

Measurement Data Management

Measurement Data Wireless Communication System

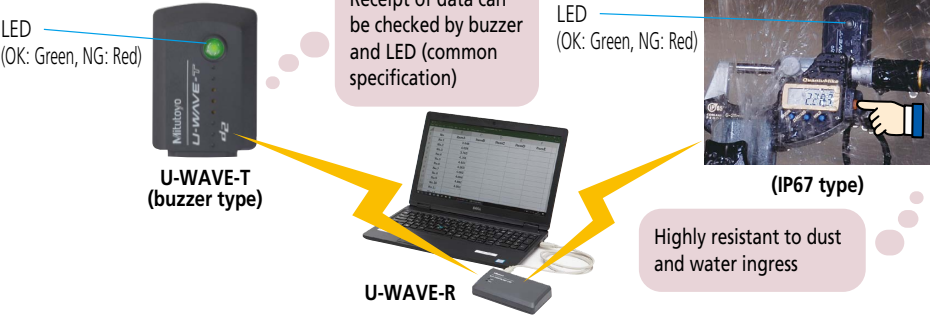
U-WAVE-T

- The system using our proprietary communication method features stable communication and low power consumption, resulting in improved work efficiency.
- It can be connected to various types of tools using optional special connection cables.

Model	U-WAVE-T (IP67 type)	U-WAVE-T (buzzer type)
Code No.*	02AZD730G/02AZD730H/02AZD730J	02AZD880G/02AZD880H/02AZD880J
Protection Rating	IP67	None
Data reception indication	LEDs	buzzer and LEDs
Power source	Lithium battery CR2032×1	
Battery life	Approx. 400,000 transmissions	
Dimensions (mm)	44×29.6×18.5	
Mass (g)	23	

\* To use this product, conformity to the applicable radio law in each country is required. Code number differs depending on the destination country. Please contact your nearest Mitutoyo sales office.

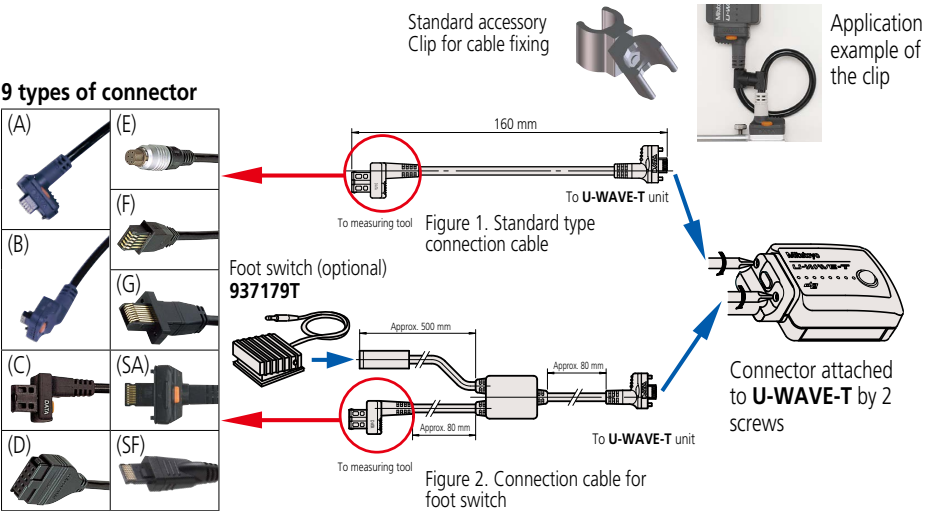
U-WAVE-T system configuration



U-WAVE-T dedicated connection cable

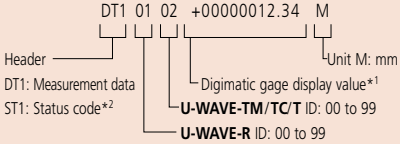
A dedicated cable connects a Digimatic gage to **U-WAVE-T**. Check the connector (A to G, SA and SF; refer to pages 09-23 and 09-24 for details) compatible with the Digimatic gage to be used and select either standard type (figure 1) or foot switch type (figure 2) according to your application.

