# AUTOMOTIVE ELECTRONICS



- Wireless Combi Sensors
- PT47 Diagnostic Tool
- Accessories
- Training





www.tpmszone.co.uk

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Mobiletron UK are a world leader in aftermarket automotive electronics manufacturing. We specialise in components for the automotive industry and export to over 100 countries worldwide. Our comprehensive range of engine management and rotating products includes ignition coils, charging systems, sensors and TPMS.

Our aftermarket TPMS products are manufactured and tested to the highest industry standards. As a global group our TPMS have been supplied to the OE market in Asia and are now available in the UK and European aftermarket.

Our Combi sensors are designed to replace vehicles' original TPMS sensors. Our sensors will work with both 433 MHz and 434.42 MHz frequencies and cover over 98% of vehicles fitted with a TPMS sensor.

### **TPMS BUSINESS OPPORTUNITIES**

Mobiletron provides a complete range of exceptional TPMS products, manufactured to an OE standard and under strict inspection and testing regulations. The TPMS range includes the programmable Combi sensor, direct fit options and diagnostic tools powered by global leader ATEQ.

Legislation changes around TPMS sensors in 2015 mean that vehicles are now seeing failed MOT tests because of faulty TPMS sensors. In a recent study over 24,000 vehicles failed their MOT after TPMS problems were identified. Compare that with the 7,000 cases in the prior year and you will note a jump of 215% between the years. We expect this number to continue to rise as vehicles are now fitted with TPMS as standard.

The most common TPMS sensor fault was due to battery failure. Each Mobiletron TPMS sensor is fitted with a battery which is designed to last 5-7 years, although some OE sensors have been known to fail after just 3 years.

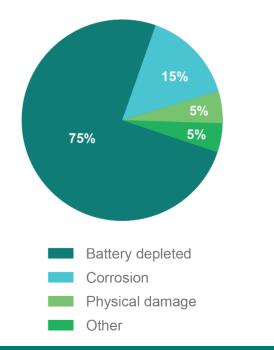
Another common cause for failures is the TPMS sensor stems can also corrode over time as they are open to the elements and are exposed to a lot of dirt and debris from the road which could also cause an MOT failure.

One of the major reasons that independent garages fail to take full advantage of the massive TPMS opportunities is because of a general lack of confidence or experience when it comes to fitting or maintaining TPMS sensors. However, with the right tools and replacement parts, technicians need very little specialist training to fit TPMS sensors. Mobiletron's TPMS sensors can be used as a direct replacement for an OE sensor.

Garages who avoid work involving TPMS and refer customers to a dealership or tyre specialists should recognise the revenue that they are missing out on. Mobiletron hope that the workshops are realising the revenue opportunities associated with an additional specialised service of TPMS.

- Additional revenue from the service, fitting and maintenance of TPMS systems
- Reduced investment in stock holding with our Combi Sensor solution
- Mobiletron TPMS sensors are a cost effective solution
- Quick and easy to install The same process as OE
- Wide coverage of vehicle applications over 98%

#### Main causes of sensor malfunction:



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### **TPMS REGULATIONS**

From **November 2014** it has been a legal requirement for all cars sold in the European Union to be fitted with a Tyre Pressure Monitoring System (TPMS) as standard equipment.

The primary aim of this legislation is to reduce the risk of accidents caused as a direct result of underinflated tyres, as well as reducing carbon emissions and improving fuel economy.

**From the 1st of January 2015**, EU directive 2010/48/EU introduced a TPMS system check to the MOT test for any car fitted with a TPMS system (manufactured after the 1st of January 2012) displaying the TPMS warning light.



### TPMS SENSOR OPTIONS

**Pre-programmed sensors** – Most OE fitted sensors are of this type. They can be replaced directly like any other part, by reference to the OE part number. Some aftermarket suppliers, including Mobiletron produce direct replacement sensors.

