TECH700

USER GUIDE

Bus & Truck
Tyre Pressure Monitoring
System Tool

FOREWORD

Dear customer

Thank you for having chosen one of our tools. We are certain that it will give the utmost satisfaction and be a great help on the job with Tyre Pressure Monitoring Systems.

Please become fully familiar with the instructions in this user's manual. It should be kept ready to hand for consultation whenever required.

The TECH700 is a test and diagnostics tool for Truck and Bus Tyre Pressure Monitoring Systems. It is designed for future updating and extension with new functions and vehicle coverage.

CE COMPLIANCE

Type Designation: **TECH700**
Description/Intended Use: Hand Held Tyre Pressure Measurement Tool/used to activate, decode data from, and display information about tyre pressure monitoring devices for Trucks and Buses.

Hereby, **Bartec Auto ID** declares that the product referenced above is in compliance with the essential requirements of **Directive 1999/5/EC**, on the approximation of the laws of the member states relating to **Directive 1999/5/EC**.

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IMPORTANT NOTICES

SAFETY DEFINITIONS

All **Danger**, **Warning**, **Important**, and **Note** messages must be followed for your safety. These safety messages are in the following formats:

DANGER: Means you may risk possible loss of life.

WARNING: Means you may risk possible bodily harm.

CAUTION: Means you risk damage to the vehicle or the tool.
These safety messages cover situations Bartec Auto ID is aware of. Bartec Auto ID cannot know, evaluate and advise you as to all the possible hazards. You must be certain that any conditions or service procedures encountered do not jeopardize your personal safety.

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DISCLAIMER

All information, illustrations, and specifications contained in this technical instruction manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without obligation to notify any person or organization of such revisions or changes. Further, Bartec Auto ID shall not be liable for errors contained with the furnishing, performance or use of this material.

SAFETY PRECAUTIONS

Read carefully the installation, operating and maintenance instructions in the Operator's manual.
Do not allow unqualified people to use this equipment. This will prevent injury to people and damage to the equipment.
The work place must be dry, sufficiently lit and well ventilated.
Do not forget that breathing carbon monoxide (odourless) can be very dangerous and even fatal.

When working on the vehicle:

- Wear suitable clothing and act in such a way as to prevent industrial accidents.
- Before starting, check to be certain the gear shift is in neutral (or in PARK (P) if the transmission is automatic) and put the handbrake on and check to be sure the wheels are completely locked.
- Do not smoke or use naked flames when working on a vehicle.
- Wear safety glasses to protect your eyes from dirt, dust or metal chips.

Disposing of equipment

- Do not dispose of this equipment as miscellaneous solid waste but arrange to have collected separately.
- The re-use or correct recycling of electronic equipment (EEE) is important in order to protect the environment and human health.
- In accordance with European Directive WEEE 2002/96/EC, special disposal points are available for waste electrical and electronic equipment.
- Public administrators and producers of electrical and electronic equipment are involved in facilitating the re-use and recovery of waste electrical and electronic equipment through these collection activities and use of appropriate planning arrangements.
- Unauthorised disposal of waste electrical and electronic equipment is punishable by law with appropriate penalties.

Disposing of batteries

- The TECH700 contains a Lithium Polymer rechargeable battery which is not accessible to the user.
- Batteries must be recycled or disposed of properly. Do not throw batteries away as part of normal refuse disposal.
- Do no throw batteries on to an open fire.

CORRECT USE OF THE TECH700

In order to use the TECH700 correctly:

- Do not expose the TECH700 to excessive moisture.
- Do not use the TECH700 near sources of heat or polluting emissions (stoves, ovens, etc.)
- Do not drop the TECH700.
- Do not allow the TECH700 to come into contact with water or other liquids.
- Do not open the TECH700 or attempt to perform maintenance or repair operations on any internal parts.
- You are advised to keep the packaging and to re-use it if the TECH700 is moved to another site.

When using the TECH700 remember:

- Do not subject the TECH700 to magnetic or electric interference.

Reception, maintenance and guarantee:

Inspect the tool when delivered. Damage sustained during shipment is not covered by the guarantee. Bartec Auto ID will accept no responsibility for material or bodily harm resulting from inappropriate use of the product, failure to maintain it, or incorrect storage conditions.
Bartec Auto ID provides training for clients desirous of acquiring the knowledge required for the correct use of its products.
Only personnel authorized by Bartec Auto ID are permitted to make any repairs that may be necessary. This tool is guaranteed against any manufacturing fault for 24 months as of date of invoice (parts and labour) only if product has been correctly used. Serial number must stay readable.

KIT COMPONENTS

The **TECH700** kit inside the tool box includes:

- Sensor diagnostic tool
- USB cable
- Wireless charger
- Quick Start Guide
- Bluetooth-Dongle

Identifying Kit Components and Features

The TECH700 is battery operated and generates a low-frequency magnetic field to activate tyre sensors. It receives UHF radio signals from the tyre sensors typically at 433MHz and 315MHz

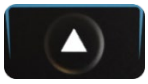
TOOL LAYOUT


Rubber housing
Mini USB
Display
Test
Back
Enter
Up/Down navigation
Home
On/Off
BARTEC AUTO ID

MENU NAVIGATION

The TECH700 menu system provides a hierarchy of instructions and commands. The top line of the display will always indicate the current menu selected. The home key will always return to the Home Menu screen.

The menu system is navigated by the directional keys:

	*On/Off Key*	*Hold down for a few seconds to turn on or off*
	*Up Arrow Key*	*Navigates up within the current menu selection*
	*Down Arrow Key*	*Navigates down within the current menu selection*
	*ENTER Key*	*Navigates to the next menu or actions the currently highlighted item*
	*Back/ESC Key*	*Navigates to the previous menu item*
	*TEST Key*	*Initiates a TPMS test*
	*Home Key*	*Always returns to the Home Menu*

Using the up and down arrow keys, the display will wrap around.

TOOL POSITIONING

Correct tool positioning is important to ensure effective sensor activation and decode. Place the TECH700 against the tyre wall, adjacent to the tyre valve stem, pointing towards the sensor location as shown below. Avoid placing the tool over the metal rim.

