

TMD DIAG CAR



ENGLISH.....	5
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SUMMARY

1	REVISION OF THE MANUAL.....	5
2	INTRODUCTION.....	6
3	LEGEND OF THE SYMBOLS USED.....	7
4	SAFETY RULES.....	9
4.1	Intended Use.....	9
4.2	Glossary.....	9
4.3	General Rules.....	9
4.4	Operator Safety.....	10
4.5	Vehicle Safety.....	11
4.6	Device Safety.....	11
5	OPERATION OF THE RADIO DEVICES.....	13
6	ENVIRONMENTAL INFORMATION.....	14
7	REGULATORY INFORMATION.....	15
8	DIAG CAR.....	16
9	DESCRIPTION.....	17
10	TECHNICAL FEATURES	18
11	POWER SUPPLY	20
12	LOCATION OF THE DIAGNOSTIC SOCKET.....	21
13	INSTALLATION.....	22
13.1	Removal.....	24
14	USE.....	25
15	BLINK CODES.....	26
16	MAINTENANCE.....	27
17	TROUBLESHOOTING	28
18	LEGAL NOTICES.....	29

1 REVISION OF THE MANUAL

This document is the technical manual for the product: DIAG CAR

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INFORMATION



This manual is an essential part of the product and accompanies it from its birth up to its discontinuation.

Read this manual before using the product.

See the user instructions whenever the general risk symbol is shown in the product, so to understand the source of the danger and carry out the actions required to eliminate or mitigate the risk.

2 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 specialised in the automotive field only. Reading and understanding the information in this manual cannot replace adequate specialised 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.















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

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3 LEGEND OF THE SYMBOLS USED

Some of the symbols indicated below may not be used in the manual.

	Toxic material hazard		Laser beam hazard
	Explosive material hazard		Low temperature danger - freezing
	Electric shock hazard		General Risk
	Electromagnetic field hazard		Obligation to read the instructions
	Flammable material hazard		Safety glasses required
	Hot surface hazard		Protective gloves required
	Corrosive substance hazard		Protective clothing required
	Risk of noise level above 80 dB(A)		Respiratory protection required
	Moving Parts Risk		Disconnect mains plug from electrical outlet
	Risk of crushing hands		Do not wet the device
	Floor level obstacle warning		

	This is not a safety symbol. It indicates a hazardous situation which, if not avoided, will result in serious permanent injury or death.
	This is not a safety symbol. It indicates a hazardous situation which, if not avoided, may result in serious permanent injury or death.
	This is not a safety symbol. It indicates a hazardous situation which, if not avoided, may result in minor injury.

<i>NOTICE</i>	<p>This is not a safety symbol.</p> <p>It indicates a hazardous situation which, if not avoided, may result in material damage.</p>
INFORMATION	<p>This is not a safety symbol.</p> <p>It indicates important information.</p>

4 SAFETY RULES

The technology used for the design and manufacturing control of DIAG CAR makes it a reliable, simple and safe device to use.

Users of DIAG CAR are required to follow the general safety rules, to use the device for its intended use only and to carry out the maintenance properly, as described in this manual.

All the safety requirements issued by the following must be assessed and applied:

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

in force in the country where the product is used.

4.1 Intended Use

Product	Intended Use
DIAG CAR	acquisition of data while driving via the vehicle OBD socket on which it is installed.

4.2 Glossary

Device: DIAG CAR

Operator: qualified person responsible for installing and using the 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.

4.3 General Rules



The operator must have carefully read and fully understood all the information and instructions in the technical documents provided with the tool. If the operator cannot read this manual, it is responsibility of the owner of the tool/ employer/person in charge of the safety to illustrate the contents of this document and adequately train the operator in relation to the operating instructions and safety measures for a proper use of the tool.

- *The operator that works on vehicles must have basic qualifications and knowledge of mechanics, automotive engineering, vehicle repairing and of the potential dangers that may arise during self-diagnosis operations.*
- *The operator must be completely clear-headed and sober and not take drugs nor drink alcohol before or when using the device.*
- *The operator must follow all the instructions provided in the technical documents.*
- *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 stop using the device immediately should any failure occur, and promptly contact the technical assistance.*
- *Contact your retailer for any non-scheduled maintenance.*
- *Do not remove or damage the labels and the warnings on the device; do not in any case make them illegible.*

4.4 Operator Safety

NOTICE



The device was designed and created in order to allow an easy, fast and safe installation; nevertheless, it is impossible to completely eliminate some of the risks connected to this operation.

