

ENGLISH.....7



# SUMMARY

Introduction.....	7
ABOUT THE MANUAL.....	8
1 LEGEND OF THE SYMBOLS USED.....	9
2 GLOSSARY.....	10
3 GENERAL SAFETY REGULATIONS.....	11
3.1 Glossary.....	11
3.2 Operator Safety Regulations.....	11
3.2.1 General Safety Regulations.....	11
3.2.2 Risk of Asphyxiation.....	11
3.2.3 Risk of Impact and Crushing.....	12
3.2.4 Hazards Caused by Moving Parts.....	12
3.2.5 Risk of Burning or Scalding.....	12
3.2.6 Fire and Explosion Hazard.....	13
3.2.7 Noise Hazard.....	13
3.2.8 High Voltage Hazard.....	13
3.2.9 Poisoning Hazard.....	14
3.3 General User and Maintenance Warnings.....	15
4 SPECIFIC SAFETY RULES FOR USING AXONE 4.....	16
4.1 Glossary.....	16
4.2 General Rules.....	16
4.3 Operator Safety.....	16
4.4 Display Unit Safety.....	18
4.5 Use in Extreme Environmental Conditions.....	20
5 ENVIRONMENTAL INFORMATION.....	22
6 OPERATION OF THE TOOL'S RADIO DEVICES.....	23
7 INFORMATION REGARDING REGULATIONS.....	24
8 AXONE 4 DISPLAY UNIT.....	25
9 DESCRIPTION.....	28
9.1 Front view.....	28

9.2	Back View.....	29
9.3	Technical Features.....	30
10	USING THE DISPLAY UNIT.....	32
10.1	Preliminary Operations.....	33
10.1.1	Activating the Batteries.....	33
10.1.2	Inserting the SIM.....	34
10.2	Power supply.....	35
10.2.1	Power supply from the Mains.....	36
10.2.2	Power Supply using the DOCKING STATION CLASSIC.....	36
10.2.3	Power Supply Direct from Battery.....	37
10.2.4	Power Supply Through the Cigar Lighter Socket.....	37
10.3	Multifunction Key.....	38
10.3.1	Screen Navigation.....	38
10.3.2	Shutdown Menu.....	38
10.3.3	On-Screen Keyboard.....	39
10.3.4	Specific Settings Menu.....	39
10.4	Turning the unit on and off.....	40
10.4.1	Turning the unit on.....	40
10.4.2	Standby.....	41
10.4.3	Restart System.....	41
10.4.4	Turning the unit off.....	41
10.5	Communication.....	42
10.5.1	Bluetooth Communication.....	42
10.5.2	WiFi Communication.....	43
10.5.3	GPS Communication .....	44
10.5.4	HSUPA communication.....	45
10.6	Camera.....	46
10.7	SD CARD.....	46
10.8	LED indications.....	47
10.9	Connecting with Peripheral Devices.....	48
10.10	Using the Software.....	49
10.11	Updating the Software.....	50

- 10.12** Reset.....51
- 10.13** MINI DOCKING.....52
  - 10.13.1** Technical Features.....53
  - 10.13.2** Connecting to the Display Unit.....54
  - 10.13.3** Connecting to an External DVD Player.....55
- 11** MAINTENANCE.....56
- 12** SOLUTIONS TO PROBLEMS.....57
- 13** LEGAL NOTICES.....59



# AXONE 4 TECHNICAL MANUAL

## Introduction

Dear Customer,

We would like to thank you for choosing a TEXA product for your workshop. We are certain that you will get the greatest satisfaction from it and receive a great deal of help in your work.

Please read through the instructions in this manual carefully and keep it for future reference.

Reading and understanding the following manual will help you to avoid damage or personal injury caused by improper use of the product to which it refers.

TEXA S.p.A reserves the right to make any changes deemed necessary to improve the manual for any technical or marketing requirement; the company may do so at any time without prior notice.

This product is intended for use by technicians specialized in the automotive field only. Reading and understanding the information in this manual cannot replace adequate specialized training in this field.

The sole purpose of the manual is to illustrate the operation of the product sold. It is not intended to offer technical training of any kind and technicians will therefore carry out any interventions under their own responsibility and will be accountable for any damage or personal injury caused by negligence, carelessness, or inexperience, regardless of the fact that a TEXA S.p.A. tool has been used based on the information within this manual.

Any additions to this manual, useful in describing the new versions of the program and new functions associated to it, may be sent to you through our TEXA technical bulletin service.

This manual should be considered an integral part of the product to which it refers. In the case it is resold the original buyer is therefore required to forward the manual to the new owner.

Reproduction, whole or in part, of this manual in any form whatsoever without written authorization from the producer is strictly forbidden.

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# ABOUT THE MANUAL

In this document the terms "**tool**" and "**device**" refer to the purchased product, subject of this manual.

Any other specific term is explained in the text.












This manual is divided into the following chapters:

1. **Legend of the Symbols:** *provides the description of the symbols used in the manual.*
2. **Glossary:** *provides the meaning of the technical terms used in the manual.*
3. **General Safety Rules:** *provides important information concerning the safety of the operator and its workplace.*
4. **Specific Safety Rules:** *provides important information concerning the safety of the operator in relation to the use of the product.*
5. **Environmental information:** *provides indications related to the disposal of the purchased tool/device.*
6. **Operation of the Radio Devices:** *provides information concerning the wireless connectivity of the tool/device.*
7. **Normative information:** *reports the declaration of conformity of the tool/device*
8. **Description:** *describes the tool/device, the technical features, the equipment.*
9. **Operation:** *explains all the functions and operation modes of the tool/device.*
10. **Maintenance:** *provides indications on the maintenance of the tool/device.*
11. **Solutions to problems:** *suggests "what to do when..." and gives information on our client help service.*
12. **Legal Notes:** *provides indications related to the guarantee of the purchased tool/device.*



# 1 LEGEND OF THE SYMBOLS USED

The symbols used in the manual are described in this chapter.

	Asphyxiation Risk
	Explosion Risk
	High Voltage Hazard
	Fire / Burn risk
	Poisoning Hazard
	Corrosive Substances Risk
	Noise Hazard
	Moving Parts Risk
	Crushing Risk
	General Risk
	Important information

## 2 GLOSSARY

This chapter provides definitions of the technical terms used in the manual:

- **Diagnosis/diagnostic socket:** *female connector mounted on the vehicle which allows it to be connected to the vehicle control unit.*
- **OBD socket:** *diagnosis socket specific to the OBD protocol.*
- **Diagnosis/diagnostic connector:** *male connector mounted on the diagnosis tool or at the end of a cable to connect to the diagnosis tool.*
- **OBD connector:** *diagnosis connector specific to the OBD protocol.*
- **Diagnosis/diagnostic cable:** *cable that allows the diagnosis cable to be connected to the diagnosis socket.*
- **OBD cable:** *diagnosis cable specific to the OBD protocol.*
- **Display unit:** *device equipped with a screen (PC, mobile device, etc.) in which the special software that allows communication with the tool, its configuration and the processing and displaying of data collected by it, is installed.*
- *Peripheral device: with respect to the display unit, any instrument or device that the display unit is able to interface with.*
- **Device connector:** *USB connector used to connect to the device.*
- **Host connector:** *USB connector used to connect to the display unit.*

## 3 GENERAL SAFETY REGULATIONS

### 3.1 Glossary

- **Operator:** *qualified individual, in charge of using the device/tool.*
- **Machine/device/tool:** *the product purchased.*
- **Workplace:** *the place where the operator must carry out her/his work.*

### 3.2 Operator Safety Regulations

#### 3.2.1 General Safety Regulations

- *The operator must be completely clear-headed and sober when using the device; taking drugs or alcohol before or when operating the device is strictly forbidden.*
- *The operator must not smoke during device operation.*
- *The operator must carefully read all the information and instructions in the technical documents provided with the device.*
- *The operator must follow all the instructions provided in the technical documents.*
- *The operator must always watch over the device during the various operating phases.*
- *The operator must make sure she/he is working in environment which is suitable for the operations that must be carried out.*
- *The operator must report any faults or potentially hazardous situation in connection with the workplace or the device.*
- *The operator must carefully follow the safety regulations required for the workplace in which she/he is working and required by the operations she/he has been asked to carry out.*

#### 3.2.2 Risk of Asphyxiation




Exhaust gas from internal combustion engines, whether they may be petrol or diesel, are hazardous to your health and can cause serious harm to your body.