Wheels that are clamped together in a dual configuration have their sensors positioned at 180 degrees to each other. The outer wheel should always be read first as it is visually easier to find. To read the inner wheel sensor, it is important to place the tool 180 degrees from the outer sensor. Also the top of the tool needs to be placed between the two wheels pointing toward the inner sensor.

Sensor Activation

LF Activated Sensors

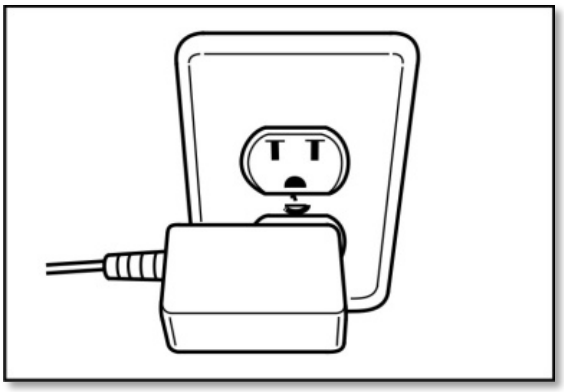
Once the tool is correctly aligned press the “Test” key. 
Hold the tool in the same position until the progress bar has timed out.

Depending on the sensor type selected the response time could vary by several seconds.

A successful read will be acknowledge with a beep tone and the tool will vibrate. (Haptic response)

TOOL CONNECTIONS/CHARGING TOOL

NOTE: Only use the power supply or USB cable included in the TECH700 kit to charge this tool. The use of unapproved power supplies may damage your tool and will invalidate the tool warranty.



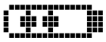
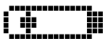
The TECH700 comes with the rechargeable battery already installed. **Battery replacement must be done at the factory.**

For optimum performance, always keep your TECH700 sufficiently charged. It is recommended that you charge the tool at **least two hours** before first use.

The charging port is a mini USB port, located on the top side of the tool.

Battery Indicator

This status line Indicator will illustrate the remaining charge status of the battery. Reading different TPM types will use up differing amounts of energy, and so the indicator can only provide an estimate of remaining life left before a recharge is required.

	FULL Charge
	Partial Charge - charging shortly is suggested.
	Low power in the battery - charging required.
	The battery is FLAT, requires charging

During charging the battery status icon will scroll.

At the point of insufficient battery power the TECH700 will flash its battery icon for two seconds. The TPM Data will be saved prior to power off.

POWER ON/OFF SEQUENCE

The TECH700 is powered up using the ON/OFF key. 

To power up the unit hold down the ON/OFF key for approximately 2 seconds.

On power up, a screen will appear displaying the software version in use

The main menu screen will then appear.

To power off the TECH700 use the same ON/OFF key.
Hold down the key until 'Goodbye' is displayed.

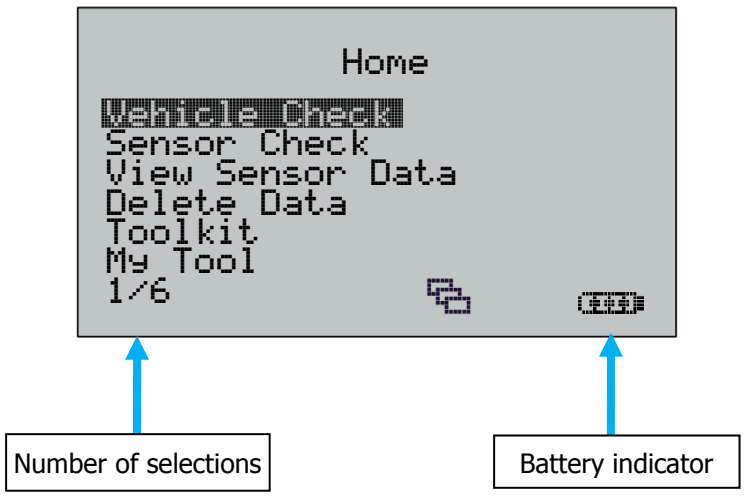
The tool automatically powers off after 5 minutes of inactivity.

All results and settings are stored during automatic or manual intervention.

The Tool automatically powers up when the charger or USB port is in use. Auto power off is not operational.

HOME MENU

The home screen, which provides access to the main functional items of the TECH700, is shown after power up.



1. Vehicle Check
When highlighted, press the enter key to view the vehicle manufacturers e.g. Mercedes, DAF and Setra etc.

2. Sensor Check
When highlighted, press the enter key to select by sensor type and capture all relevant sensor data.

3. View Sensor Data
Wheels To Test:
When highlighted, press the enter key to view the data records.

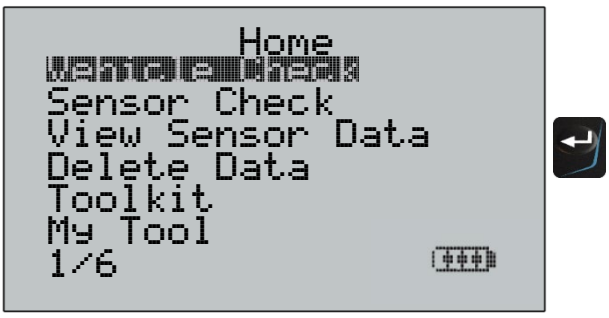
4. Delete Sensor Data
When highlighted, press the enter key to delete the data records. A security screen prompt will appear providing the option to escape or continue.

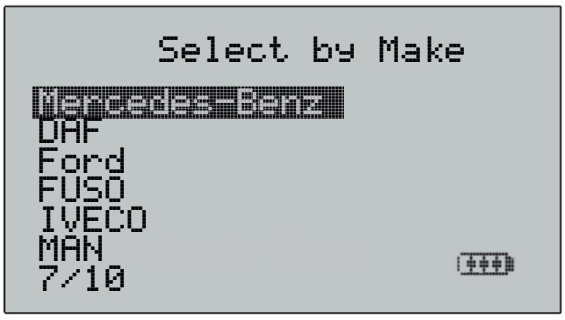
5. Toolkit
This feature provides facilities for RKE testing and UHF monitoring.

