

Mitutoyo

No. 99MAL137B

User's Manual

Wireless Communication Unit
for Measuring instrument

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U-WAVE-CiB

Mounting this product on a Mitutoyo device (measuring instrument) that supports wireless communication enables the wireless transmission (via Bluetooth) of measurement data to a terminal device, such as a PC, smartphone, or tablet computer. It also enables the settings for measurement conditions to be wirelessly received from the terminal device.


To obtain the highest performance and the longest service life from this product, carefully read this manual and the User's Manual for the measuring instrument, on which this product is mounted thoroughly prior to use. After reading this manual, keep it close at hand for future reference. Note that this product cannot be connected to measuring tools such as calipers and micrometers.

Tips

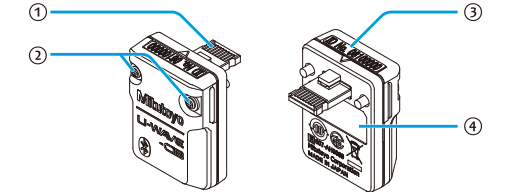
- For information about specific models that support this product, please contact a Mitutoyo sales office.
- The operation of this product has been confirmed with terminal devices such as PCs and smartphones that support Bluetooth 5.0 Low Energy; however, operation cannot not be guaranteed with all devices.

Also, the operation with Bluetooth 4.2 Low Energy and earlier versions has not been confirmed.

1. Included Accessories

Size 0 screwdriver	Manual and accessory documentation
	• U-WAVE-CiB User's Manual No. 99MAL137B (this document)
No. 05CZA619	• Certification and Regulation No. 99MAL138W
	• Warranty card
	• Declaration of conformity document (copy) No. 02AZG209

2. Name and Function of Each Part



No.	Name	Function
①	Connector	Used to connect this product to a measuring instrument.
②	Securing screws	Used to secure this product to a measuring instrument.
③	Device ID label	Includes the identification number for this product.
④	Certification label	Includes the code number and wireless certification number for this product.

- The corporation, organization and product names that appear in this document are their trademarks or registered trademarks
- To refer to the User's Manual in Chinese, please see Mitutoyo's website (<https://manual.mitutoyo.co.jp/manuals/search>).

Safety Precautions

To ensure safe operation, use this product in accordance with the specifications and functions given in this manual and the precautions for use given in the User's Manual included with the measuring instrument, on which this product is mounted. Not using this product in accordance with the instructions may compromise safety.

NOTICE

Shows risks that could result in property damage.

- Do not directly touch the connector with your hand.
- Hold the protrusions on the edges of the connector when removing this product from the measuring instrument. Holding other parts while removing the connector may damage the connector.
- If alcohol or ink comes into contact with resin-treated parts of this product, cracking may occur.

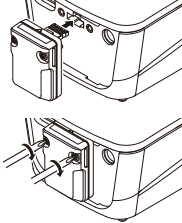
Precautions regarding Export Regulations

This product is categorized as a good or program that falls into the Catch-All-Controlled Goods regulations under Category 16 of Appended Table 1 of the Export Trade Control Order or under Category 16 of the Appended Table of Foreign Exchange Control Order, based on the Foreign Exchange and Foreign Trade Act of Japan. This User's Manual also falls into technology categorized under the Catch-All-Controlled Goods regulations. Consult with Mitutoyo prior to

3. Using This Product

① Insert the connector of this product into the mounting port of a measuring instrument.

② Secure this product by fastening the securing screws with the included size 0 screwdriver.



Tips

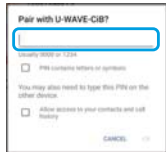
The specified fastening torque is from 8 cN·m to 12 cN·m.

③ Configure the necessary settings on the measuring instrument, on which this product is mounted.

④ To pair this product with the terminal device, enter "193410" in the PIN code field of the terminal device.

For details about how to configure the settings, see the User's Manual for the measuring instrument, on which this product is mounted.