#### Safety Precautions:

- *The workplace must be equipped with an adequate ventilation and air extraction system and must be in compliance with standards according to current national laws.*
- *Always activate the air extraction system when working in closed environments.*


### 3.2.3 Risk of Impact and Crushing

	The vehicles which are undergoing A/C system recharging operations and the devices, must be properly blocked using the specific mechanical brakes/blocks, while being service.
---	--

#### **Safety Precautions:**

- *Always make sure that the vehicle is in neutral gear (or that it is set in parking position in case of a vehicle equipped with automatic transmission).*
- *Always activate the hand brake or parking brake on the vehicle.*
- *Always block the wheels on the vehicle with the specific mechanical blocks.*
- *Make sure the device is stable, on a flat surface and the wheels are locked with the specific brakes.*



### 3.2.4 Hazards Caused by Moving Parts

	Vehicle engines include parts that move, both while running and not running (eg: the cooling fan is controlled by a thermal switch in connection with the coolant temperature and become activated even when the vehicle is off), that can injure the operator.
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#### **Safety Precautions:**

- *Keep hands away from moving parts.*
- *Disconnect the engine cooling fan each time the engine you are working on is still hot. This will avoid the fan from becoming activated unexpectedly even when the engine is off.*
- *Do not wear ties, loose clothes, wrist jewellery or watches when working on a vehicle.*
- *Keep connection cables, probes and similar devices away from the moving parts of the engine.*

### 3.2.5 Risk of Burning or Scalding


	The parts that are exposed to high temperatures in engines that are moving or have just stopped could burn the operator.
	Remember that catalytic mufflers reach very high temperatures, able to cause serious burns or even start fires. Acid in the vehicle batteries is another potential hazard.

#### **Safety Precautions:**

- *Protect your face, hands, and feet by using suitable protection.*
- *Avoid contact with hot surfaces, such as spark plugs, exhaust pipes, radiators and connections within the cooling system.*

- *Make sure there are no oil stains, rags, paper or other inflammable material near the muffler.*
- *Avoid splashing electrolyte on skin, eyes and clothes, as it is a corrosive and highly toxic compound.*


### 3.2.6 Fire and Explosion Hazard

	<p>The following are potential fires and/or explosion hazards:</p> <ul style="list-style-type: none"> <li>• <i>The types of fuel used by the vehicle and the vapours released by these fuels.</i></li> <li>• <i>The refrigerants used by the A/C system.</i></li> <li>• <i>The acid in the vehicle batteries.</i></li> </ul>
---	--

#### **Safety Precautions:**

- *Let the engine cool.*
- *Do NOT smoke near the vehicle.*
- *Do NOT expose the vehicle to open flames.*
- *Make sure that the electrical connections are all well insulated.*
- *Collect any fuel that might have spilled.*
- *Collect any refrigerant that might have spilled.*
- *Make sure you are always working in an environment equipped with a good ventilation and air extraction system.*
- *Always activate the air extraction system when working in closed environments.*
- *Cover the openings of the batteries with a wet cloth in order to stifle the explosive gases before proceeding in testing or recharging.*
- *Avoid causing sparks when connecting cables to the battery.*


### 3.2.7 Noise Hazard

	<p>Loud noises that may occur within the workplace, especially during service operations may damage the operator's hearing.</p>
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#### **Safety Precautions:**

- *Protect your ears with suitable protective ear wear.*


### 3.2.8 High Voltage Hazard

	<p>The voltage supply from the mains that powers the devices in the workplace and the voltage within the vehicle starter system is a potential shock hazard to the operator.</p>
---	--

## **Safety Precautions:**

- *Make sure the electrical system in the workplace is compliant to current national standards.*
- *Make sure the device being used is connected to ground.*
- *Cut off the power supply voltage before connecting or disconnecting cables.*
- *Do NOT touch the high voltage cables when the engine is on.*
- *Operate in conditions of insulation from ground.*
- *Work with dry hands only.*
- *Keep conductive liquids away from the engine while working.*
- *Never leave tools on the battery in order to avoid accidental contacts.*

### *3.2.9 Poisoning Hazard*

	The hoses used to extract the refrigerants can release toxic gases, dangerous to the operator if exposed to temperatures higher than 250 °C or in case of a fire.
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## **Safety Precautions:**

- *Contact a doctor immediately should you inhale these gases.*
- *Use neoprene or PVC gloves when eliminating combustion deposits.*

### 3.3 General User and Maintenance Warnings

When using the device or carrying out scheduled maintenance (eg. fuse replacement) on the device, carefully follow the information provided below.

- *Do not remove or damage the labels/tags and the warnings on the device; do NOT in any case make them illegible.*
- *Do not remove, or block, any safety devices the device is equipped with.*
- *Only use original spare parts or spare parts approved by the manufacturer.*
- *Contact your retailer for any non-scheduled maintenance.*
- *Periodically check the electrical connections of the device, making sure they are in good condition and replacing any damaged cables.*
- *Check parts that are subject to wear periodically and replace if necessary.*
- *Do not open or disassemble the device.*

## 4 SPECIFIC SAFETY RULES FOR USING AXONE 4

The technology used in designing and inspecting the production of **AXONE 4** displays units means that they are reliable, simple and safe to use.

Personnel in charge of using diagnostic tools are required to follow the general safety regulations and use **AXONE 4** display units for their intended use only. Furthermore, they are required to carry out maintenance as described in this manual.



**The following also applies in principle to docking stations built for use with AXONE 4.**

### 4.1 Glossary

**Operator:** qualified individual charged with using the display unit.

**Display unit:** any **AXONE 4** device.

### 4.2 General Rules

- *The operator must have basic knowledge of mechanics, automotive engineering, car repair and the potential dangers that may arise during self-diagnosis operations.*
- *The operator must carefully read all the information and instructions in the technical documents provided with the display unit.*

### 4.3 Operator Safety



Airbags inflate with great force; any display unit placed in their expansion zone could be thrown towards the occupants of the vehicle causing serious harm.

#### Safety Measures:

- *Do not place the display unit in the airbag expansion zone.*



Some self-diagnosis operations allow you to activate/deactivate certain actuators and safety systems on the vehicle.

#### Safety Measures:

- *In order to avoid accidents and/or damage to the device or the electronic systems of the vehicle connected to the unit, do not allow unqualified personnel to use the display unit.*
- *Follow the instructions supplied by the software closely and carefully.*





Do not use a display unit fastened to the steering wheel using a MIDI DOCKING station during road tests.



The display unit and portable devices that contain WAN wireless modems in general, use radio signals and it is not possible to guarantee a connection to a mobile network in all conditions.

Remember that in order to make or receive calls, the display unit or portable device containing a WAN wireless modem must be switched on in an area within signal range.

Some networks do not allow emergency calls if certain network services or device functions are in use (for example, lock functions, etc.).

Some networks require a valid SIM card to be inserted in the display unit or portable device containing a WAN wireless modem.

### **Safety Measures:**

- *Do not rely exclusively on wireless devices for essential communications, for example emergency calls.*
- *Check whether lock functions or similar need to be deactivated in order to make emergency calls.*



The driver of a vehicle is responsible for driving in a responsible and safe manner.  
The use of the display unit while driving can be a distraction and may be limited or banned in some areas.

### **Safety Measures:**

- *Always respect the laws and regulations in force with respect to the use of mobile devices.*
- *Do not enter or check written data.*
- *Enter the destination information before taking the wheel.*
- *Do not enter navigation information while driving.*
- *Do not carry out any operations that may distract your attention from the road.*

## **4.4 Display Unit Safety**



The display unit is designed for use in specific environmental conditions.  
Using the display unit in environments with temperatures and humidity that differ from those specified may impair its efficiency.

