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Disclaimer of Warranties and Limitation of Liabilities

All information, specifications and illustrations in this manual are based on the latest information available at the time of printing.

Autel reserves the right to make changes at any time without notice. While information of this manual has been carefully checked for accuracy, no guarantee is given for the completeness and correctness of the contents. including but not limited to the product specifications, functions, and illustrations.

Autel will not be liable for any direct, special, incidental, indirect damages or any economic consequential damages (including the loss of profits).

IMPORTANT

Before operating or maintaining this unit, please read this manual carefully, paying extra attention to the safety warnings and precautions.

For Services and Support



pro.autel.com www.autel.com www.maxitpms.com



1-855-288-3587/1-855-AUTELUS (North America) 0086-755-22672493/86532091 (China)

supporttpms@auteltech.com

For technical assistance in all other markets, please contact your local distributor.

Safety Information

For your own safety and the safety of others, and to prevent damage to the device and vehicles upon which it is used, it is important that the safety instructions presented throughout this manual be read and understood by all persons operating or coming into contact with the device.

There are various procedures, techniques, tools, and parts for servicing vehicles, as well as in the skill of the person doing the work. Because of the vast number of test applications and variations in the products that can be tested with this equipment, we cannot possibly anticipate or provide advice or safety messages to cover every circumstance. It is the automotive technician's responsibility to be knowledgeable of the system being tested. It is crucial to use proper service methods and test procedures. It is essential to perform tests in an appropriate and acceptable manner that does not endanger your safety, the safety of others in the work area, the device being used, or the vehicle being tested.

Before using the device, always refer to and follow the safety messages and applicable test procedures provided by the manufacturer of the vehicle or equipment being tested. Use the device only as described in this manual. Read, understand, and follow all safety messages and instructions in this manual

Safety Messages

Safety messages are provided to help prevent personal injury and equipment damage. All safety messages are introduced by a signal word indicating the hazard level.

A DANGER

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury to the operator or to bystanders.



M WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury to the operator or to bystanders.

Safety Instructions

The safety messages herein cover situations Autel is aware of. Autel cannot know, evaluate or advise you as to all of the possible hazards. You must be certain that any condition or service procedure encountered does not jeopardize your personal safety.

A DANGER

When an engine is operating, keep the service area WELL VENTILATED or attach a building exhaust removal system to the engine exhaust system. Engines produce carbon monoxide, an odorless, poisonous gas that causes slower reaction time and can lead to serious personal injury or loss of life.

▲ SAFETY WARNINGS

- Always perform automotive testing in a safe environment.
- Wear safety eye protection that meets ANSI standards.
- Keep clothing, hair, hands, tools, test equipment away from all moving or hot engine parts.
- Operate the vehicle in a well-ventilated work area, for exhaust gases are poisonous.
- Put the transmission in PARK (for automatic transmission) or NEUTRAL (for manual transmission) and make sure the parking brake is engaged.
- Put blocks in front of the drive wheels and never leave the vehicle unattended while testing.
- Be extra cautious when working around the ignition coil, distributor cap, ignition wires and spark plugs. These components create hazardous voltages when the engine is running.
- Keep a fire extinguisher suitable for gasoline, chemical, and electrical fires nearby.
- Do not connect or disconnect any test equipment while the ignition is on or the engine is running.
- Keep the test equipment dry, clean, free from oil, water or grease. Use a mild detergent on a clean cloth to clean the outside of the equipment as necessary.
- Do not drive the vehicle and operate the test equipment at the same time. Any distraction may cause an accident.

- Refer to the service manual for the vehicle being serviced and adhere to all diagnostic procedures and precautions. Failure to do so may result in personal injury or damage to the test equipment.
- To avoid damaging the test equipment or generating false data, make sure the vehicle battery is fully charged and the connection to the vehicle DLC is clean and secure.
- Do not place the test equipment on the distributor of the vehicle. Strong electro-magnetic interference can damage the equipment.

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1 Using This Manual

This manual contains device usage instructions.

Some illustrations shown in this manual may contain modules and optional equipment that are not included in your system. Contact your sales representative for availability of other modules and optional tools or accessories.

Conventions

The following conventions are used.

Bold Text

Bold text is used to highlight selectable items such as buttons and menu options.

• Tap **OK**.

Notes and Important Messages

Notes

A **NOTE** provides helpful information such as additional explanations, tips, and comments.

