SUMMARY

TMD MK0 INSTALLATION MANUAL

REVISION OF THE MANUAL

This document is **revision 01** of the **TMD MK0** operating manual.

Issue Date: 30/06/2020

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.

The original manual was written in Italian, every other language is a translation of the original manual.

1 LEGEND OF THE SYMBOLS USED

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

	Toxic material hazard
	Explosive material hazard
	Electric shock hazard
	Electromagnetic field hazard
	Flammable material hazard
	Hot surface hazard
	Corrosive substance hazard
	Risk of noise level above 80 dbA
	Moving Parts Risk
	Risk of crushing hands
	Floor level obstacle warning
	Laser beam hazard
	General Risk
	Obligation to read the instructions
DANGER	This is not a safety symbol. It indicates a hazardous situation which, if not avoided, will result in serious permanent injury or death.

⚠ WARNING	This is not a safety symbol. It indicates a hazardous situation which, if not avoided, may result in serious permanent injury or death.
⚠ CAUTION	This is not a safety symbol. It indicates a hazardous situation which, if not avoided, may result in minor injury.
NOTICE	This is not a safety symbol. It indicates a hazardous situation which, if not avoided, may result in material damage.
INFORMATION	This is not a safety symbol. It indicates important information.

2 SPECIFIC SAFETY RULES FOR INSTALLING TMD MK0

The technology used for the design and manufacturing control of the **TMD MK0** makes it a reliable, simple and safe device to install and use.

The personnel in charge of installing the remote diagnostic tools are required to follow the general safety regulations, to use **TMD MK0** devices for their intended use only and to carry out maintenance correctly as described in this manual.

All the requirements based on the following must be assessed and applied:

- *Labour inspectorate.*
- *Trade associations.*
- *Vehicle manufacturers.*
- *Anti-pollution regulations.*

2.1 Glossary

Operator: a qualified person responsible for installing the remote diagnostic device.

Device: any **TMD MK0** device.

INFORMATION *The definition of "operator" cannot be applied to minors or to people with reduced physical, sensory or mental capabilities or without any experience or knowledge required.*

2.2 *General Rules*

The operator must have carefully read all the information and instructions in the technical documents provided with the tool.

If the operator is not able to read this manual, the operating instructions and safety indications must be read and discussed in the operator's native language.

- *The operator that works on vehicles must have basic qualifications and knowledge of mechanics, automotive engineering, car repair and of the potential dangers that may arise during self-diagnosis operations.*
- *The operator must be completely clear-headed and sober when installing and using the device; taking drugs or alcohol before or when installing and operating the device is strictly forbidden.*
- *The operator must follow all the instructions provided in the technical documents.*
- *The operator is required to wear adequate personal protective equipment (PPE) throughout the installation of the device.*
- *The operator must periodically check the electrical connections of the device, making sure they are in good condition and immediately replacing any damaged cables.*
- *The operator must periodically check the parts that are subject to wear and replace them if necessary, using only original spare parts or spare parts approved by the manufacturer.*
- *The operator must stop using the device immediately should any failure occur, and promptly contact the technical assistance.*
- *Do not remove or damage the labels and the warnings on the device; do not in any case make them illegible.*

2.3 *Operator Safety*

CAUTION

The device was manufactured to be electrically safe and insulated and to work with specific supply voltage levels.

Improper use may expose the operator to the risk of electric shock, even though of low intensity.

Safety Measures:

- *Wear adequate personal protective equipment during all the operating phases.*
- *Do not handle or touch the device or any accessories (e.g. cables) with wet hands.*
- *If liquid should penetrate inside the device, immediately disconnect the power supply wiring and contact technical assistance.*
- *Do not wear metal rings or bracelets when working on batteries.*

WARNING

The device was manufactured to be electrically safe and mechanically resistant.

However, it is necessary to reduce the risk of damages to the device that may cause burns.

Safety Measures:

- *Avoid sparks or flames near the installation.*
- *Do not short-circuit the battery terminals.*

2.4 Device Safety

NOTICE

The device was manufactured to be mechanically resistant.

Careless use and excessive mechanical strain may impair its efficiency.

Safety Measures:

- *Do not drop, shake or knock the device.*
- *Do not place objects over the cables nor bend them.*
- *Do not carry out any type of intervention that may damage the device.*
- *Do not open or disassemble the device.*
- *Make sure the device is properly fastened before moving the vehicle on which it is installed.*

NOTICE

The device was manufactured to be electrically safe and to work with specific supply voltage levels.

Failure to comply with the specifications related to the power supply may impair its efficiency.

Safety Measures:

- *Do not wet the device with water or other liquids.*
- *The device's power supply must always be connected following the indications provided in this manual.*
- *Do not use external batteries to power the device.*
- *Wear the most suitable personal protective equipment to avoid static electricity.*

NOTICE

The device was designed to be used in specific environmental conditions.