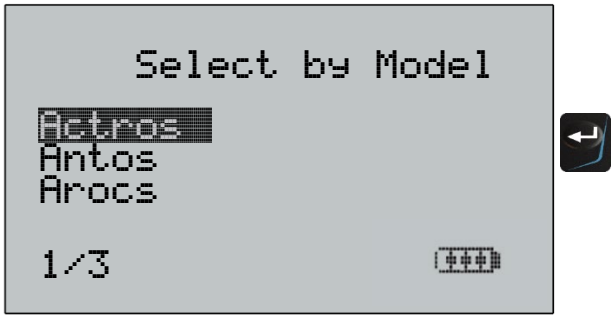
6. My Tool
This feature provides access to
WiFi, Tool Info, Enter update Mode, Usage, support, and Workflow

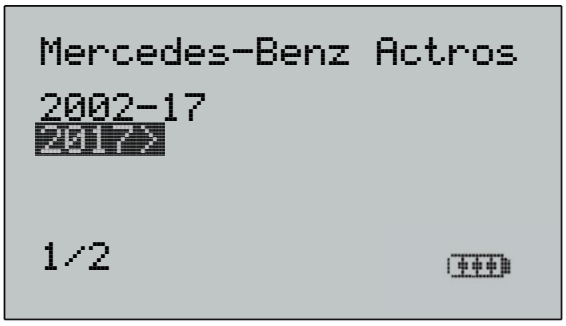
Settings allowes changes to: Date/Time, Restore Defaults, Sensor ID, Pressure, Temperature, Display Contrast and Language.
WiFi select “WiFi” to enable or disable the Wifi function and to join an existing Network.
Tool info provides the reference to Software Version, Build Date, Serial Number, Language Region and Coverage Region
Enter Update Mode provides a method of updating the software within the tool
Usage provides data on charging cycles and number of sensors activated
Support provides contact details for assistance
WorkFlow provides the possibility to change the format of registration plates depending on the country they originate from and to change the wheel order