🖉 NOTE

New batteries reach full capacity after approximately 3 to 5 charging and discharging cycles.

Important

IMPORTANT indicates a situation that, if not avoided, may result in damage to the test equipment or vehicle.

IMPORTANT

Keep the cable away from heat, oil, sharp edges and moving parts. Replace damaged cables immediately.

Hyperlink

Hyperlinks or links that take you to other related articles, procedures, and illustrations are active in electronic documents. Blue italic text indicates a selectable hyperlink and blue underlined text indicates a website link or an email address link.

Illustrations

Illustrations used in this manual are samples, the actual testing screen may vary for each vehicle being tested. Observe the menu titles and on-screen instructions to make correct option selection.

2 General Introduction

The MaxiTPMS TBE200 is Autel's first generation of laser-enabled tire & brake disc wear examiner. TBE200 provides users with quick and accurate wear measurements along with measuring brake disc wear without having to remove tires. The tool's dual cameras enable users to document tire wear and damage and scan Tire Identification Number (TIN). Use tool separately or with compatible Autel diagnostics tablet app to view and print detailed TPMS reports.

This manual describes the construction and operation the examiner and how it works to test tire & brake disc wear.

MaxiTPMS TBE200 Display Tablet

Functional Description

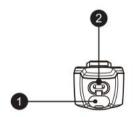


Figure 2-1 Display Examiner Top View

- 1. Type-C Rubber Plug
- 2. Type-C USB Port

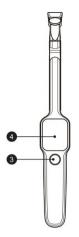


Figure 2-2 Display Examiner Front View

- 3. Lock/Measuring Button –long press the button for 3 seconds to turn on and off the examiner, or tap measuring button to initiate measurements.
- 4. 1.65-inch AMOLED Screen

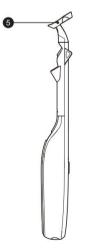


Figure 2-3 Display Tablet Side View

5. Magnetic Head

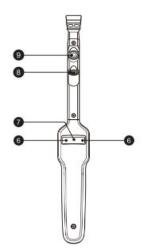


Figure 2-4 Display Tablet Back View

- 6. Camera Flash
- 7. 8 Megapixel Camera
- 8. Laser Diode
- 9. 1 Megapixel Camera

Power Sources

The tablet can receive power from any of the following sources:

- Internal Battery Pack
- AC/DC Power Supply

Internal Battery Pack

The examiner can be powered with the internal rechargeable battery, which if fully charged can provide sufficient power for about 8 hours of continuous operation.

AC/DC Power Supply

The tablet can be powered from a wall socket using the AC/DC power adapter. The AC/DC power supply also charges the internal battery pack.

Technical Specifications

ltem	Description
Product Name	Tire & Brake Disc Examiner
Laser Classification	Class 3R laser product IEC 60825-1:2014
Optical Power	2.0 mW
Wave Length at Peak Emission	520 nM
Labelling	CALITEL Tire&Brake Disc Examiner MaxiTPMS TBE200 PSN: TB2GL8C01001 FCC ID: WQ8TBE200 RoHS Rate:5V=1.5A RoHS Made in China FCC CC Image: Comparison of the comparison of

ltem	Description
Processor	4x ARM Cortex-A35 (1.5 GHz)
Memory	1GB RAM LPDDR3 & 4GB ROM
Display	1.65-inch AMOLED capacitive touchscreen with 348x442 resolution
Connectivity	 Wi-Fi USB 2.0, Type C
Micro-camera s	CMOS WXGA, 1 megapixel & 8 megapixel, 30fps
Audio Output	Output: Beep
Power &Battery	 3.7 V/3000 mAh 18650 lithium ion battery Charges via 5 V AC/DC power supply
Tested Battery Life	Around 8 hours of continuous use
Battery Charging Input	5 V/1.5 A
Power Consumption	300 mA (AMOLED on with default brightness) @3.7 V
Operating Temp.	-10 to 45°C (14 to 113°F)
Storage Temp.	-20 to 60°C (-4 to 140°F)
Dimensions (W x H x D)	283.0 mm (11.14") x 39.0 mm (1.54") x 33.5 mm (1.32")
Net Weight	188 g (0.41 lb.)
Protocols	ISO9141-2, ISO14230-2,ISO15765, K/L-Line, Flashing Code, SAE-J1850 VPW, SAE-J1850PWM, ISO11898 (Highspeed, Middlespeed, Lowspeed and Singlewire

ltem	Description
	CAN, fault-tolerant CAN), SAE J2610,GM UART,UART
	Echo Byte Protocol, Honda Diag-H Protocol, TP2.0, TP1.6