### **Safety Measures:**

- *Always place the display unit in a dry area.*
- *Do not expose or use the display unit close to heat sources.*
- *Always place the display unit so as to ensure its proper ventilation.*
- *Do not place the display unit on hot surfaces.*
- *Do not cover the rear air vent.*
- *Do not use corrosive chemicals, solvents or harsh detergents to clean the display unit.*



The display unit is designed to be mechanically tough and suitable for use in a workshop.  
Careless use and excessive mechanical stress may impair its efficiency.

### **Safety Measures:**

- *Do not drop, shake or knock the display unit.*
- *Do not carry out any kind of intervention that could damage the display unit.*
- *Do not open or dismantle the display unit.*
- *Never force a connector into a port.*
- *Check for any blockages in the port.*

- *Check that the connector corresponds with the port and that it is correctly positioned with respect to the port.*
- *Always place the display unit on flat surfaces with the screen facing up.*
- *Before fastening the display unit to the steering wheel, ensure that the docking station is correctly fitted to the display unit.*
- *Only make selections on the touchscreen using the stylus pen provided, do not use pointed objects or anything that could damage the surface of the screen.*
- *Do not rest work tools or other weights on the display unit screen.*
- *Do not use the display unit as a work surface.*
- *For **docking stations** in particular:*
  - *Only use the hooks provided with the **MIDI DOCKING** station for fastening the unit to the steering wheel of the vehicle being inspected.*
  - *Always place the docking station, whatever model, on flat surfaces.*
  - *Do not insert any objects that could block the fan in the **DOCKING STATION CLASSIC**.*
  - *Do not insert objects in the air vents on the back of the **DOCKING STATION CLASSIC**.*



The display unit is designed to be electrically safe and to work at specific power supply voltage levels. Failure to comply with the specifications related to the power supply may impair the efficiency of the display unit.

### **Safety Measures:**

- *Do not wet the display unit with water or other liquids.*
- *If the unit is immersed in liquid, clean and dry the power supply jack connector with a clean cloth.*
- *Do not use external batteries to supply the display unit.*
- *Only use the power adaptor provided to recharge the internal batteries, connected to the display unit in the way described in this manual.*



The display unit is built to be waterproof so long as the waterproof covers of the docking connector and the compartment that houses the SIM and SD CARD slots are completely closed. Removing the waterproof covers means that the display unit is no longer waterproof.

### **Safety Measures:**

- *Do not remove the waterproof covers.*
- *Do not wet the display unit when one of the waterproof covers has been removed.*
- *Make the display unit waterproof again by replacing the covers, ensuring that they are fitted correctly and that there are no foreign bodies between the covers and the linings on the device.*
- *Contact the Technical Assistance service if you are not sure whether the unit is waterproof.*



The electromagnetic compatibility tests carried out on the unit guarantee that it can be adapted to the technologies normally used on vehicles (e.g.: engine check, ABS, airbag etc.). Nevertheless, if malfunctions occur you should contact the vehicle dealer.

## **4.5 Use in Extreme Environmental Conditions**



AXONE 4 display units are designed and built for use in extreme environmental conditions according to drop standards MIL STD 810F and IP67. Nevertheless, use in such conditions is considered extraordinary and not comparable to normal product use. Such use can, therefore, cause the deterioration of the unit and its working life.

### **Safety Measures:**

- *Do not wet or immerse the display unit intentionally in any kind of liquid.*
- *Do not use the display unit when immersed in liquid.*
- *Should the unit accidentally get wet or be immersed in liquid, dry and clean the display unit paying particular attention to the power supply connector.*
- *Ensure that the display unit is completely dry before use.*
- *Avoid dropping, knocking, shaking or scratching the unit.*
- *Do not expose the display unit to outdoor weather conditions.*
- *Only use the display unit for the purposes it was designed for and in any case never in an improper manner.*
- *Only press the touchscreen using the stylus pen provided.*

- *Avoid the display unit coming into contact with powders and dirt in general wherever possible.*



AXONE 4 display units are designed and built according to drop standards MIL STD 810F.  
Conformity with these standards no longer applies when the display unit is connected to a docking station.

## 5 ENVIRONMENTAL INFORMATION



For information regarding the disposal of this product please see the pamphlet supplied.

## 6 OPERATION OF THE TOOL'S RADIO DEVICES

### Wireless connection with Bluetooth, WiFi and HSUPA technology

Wireless connectivity through Bluetooth, WiFi and HSUPA is a technology that supplies a standard, reliable method for exchanging information between different devices using radio waves. Many other products besides those built by TEXA use this technology, such as mobile phones, portable devices, Computers, printers, cameras, Pocket PCs etc.

The Bluetooth, WiFi and HSUPA interfaces search for compatible electronic devices based on the radio signals they emit and establish a connection. TEXA tools only select and prompt compatible TEXA devices. This does not exclude the presence of other sources of communication or disturbance.

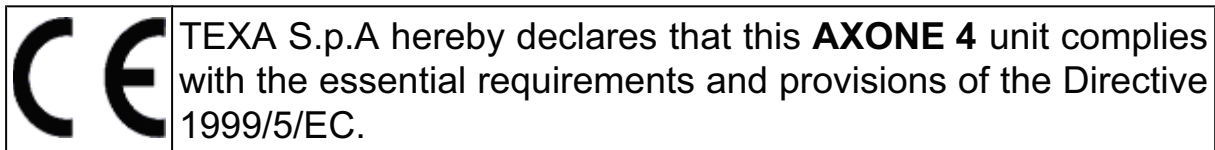
THE EFFICIENCY AND QUALITY OF BLUETOOTH, WiFi AND HSUPA COMMUNICATION MAY BE AFFECTED BY THE PRESENCE OF RADIO DISTURBANCE. THE COMMUNICATION PROTOCOL IS DESIGNED TO MANAGE THESE TYPES OF ERRORS; HOWEVER, IN SUCH CASES COMMUNICATION MAY BE DIFFICULT AND CONNECTION MAY REQUIRE SEVERAL ATTEMPTS.

SHOULD THE WIRELESS CONNECTION ENCOUNTER SERIOUS PROBLEMS AND COMPROMISE REGULAR COMMUNICATION, THE SOURCE OF THE ENVIRONMENTAL ELECTROMAGNETIC DISTURBANCE MUST BE IDENTIFIED AND ITS INTENSITY REDUCED.

Position the tool so that the radio devices it is equipped with can work properly. In particular, do not cover it with any shielding or metallic materials in general.

## 7 INFORMATION REGARDING REGULATIONS

### Declaration of conformity



A complete copy of the Declaration of Conformity can be obtained from  
TEXA S.p.A., Via 1 Maggio 9, 31050 Monastier di Treviso (TV), Italy

### Antenna

This product is designed and tested to operate with the antenna provided. In order to guarantee compliance with the above-mentioned regulations, only use the appliance with the antenna provided or with another antenna authorized by Texa S.p.A.



## FCC Notice (U.S. Only)

FCC Class B - Applicable only to Limited Feature connections

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instruction manual, may cause interference with radio and television reception. This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

**NOTICE:** The FCC regulations provide that changes or modifications not expressly approved by TEXA S.p.A. could void your authority to operate this equipment.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference with radio or television reception, which can be determined by turning the equipment off and on, you are encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Relocate the system with respect to the receiver.
- Move the system away from the receiver.
- Plug the system into a different outlet so that the system and the receiver are on different branch circuits.

If necessary, consult a representative of TEXA S.p.A. or an experienced radio/television technician for additional suggestions.

The following information is provided on the device or devices covered in this document in compliance with the FCC regulations:

- Product: AXONE 4
- Company: TEXA S.p.A.

To reach the FCC ID of the two modules, unscrew the screws from the lower shell and remove the shell with the speaker and webcam cables. Move the board with the docking connector to the top.

At the top left you will find the Bluetooth module with the FCC ID printed on it.

Disconnect the antenna wiring at the left of the docking connector and remove the module that is connected to it.

On the lower side of this module you will find the corresponding FCC ID.

The minimum separation distance required between the radio module antenna and the human body should be at least 20 cm to comply with the RF exposure limits for mobile devices.

## 8 AXONE 4 DISPLAY UNIT

**AXONE 4** is the new and most advanced TEXA display unit, inspired and built for easy and safe use in the most diverse working conditions.