Type	Standard connection cable Code No.	Connection cable for foot switch Code No.
(A) Water-proof model with output button	02AZD790A	02AZE140A
(B) Water-proof model with output button	02AZD790B	02AZE140B
(C) With data-out button	02AZD790C	02AZE140C
(D) 10-pin plain type	02AZD790D	02AZE140D
(E) 6-pin round type	02AZD790E	02AZE140E
(F) Plain type straight	02AZD790F	02AZE140F
(G) Plain type straight water-proof model	02AZD790G	02AZE140G
(SA) Water-proof straight model with data output button	02AZF960	02AZF960
(SF) Straight standard type	02AZG011	02AZG021



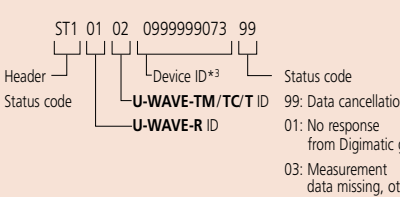
• Data format

Example of format when the Digimatic gage displays 12.34



\*1 Data interface function is switchable to "Measurement value only" e.g.) 12.34

\*2 Example of status code format



\*3 Unique number assigned to **U-WAVE** at shipment

Notes on Identification of Measurement Data and Multiple Systems Operation

Following the above format, the **U-WAVE** data format starts with a 4-digit code where the first two digits represent receiver channels and the last two are transmitter channels. The large number of transmitter/receiver combinations possible with this scheme ensures that the receivers in a factory measurement system only accept data from the intended transmitters, even when several receivers are all within communication range of different transmitters using the same channel. Different frequency bands (up to 15 available) may also be used to further ensure that there are no communication problems between adjacent **U-WAVE-R** units.

U-WAVE-T (U-WAVE fit) System Communication Specifications

• Wireless communication	
Wireless specifications	Original <based on IEEE802.15.4 (2.4 GHz)>
Wireless communication distance	Approx. 20 m (line of sight)
Wireless communication speed	250 kbps
Transmission output	0 mW (1 dBm) or less
Modulation method	DS-SS (Direct Sequence - Spread Spectrum) Resistant to interfering signals and noise
Communication frequency	2.405 to 2.475 GHz
Used band	15 channels (2.405 to 2.475 GHz at intervals of 5 MHz) The noise search function avoids interference with other communication devices.

Note: Please purchase **U-WAVE-T** in the country where you intend to use it.

## Optional Accessories for U-WAVE

### U-WAVE-T mounting bracket

Supports the **U-WAVE-T** on a Digimatic gage by detachable fastener. Batteries can be replaced without needing to detach the **U-WAVE-T** from the gage.

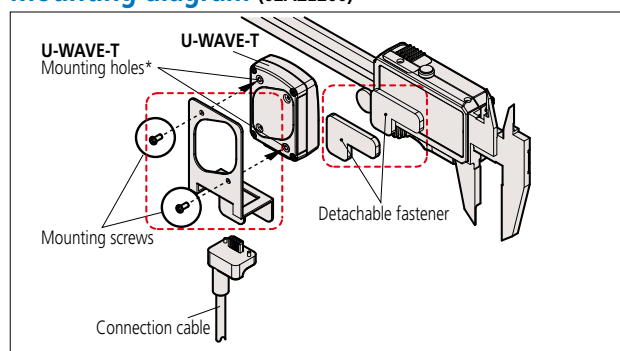


**U-WAVE-T mounting bracket**  
**02AZE200**

Standard accessories

- Detachable fasteners: 1 set
- Mounting screw: 2 pcs.

### Mounting diagram (02AZE200)



Note: In order to avoid loss of adhesion, do not allow oil or coolant to come into contact with the bonding surfaces of the detachable fasteners.

### U-WAVE-TM/TMB mounting bracket for Digimatic indicator

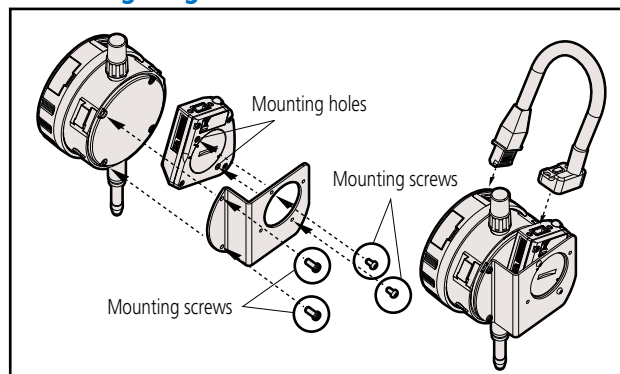
**U-WAVE-TM/TMB**  
mounting bracket for **Digimatic**  
**indicator**

**02AZF670/02AZF675**

Standard accessories

- Mounting screw: 4 pcs.