Other Accessories

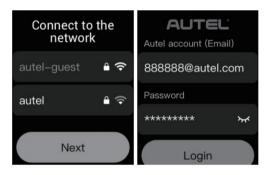
Table 2-2 Accessories

Power Adapter Used with USB cable to charge TBE200 via DC electrical outlet.
Type C USB CableConnect to power adapter and to TBE200. Use to charge the unit.

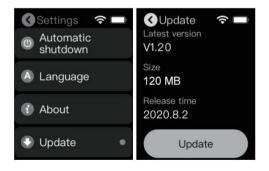
3 Getting Started

Ensure the TBE200 is connected to the Internet, sufficiently charged or connected to a power outlet.

Software Upgrade



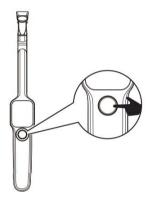
 The Internet connection page automatically displays when the tool is first used. Select a network and enter the password. After the tool is connected to the Internet, the register page displays. Create an Autel ID or log in with your registered email address and password. A green check mark displays on the screen once the tool is registered successfully.



 Connect the TBE200 to Wi-Fi. When a software update is available, a red dot will display atop the **Settings** icon in the upper right corner of the Main Job screen. Tap Update to install the software.

Getting Started

1. Long press the power button to turn on the tool.

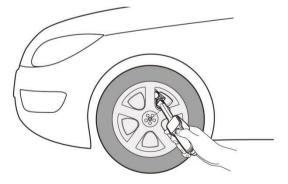


2. **Tire Tread Check:** On the Main Job screen, tap the **Tread Check** icon, and place the tool on the tire surface. Short press the power button, ensure the laser line is perpendicular to the channels of the tire. After about 2s, the screen displays real-time measurement data, left slide to view details. Different icon represents different wear status. Grey, untested; green, in good condition; yellow, replacement recommended; red, replace immediately.



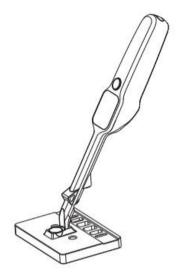
3. Brake Disc Check: On the Main Job screen, tap the Brake Disc icon, and

place the tool on the disc surface. Short press the power button, ensure the laser extension line passes through the rim center. After about 2s, the screen displays real-time measurement data, left slide to view details. Different icon represents different wear status. Grey, untested; green, in good condition; yellow, replacement recommended; red, replace immediately.



4. **Calibration:** On the Main Job screen, tap the **Calibration** icon, and place the magnetic head on the calibration table. Press the power button to start. Wait for 1-2 minutes until calibration is complete.

Calibration Frequency: Calibration is recommended every two months. Calibrate immediately when there are deviations in measurements, which may be caused by dropping or collisions.



3 Service Procedures

This section introduces information for technical support, repair service, and application for replacement or optional parts.

Technical Support

If you have any question or problem on product operations, please contact us.

AUTEL NORTH AMERICA

- Phone:1-855-AUTEL-US (855-288-3587) Monday-Friday 9am-6pm EST
- Website: <u>www.autel.com</u>
- Email: sales@autel.com; ussupport@autel.com
- Address: 175 Central Avenue, Suite 200, Farmingdale, New York, USA 11735

AUTEL EUROPE

- Phone: 0049 (0) 6103-2000520
- Website: <u>www.autel.eu</u>
- Email: <u>sales.eu@autel.com</u>; <u>support.eu@autel.com</u>
- Address: Robert-Bosch-Strasse 25, 63225, Langen, Germany

AUTEL CHINA HQ

- Phone: 0086-755-2267-2493
- Website: sales@auteltech.net; www.autel.com
- Email: <u>support@autel.com</u>
- Address: 7-8th, 10th Floor, Building B1, Zhiyuan, Xueyuan Road, Xili, Nanshan, Shenzhen, 518055, China

AUTEL LATIN AMERICA

- Website: <u>www.autel.com</u>
- Email: <u>sales.latin@autel.com;</u> <u>latsupport@autel.com</u>