**AXONE 4** is designed and built to conform with military drop standards **MIL STD 810F**, which means the tool can be used in unconventional working conditions.

**AXONE 4** can be used in exacting environments: inside and outside the workshop, in agricultural settings, in the mud and the dust, or specifically in the marine sector.

**AXONE 4** is available in two different versions distinguished by different IP levels:

- **IP65:** casing completely protected against powder and jets of water.
- **IP67:** casing completely protected against powder and the effects of immersion in water.

**AXONE 4** is fitted with a large **touchscreen** that allows all the operations requested by the software to be carried out, and a multifunction key.

The display unit is equipped with an **accelerometer** which switches a vertical software view to a horizontal one according to the position of the device and, thus, the needs of the operator.

**AXONE 4** is equipped with a **VGA camera** with a CMOS sensor which is useful for photographing, for example, components to be replaced and spare parts for ordering.

**AXONE 4** is designed to exploit the most modern wireless communication systems thanks to specific inbuilt communication modules.

Both **AXONE 4** versions are available in **three configurations**:

Configuration	Bluetooth	WiFi	GPS	HSUPA
Base	X	X	-	-
GPS	X	X	X	-
GPS + HSUPA	X	X	X	X

Thanks to the **Bluetooth** technology in the **AXONE 4** it is possible to work moving freely around the vehicle, or sitting comfortably inside it.

The **Bluetooth** module built into the **AXONE 4** allows the display unit to connect to a wide range of diagnosis and measurement tools and devices.

The **DUAL CONTROL** function allows the **AXONE 4** to interface with two diagnosis devices at once.



The **WiFi** module built into the **AXONE 4** allows the display unit to connect to the internet and download updates by connecting to a router/access point or smartphone.

The **GPS** module built into the **AXONE 4**, its navigation software and attached maps transform the display unit into a useful **satellite navigator**.

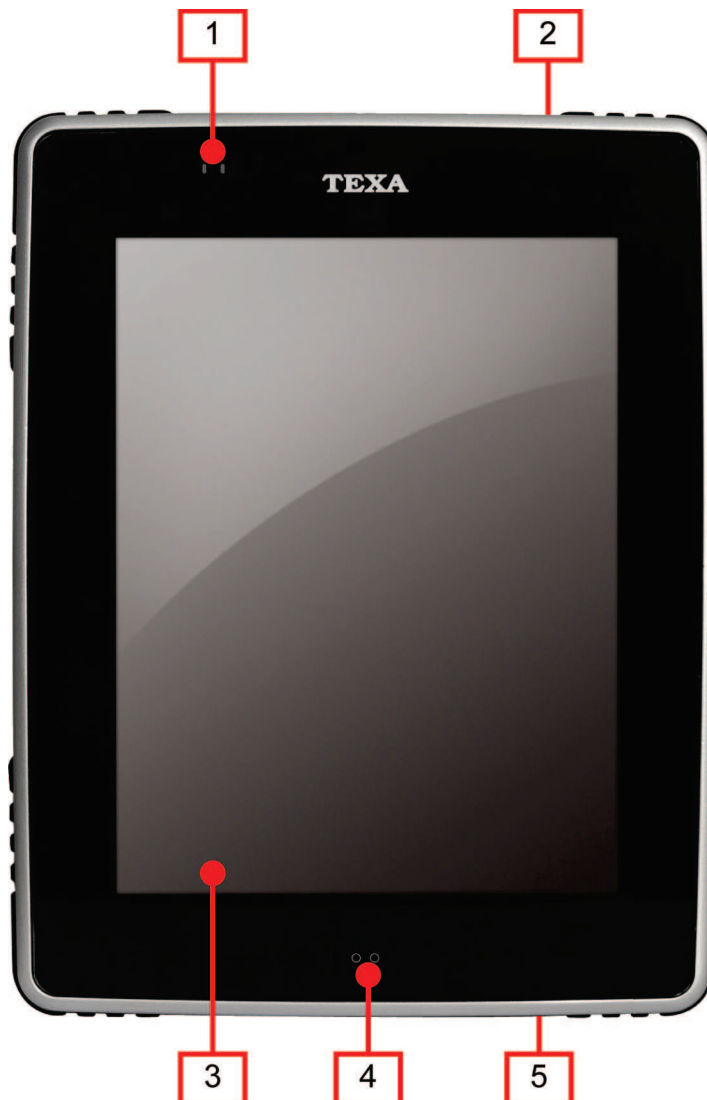
The **HSUPA** module built into the **AXONE 4** allows the display unit to connect to the internet without using any other routing devices.

**AXONE 4** can also be used alongside different models of **docking stations** designed to further increase practical use.

## 9 DESCRIPTION

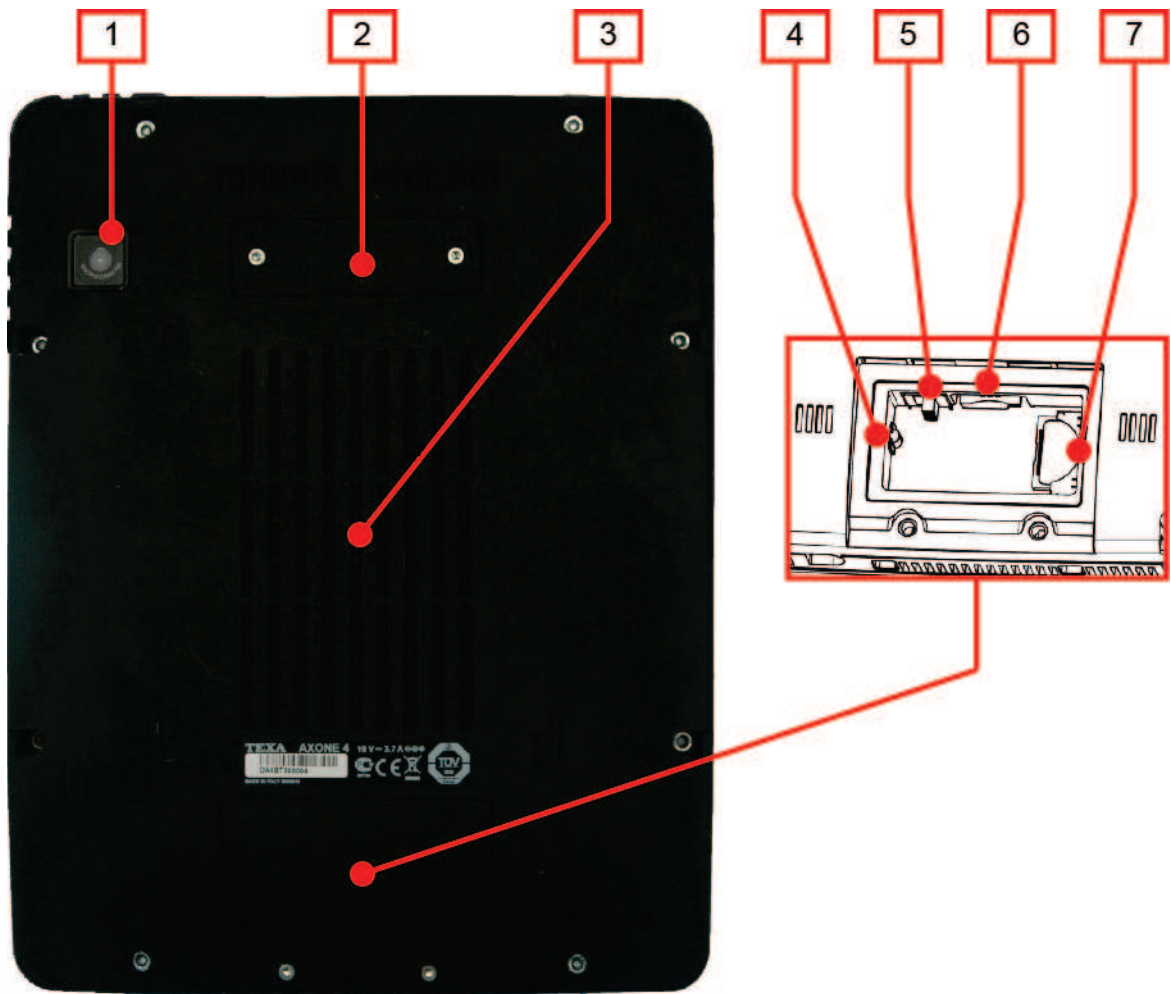
This chapter describes the general characteristics of the **AXONE 4**, valid for all product versions.