Safety Measures:

- *Make sure the vehicle's instrument panel is off before starting the installation.*
- *Make sure the vehicle on which you wish to install the device is on a flat surface and with the parking brake engaged.*
- *Make sure there are not any damaged cables around the diagnostic socket.*
- *Be careful not to injure yourself on sharp plastic edges or metal plates around the diagnostic socket.*

NOTICE



The position in which the device is placed and the behaviour of its LEDs were designed to avoid any possible obstacle or interference for the driver.

Lack of concentration while driving puts both the driver and the vehicle in danger.

Safety Measures:

- *Do not drive the vehicle before reassembling the plastic parts and panels previously removed.*
- *Do not get distracted by checking the status of the device or interacting with it neither directly or through the display unit.*

4.5 Vehicle Safety

NOTICE



The device was designed and created in order to allow an easy, fast and safe installation; nevertheless, it is best to be sure not to compromise any vehicle function during this operation.

Safety Measures:

- *Delicately remove any plastic part, cover or bulkhead that might cover the diagnostic socket, being careful not to loose any screw or fastening hook.*
- *Be careful not to damage or disconnect any plastic part or cable near the diagnostic cable.*
- *Carefully reposition and close any plastic part, cover or bulkhead once the device's installation and configuration phase is completed.*
- *Do not install the device on vehicles that are not expressly indicated in the specific coverage list that can be consulted at www.texa.care/auto_supportate*

4.6 Device Safety

NOTICE



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

Using the device in environments with temperatures and humidity that differ from those specified may impair its efficiency.

Safety measures:

- *Always place the device in a dry area.*
- *Do not expose or use the device close to heat sources.*
- *Position the device in order to guarantee its proper ventilation.*
- *Do not use corrosive chemicals, solvents or harsh detergents to clean the device.*

NOTICE



The device was created to be mechanically resistant and suitable for the use it was designed for.

Careless use and excessive mechanical strain may impair its efficiency.

Safety measures:

- *Do not drop, shake or knock the device.*
- *Do not carry out any type of intervention that may damage the device.*
- *Do not open or disassemble the device.*
- *Do not force the device or the connectors and take the utmost care during all connecting and disconnecting operations.*
- *Connect the device properly and securely in order to avoid it from accidentally disconnecting during use.*
- *Do not use screwdrivers or other tools to lever and disconnect the device.*

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 the device's efficiency.

Safety measures:

- *Do not wet the device with water or other liquids.*
- *If not specified otherwise, use the device on vehicles with a 12 V DC power supply and chassis connected to the negative pole and in any case only on the supported vehicles.*
- *The connection for the device's power supply must always be with the battery-operated system of the vehicle being tested.*



WARNING



The electromagnetic compatibility tests carried out on the tool 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's dealer.

5 OPERATION OF THE RADIO DEVICES

Wireless connection with Bluetooth® technology

The wireless connection with Bluetooth technology is a technology that supplies a standard and reliable method to exchange information between different devices, using radio waves. Products such as cellular phones, portable devices, computers, printers, cameras, pocket PCs etc. use this type of technology.

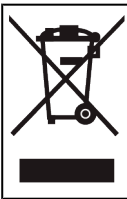
The Bluetooth interface searches for compatible electronic devices according to the radio signal they generate and establishes a connection between them. The tools operate a selection suggesting only compatible / enabled devices. This does not exclude the presence of other sources of communication or interference.

THE EFFICIENCY AND THE QUALITY OF THE BLUETOOTH 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 product in order to guarantee the correct operation of its radio devices. In particular, do not cover it with any shielding or metal materials in general.

6 ENVIRONMENTAL INFORMATION

	<p>Do not dispose of this product with other undifferentiated solid waste. For information regarding the disposal of this product please see the pamphlet supplied.</p>
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7 REGULATORY INFORMATION

	<p>The manufacturer, TEXA S.p.A., declares that the radio equipment type CARe is compliant with the following directives:</p> <ul style="list-style-type: none">• <i>RED 2014/53/EU</i>• <i>RoHS 2011/65/EU and Delegated Directive 2015/863/EU</i>
	<p>The manufacturer, TEXA S.p.A., declares that the radio equipment type CARe is compliant with the following regulations:</p> <ul style="list-style-type: none">• <i>Radio Equipment Regulation 2017 No. 1206</i>• <i>Regulation 2012 No. 3032</i>

A copy of the complete Declaration of Conformity can be obtained at:

Texa S.p.A., Via 1 Maggio 9, 31035 Monastier di Treviso (TV), Italy

8 DIAG CAR

DIAG CAR is a small device capable of acquiring data while driving via the vehicle OBD socket on which it is installed.



