

Measurement Data Management

Measurement Data Wireless Communication System

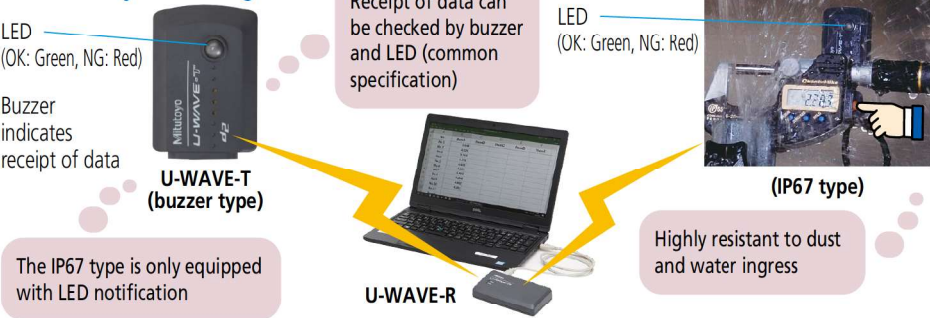
U-WAVE-T

- 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 CR2032x1	
Battery life	Approx. 400,000 transmissions	
Dimensions (mm)	44x29.6x18.5	
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

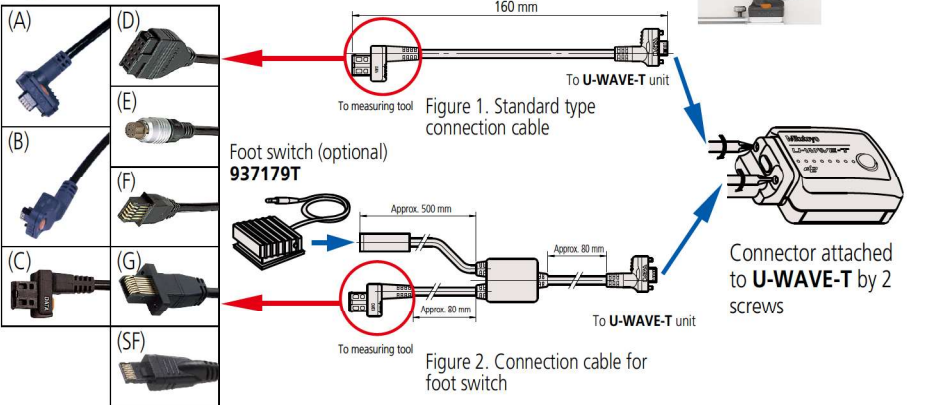


U-WAVE-T dedicated connection cable

A dedicated cable connects a Digimatic gage to U-WAVE-T. Check the connector (A to G 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.

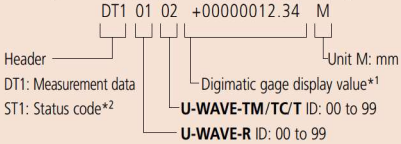
Type	Standard connection cable Code No.	Connection cable for foot switch Code No.
(A) Water-proof model with output button	02AZD790A	02AZE140A
(B) Water-proof model with output button	02AZD790B	02AZE140B
(C) With data-out button	02AZD790C	02AZE140C
(D) 10-pin plain type	02AZD790D	02AZE140D
(E) 6-pin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

8 types of connector



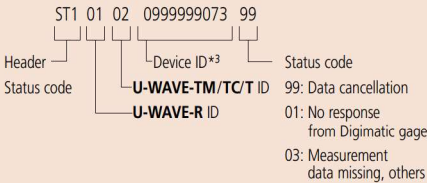
• Data format

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: U-WAVE-T cannot be used outside the country where they were purchased.

Measurement Data Wireless Communication System U-WAVE

Optional Accessories for U-WAVE

U-WAVE-T mounting bracket

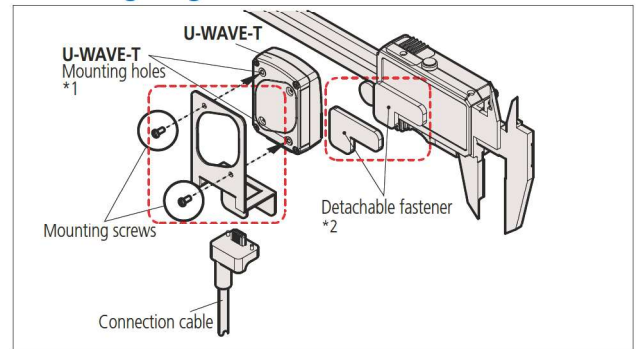
Supports the **U-WAVE-T** on a Digimatic gage by detachable fastener. Batteries can be replaced without needing to detach the **U-WAVE-T** from the gage.



U-WAVE-T mounting bracket 02AZE200

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

Mounting diagram (02AZE200)



- *1 To avoid damaging the threaded holes in the plastic body of the **U-WAVE-T** unit, the mounting screws should be tightened only just sufficiently to grip. Repeated removal of these screws should also be avoided for the same reason.
- *2 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.

Typical applications of the mounting bracket

QuantuMike MDE-25MX



Front view

Rear view

Digimatic Indicator



Front view

Rear view

Typical applications of the mounting bracket for Digimatic indicator

U-WAVE-TM/TMB (02AZF670, 02AZF675)



Front view

Rear view

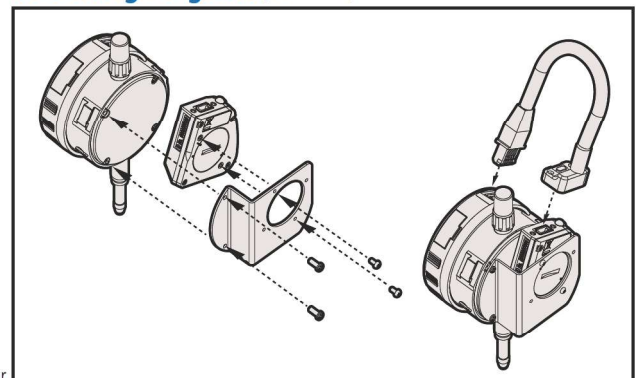
U-WAVE-TM/TMB mounting bracket for Digimatic indicator

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

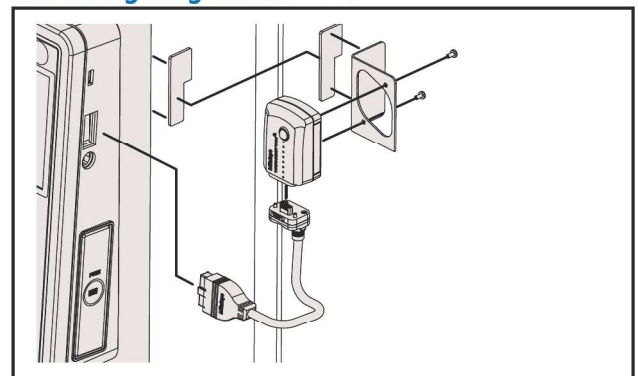
U-WAVE-T mounting bracket for QM-Height 02AZE990

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



Mounting bracket

Mounting diagram (02AZE990)



Product catalog E12051