### 9.1 Front view



1. **Status LED**
  - *Green LED*
  - *Yellow LED*
2. **POWER button**
3. **Touchscreen**
4. **Multifunction key**
5. **Power supply connector**

## 9.2 Back View



1. **Camera**
2. **DOCKING connector compartment**
3. **Passive heat dissipation system**
4. **RESET button \***
5. **Battery Switch \***
6. **SIM slot \***
7. **SD CARD slot \***

(\*) Housed inside the waterproof compartment.

### 9.3 Technical Features

<b>Processor:</b>	INTEL Atom Z530, 1.6 GHz
<b>SRAM memory:</b>	1 GB DDR2
<b>Hard Disk:</b>	32 GB SSD Sata
<b>Memory expansion:</b>	SD CARD on SDIO slot
<b>Operating system:</b>	Windows™ Embedded Standard 7
<b>Display:</b>	Colour active matrix 9.7" SVGA 4:3 TFT-LCD with LED backlight and laminated resistant touch panel
<b>Visual warnings:</b>	1 green LED, 1 yellow LED
<b>Audio warnings:</b>	1 buzzer and 1 speaker actuator
<b>Camera:</b>	VGA with CMOS sensor
<b>Battery:</b>	2 packs 3S 11.1 V li-Polymer 2500 mA each
<b>Backup battery:</b>	3 V
<b>Power supply connector:</b>	Jack or DOCKING connector
<b>External power supply:</b>	19 V power adaptor, 3,7 A
<b>Communication connector:</b>	DOCKING connector accessed via waterproof door: <ul style="list-style-type: none"> <li>• 1 USB 2.0</li> <li>• 1 Ethernet</li> </ul>
<b>Wireless connection modules and inbuilt antennas:</b>	<ul style="list-style-type: none"> <li>• Bluetooth class 1 (30 m)</li> <li>• WiFi 802.11 b/g</li> <li>• WWAN HSUPA with GPS (optional)</li> </ul>
<b>Consumption:</b>	circa 7 W
<b>Autonomy:</b>	circa 5 hours
<b>Operating temperature:</b>	0 ÷ 50 °C
<b>Storage temperature:</b>	- 20 ÷ 60 °C
<b>Operating humidity specifications:</b>	10% ÷ 80% without condensation
<b>Dimensions:</b>	240x180x45 mm
<b>Weight:</b>	1,7 kg
<b>Protection level:</b>	<ul style="list-style-type: none"> <li>• IP65 - all versions</li> <li>• IP67 - marine environment version</li> </ul>



**Standards:**

- **Directive: 1999/5/EC**
- **Safety: EN 60950-1:2006/A11; EN 60529; MIL STD 810F**
- **Electromagnetic compatibility: ETSI EN 301 489-1; ETSI EN 301-489-17**
- **Radio systems: ETSI EN 300 328**

## 10 USING THE DISPLAY UNIT

**AXONE 4** display units must be used by qualified personnel.

TEXA S.p.A. offers professional training courses to its clients.

During these training courses technicians are followed step by step by specialised personnel who help technicians to acquire as much expertise on the tools and software as possible. Technicians thus learn how to make the best use of TEXA S.p.A. products.

For more information regarding training courses offered by TEXA S.p.A. please visit our website [www.texa.it](http://www.texa.it).

**The information for the standard version of AXONE 4 is also valid for versions equipped with GPS and HSUPA modules unless otherwise specified.**

## 10.1 Preliminary Operations

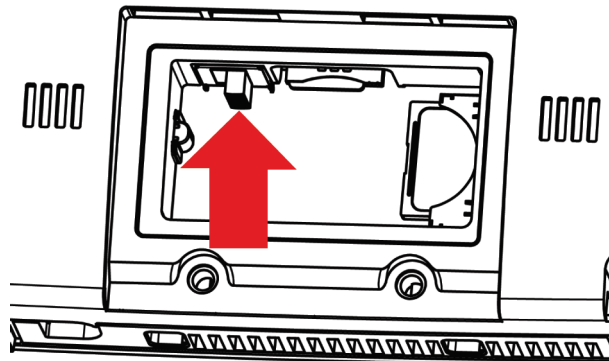
In the following the preliminary operations necessary to make the display unit completely operational are described.

**The operations may differ according to the model of display unit purchased.**

### 10.1.1 Activating the Batteries

The display unit is delivered with the **batteries disconnected** in order to prolong their efficiency.

To connect the batteries it is necessary to operate the **battery switch** in the waterproof compartment.



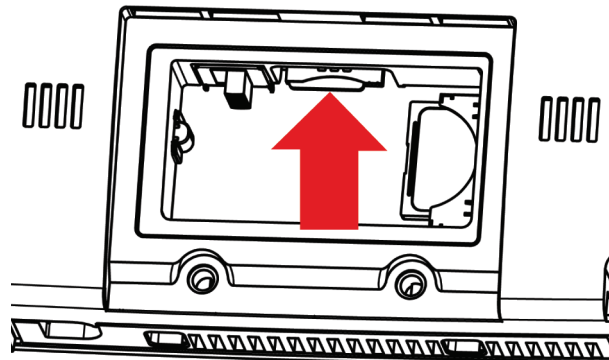
Proceed as follows:

1. *Unscrew the waterproof compartment cover screws.*
2. *Remove the compartment cover.*
3. *Move the **battery switch** to the **ON** position.*
4. **Close the compartment, ensuring that there are no foreign bodies between the cover and the lining on the display unit that could affect its waterproof qualities.**

### 10.1.2 Inserting the SIM

The following is only valid for display units equipped with HSUPA modules.

In order to use the features made available by the **HSUPA module** it is necessary to insert a **data traffic enabled SIM** in the relevant slot on the display unit.



The operation described in the following must be carried out with the display unit switched off.

Proceed as follows:

1. *Unscrew the waterproof compartment cover screws.*
2. *Remove the compartment cover.*
3. *Insert a **data traffic enabled SIM** in the slot.*
4. **Close the compartment ensuring that there are no foreign bodies between the cover and the lining on the display unit that could affect its waterproof qualities.**

## 10.2 Power supply

The display unit is powered by two internal rechargeable battery packs that allow it to be used without a mains power supply.

The autonomy supplied by the internal batteries allows you to use the display unit for the duration of a normal working day.

The internal batteries can be recharged in the following ways:

- **from the mains using the power adaptor supplied,**
- **from the mains using the DOCKING STATION CLASSIC,**
- **from the vehicle battery using the accessory cable.**
- **from the cigar lighter socket using the accessory cable.**

**In all cases the display unit is powered and can be used normally.**

Normally, a **complete recharge** takes **about 3 hours** when connected to the mains without interruption.



**Recharge the internal batteries completely when switching on the display unit for the first time.**



**Keep the display unit powered using a mains power adaptor or docking station during software updates.**



**Only use the power adapter supplied, or an “AC adapter” with the following specifications: 100-240 Vac, 50/60 Hz, 19 Vdc, 3,7 A.**



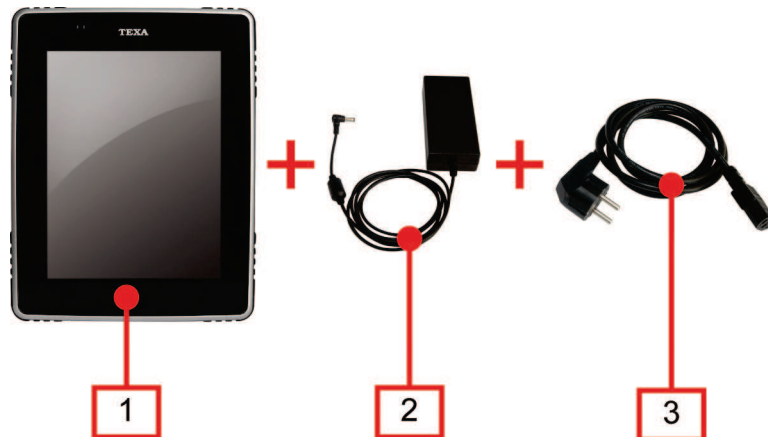
**Always charge the display unit after use.**



**Move the battery switch to the OFF position if the display unit is not used for a long period of time.**

### 10.2.1 Power supply from the Mains

The display unit can be powered directly from the mains.



