

ELPARTS



herthundbuss.com/  
**AirGuard**

# AirGuard - Fit for TPMS!



Passt immer!

**HERTH+BUSS**

2015: 257.5 million TPM  
sensors fitted worldwide

# TPMS – A must!

## Requirements and regulations

# Legal requirements and market potential

## Stipulations of EU regulation ECE-R 64

All vehicles in model classes M1 and N1 registered for the first time since 1st November 2014 must be equipped as standard with a tyre pressure monitoring system (TPMS). This relates specifically to passenger cars, mobile homes and commercial vehicles with a total weight of less than 3.5 t and licensed to carry up to 8 occupants. Road safety is one of the reasons for the new directive – tyre leaks are recognised quickly and automatically by the sensor. Another reason is that correctly inflated tyres reduce fuel consumption and hence CO<sub>2</sub> emissions.

### What are the minimum requirements to be observed?

ECE-R 64 stipulates the following minimum requirements for TPM systems:

- A warning must be provided as of a pressure loss of 20 per cent or a tyre pressure of less than 1.5 bar.

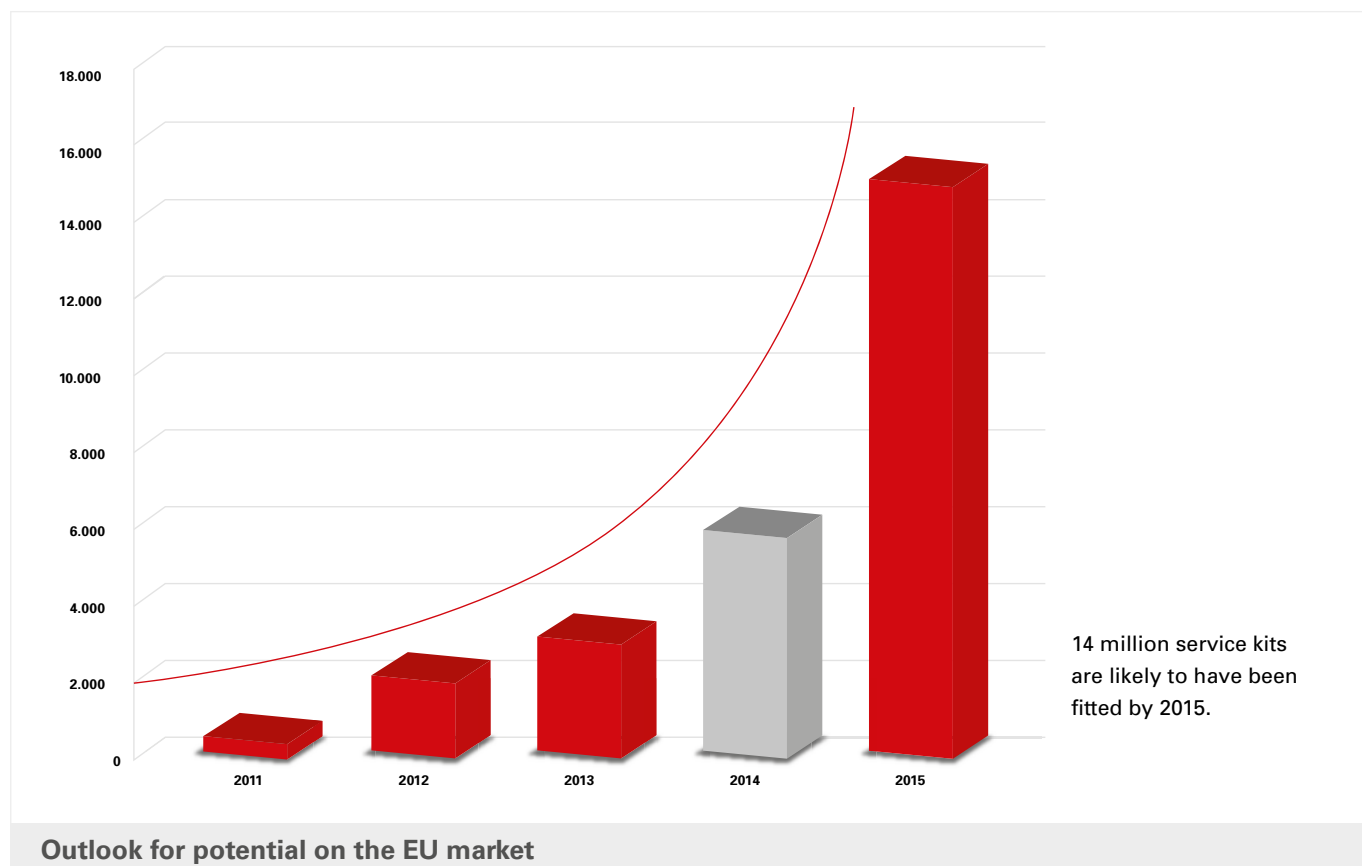
- A defective tyre must be detected within 10 minutes. If all four tyres are affected, the time must not exceed 60 minutes.
- A defective system component must be displayed within 10 minutes.
- The TPMS must function as of an average speed of 40 km/h.