 Address: Avenida Americas 1905, 6B, Colonia Aldrete, Guadalajara, Jalisco, Mexico

AUTEL APAC

- Phone: +045 5948465
- Email: sales.jp@autel.com; support.jp@autel.com
- Address: 719, Nissou Building, 3-7-18, Shinyokohama, Kouhoku, Yokohama, Kanagawa, Japan 222-0033
- Website: <u>www.autel.com/jp/</u>

AUTEL IMEA DMCC

- Website: <u>www.autel.com</u>
- Phone: +971 43682500
- Email: <u>sales.imea@autel.com</u>; <u>imea-support@autel.com</u>
- Address: Office 1006-1010, Cluster C, Fortune Tower, Jumeirah Lakes Tower (JLT), Dubai, U.A.E

Repair Service

If it becomes necessary to return your device for repair, please contact us first and then download the repair service form from <u>www.autel.com</u> and <u>www.maxitpms.com</u>, and fill it in. The following information must be included:

- Contact name
- Return address
- Telephone number
- Product name
- Complete description of the problem
- Proof-of-purchase for warranty repairs
- Preferred method of payment for non-warranty repairs

🖉 NOTE

For non-warranty repairs, payment can be made with Visa, Master Card, or with approved credit terms.

Send the device to your local agent, or to the below address:

8th Floor, Building B1, Zhiyuan, Xueyuan Road, Xili, Nanshan, Shenzhen, 518055, China

Other Services

You can purchase the optional accessories directly from Autel's authorized tool suppliers, and/or your local distributor or agent.

Your purchase order should include the following information:

- Contact information
- Product or part name
- Item description
- Purchase quantity

4 Compliance Information

FCC Compliance

FCC ID: WQ8TBE200

This device complies with Part 15 of the FCC rules and Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:

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

Cet appareil est conforme aux CNR exempts de licence d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes:

- 1. Ce dispositif ne peut causer des interferences; et
- 2. Ce dispositif doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE

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. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

SAR

The radiated output power of this device is below the FCC radio frequency exposure limits. Nevertheless, the device should be used in such a manner that the potential for human contact is minimized during normal operation.

The exposure standard for wireless devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/Kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands.

Although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. This is because the device is designed to operate at multiple power levels so as to use only the power required to reach the network. To avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to antenna should be minimized.

RF WARNING STATEMENT

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

RoHS COMPLIANCE

This device is declared to be in compliance with the European RoHS Directive 2011/65/EU.

CE COMPLIANCE

This product is declared to conform to the essential requirements of the following Directives and carries the CE mark accordingly:

EMC Directive 2014/30/EU

R&TTE Directive 1999/5/EC

Low Voltage Directive 2014/35/EU

This device was tested for typical Limb Worn and Face Up operations. To comply with RF exposure requirements, a minimum separation distance of 0mm is used between the user's Limb and the Tire & Brake Disc Examiner, including the antenna.

5 Warranty

Limited One Year Warranty

Autel Intelligent Technology Corp., Ltd. (the Company) warrants to the original retail purchaser of this MaxiTPMS Tire & Brake Disc Examiner that should this product or any part thereof during normal usage and under normal conditions be proven defective in material or workmanship that results in product failure within one year period from the date of purchase, such defect(s) will be repaired, or replaced (with new or rebuilt parts) with Proof of Purchase, at the Company's option, without charge for parts or labor directly related to the defect(s).

The Company shall not be liable for any incidental or consequential damages arising from the use, misuse, or mounting of the device. Some states do not allow limitation on how long an implied warranty lasts, so the above limitations may not apply to you.

This warranty does not apply to:

- Products subjected to abnormal use or conditions, accident, mishandling, neglect, unauthorized alteration, misuse, improper installation or repair or improper storage;
- Products whose mechanical serial number or electronic serial number has been removed, altered or defaced;
- Damage from exposure to excessive temperatures or extreme environmental conditions;
- Damage resulting from connection to, or use of any accessory or other product not approved or authorized by the Company;
- 5) Defects in appearance, cosmetic, decorative or structural items such as framing and non-operative parts.
- 6) Products damaged from external causes such as fire, dirt, sand, battery leakage, blown fuse, theft or improper usage of any electrical source.

IMPORTANT

All contents of the product may be deleted during the process of repair. You should create a back-up copy of any contents of your product before delivering the product for warranty service.