### Mounting diagram (02AZF670)



### U-WAVE-T mounting bracket for QM-Height

**U-WAVE-T** mounting bracket for  
**QM-Height**  
**02AZE990**

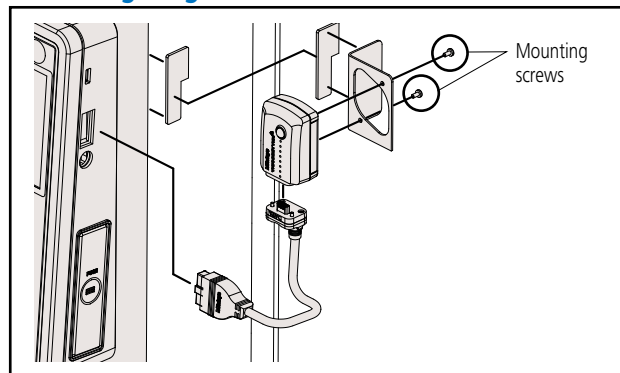
Standard accessories

- Detachable fastener: 2 pcs.  
(mirror-imaged)
- Mounting screw: 2 pcs.



Mounting  
bracket

### Mounting diagram (02AZE990)



\* The two **U-WAVE-T** mounting holes are on a relatively fragile plastic part. Be careful not to apply too much force when tightening.

Product catalog  
E12051



## Optional Accessories for U-WAVE

### U-WAVE-T mounting bracket

Supports the **U-WAVE-T** on a Digimatic gage by detachable fastener. Batteries can be replaced without needing to detach the **U-WAVE-T** from the gage.

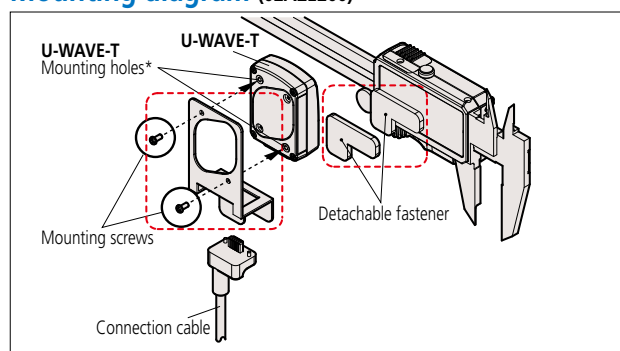


**U-WAVE-T mounting bracket**  
**02AZE200**

Standard accessories

- Detachable fasteners: 1 set
- Mounting screw: 2 pcs.

### Mounting diagram (02AZE200)



Note: In order to avoid loss of adhesion, do not allow oil or coolant to come into contact with the bonding surfaces of the detachable fasteners.

### U-WAVE-TM/TMB mounting bracket for Digimatic indicator

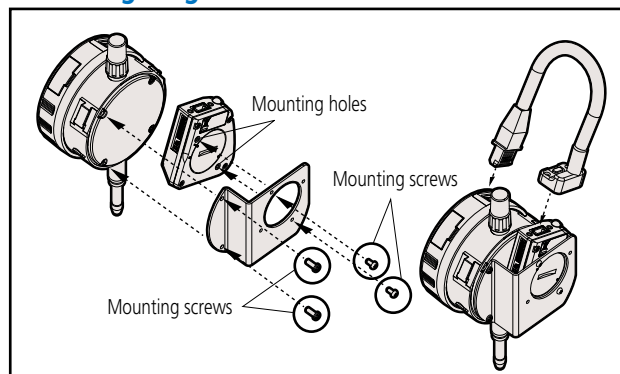
**U-WAVE-TM/TMB**  
mounting bracket for **Digimatic**  
**indicator**

**02AZF670/02AZF675**

Standard accessories

- Mounting screw: 4 pcs.

### Mounting diagram (02AZF670)



### U-WAVE-T mounting bracket for QM-Height

**U-WAVE-T** mounting bracket for  
**QM-Height**  
**02AZE990**

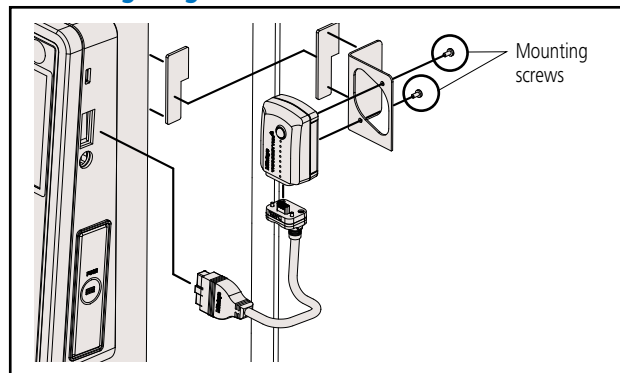
Standard accessories

- Detachable fastener: 2 pcs.  
(mirror-imaged)
- Mounting screw: 2 pcs.



Mounting  
bracket

### Mounting diagram (02AZE990)



\* The two **U-WAVE-T** mounting holes are on a relatively fragile plastic part. Be careful not to apply too much force when tightening.

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