**Configurable sensors** – In order to provide a universal sensor option, some aftermarket manufacturers produce sensors that are installed with a series of protocols suitable for a range of vehicles. The fitter selects the correct protocol for the vehicle and configures the sensor to run on that protocol.

**Programmable sensors** – These are blank sensors with no pre-loaded protocols. They are truly universal because the fitter installs the correct vehicle protocol when selecting the vehicle on a programming tool. They can be reprogrammed multiple times.



### WIRELESS COMBI SENSORS

- Wireless programmable sensors
- Combination of both frequencies 433 & 434.42 MHz
- Adjustment angle of up to 40 degrees (only on metal valve sensors)
- Battery life 5 to 7 Years
- Available in Clamp-In (Metal) or Snap-In (Rubber)
- 3 Year/60,000km Warranty





Combi Sensors	
Frequency	433 / 434.42 Mhz
Pressure Range	0 - 80 PSI (+/-PSI)
Temperature Range	-40ºC - 115ºC
Operating Humidity	Max. 95%
Operating Temperature	-40°C - 115°C
Storage Temperature	-40°C - 125°C
Dimensions (mm)	85.5(L) x 61.5(W) x 20.5(D)
Weight	<45g
Adjustment Angle	0 - 40 Degrees
Wheel Speed	250 Km/h

TX-C001 Replaces TX-P001 & TX-P002 TX-C002 Replaces TX-P003 & TX-P004

### **3 STEPS TO INSTALLING TPMS SENSORS**

#### PROGRAMMING

Our programming tools are simple and easy to use, the sensors can be programmed quickly, reducing installation times.



#### FITTING

Our Combi sensors are fitted in exactly the same way. They are easy to fit and follow exactly the same process as OE.



#### RELEARN

When fitting a new TPMS sensor to a vehicle the new sensor ID code will need to be relearned by the vehicles ECU. Although the relearn procedures can differ from manufacturer to manufacturer, they can be grouped into three main categories:

**OBD** - For an OBD relearn you require either a PT46/47 or an ATEQ diagnostic tool. Find the vehicle application and then follow the on screen instructions.

**Auto-Learn** - The Auto relearn is normally triggered by an option in the menu of the vehicle. Use the instructions available on the PT46/47 or ATEQ tool for more specific information.

**Stationary** - The Manual relearn tends to rely on the car being put into a relearn mode and then the sensors being activated one at a time. They can be activated using a PT46/47 or an ATEQ tool.

## **PT47 DIAGNOSTIC TOOL**



DESIGNED FOR TPMS SENSOR ACTIVATION, PROGRAMMING AND ECU RESET.



#### **EASILY ACCESSIBLE RELEARN INFORMATION**

Find all relearn procedures to service the vehicle on the easy-to-read, bright colour screen.

6 Coupe (E63)	
With iDrive	
1/12•Set tyre pressure	
2/12•Turn ignition ON (engine off)	
3/12•Select SETTINGS	
4/12•Press iDrive Control	
5/12•Select CAR/TYRES	
6/12•Press iDrive Control	
7/12•Select TYRES:RDC	
	VEX1

- Provides TPMS sensor part numbers
- · Select vehicles via make, model, year look-up
- Interface and relearn procedures in 22 languages
- Checks remote keyless entry signal strength
- Frequent database updates via PC desktop software
- Provides indirect, manual and auto relearn procedure information
- Easy to operate with ATEQ's icon interface and bright colour display
- Displays all sensor data in seconds: ID, tyre pressure, tyre temperature, battery status, etc
- The built in OBDII module gives access to OBDII relearns



The Mobiletron PT47 is a cost effective and easy to operate TPMS diagnostic tool, packed with essential features such as sensor activation, programming and ECU resets. Designed with mid-sized tyre specialists in mind, its simple design guides the user when replacing and servicing TPMS sensors. With the built in OBDII module, users can reset the ECU in less than 2 minutes.

- Convenient to use, ideal for beginners and intermediate users
- All relearn information easily accessible in one location
- Built in OBDII module
- 5 years of software included <u>FREE</u>



The PT47 is a specialised TPMS programming tool, designed specifically for the programming of Mobiletron's Combi sensors.