Installing and using the device in environments with temperatures and humidity that differ from those indicated may impair its efficiency.

Safety Measures:

- *Position the device as indicated in this manual.*
- *Do not expose or install the device near sources of heat.*
- *Position the device in order to guarantee its proper ventilation.*
- *Do not use corrosive chemicals, solvents or harsh detergents to clean the device.*

2.5 Safety during the Installation

NOTICE

The installation of the device was carefully tested by qualified personnel in TEXA.

You must follow some indications provided by the vehicle manufacturer in order to install the device correctly.

Safety Measures:

- *Follow the indications provided in the vehicle's manual carefully to disassemble the plastic parts and the access to the compartments.*

NOTICE

The installation of the device requires a connection to the vehicle's electrical system.

Perform the connection to the vehicle's electrical system making sure not to compromise the safety and its correct functioning.

Safety Measures:

- *Insulate each of the device's connections to the vehicle's electrical system.*
- *Do not compromise in any way the quality of the electrical and mechanical OEM wiring.*
- *Make sure the electric cables, the wiring in general, the fuel hydraulic pipes and the safety pneumatic devices of the vehicle are not damaged during the installation.*
- *Do not change the current flow of an OEM circuit by cutting it off, increasing it or mechanically changing it cables if not permitted by the vehicle manufacturer.*

NOTICE

The device must be installed so as to ensure it can work correctly and safely.

NOTICE

At the end of the installation, you must restore the initial conditions of the vehicle.

Safety Measures:

- *Restore each OEM device (ex.: compartment covers).*
- *Replace the fastening elements that are damaged.*

3 OPERATION OF THE RADIO DEVICES

Wireless connection with Bluetooth, Wi-Fi and 2G / 3G / 4G technology

The wireless connectivity with the Bluetooth, WiFi and 2G / 3G / 4G technology is a technology that supplies a standard, reliable method to exchange information between different devices, using radio waves. Other than TEXA tools, many more products use this technology, such as cellular phones, portable devices, computers, printers, photo cameras, Pocket PCs, etc.

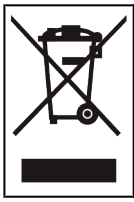
The Bluetooth, WiFi and 2G / 3G / 4G interfaces look for compatible electronic devices according to the radio signal they emit and establish a connection between them. TEXA tools select and only prompt you with compatible TEXA devices. This does not exclude the presence of other sources of communication or disturbance.

THE EFFICIENCY AND QUALITY OF BLUETOOTH, WiFi AND 2G / 3G / 4G COMMUNICATION MAY BE INFLUENCED BY THE PRESENCE OF RADIO DISTURBANCE SOURCES. THE COMMUNICATION PROTOCOL HAS BEEN DEVELOPED TO MANAGE THESE TYPES OF ERRORS; HOWEVER, IN THESE CASES COMMUNICATION MAY BECOME DIFFICULT AND CONNECTION MAY REQUIRE SEVERAL ATTEMPTS.

SHOULD THE WIRELESS CONNECTION ENCOUNTER SERIOUS PROBLEMS THAT MAY COMPROMISE A REGULAR COMMUNICATION, THE SOURCE OF THE ENVIRONMENTAL ELECTROMAGNETIC INTERFERENCE 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.

4 ENVIRONMENTAL INFORMATION

	Do not dispose of this product with other undifferentiated solid waste. For information regarding the disposal of this product please see the pamphlet supplied.

5 REGULATORY INFORMATION

Simplified EU Declaration of Conformity

CE	TEXA S.p.A. declares that the **TMD MK0** type of equipment is compliant with the following directives: • *RED 2014/53/EU* The full text of the EU declaration of conformity is available by contacting TEXA S.p.A.

6 TMD MK0

TMD MK0 is a GPS tracking device able to detect, store and send a vehicle's data to a remote server.

The **TMD MK0** Kit includes:

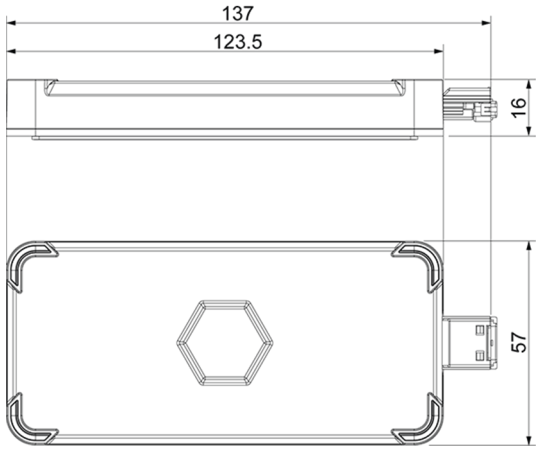
- **TMD MK0**.
- *Wiring for the electrical connection, code* **3910308**.
- *Double-sided tape for fastening the device, code* **3910673**.