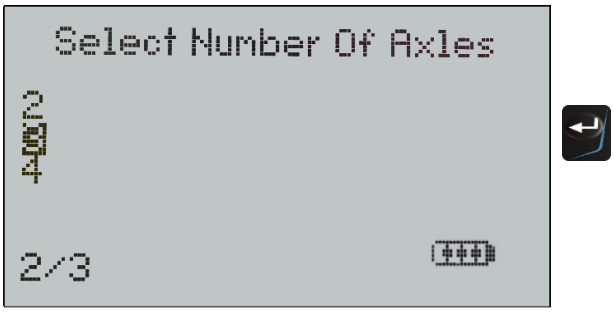
VEHICLE CHECK

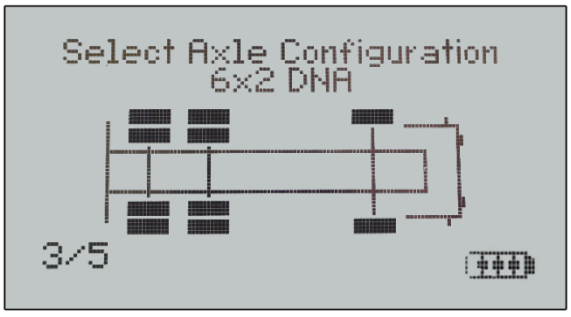


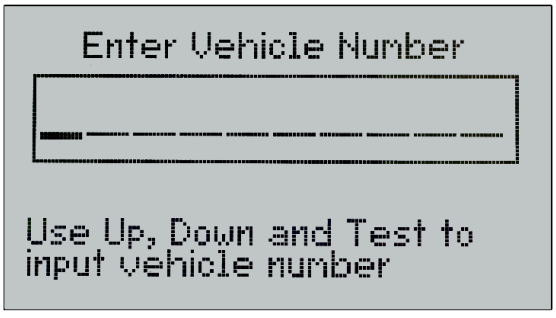


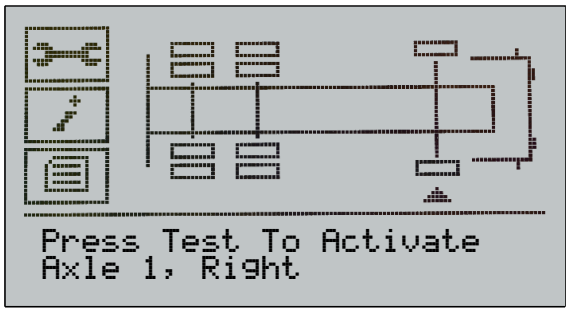


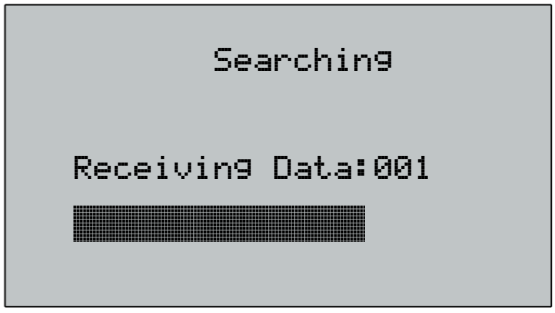


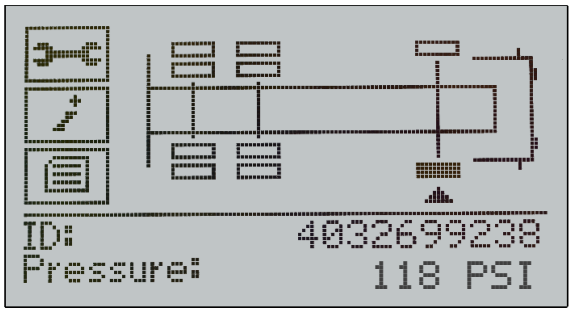


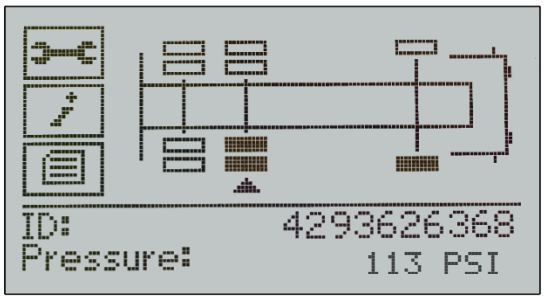


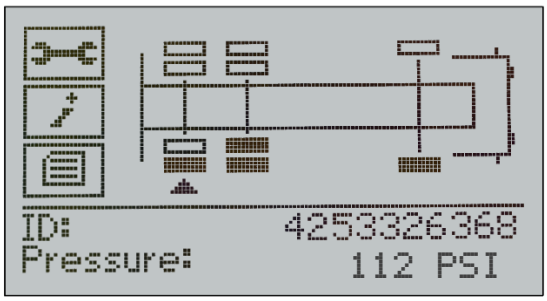


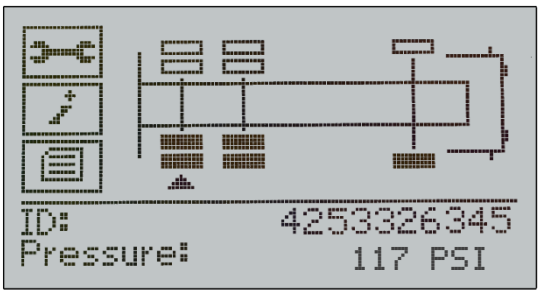




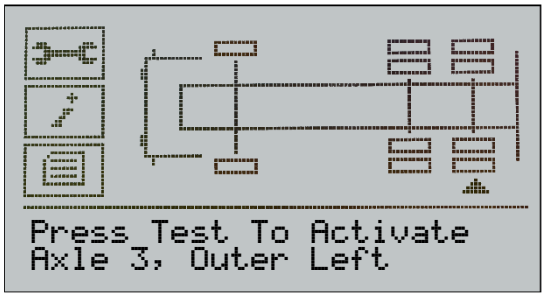


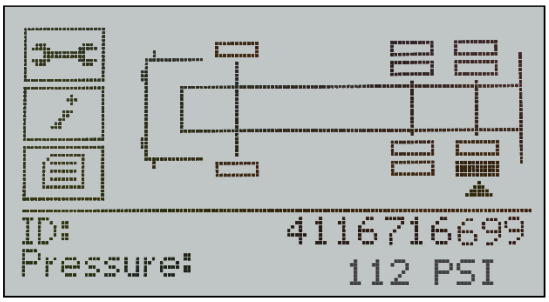


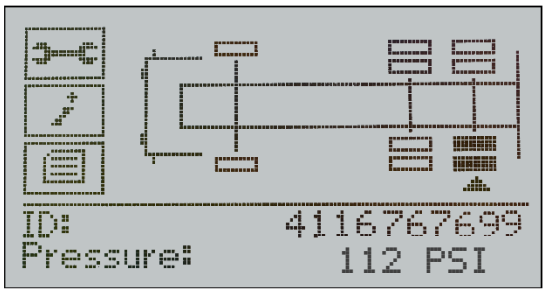


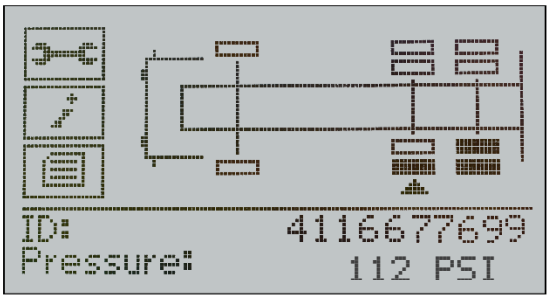


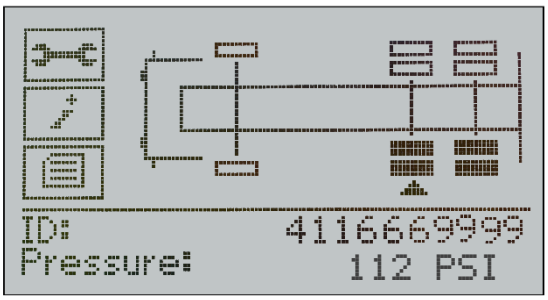
After testing the last wheel on the righthand side, the audit screen will reverse in accordance with the workflow slection.