The compact tool provides many powerful features such as: Sensor reading, programming and cloning.

#### **OBD CONNECTIVITY**

The PT47 integrates the OBD module, giving the user access to an additional 60% of the market. Simply plug in the provided OBD connector cable to the vehicle to perform an ECU reset in less than 2 minutes.

#### SENSOR PROGRAMMING

The PT47 offers features to program Mobiletron Combi sensors, such as Create and Copy ID, Retrieve ID\*, Program sensors.

\*Available on specific models only

### **EASY TO USE INTERFACE**

The tool benefits from the manufacturing expertise of the world leader in TPMS tools. The bright, colour screen is functional and easy to use.

### TPMS PROGRAMMING TOOL WITH INTEGRATED OBDII MODULE.

Size (HxWxD)	180 mm x 100 mm x 36 mm (without rubber cover)
Weight	0.26 kg (without rubber cover)
Screen	3.5″ display
Power Supply	Rechargeable lithium-polymer battery
Radio Reception	433/434.42 MHz
Interface	North American/European version: English, German, Italian, French,
	Spanish, Croatian, Czech, Danish, Dutch, Finnish, Hebrew, Hungarian,
	Norwegian, Polish, Portuguese, Russian, Romanian, Slovak, Slovenian,
	Swedish, Turkish
Warranty	2 years
Vehicle coverage	North American and European markets
Programmable sensors	Customised for Mobiletron Combi sensors
Software updates	5 years free software and database updates included



### TRAINING: HOW TO UPDATE THE PT47 DIAGNOSTIC TOOL

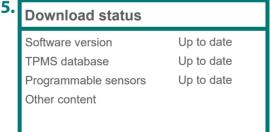
### **5 SIMPLE STEPS TO UPDATE THE PT47 DIAGNOSTIC TOOL.**



You will find the software update on the TPMS zone of our website, or you can go directly to www.tpmszone.co.uk.



Scroll down to find 'PC Software Download'. Click this to start the download and then follow the instructions to finish the installation.



Once the update has finished, all lines will display 'Up to date'.



Under the 'Products' tab, click on 'PT47 Diagnostic tool'.



When the installation is complete, and the ATEQ WebVT window is open, plug in the PT47 and select the 'Update Tool' process.



### TRAINING: HOW TO PROGRAM MOBILETRON'S COMBI SENSORS

The Combi sensors and the PT47 diagnostic tool are simple and easy to use, the sensors can be programmed in 10 easy steps, reducing the installation time:



Turn on the PT47 and wait until the main menu displays.



Select the **Program Sensor** image (top right).

	VEHICLE SELECTION
FERRARI	
FIAT	
FORD	
GMC	
HONDA	
HUMMER	
HYUNDAI	
INFINITI	
Jaguar	

3.

Scroll and select the **make** of vehicle.

4. B-Max C-Max Grand C-Max Ecosport Edge Edge Vignale Fiesta 6 Fiesta 7 Fiesta Vignale	5. Fiesta 6 (11) 2014 2015 2016 2017	6. FORD Use TX-C001/TX-C002 Please make sure that there is no other sensor within 1m (4 feet) when programming.
Select <b>model</b> of vehicle.	Select year of <b>vehicle</b> .	Select Use TX-C001/ TX-C002.





The Wireless Combi Sensor is successfully programmed.





### **OPTIONS**

We have developed our products to ensure maximum flexibility. The full range includes Wireless Combi TPMS sensors, PT47 Diagnostic Tool, Replacement Valves and Accessories.