Connecting **DIAG CAR** and disconnecting it from the vehicle is quick and easy.

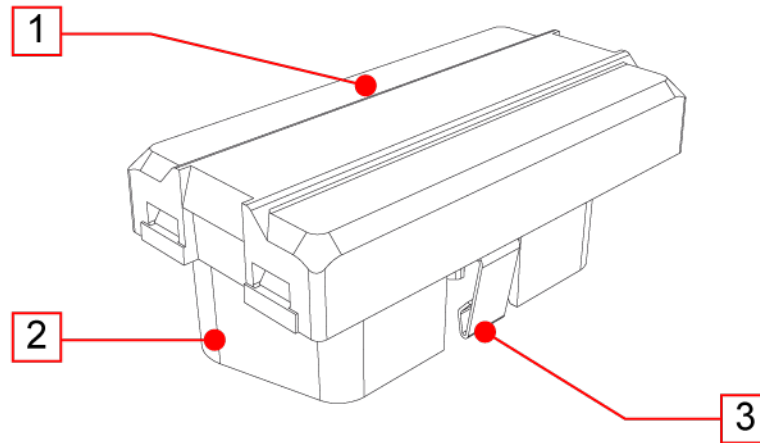
Because of its small size, the device takes up little space and does not interfere with driving.

DIAG CAR acts as a gateway between the vehicle diagnostic resources and external devices capable of using this diagnostic data.

To do so it communicates with a tracking device or a smartphone via Bluetooth and transmits the acquired data.

Using **DIAG CAR** in combination with a remote diagnostic device of the TMD series, or another third-party black box device, allows integrating the diagnostic functions with GPS tracking functions.

9 DESCRIPTION



1. **Status LEDs:** *they give indications regarding the status of the device.**

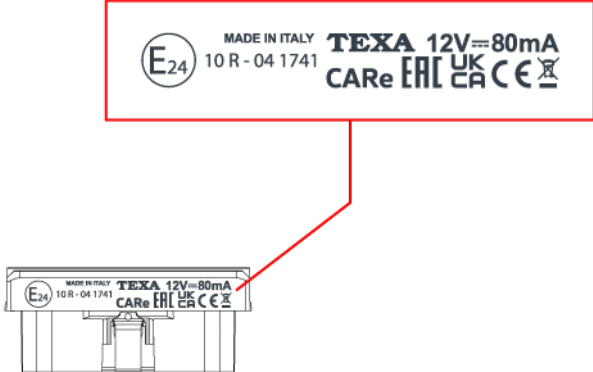
- **Green:** *indicates the status of the device without Bluetooth communication.*
- **Blue:** *indicates the status of the device with Bluetooth communication.*
- **Red:** *indicates the presence of errors.*

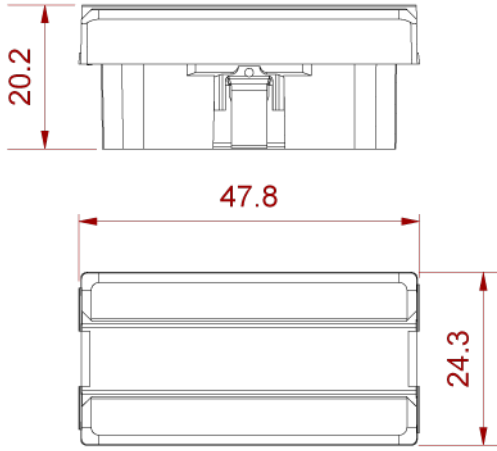
2. **OBD connector:** *it allows the connection between the device and the vehicle's diagnostic socket and, through the latter, to the control unit.*

3. **Retention hook:** *it secures the device to the vehicle's diagnostic socket.*

(*) For more information consult the chapter **Blink Codes**.