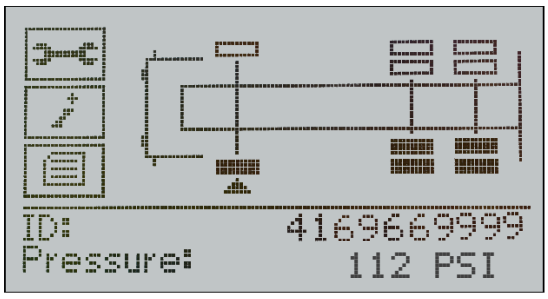




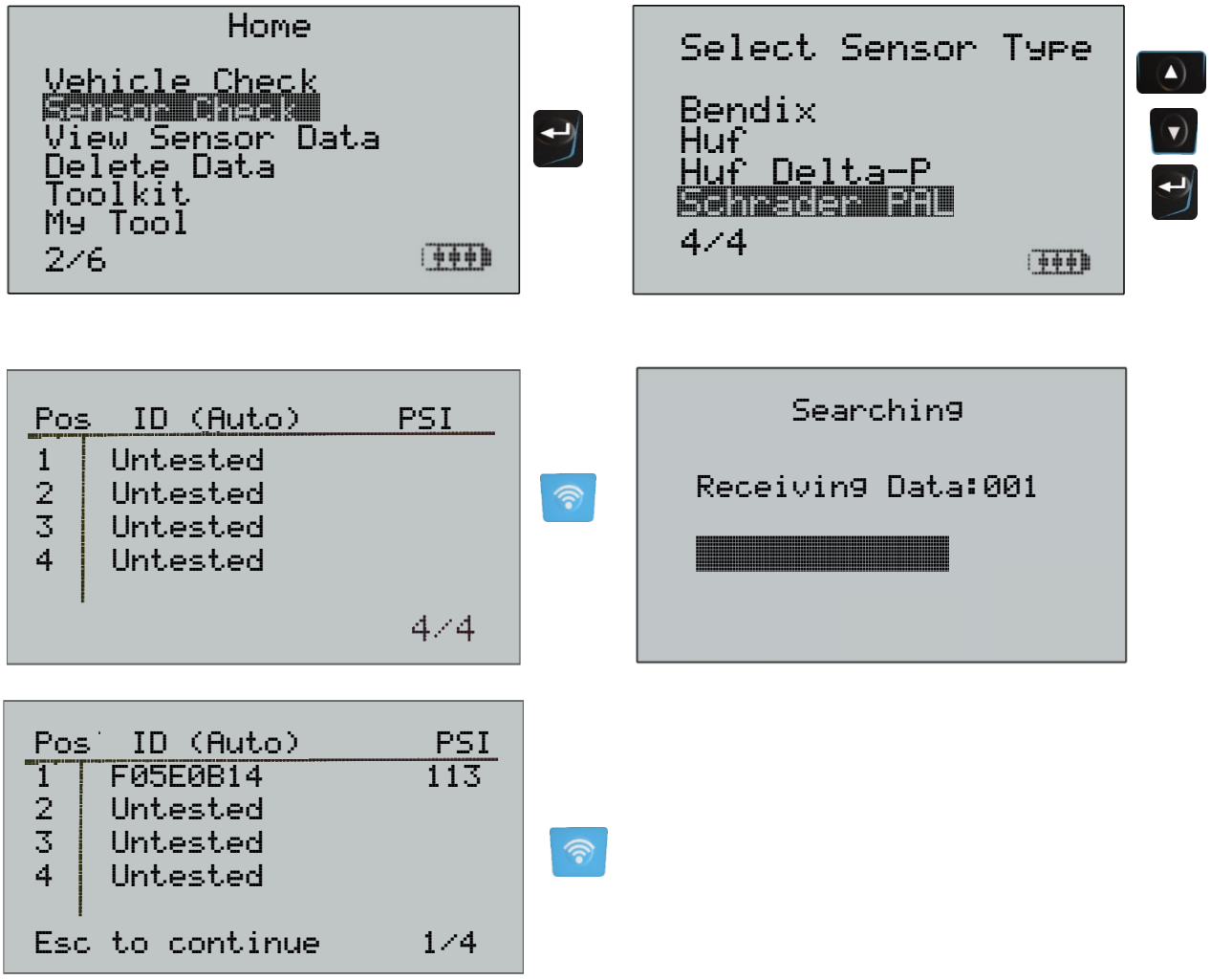




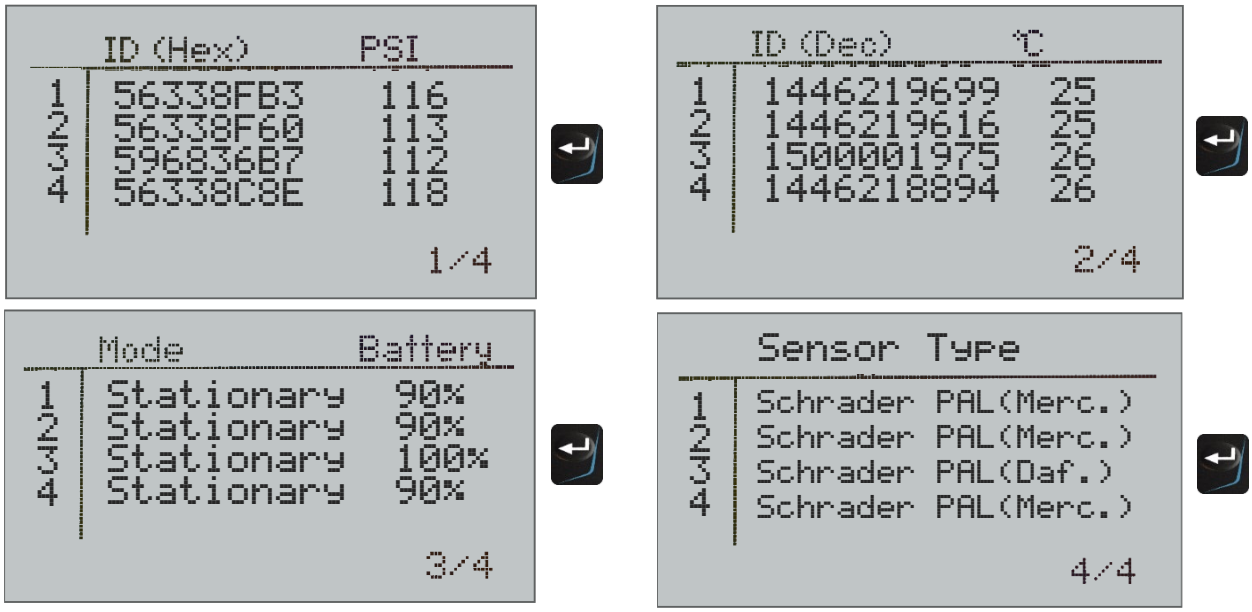




SENSOR CHECK

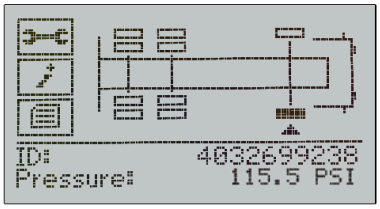
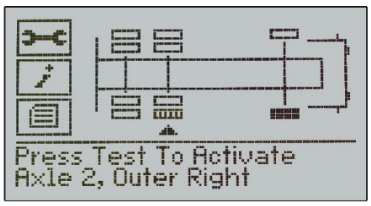
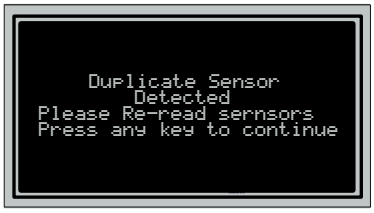
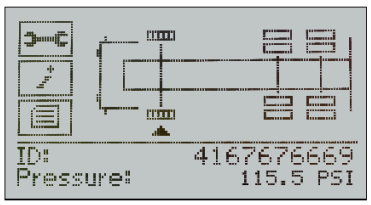
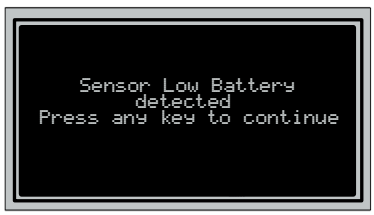
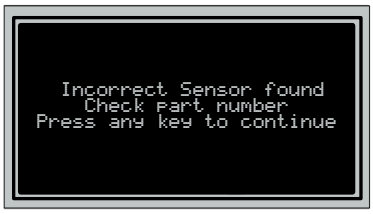