For details about how to pair a device and confirm the pairing status, see the documentation for the terminal device to pair with.



exporting this product, transferring this product overseas, providing this technology to a non-resident, etc. An export license or written application and certificate for permission for service transactions may be required from the Ministry of Economy, Trade and Industry.

Precautions regarding Radio Law

This product can be used only in the countries where the wireless certification is acquired and in the country of purchase. When using this product outside the country of purchase, please contact a Mitutoyo sales office.

IMPORTANT

This product uses radio waves. Use this product in accordance with the relevant regulations stipulated in the country of use.

- Do not disassemble or modify this product. The certification that was granted for your wireless device will be invalidated, and using such a device may be a breach of Radio Law.
- Do not peel off the certification label affixed to this product. Use of this product without a certification label is prohibited.

Precautions regarding Wireless Communication Environments

Communication may be interrupted due to factors such as external noise even within the transmission range of the radio waves. In this case, take sufficient preventative measures (safety measures).

• Possibility of interruption of communication and reduction in communication speed or range

Using this product in the following environments could result in communication interruptions or reductions in the communication speed or range.

Tips

- The power for this product is supplied from the measuring instrument, on which this product is mounted.
- To transmit or receive measurement data or measurement conditions to/from a measuring instrument, with a terminal device, a special-purpose application may be required.

For details about downloading the application and how to use it, see the User's Manual for the measuring instrument, on which this product is mounted.

4. Troubleshooting

Try the following measures when a problem occurs while using this product. Contact a Mitutoyo sales office if the problem is not resolved.

Issue	
Data transmission is not stable and errors occur frequently.	
Check point	Countermeasure
Is this product being used in an environment where communication is obstructed?	Check whether there is a problem with the usage environment. For details, see "Precautions regarding Wireless Communication Environments".

5. Specifications

Item	Description
Model	U-WAVE-CiB
Code No.	264-628
Transmission output	Class2: 2.5 mW

- Places with intervening concrete walls or metal partitions
- Near other communication devices that communicate via wireless LAN, Zigbee, Bluetooth, etc., or near microwave ovens
- Places where machine tools, such as electrical discharge machines, carrying cranes, and arc welding equipment, are operated
- Using this product while covering it with your hands and holding it


• Possibility of affecting peripheral devices

This product emits radio waves. Do not use this product near medical equipment that may malfunction due to radio waves, such as laser scalpels and scales.

Electromagnetic Compatibility (EMC)

This product complies with the EMC Directive and the UK Electromagnetic Compatibility Regulations; however, if this receives electromagnetic interference that exceeds these requirements, it will be out of warranty and require appropriate measures.


Disposal of Old Electrical & Electronic Equipment (Applicable in the European Countries with Separate Collection Systems)



This symbol on the product or on its packaging is based on WEEE Directive (Directive on Waste Electrical and Electronic Equipment), and this symbol indicates that this product shall not be treated as household waste.

To reduce the environmental impact and minimize the volume of landfills, please cooperate in reuse and recycle.

For how to dispose of the product, please contact the agent where you purchased the product or a Mitutoyo sales office.

Item	Description
Communication range	Approx. 5 m (Not guaranteed in all environments due to the effects of surrounding radio waves.)
Wireless specifications	Bluetooth 5.0 Low Energy
Number of paired devices	Maximum 10
OS supported for pairing	Windows 10 or later Android 10 or later (The OS must support Bluetooth 5.0 Low Energy or later.)
Standards conformance	Japan ARIB STD-T66 EU Radio Equipment Directive RoHS Directive UK Radio Equipment Regulation 
Communication frequency	2.402 GHz to 2.480 GHz
Modulation method	GFSK (Gaussian Frequency-Shift Keying)
Operating temperature (humidity)	0 °C to 50 °C (20 % RH to 80 % RH with no condensation)
Storage temperature (humidity)	-10 °C to 60 °C (20 % RH to 80 % RH with no condensation)
External dimensions (W × H × D)	21.5 mm × 29.1 mm × 9.5 mm (not including the connector protrusions)
Mass	Approx. 10 g