The data relating to detected alarms and positions can be viewed in the **TMD** portal.

7 DESCRIPTION

1. *Device;*
2. *Power cable (+);*
3. *Power cable (-);*
4. *Power cable connector.*

8 TECHNICAL FEATURES

Manufacturer:	TEXA S.p.A.
Model:	TMD MK0
CPU:	CORTEX M4
Communication module	GPRS / GSM
GNSS module	GPS, GLONASS, Beidou, Compass, Galileo, QZSS GPS
Sensors:	6-axis IMU (accelerometer and gyroscope)
Battery:	NiMH 2.4 V - 600 mAh
Power:	direct from vehicle battery: 12 - 24 Vdc 200 mA maximum
Operating temperature:	- 30 ÷ 70 °C - 30 ÷ 75 °C without internal battery
Storage temperature:	- 30 ÷ 80 °C
Battery recharging temperature:	- 20 ÷ 70 °C
Operation moisture:	10 ÷ 80 %
Dimensions:	
Weight:	121 g
IP protection level:	IP 67
Regulations and Directives:	ECE / ONU R10 RED 2014/53/EU RoHS 2011/65/EU
Electromagnetic Compatibility:	ETSI EN 301 489-1 ETSI EN 301 489-3 ETSI EN 301 489-7 ETSI EN 301 489-17 ISO 7637-1 ISO 7637-2

Radio Systems:	ETSI EN 300 328 ETSI EN 301 511 ETSI EN 300 440 EN 62311
Electrical Safety:	EN 62368-1

9 TMD MK0 INSTALLATION AND POWER SUPPLY

DANGER

The installation must be performed by qualified personnel only.

Make sure the installation does not interfere with the vehicle operation.

Make sure the vehicle is off (instrument panel off) when connecting the device to the battery terminals.

CAUTION

Periodically check that the connectors, wiring and supplied cables are undamaged.

If the connectors, wiring and cables are damaged, contact the assistance service for a replacement.

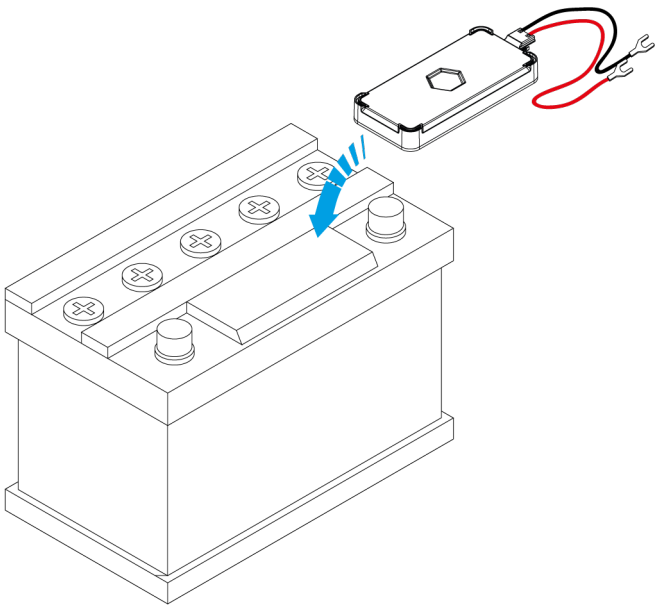
For any malfunction, contact the assistance service.