4 additional reading later:



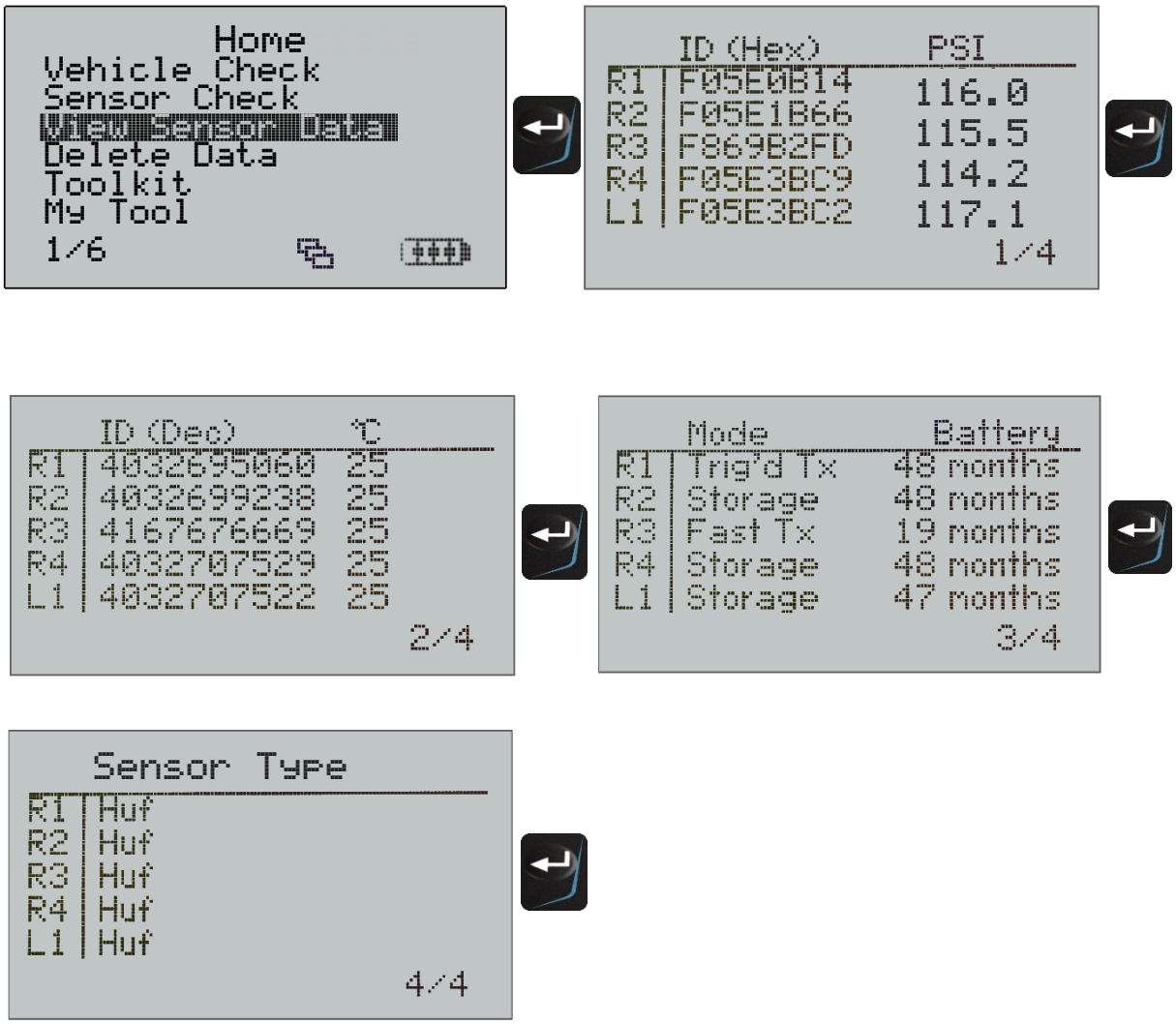
The sensor Type Screen provides additional information on the variant of Pal Sensor.

POSSIBLE READING SCENARIOS

	**Successful Sensor Read** TPMS sensor was successfully activated and decoded. Displays pressure (in Bar, PSI or KPa) at wheel location. The wheel icon will appear filled in
 	**No Sensor found** This may be due to a broken sensor, no sensor fitted or an incorrect type of sensor has been fitted.
 	**Duplicate ID** This indicates that a sensor that has already been read has been read again and assigned to another wheel position. The wheel icon will appear with vertical stripes
	**Low Sensor Battery** This indicates that the internal battery of the sensor under test is providing a low battery warning.
	**Check part number** This indicates that the sensor found does not fit to the pre-selected Make,Modell,Year. Check the sensor Part number to insure the correct fitment for the vehicle selected.