1. **Display unit**
2. **Power adaptor**
3. **Power supply cable**

Proceed as follows:

1. *Connect the **power adaptor** to the **display unit**.*
2. *Connect the **power supply cable** to the **power adaptor**.*
3. *Connect the **power supply cable** to a **mains socket**.*

### 10.2.2 Power Supply using the DOCKING STATION CLASSIC


The display unit can be powered using the **DOCKING STATION CLASSIC**.

The **DOCKING STATION CLASSIC** is a special docking station supplied as an optional and purchased separately.

**For more information see the DOCKING STATIONS for AXONE 4 manual.**

### 10.2.3 Power Supply Direct from Battery

Power can be drawn **direct from the battery** of the vehicle being inspected using a specific accessory cable.

 **If the battery is in the rear of the vehicle, we recommend you connect the tool directly to the power supply points from the battery in the area in which you are working.**

The display unit can be powered using appropriate cables that can be attached through the power supply connector.

Proceed as follows:


1. *Connect the battery cable jack to the display unit's power supply connector.*
2. *Connect the cable clamps to the battery terminals taking **care to respect the polarity indicated on the cables.***

### 10.2.4 Power Supply Through the Cigar Lighter Socket

Power can also be drawn from the battery of the vehicle being inspected using a specific cable that can be attached to the display unit through the power supply connector.

Proceed as follows:

1. *Connect the cigar lighter jack to the display unit power supply connector.*
2. *Connect the cigar lighter socket connector to the cigar lighter in the vehicle being tested.*

 **Whenever the cigar lighter socket is used check that it is always powered (not only when the key is turned to ON).**

## 10.3 Multifunction Key

The display unit has a **multifunction key** placed below the touchscreen.

Using this key you can:

- *navigate back through the software screens,*
- *view the shutdown menu,*
- *activate the on-screen keyboard,*
- *view the menu for specific display unit settings.*

### 10.3.1 Screen Navigation

The **multifunction key** allows you to navigate back through the software screens.

This function is useful, for example, when you wish to move back a number of steps during a selection procedure.

Proceed as follows:

1. *Press the multifunction key repeatedly until you reach the desired screen*

Using this key you can move back step by step to the **DESKTOP** screen, or the main software screen.

Pressing the multifunction key when in the **DESKTOP** screen will cause the **shutdown menu** to appear.

**For more information consult the software User Manual.**

### 10.3.2 Shutdown Menu

The **multifunction key** allows you to view the **shutdown menu**.

The options on the shutdown menu allow you, for example, to:

- *switch off the display unit,*
- *restart the display unit,*
- *place the display unit in standby.*

Proceed as follows:

1. *View the software **DESKTOP** screen.*
2. *Press the multifunction key.*
3. *Select the desired option on the touchscreen.*



### 10.3.3 On-Screen Keyboard

The **multifunction** key allows you to view an **on-screen keyboard**.

The on-screen keyboard is useful for entering test data.

Proceed as follows:

1. *Press the multifunction key twice (double click).*

### 10.3.4 Specific Settings Menu

The **multifunction key** allows you to view the **specific settings menu**.

The functions on this menu allow you, for example, to:

- *view the battery charge status,*
- *set the display unit orientation,*
- *set the screen brightness,*
- *start the touchscreen calibration procedure.*

Proceed as follows:

1. *Hold the multifunction key down until the menu appears.*
2. *Select the desired function on the touchscreen.*

## 10.4 Turning the unit on and off

### 10.4.1 Turning the unit on

In the following the procedure for **turning on** the display unit is described. Proceed as follows:

1. Hold down the **POWER** button until the green LED lights up.
2. Wait for the software to start up and the **DESKTOP** screen to appear.



The display unit is now ready for use.

Through the **DESKTOP**, you can activate the specific environment for the type of vehicle being tested, and access special software functions available on this display unit.

For further information see the software User Manual.

**!** If the CPU temperature is high, the display unit may not switch on in order to prevent the CPU and/or the batteries from overheating.

Wait for the display unit to cool down and try again.

If the problem persists contact technical assistance.

### 10.4.2 Standby

The display unit's energy consumption is optimised by the **screen switching off automatically when not in use** and by the possibility of placing the unit in **standby**.

The display unit **screen switches off automatically when the unit is not in use and not communicating with peripheral devices**.

To turn the screen on again **touch the touchscreen**.

After the screen has been turned off, **if the unit is not used for a prolonged period of time, it automatically places itself in standby**.

To reactivate the display unit **press the multifunction key**.

The display unit can be placed in **standby** manually.

Proceed as follows:

1. *View the software **DESKTOP** screen.*
2. *Press the multifunction key.*
3. *Select the desired option on the touchscreen.*

To take the display unit out of standby mode **press the multifunction key**.

### 10.4.3 Restart System

If necessary, it is possible to **restart the display unit**.

Proceed as follows:


1. *View the software **DESKTOP** screen.*
2. *Press the multifunction key.*
3. *Select the desired option on the touchscreen.*

### 10.4.4 Turning the unit off

In the following the procedure for **turning off** the display unit is described.

Proceed as follows:

1. *View the software **DESKTOP** screen.*
2. *Press the multifunction key.*
3. *Select the desired option on the touchscreen.*

 **Only use the procedure described to turn off the display unit, other methods could damage the unit.**

## 10.5 Communication

The display unit has several communication modes thanks to specific inbuilt modules.

Each type of communication is dedicated to a specific use:

<b>BLUETOOTH</b>	Communication dedicated to connecting with peripheral devices.
<b>WiFi</b>	Communication dedicated to connecting to the internet through an access point or smartphone.
<b>GPS *</b>	Communication dedicated to using the display unit as a satellite navigator.
<b>HSUPA *</b>	Communication dedicated to connecting to the internet.

(\*) Only for models equipped with the appropriate module.

### 10.5.1 Bluetooth Communication

The **Bluetooth** module built into the display unit allows it to connect to various **peripheral devices** in the workshop.



**The connection between the display unit and the desired peripheral device takes place exclusively via Bluetooth.**



**The serial number to use to configure Bluetooth communication can be found on the label on the peripheral device.**



**For correct configuration power the peripheral device BEFORE starting the software configuration procedure.**

For more information regarding the configuration procedure consult the software User Manual.



Before starting communication with the viewing unit the appropriate configuration procedure must be carried out.



Power, connect and turn on the peripheral device before starting the applications that will interface with it. If this procedure is not followed communication errors may occur.



To change the communication mode between the display unit and the peripheral device you must first turn off the peripheral device and then choose the desired mode.

The Bluetooth module also allows you to connect to special **wireless headphones** equipped with a microphone.

The headphones are essential for the optimal use of some **remote assistance** functions available in the software.

### 10.5.2 WiFi Communication

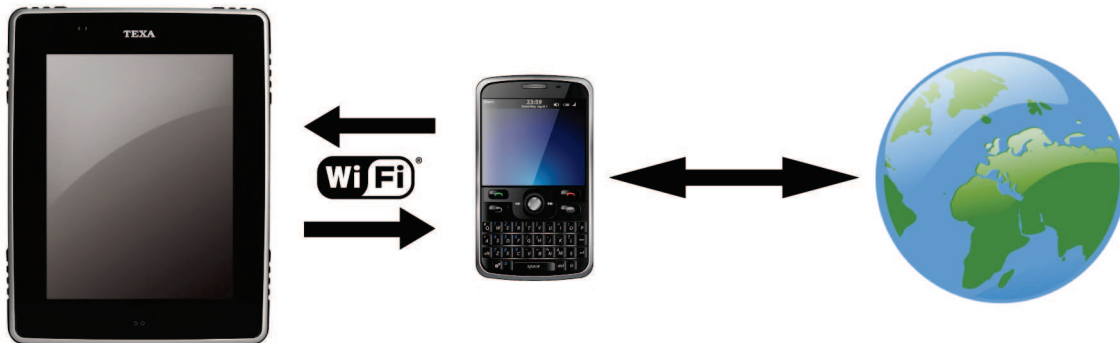
The **WiFi** module built into the display unit allows you to access the internet through an access point and communicate with WiFi devices such as printers.