10 TECHNICAL FEATURES

Manufacturer	TEXA S.p.A.
Model	CARe
Trade name	DIAG CAR
Processor	ARM Cortex M4 CPU CPU Clock up to 168 MHz Total Flash: 1024 Kbyte FLASH Total RAM: 196 Kbyte RAM
Diagnostic connector	ISO15031-03 OBD Plug
Visual warnings	1 green/red bi-coloured LED 1 blue LED
Communication	Bluetooth Classic (2.1) and 4.0 Low Energy (Smart Ready)
Supply voltage	12 V ---
Current absorption	Standby current < 3 mA Rated current 80mA
Supported protocols	CAN HS ISO 11898-2 (5 pairs) K, L ISO9141-2, ISO14230 with 60 mA current protection
Directives	RED 2014/53/EU RoHS 2011/65/EU and Delegated Directive 2015/863/EU
UK Regulations	Radio Equipment Regulation 2017 No. 1206 Regulation 2012 No. 3032
Regulations	ECE / ONU R10
Product standards	EN 300 328 EN 62368-1 EN 62311 EN 301 489-1 EN 301 489-17 ISO 7637-1 ISO 7637-2
Data plate	 <p>The diagram shows the device with a red line pointing to the data plate located on the top surface. A callout box provides a detailed view of the data plate, which contains the following information:</p> <p> E₂₄ MADE IN ITALY TEXA 12V=80mA 10 R - 04 1741 CARe ENEC UK CA CE </p>
Operating temperature	- 20 °C ÷ 70 °C

Storage temperature	- 40 °C ÷ 85 °C
Relative humidity	10% ÷ 80% (without condensation)
Dimensions in [mm]	 <p>Technical drawing of a component showing three views with dimensions:</p> <ul style="list-style-type: none">Top view: 20.2 mm (height)Front view: 47.8 mm (length)Side view: 24.3 mm (width)
Weight	15 g

11 POWER SUPPLY

The device is designed to be used **ONLY** on vehicles with **12 V** power supply and chassis connected to the negative pole.

The device draws its power supply directly from the battery of the vehicle it is connected to through the OBD socket.

NOTICE

Do not power the device using external batteries or sources that differ from those specified in this manual.



The vehicle's OBD socket is always powered, even when the engine and instrument panel are off.