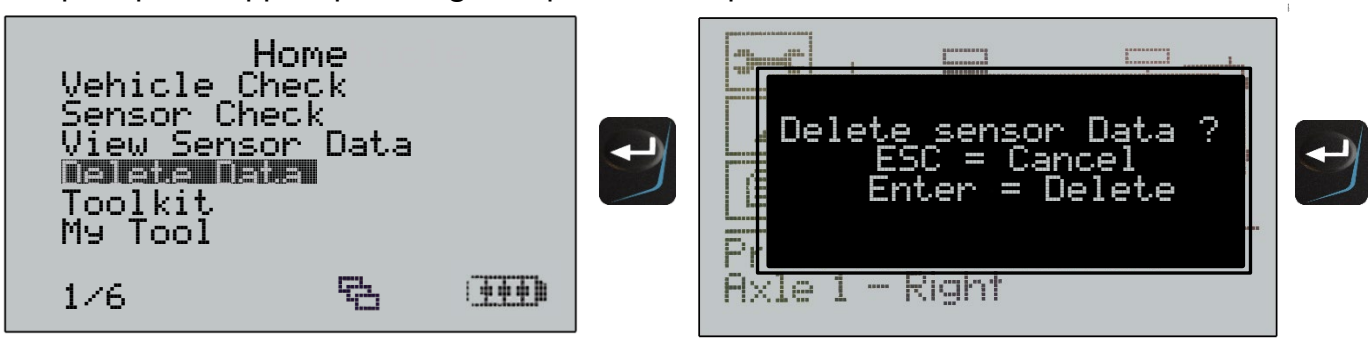
VIEW SENSOR DATA

When highlighted, press the enter key to review the data records.



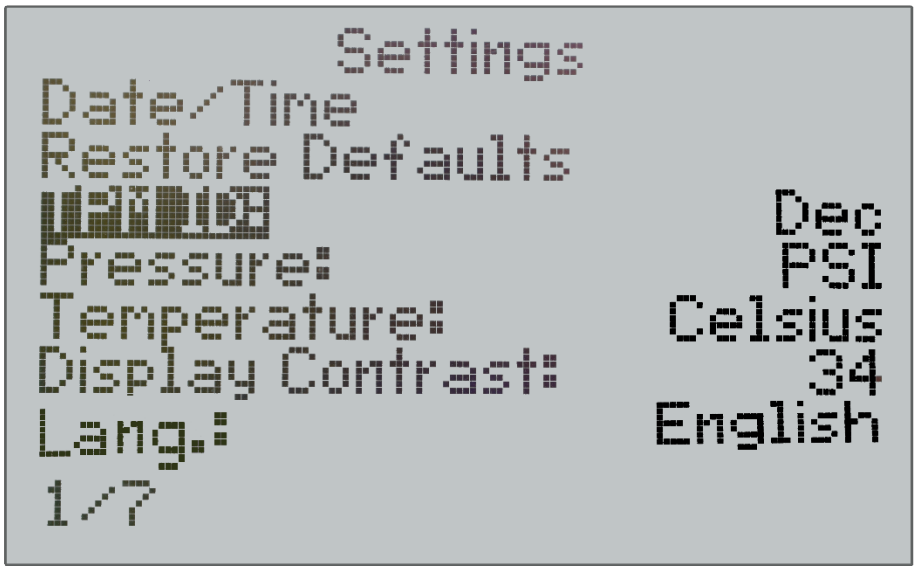
DELETE SENSOR DATA

When highlighted, press the enter key to delete the data records. A security screen prompt will appear providing the option to escape or continue.



SETTINGS

When highlighted, press the enter key to change the settings.



Settings

Sensor ID:
Select to display the Sensor ID in DECIMAL, HEXIDECIMAL or AUTO. Automatic reading matches the ID format to the sensor under test.

Pressure:
Select to display the required units of measurement: PSI, Bar and KPa.

Temperature:
Select to display the required units of measurement: Fahrenheit or Celsius.

Display Contrast:
Select to adjust the display contrast as required.

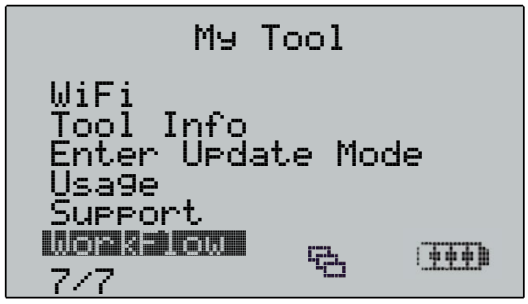
Lang.:
Select to display the required user language.
Languages supported: English, French, German, Italian, Turkish, Portuguese, Czech, Dutch, Swedish, Spanish, Polish, Danish, Hungarian, Slovakian.

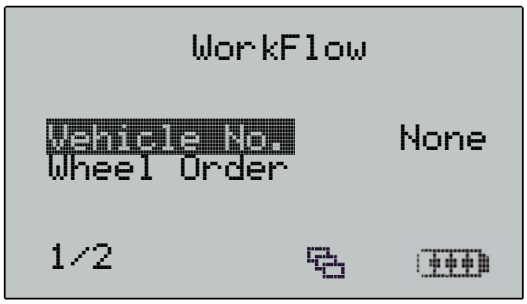
If a language is selected by mistake, press the home button followed by depressing the back key for approx. 5 seconds. The display will then prompt the operator to restore defaults that returns to English.

Date and Time:
Select to Set the current Date and Time.

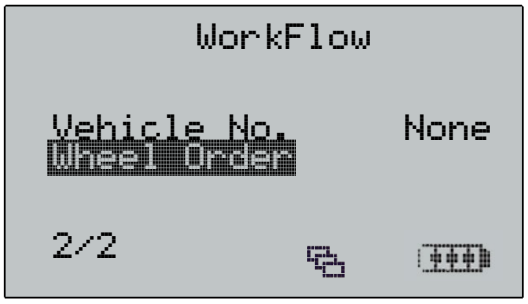
Restore Defaults:
Select to reset the device to the factory settings.