### What are the consequences for workshops?

The replacement of TPMS wheel sensors is a source of additional business and greater customer loyalty for independent workshops and tyre services. The number of new cars with TPMS will increase dramatically and thus also the demand for winter tyres for vehicles which then have to be retrofitted with TPMS. Workshops and tyre services therefore have to adapt to this new situation.

### The advantages for motorists

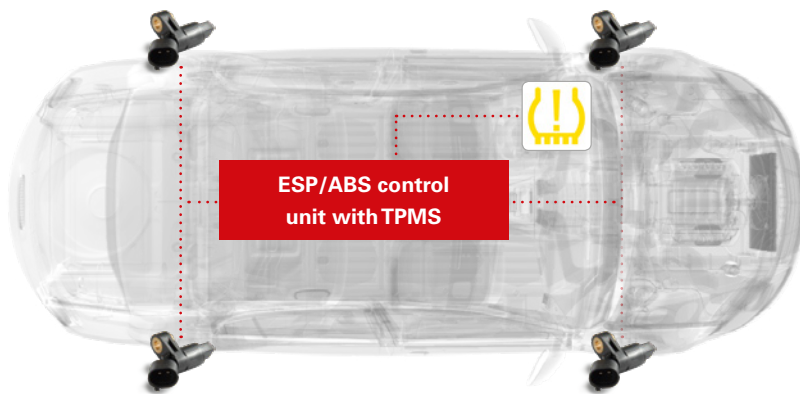
Tyre pressure monitoring systems make a significant contribution to road safety as it is not unusual for accidents to be caused by defective tyres. Thanks to the TPM system, drivers can be safe in the knowledge that the system will reliably monitor tyre pressure and promptly recognise defective tyres. However, it is not just a matter of safety. Motorists also benefit from optimised vehicle dynamics and a higher level of ride comfort thanks to reduced tyre noise. At the same time, TPM systems also save drivers money by reducing tyre wear and cutting fuel consumption.



# TPM systems

## Which methods are available for measuring tyre pressure?

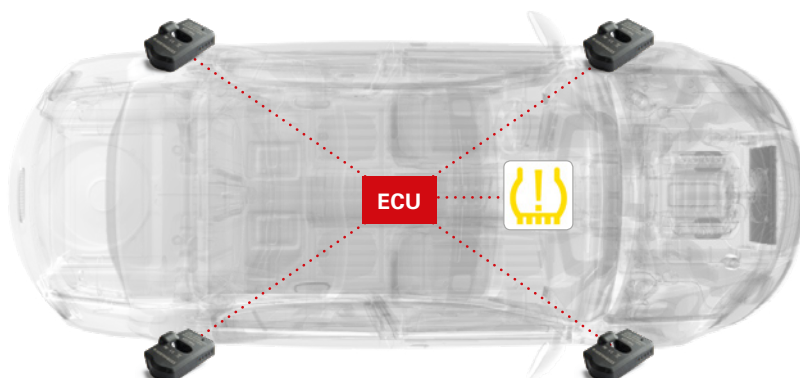
Modern vehicles must be fitted with an integrated direct or indirect TPMS. The purpose of such systems is to constantly monitor the tyre pressure on motor vehicles and thus make motoring safer. A warning signal immediately informs motorists of a pressure loss in one or more tyres. What are the differences between the two types of system?



