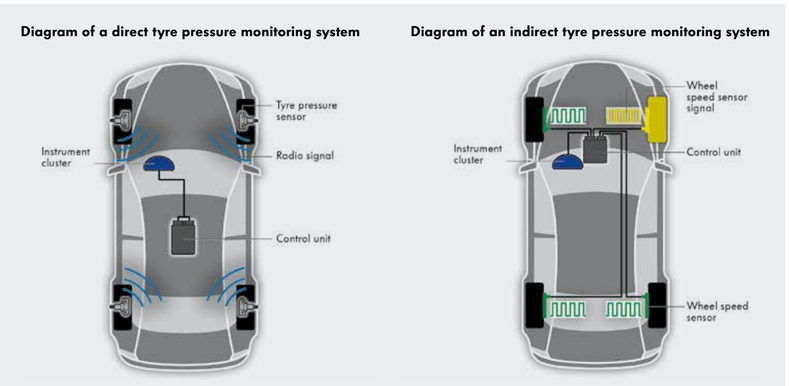
Vehicle	PR no. 7K6/7K9 indirectly via ABS/ESP	PR no. 7K3 direct measurement using tyre sensors
Polo	7K6	
Golf, Jetta, Eos	7K9	
Touran	7K6	
Tiguan	7K6	7K3 (optional)
Passat	7K6	7K3 (optional)
Sharan	7K6 / 7K9	
Touareg		7K3
Phaeton		7K3

Repair kits

Attention: Special offers!
Price advantages of the repair kits compared to individual orders

	Repair kit ETKA parts number	Prices
Touareg (successor will be converted to indirect)	7P6 998 270 (433 MHz)	€ 205.00*
Phaeton	7P6 998 270 (433 MHz)	€ 205.00*
Passat	3AA 998 270	€ 189.20*
CC	3AA 998 270	€ 189.20*
Tiguan	3AA 998 270	€ 189.20*

* RRP German market
Repair kit (set for four tyres) comprising: tyre sensors, valve kits, retainer nuts, valve caps and square-headed M5 screws.
Note: The repair kits are special offers. Make use of the price advantages compared with individual orders.



Source: Huf Hülsbeck & Fürst

The „minor difference“ – Direct and indirect tyre pressure monitoring systems

The Europe-wide introduction of tyre pressure monitoring systems is a legal requirement. However, the legislation does not specify which technology is to be used. With indirect and direct measuring tyre pressure monitoring systems, there are two different technical systems, which take different approaches:

→ **Direct tyre pressure monitoring systems:** There is a tyre pressure sensor fitted in each wheel, which continuously measures the tyre pressure. The sensor transmits this information via radio signal to a control unit, which issues an appropriate warning to the driver in the event of pressure loss. In addition, the actual tyre pressure is always displayed in the on-board computer. There may be additional costs when changing to winter tyres, as new sensors have to be fitted.
→ **Indirect tyre pressure monitoring systems:** They do not measure the actual pressure in the tyres but the speed of the wheels. As the rolling circumference changes with a drop in pressure, the speed of the affected wheel increases at the same time in comparison with the other wheels. From this difference it is possible to deduce a drop in pressure, which the driver is then immediately informed about. This system is not only cheaper, as no expensive additional components have to be fitted, but it also fulfils the requirements of the EU legislation in all respects and has clear advantages with regard to handling in the workshop. There is no additional cost for sensors when buying a second set of wheels for the winter. This has positive consequences for the operational figures and costs of the workshop.

The legal basis

The Europe-wide introduction of TPMS is set out in EU Regulation 661/2009 of 13 July 2009.

→ Since 1 November 2012 all new type-approved vehicles of Class M1/M1G must be equipped with a tyre pressure monitoring system (TPMS) in compliance with ECE-R 64.

→ From 1 November 2014 all newly registered vehicles of Class M1/M1G must be equipped with a tyre pressure monitoring system (TPMS) in compliance with ECE-R 64.

Source: BRV

In addition to these codified regulations, the following also applies (EU countries):

→ In EU Regulation 661/2009, the legislation does not definitively specify which tyre pressure control system (TPMS) must be fitted. Provided that they comply with ECE-R64, both direct and indirect TPMS are permissible, irrespective of the technology used.

→ Deactivation of the TPMS is not permissible. This is in fact not explicit in the EU regulation but it has now been clarified as legally mandatory.