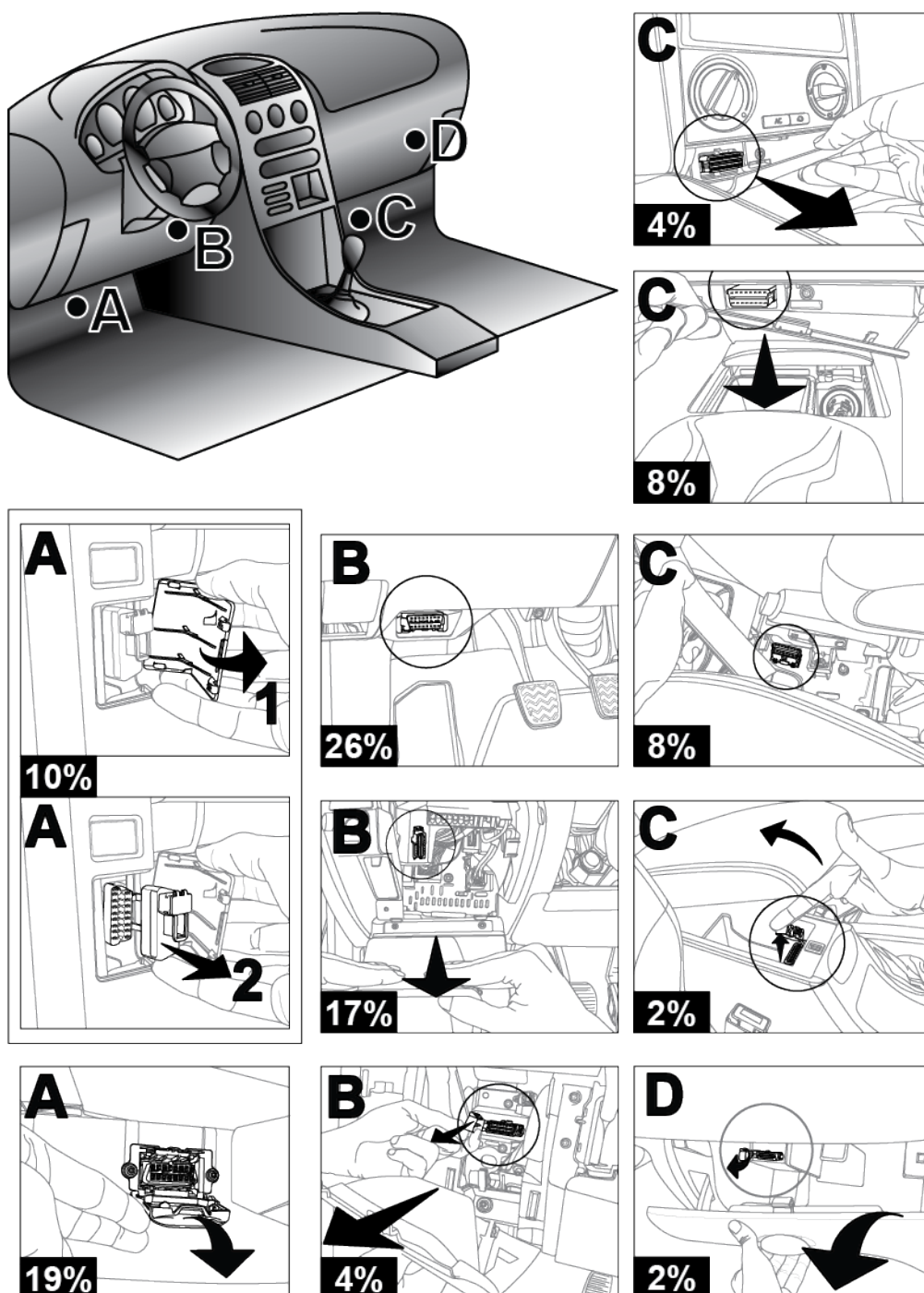
INFORMATION

The absorption never affects the battery's charge, however you should disconnect the device from the vehicle's OBD socket if the vehicle is not used for a long period of time.

12 LOCATION OF THE DIAGNOSTIC SOCKET

The images below indicate where the diagnostic socket may be located.

The percentages indicated in each image refer to how often each location is used by the manufacturer.



We always recommend you check the location of the OBD socket in the vehicle's user manual.

In case of doubts or for further information, contact the Technical Assistance or your Service Partner / Retailer.

13 INSTALLATION

CAUTION

Make sure all wirings, cables in general and hydraulic ducts of both fuel and pneumatic safety devices are not damaged during the installation.

CAUTION

Make sure the installation does not affect the operation of the vehicle's controls, in particular of the brakes and in general of the safety devices.

NOTICE

During the installation, make sure the various components around the OBD diagnostic socket do not damage the device.

NOTICE

Make sure the position of the device does not interfere with driving.

NOTICE

Make sure the vehicle is off (instrument panel off) when connecting and disconnecting the device from the OBD socket.

INFORMATION

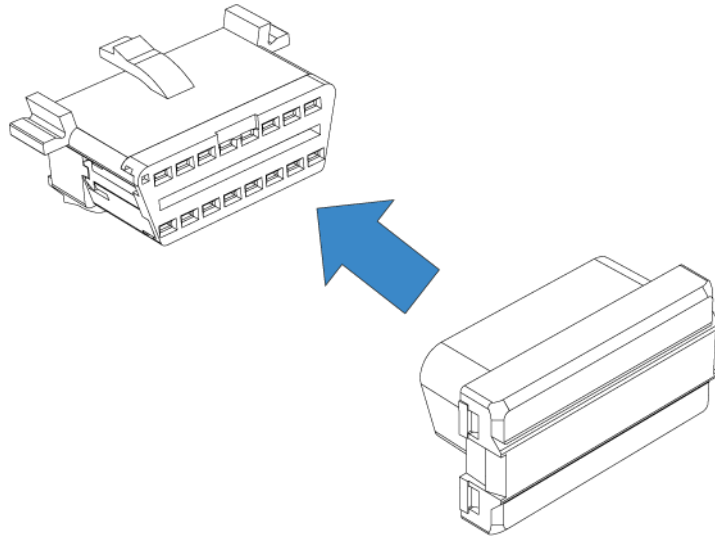
A screwdriver may be needed to loosen the fastening screws on the panels that cover the OBD socket.

Proceed as follows:

1. Turn off the vehicle (instrument panel off).
2. Locate the OBD socket.
3. Carefully remove any panels covering the OBD socket.
4. Connect the device to the OBD socket.

NOTICE

Make sure the various components around the diagnostic socket do not damage the device during the installation.



5. Make sure the device is securely connected to the diagnostic socket to avoid it from accidentally disconnecting during use.
6. Turn on the vehicle (instrument panel on).
7. Wait for the LED to flash.