### Indirect system

The indirect measurement TPM system using ABS/ESP fulfils all the specifications of ECE-R 64. In comparison to the active measurement system using radio sensors, however, it is currently slower and less specific. The costs for the vehicle owner are likely to be lower in this case, but diagnosis or resetting is necessary on changing tyres. Ask your specialist dealer.

- slow, imprecise method
- no additional components needed
- no specialist knowledge required
- low-cost alternative



### Direct system

The direct measurement system using radio sensors fulfils all the specifications of ECE-R 64. Compared to the passive measurement system, it is currently faster and more specific. The wheel sensors fitted should be read out by your specialist dealer with a TPMS diagnostic device every time a tyre is changed. System adaption is required on replacing the sensors or changing the tyres. Ask your specialist dealer.

- fast, accurate method
- detection of gradual and sudden pressure loss
- additional tyre service expense
- expert knowledge required on changing tyres





# TPMS check list

## We have checked your tyres!

### Tread depth

Left front

Right front

Left rear

Right rear

### Inflation pressure set

Left front

Right front

Left rear

Right rear

### Sensor ID

Left front

Right front

Left rear

Right rear

☐ Tyre change necessary soon

Your Herth+Buss partner:

# AirGuard – Fit for TPMS!



- We can offer a complete range for all aspects of TPMS. This includes our AirGuard programming/diagnostic device, the corresponding wheel sensors (with rubber or aluminium valve), a tool set, the OBD-II module, replacement valves and valve repair kits.
- In addition, we offer two different TPMS starter sets in a practical tool-box. An added bonus is that all the vehicle data available can be updated at any time free of charge on our website.



Our AirGuard is a pre-service hand-held device. It allows work to be carried out directly on the vehicle whilst offline. It can read out all sensor types on the market and then copy the data either manually or automatically to the Herth+Buss wheel sensors. Programming of a new sensor ID is also possible, as well as the wireless re-programming of the sensor ID of activated Herth+Buss wheel sensors whilst fitted. The available vehicle data are installed on the device and can be updated at any time free of charge on our website. An extra advantage of the AirGuard is the practical printer function.

Corresponding wheel sensors are also available from Herth+Buss. They can be used in all vehicles with an active tyre pressure monitoring system installed as

standard. The AirGuard is required for programming and adjustment to the vehicle concerned. This process only takes between 5 and 15 seconds per sensor. An outstanding feature of the Herth+Buss wheel sensors: the original ID number can be copied from the old sensor to the new one or re-assigned. The wheel sensors can also be re-written. The sensors can be ordered individually and are supplied with a complete valve.

For easier installation, we can offer the ideally equipped SensoFix tool set. This facilitates optimum tightening of the Herth+Buss wheel sensors, precise valve fixing and optimum force transmission. The tool set contains the following: three torque wrenches with a pre-set torque of 4 Nm, 2 Nm or 0.25 Nm for tightening the valve nut, valve

screw and valve insert, plus a valve bracket that fixes the valve and secures it against twisting during installation.

In addition, we offer the OBD-II module as a supplement to our AirGuard programming device. It may only be used together with the AirGuard. The OBD-II module is fully adequate for those businesses only requiring TPMS diagnostic functions. The OBD-II module has two functions. Firstly to overwrite the sensor ID in the vehicle control unit (OBD teach-in process) and secondly to perform the function check of the sensor ID in the vehicle control unit using the reading function. In its initial stage, the offer applies to models from Kia, Hyundai, Renault, Citroën, Peugeot, Honda and Toyota. Free updates are to follow for other makes.