Please see our options:

### WIRELESS COMBI SENSORS

Combi Sensors	
Frequency	433 / 434.42 Mhz
Pressure Range	0 - 80 PSI (+/-PSI)
Temperature Range	-40℃ - 115℃
Operating Humidity	Max. 95%
Operating Temperature	-40℃ - 115℃
Storage Temperature	-40℃ - 125℃
Dimensions (mm)	85.5(L) x 61.5(W) x 20.5(D)
Weight	<45g
Adjustment Angle	0 - 40 Degrees
Wheel Speed	250 Km/h

### **COMBI SENSOR VALVES**

Part No.	TX-V003B
Application	TX-C001
Valve Length	49 mm



Part No.	TX-V003
Application	TX-C001
Valve Length	49 mm



Part No.	TX-V004
Application	TX-C002
Valve Length	55.5 mm





# FAQ

### WIRELESS COMBI SENSORS

### **Q:** Are Mobiletron TPMS sensors compatible with the industry's main TPMS scan tools?

- A: Yes, Mobiletron's TPMS sensors are designed to communicate with all the main TPMS scan tools, as well as programmed by: ATEQ VT56/VT46, Mobiletron PT47, Tecnomotor TPM-02 and when unlocked; HUF VT56/VT46, Alcar VT56, VDO TPMS Pro, Hamaton H46 & Alligator PT4.
- **Q:** Are Mobiletron TPMS Sensors compatible with vehicles with Wireless Auto Location (WAL) TPMS systems?
- A: Yes, Mobiletron's Combi sensors are compatible with vehicles with a WAL TPMS system.

#### **Q:** How are Mobiletron's TPMS sensors programmed?

A: Mobiletron's Combi Sensors are infinitely reprogrammable using all the main TPMS scan tools. See **page 6** on how to program the sensors using a PT47.

### **Q:** Are Direct replacement TPMS sensors easy to fit?

A: There is no specialist training required. The fitting process is the same as OE. Fitting instructions are on the 'How to fit TPMS sensors' page of our TPMS Zone website.

### Q: Will metal clamp-in and rubber snap-in valves be supplied separately?

A: Yes, both metal clamp-in and rubber snap-in valves can be supplied separately.

#### **Q:** How long is the warranty period?

A: All of Mobiletron's products are covered by a 3 years (60,000km) warranty. The typical battery life of our TPMS sensors is 5-7 years.

### **Q:** Is the angle of the sensor adjustable?

A: The angle of the Clamp-in (Metal) sensors can be adjusted to suit the rim style up to 40°.

#### **Q:** Can the sensor cover all frequencies?

A: Yes, the Combi sensors are a combination of EU (433 MHz / 434.42 MHz) applications.



#### Q: On starting the vehicle a TPMS light comes on, but switches of after driving for a short time, what could this mean?

A: This could be that one or more of your tyre pressures are close to the low-pressure threshold. Overnight when your tyres are cold, the pressure will be at its lowest, which can bring the pressure either close to or below the 20% minimum pressure allowance – switching the TPMS warning light on. Once you start driving however, your tyres will warm up and the pressure will subsequently increase, turning the warning light off. Check your tyre pressures before you drive to make sure they are at the correct pressure.

### **PROGRAMMING ADVICE**

We advise leaving a 1M Distance between sensors when programming to avoid any signal interference.

### **PT47 DIAGNOSTIC TOOL**

Q: Does the PT47 come with a software licence?
A: Yes, our tool comes with a FREE 5 year licence.
Q: Can the tool perform an OBD relearn?
A: Yes, the tool comes with an inbuilt OBD module and cable.
Q: How frequent are the updates?
A: The updates are quarterly, meaning you always have the latest vehicle applications.
Q: Can the PT47 scan all sensors on the markets?
A: The PT47 can scan the majority of OE and aftermarket sensors.
Q: What languages are available on the PT47?

A: English, French, German, Italian, Spanish as well as 17 other languages.

If there is something we haven't covered in our TPMS FAQ's please contact us by email: tpms@mobiletron.co.uk or by phone: +44 (0) 1772 693780



CONTACT YOUR NEAREST STOCKIST

www.tpmszone.co.uk | sales@mobiletron.co.uk | tpms@mobiletron.co.uk | +44 (0) 1772 693 780