CAUTION

Make sure the position of the device does not interfere with driving.

8. Reposition and fasten the panels removed during the installation.

In some cases the device may remain in sight.

CAUTION

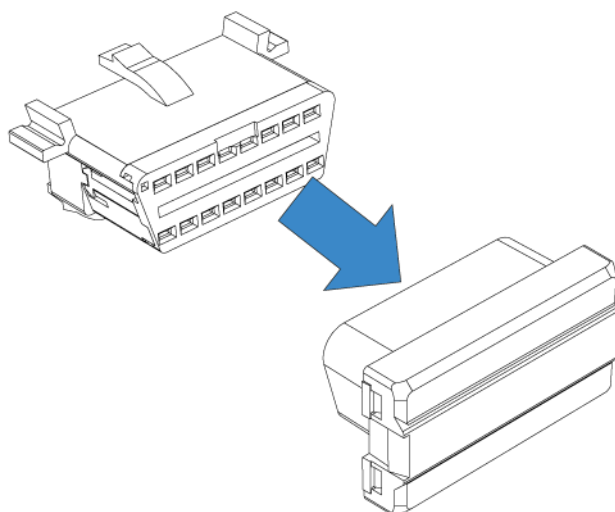
Do not be distracted while driving to check the status of the device.

13.1 Removal

The device might have to be disconnected from the OBD socket during vehicle maintenance operations in order to allow the connection of diagnostic devices.

Proceed as follows:

1. Turn off the vehicle (instrument panel off).
2. Carefully remove any panels covering the OBD socket.
3. Carefully pull out the device until it disconnects completely from the diagnostic socket.



NOTICE

Do not use screwdrivers or other tools to lever and disconnect the device.

14 USE

It is no longer required to act directly on the device after the installation and configuration. Any interaction takes place through the tracking device (black box) or the smartphone, which communicate with DIAG CAR via Bluetooth protocol.

DIAG CAR activates as soon as the connected device (black box or smartphone) tries to contact it via Bluetooth.



WARNING

While driving, do not get distracted to check the status of the device or to interact with it directly or indirectly.

In case of doubts or for further information, contact the Technical Assistance or your Service Partner / Retailer.

15 BLINK CODES

All the indicated statuses are to be intended with the **device connected to the diagnostic socket**.

LED sequence	Sequence type	When	Meaning
red-green-green (quick)	single	When first connected to the OBD socket	The device activated properly. The device works properly and is ready for use.
green-green (quick)	single	When next connected to the OBD socket	The device activated properly. The device works properly and is ready for use.
green-blue (quick)	repeated (quick)	After the first red-green-green sequence or after the green-green sequence	Device awaiting the first Bluetooth connection.
blue-blue (quick)	repeated (slow, every 3-4 sec.)	After the Bluetooth connection with the tracking device (black box) or the smartphone	Device connected. Diagnosis not configured or configuration in progress.
green-green (quick)	repeated (slow, every 3-4 sec.)	After the Bluetooth disconnection with the tracking device (black box) or the smartphone	Device not connected. Diagnosis not configured or configuration in progress.
blue (single blink)	repeated	During operation	Device connected. Diagnosis configured.
green (single blink)	repeated	During operation	Device not connected. Diagnosis configured.

16 MAINTENANCE

This product does not require special maintenance. However, we recommend the following:

- *carefully follow the instructions provided in this manual;*
- *keep the product clean;*
- *periodically inspect the electrical connections making sure they are in good conditions;*
- *immediately replace any damaged cables;*
- *only use original spare parts or spare parts approved by the manufacturer;*
- *contact your retailer for extraordinary maintenance operations;*

INFORMATION

For further help, contact your retailer or the technical assistance service.

You can see the list of authorised retailers at the following address: <https://www.texa.com/sales-network>

17 TROUBLESHOOTING

Below there are some situations / problems that can occur while using the device, along with a possible cause and a possible solution.

Situation / Problem	Possible Cause	Possible Solution
The device is connected to the diagnostic socket. The red LED lights up.	There is an error condition.	Carefully disconnect and reconnect the device. If the error persists, contact the Technical Assistance.
The device is connected but the green and blue LEDs do not light up.	The device is not properly connected and appears as switched off.	Carefully disconnect and reconnect the device to the diagnostic socket making sure it is inserted securely.
	The vehicle's diagnostic socket is damaged.	Contact an authorised workshop.

18 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

Legal Representative Bruno Vianello

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www.texa.com

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