Connecting to the internet allows you to use particular software functions that require a WEB connection.



Thanks to the WiFi module it is possible to connect the display unit to a **smartphone**.

In this way it is possible to exploit the features of the smartphone to allow the display unit to connect to the internet.



**For more information consult the software User Manual.**

The features described are only supported by some smartphones.

**For more information contact your retailer.**

### *10.5.3 GPS Communication*


The **GPS** module built into the display unit allows it to be used as a handy **satellite navigator**.




**This communication mode is only available for display units equipped with the appropriate module.**



GPS communication is activated automatically when the display unit is used as a satellite navigator.


	<p>The maps, indications and positions depend on services supplied by third parties.</p> <p>These services are subject to variation and may not be available in all areas. As a consequence the maps, indications and information based on the position may be imprecise, incomplete or unavailable.</p> <p>When using the display unit as a satellite navigator, compare the information supplied with your surroundings and check signs to resolve any discrepancies.</p>
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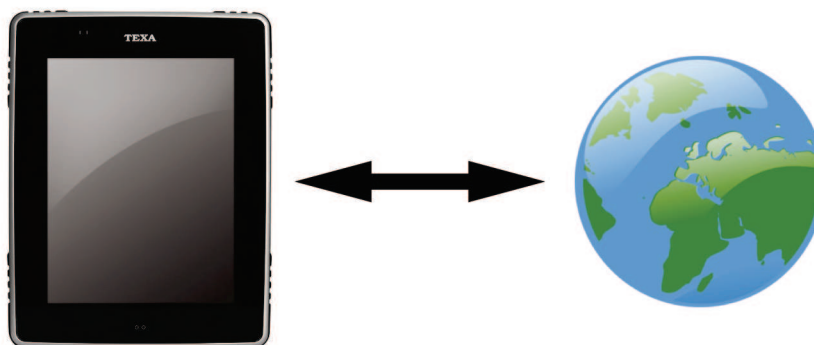
	<p>The data necessary for determining position is collected in a way that does not allow the personal identification of the user. Do not use this feature if you do not wish this data to be collected.</p> <p>Not using this feature has no effect on the features linked to the position of the display unit.</p>
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For more information consult the software User Manual.

#### 10.5.4 HSUPA communication

The **HSUPA** module allows the display unit to connect to the internet without using other router devices.

 This communication mode is only available for display units equipped with the appropriate module.



This module allows you to use all the software functions that require an internet connection, wherever you are.

To use this module it is necessary to insert a data traffic enabled **SIM** in the appropriate slot on the display unit.

**For more information contact your retailer.**

## 10.6 Camera

The display unit is equipped with a VGA camera.



The camera is useful for photographing, for example, components to be replaced and spare parts for ordering.

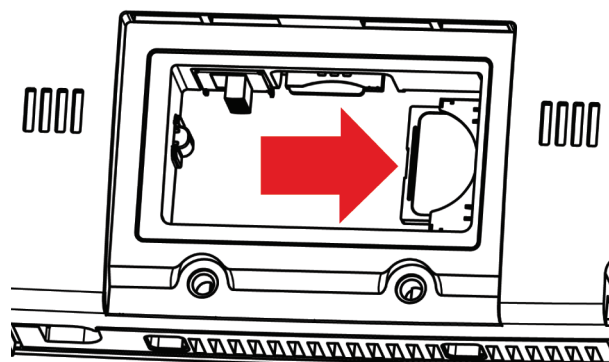
The camera application and the storage of images in appropriate directories are managed through the software.

**For more information consult the software User Manual.**

## 10.7 SD CARD

The **AXONE 4** has an **SD CARD** slot which is placed inside the waterproof compartment.

The **SD CARD** inserted in the slot can be used both as a memory expansion for the display unit and to load patch software quickly, or carry out any required assistance operations.



**For more information contact your retailer.**



### 10.8 LED indications

The display unit uses flashing LEDs to indicate its status when connecting to peripheral devices and the vehicle.

LED		STATUS
GREEN	Off	Display unit off.
	On	Display unit on.
YELLOW	Off	Display unit off.
	On	Display unit in standby.

## 10.9 Connecting with Peripheral Devices

To carry out tests and trials the correct peripheral device needs to be connected to the vehicle and the connection between the display unit and the peripheral device activated via the software.



**The connection between the display unit and the desired peripheral device takes place exclusively via Bluetooth.**



Proceed as follows:

1. *Configure communication between the display unit and the peripheral device.*
2. *Select the vehicle and, if necessary, the system you intend to work on.*
3. *Follow the instructions provided by the software carefully.*

**For more information consult the software User Manual and the peripheral device Technical Manual.**

## 10.10 Using the Software.

The data collected by the peripheral devices are viewed on the display unit via the software.

The software provides functions that allow you, for example, to:

- *carry out self-diagnosis tests,*
- *carry out emissions analyses,*
- *carry out tests on the ignition and charging systems,*
- *view road test recordings.*

Furthermore, the software provides technical sheets that are useful for diagnosis and step by step procedures for carrying out particular operations (e.g.: resetting warning lights).

All the configuration operations for the display unit are performed via the software.

The software contains specific functions dedicated to its use in the display unit.

Selections and the activation of various software functions are carried out on the touchscreen.

**For more information about the installation of the software and its use, please refer to the Setup Manual and the User Manual.**

## 10.11 Updating the Software

The software installed in the display unit can be **updated** in various ways:

- **via WiFi**, *through an appropriate router/access point or a smartphone,*
- **via an Ethernet cable**, *through the **DOCKING STATION CLASSIC** connected to a router/access point,*
- **via HSUPA**
- **via an external DVD player** *connected to the display unit through a docking station.*

The connection between the display unit and the router/access point must be configured according to the instructions in the manual of the device used for internet access.



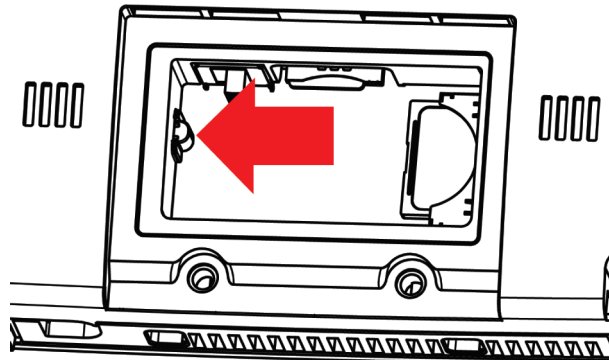
**Maintain the display unit mains power supply for the duration of the download and installation.**

**For more information consult the software User Manual.**

## 10.12 Reset

If you find the unit no longer responds to commands, you can unlock it by carrying out a reset.

A reset restarts the display unit at a low level (similarly to when the batteries are disconnected).



Proceed as follows:

1. *Remove the screws from the slot compartment cover.*
2. *Remove the compartment cover.*
3. *Press the reset button gently.*
4. **Close the compartment ensuring that there are no foreign bodies between the cover and the lining on the display unit that could affect its waterproof qualities.**

**After this type of reset, you may need to reset the date, time and other settings previously defined by the user when the unit restarts.**

## 10.13 MINI DOCKING

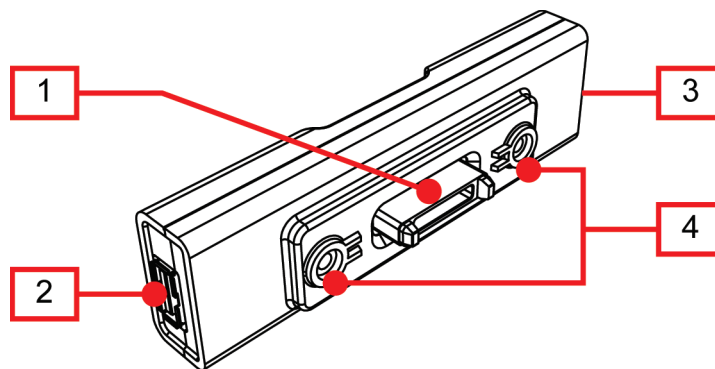
The **MINI DOCKING** station is a practical accessory supplied with the **AXONE 4**.