## YouTube Channel



**AirGuard**  
Watch the related  
product film at:  
[www.herthundbuss.com/channel](http://www.herthundbuss.com/channel)



**Programming/diagnostic device (TPMS)**  
**AirGuard**

With USB connection  
With charger

**95990001**



**OBD adapter (TPMS)**  
**AirGuard**

Only in combination with 95990001

**95990003**



**Wheel sensor (TPMS)**  
**AirGuard**

433 MHz  
Up to 9 bar, 4 Nm  
With valves  
Radio  
Only in combination with 95990001  
**70699443**



**Wheel sensor (TPMS)**  
**AirGuard**

433 MHz  
Up to 9 bar  
With valves  
Only in combination with 95990001

**70699434**



**Repair kit, valve (TPMS)**  
**AirGuard**

With seal  
With valve stem seals  
With box nut  
with rockers

**70699433012**



**Valve (TPMS)**  
**AirGuard**

Aluminium  
with screw  
with box nut  
with seal  
Only in combination with 70699443  
**70699433013**



**Valve (TPMS)**  
**AirGuard**

Only in combination with 70699434

**70699434013**



**Valve (TPMS)**  
**AirGuard**

Aluminium  
with screw  
with box nut  
with seal  
Only in combination with 70699443

**70699433014**





**Toolbox  
AirGuard**

313 x 446 x 110 mm

**95990001010**



**Programming/diagnostics Device  
AirGuard**

Starterset  
Content:  
1x 95990001  
4x 70699443

**95990004**



**Programming/diagnostics Device  
AirGuard**

Starterset  
Content:  
1x 95990001  
1x 95990003

**95990005**

## Any other questions?



**Frequently Asked Questions – FAQs**  
We have compiled answers to some FAQs for you below.

### **Which system do vehicle manufacturers tend to opt for?**

Vehicle manufacturers tend to opt for the active measuring system using radio sensors. This is relatively faster and more precise than the passive measuring system using ABS/ESP.

### **Is the Herth+Buss wheel sensor available as a retrofit solution for vehicles without TPMS?**

No. Herth+Buss wheel sensors are only to be used for vehicles fitted with TPMS by the manufacturer.

### **Which languages are programmed on the AirGuard?**

The following languages are currently available: German, Danish, English, Finnish, French, Italian, Dutch, Norwegian, Polish, Romanian, Swedish, Slovene, Spanish, Czech and Hungarian. If there is a demand for the addition of further languages, these will be provided via an update on the website.

### **How long is the service life of a battery installed in the sensor? Can the battery be replaced?**

The service life of the batteries in the sensor is 3 to 7 years. The battery is permanently encapsulated in the sensor and can therefore not be replaced.

### **Can sensors from other manufacturers also be adapted with the AirGuard?**

The AirGuard concept is a self-contained system. Other makes can only be read out and duplicated. Programming third-party sensors is not possible.

### **Can the vehicle data in the sensor be deleted?**

No. The data can be overwritten any number of times.

### **Can the sensor be adapted to any rim?**

Yes, the sensor angle adjustment can be set as required.

### **What happens if the desired vehicle model cannot be displayed?**

If the vehicle model is not present, reference can be made to an older model. Please always refer to [herthundbuss.com/AirGuard](http://herthundbuss.com/AirGuard) to check that you have installed the latest update.





## The A1 fold-out poster

Components and applications  
of TPMS at a glance.



Poster119EN | 04-2018







# AirGuard - Fit for TPMS!

## Universal solution for problems with TPMS

The situation is clear: since November 2012, all new homologated vehicle models (class M1/N1) must be fitted as standard with a tyre pressure monitoring system (TPMS) according to EU directives. Since November 2014, this has applied to all vehicles registered for the first time as of the effective date. With our AirGuard, you are optimally equipped for the new situation. In our training, you will find out how you can use this market potential most effectively. We will present the technology and function of the device.



### Information:

<b>Target group:</b>	Workshops
<b>Duration:</b>	1.5 hours
<b>Training location:</b>	Customer premises

### Seminar content:

- Market potential and legal requirements
- TPM systems, products on the market and their functions
- What are the benefits of TPMS?
- Technology, function, benefits of the AirGuard
- Mounting the sensors
- Printer function, what are the benefits?
- Teach-in types; do I require access via OBD-II?



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