WORKFLOW


My Tool
WiFi
Tool Info
Enter Update Mode
Usage
Support
WorkFlow
7/7


WorkFlow
Vehicle No. None
Wheel Order
1/2


Vehicle No.
None
German
Unrestricted
Holland
1/4


WorkFlow
Vehicle No. None
Wheel Order
2/2


Select First Wheel
Right Front
Left Front
1/2


Select Direction
Clockwise
Anticlockwise
1/2

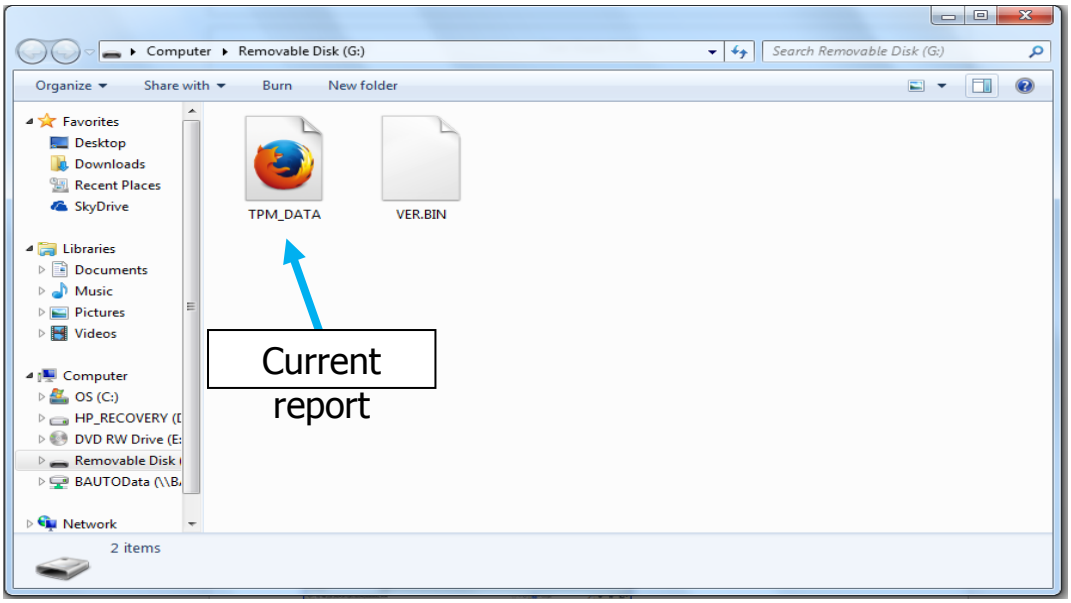

Select Wheel Order
Outer Wheel First
Inner Wheel First
1/2

RESULTS AUDIT SYSTEM

The TECH700 provides stored data record as an audit file via USB to a PC. The TECH700 appears as a “Mass Storage Device”. No additional software is required. The USB cable is included in the toolkit.

It is not necessary to power up the tool prior to connecting to the PC – the tool will power up automatically.

Audit File Presentation
The Data is presented in HTML format that displays additional information relating to the type of sensors tested.



Exit Audit Mode
To exit Audit mode simply remove the USB lead.

Tech 700 v57.0.3.2 TR

TECH 700 v57.0.2.2TR
Serial Num.: 4630027141

Test Performed On:03/Apr/2018 10:54

Test Performed by:	
Owners Name:	
License Plate No:	
Model and Year:	
VIN:	
Comments:	

Audit file examples

Mercedes:

Wheel	TPM Type	Reads	ID Hex	ID Dec	Mode	Battery State	Battery	Pressure	Temperature
R1	BERU GEN3.42 19200 Bi-Phase 433 MHzFM	1	F869B2FD	4167676669	Trig´d Tx	OK	19 Months	113 PSI	23°C
R2	BERU GEN3.42 19200 Bi-Phase 433 MHzFM	1	F05E3BC2	4032707522	Trig´d Tx	OK	47 Months	114 PSI	23°C
R3	BERU GEN3.42 19200 Bi-Phase 433 MHzFM	1	F05E0B14	4032695060	Trig´d Tx	OK	47 Months	118 PSI	23°C
R4	BERU GEN3.42 19200 Bi-Phase 433 MHzFM	1	F05E1B66	4032699238	Trig´d Tx	OK	48 Months	115 PSI	23°C
R5	BERU GEN3.42 19200 Bi-Phase 433 MHzFM	1	F05E346E	4032705646	Trig´d Tx	OK	48 Months	112 PSI	23°C

DAF:

Wheel	TPM Type	Reads	ID Hex	ID Dec	Mode	Battery State	Battery	Pressure	Temperature
R1	Schrader 9600 Manchester 433 MHzFM	1	56338F4A	1446219592	Stationary	OK	90%	113 PSI	23°C
R2	Schrader 9600 Manchester 433 MHzFM	1	56338F4A	1446219699	Stationary	OK	90%	118 PSI	23°C
R3	Schrader 9600 Manchester 433 MHzFM	1	5968371C	1500002076	Stationary	OK	100%	114 PSI	24°C
R4	Schrader 9600 Manchester 433 MHzFM	1	596833F6	1500001570	Stationary	OK	100%	112 PSI	23°C
R5	Schrader 9600 Manchester 433 MHzFM	1	596836B7	1500001975	Stationary	OK	100%	114 PSI	25°C

SETRA:

Wheel	TPM Type	Reads	ID Hex	ID Dec	Mode	Battery State	Battery	Pressure	Temperature
R1	Schrader 9600 Manchester 433 MHzFM	1	563053AB	1446007723	Stationary	OK	90%	114 PSI	22°C
R2	Schrader 9600 Manchester 433 MHzFM	1	5631350	1446065633	Stationary	OK	80%	112 PSI	22°C
R3	Schrader 9600 Manchester 433 MHzFM	1	56305354	1446007636	Stationary	OK	90%	118 PSI	22°C
R4	Schrader 9600 Manchester 433 MHzFM	1	56305391	1446007697	Stationary	OK	90%	118 PSI	23°C
R5	Schrader 9600 Manchester 433 MHzFM	1	56305372	1446007666	Stationary	OK	90%	113 PSI	23°C

TECHNICAL SPECIFICATION

TECH700 TECHNICAL SPECIFICATION

Power Supply: 4000mAh Lithium Polymer rechargeable battery, not user serviceable...

Max power consumption: 1.5W Schrader TPM, 0.5W all others

Display: LCD display. Resolution 128x64 pixels

Keyboard: 7 keys membrane keyboard, dust, water and grease-resistant keyboard

Input/output: Mini-B style USB used to Connect to PC for firmware update and audit file download.

Working environment: Temperature 0°C - 45°C, Humidity: 20-55%

Storage environment: Temperature - 10°C - 50°C, Humidity: 20-60%

Dimensions: 187mm x 107mm x 47mm

Weight (including batteries): 410g