INFORMATION

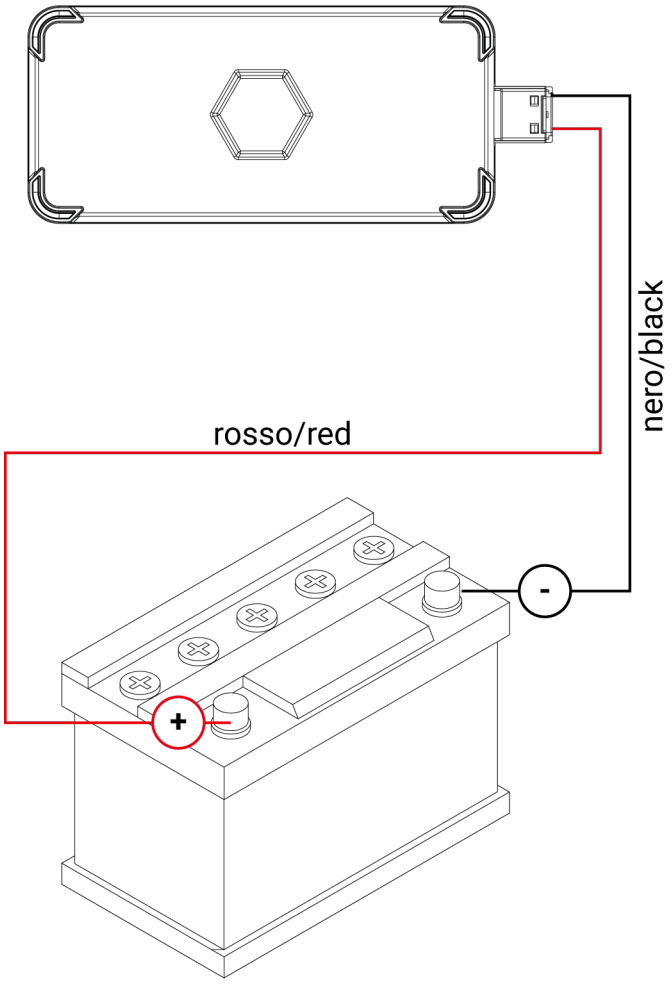
Clean the surfaces using an alcohol-based solution before applying double-sided tape.

Proceed as follows:

1. Apply the supplied double-sided tape to the device.
2. Fasten the device on the vehicle's battery.
3. Make sure the double-sided tape perfectly adheres to the battery's surface.



4. Connect the device's red cable to the battery positive terminal (**+12V/+24V**).
5. Connect the device's black cable to the battery negative / ground terminal (**-**).



⚠ CAUTION

Do not remove the device by pulling the power supply cables.

Make sure the +12V / +24V and ground (-) connections are correct in order to avoid the arising of false alarms from the TMD MK0 (discharged battery alarm, power disconnection alarm).

NOTICE *Do not disconnect the cables and connector from the device if not necessary.*

6. Turn on the vehicle (instrument panel on).

The **TMD MK0** turns on and assesses whether the vehicle is travelling or not.

The device identifies its orientation with respect to the vehicle's driving direction with an automatic learning procedure.

The inertial data is not used until the procedure is complete.

All the configured functions that require use of the inertia sensors are automatically enabled at the end of the procedure.

9.1 Indications if not used for a long time

The **TMD MK0** is constantly powered, even with the vehicle stationary, the engine off and the ignition off.

NOTICE

TMD MK0 is designed to optimise consumptions, however if the vehicle is not used for a long period of time, it could sensibly lower the charge level of the battery.

If the vehicle is not used for a long period of time, you may disconnect **TMD MK0** from the power supply.

NOTICE

For more information contact TEXA S.p.A. assistance service.

10 ACTIVATION AND CONFIGURATION

In order to use the advanced functions of the device, you must activate it and then carry out a configuration procedure.

10.1 Activation through MK3Starter

You can carry out the device's activation using the specific **MK3Starter** software.

The software consists of an app for Android devices that can be downloaded free of charge through Play Store.

For a proper operation of the **MK3Starter**, the device the app is installed in must connect to the Internet and be enabled to install apps coming from unknown creators.

The device can be configured at the end of the activation procedure.

For further information consult the MK3Starter operating manual.

10.2 Configuration through the Portal

The device can be configured remotely through the **TMD** portal.

The portal may be used to eventually correct wrong configurations.

The access to the configuration pages in the portal is linked to the rights granted to the user with which you login.

For further information contact Technical Assistance.

11 MAINTENANCE

In order to guarantee a correct functioning of **TMD MK0**, you must perform regular checks on the device.

We remind the operator to carry out the tests with the utmost care, making sure he is working in total safety during all of the steps (see **General Rules for the Safety of Operators** in this manual, also).

Maintenance interventions must be performed within 15 days from the installation of the TMD MK0 and then every 6 months.

In particular:

- *Carry out a visual inspection of the installed device.*
- *Check for possible damages to the device, wrongly fixed covers/plastic parts, cut-off and/or damaged cables, unhooked and/or loose connectors.*
- *Make sure the connections are not damaged, oxidised, exposed to atmospheric agents, water and humidity.*
- *Make sure* **TMD MK0** *is fastened properly.*

In case of damaged cables, contact TEXA S.p.A. in order to have them replaced.

For any fault or complication, contact the TEXA S.p.A. assistance service immediately.

12 LEGAL NOTICES

TEXA S.p.A.

Via 1 Maggio, 9 - 31050 Monastier di Treviso - ITALY

Tax Code - Company Register of Treviso ID No. - VAT No.: 02413550266

Single-shareholder company subject to the direction and coordination activities of Opera Holding S.r.l.

Paid-up share capital 1,000,000 € - R.E.A. (Economic Administrative Index) No. 208102

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