The **MINI DOCKING** station is equipped with:

- *two USB ports*

Using this docking station allows you to:

- *connect USB devices,*
- *use an external DVD player to be used for downloading software if not covered by a signal,*
- *better display unit ventilation on flat surfaces,*
- *better readability of the display unit screen when placed on a flat surface.*



1. **DOCKING connector**
2. **USB socket**
3. **USB socket**
4. **Holes for fixing screws**

### 10.13.1 Technical Features

<b>Communication connector:</b>	<b>DOCKING</b> connector with access via waterproof door.
<b>Connectors for peripheral devices:</b>	2 USB 2.0
<b>Operating temperature:</b>	0 ÷ 50 °C
<b>Storage temperature:</b>	- 20 ÷ 60 °C
<b>Operating humidity specifications:</b>	10% ÷ 80% without condensation
<b>Dimensions:</b>	116x32x28 mm
<b>Weight:</b>	50 g

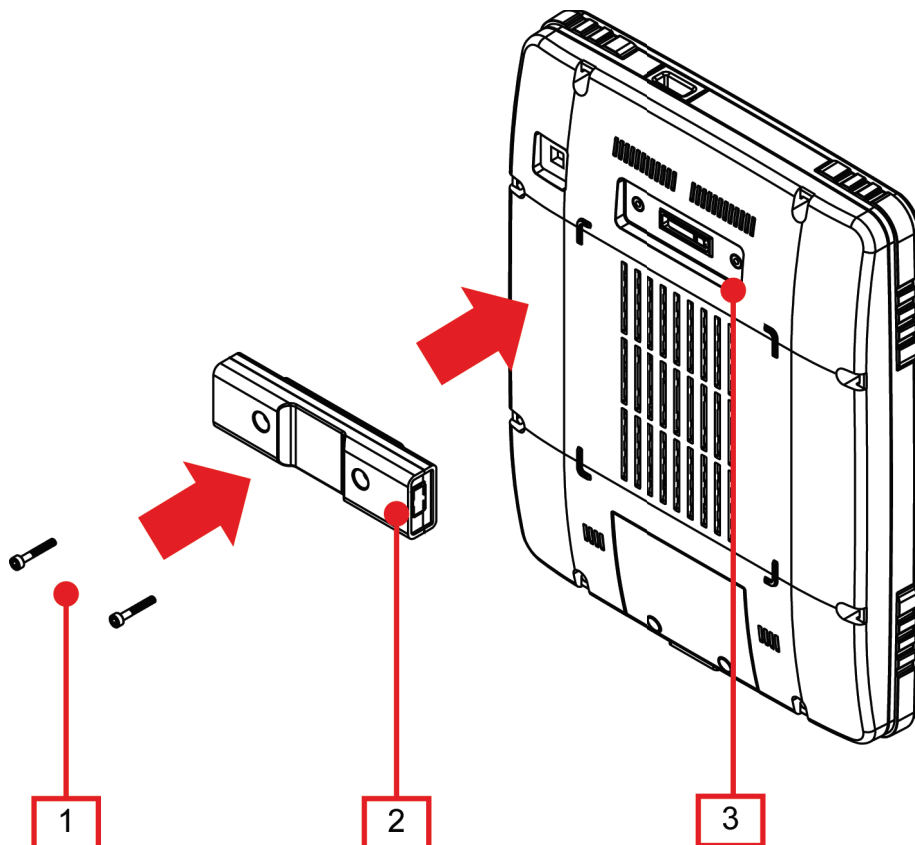
### 10.13.2 Connecting to the Display Unit

The following illustrates how to connect the display unit to the docking station.

To connect the display unit to a docking station you will need to remove the cover of the **DOCKING** connector compartment.



Removing the cover of the **DOCKING** compartment means that the display unit is no longer completely waterproof.



1. **Fixing screws**
2. **MINI DOCKING**
3. **Display unit**

Proceed as follows:

1. Remove the screws that fix the **DOCKING** connector compartment cover into place.
2. Remove the compartment cover.
3. Connect the **MINI DOCKING** station to the **display unit** as shown in the figure.
4. Fix the **MINI DOCKING** station using the appropriate screws.



### 10.13.3 *Connecting to an External DVD Player*

The USB sockets on the docking station allow you to connect to an **external DVD player**.

Via this connection it is possible, for example, to update the software with a DVD.

Proceed as follows:

1. *Connect the USB cable to the docking station.*
2. *Connect the USB cable to the external DVD player.*

**For instructions on powering and configuring the external DVD player please refer to the device user manual.**

## 11 MAINTENANCE

No particular maintenance is required for the display unit or the docking station.

For long lasting use, keep the display unit and the docking station clean and follow the instructions described in this manual carefully.

**For further help, contact your Dealer or the Technical Assistance Service.**

## 12 SOLUTIONS TO PROBLEMS

Contact your supplier/retailer about any technical problem that cannot be resolved by following the instructions below.

PROBLEM	PROBABLE CAUSE	POSSIBLE SOLUTION
The display unit is not communicating with the Bluetooth peripheral devices.	The Bluetooth peripheral device is switched off.	Switch on the Bluetooth peripheral device.
	The Bluetooth peripheral device is not within range of the display unit.	Place the Bluetooth peripheral device within range of the display unit.
		Place the display unit within range of the Bluetooth peripheral device.
	Communication incorrectly configured.	Carry out configuration using the appropriate function in the software. (1)
The display unit has been placed near shielding material.	Move the display unit away from shielding material.	

PROBLEM	PROBABLE CAUSE	POSSIBLE SOLUTION
The display unit is not communicating with the Bluetooth peripheral devices.	Other wireless communications are disturbing the signal.	Move away from possible sources of interference.
		If possible, turn off the devices causing the interference.
		Wait and try to communicate again.
The display unit is not responding to touchscreen commands.	Blocked software process.	Reset the display unit. (2)
The display unit will not switch on.	The battery activation switch is in the OFF position.	Move the switch to the ON position. (3)
	The internal batteries are flat.	Recharge the display unit. (4)
	The CPU and/or the battery temperature is high.	Wait for the CPU and/or the batteries to cool down, then try again.
The display unit will not communicate with the smartphone/router/access point.	The display unit and the smartphone/router/access point are not within range of each other's radio devices.	Move the devices closer together.
	The display unit has been placed near shielding material.	Move the display unit away from shielding material.

PROBLEM	PROBABLE CAUSE	POSSIBLE SOLUTION
The display unit will not communicate with the smartphone/router/access point.	Communication incorrectly configured.	Carry out communication configuration as described in the device manuals.
	The smartphone/router/access point is switched off/not working.	Check the status of the smartphone/router/access point.
The display unit cannot connect to the internet using the HSDPA module.	The SIM card has been inserted incorrectly.	Check that the SIM card has been inserted correctly. (5)
	Your tariff plan has expired.	Check your tariff plan.
	There is no signal.	Move to an area with better signal reception.
	The display unit has been placed near shielding material.	Move the display unit away from shielding material.
The display unit cannot connect via GPS.	There is no signal.	Move to an area with better signal reception.
	The display unit has been placed near shielding material.	Move the display unit away from shielding material.

### **NOTES:**

1. Consult the **software User Manual**.
2. Consult the *Reset chapter*.
3. Consult the *Activating the Batteries chapter*.
4. Consult the *Power Supply and/or the DOCKING STATION CLASSIC chapter*.
5. Consult the *Inserting the SIM chapter*.

## **13 LEGAL NOTICES**

For information regarding the legal notices, please refer to **International Warranty Booklet** provided with the product in your possession.