Tajima

Bedienungsanleitung

F03

Symbols

Warning notices

The warning notices differ from one another concerning the type of danger through the following signs:

- ➔ **Caution** warns against damage to property.
- ➔ **Warning** warns against bodily harm.
- ➔ **Danger** warns against danger to life.

Composition of the warning notices

Signal words

Type and source of the danger!

➲ Measure to avoid the danger.

Other symbols

Notes

Note *Notes on appropriate handling of laser measuring devices.*

Operation instructions

Composition of the operating instructions:

➲ Guidance to an operation.

Indication of an outcome, if necessary.

Schedules

Composition of the non numbered schedules:

➔ Schedule level 1
  ➔ Schedule level 2

Composition of the numbered schedules:

1. Schedule level 1
2. Schedule level 1
   2.1 Schedule level 2
   2.2 Schedule level 2

Safety and dangers

- ➲ Make sure that the device is not used without instructions.
- ➲ Make sure that the device is used exclusively according to the instructions.
- ➲ Make sure that the safety settings are not disabled.
- ➲ Make sure that indication labels and caution labels are not removed.
- ➲ Do not open the device with tools (screwdriver etc.).
- ➲ Make sure that the device is not converted or modified.
- ➲ Avoid using accessories of other producers that are not recommended by Tajima.
- ➲ Make sure that the device is not used carelessly:
  - ➔ when working on scaffolds
  - ➔ when climbing ladders
  - ➔ when measuring near running machines
  - ➔ when measuring on open machine parts or installations
- ➲ Avoid aiming directly at the sun.
- ➲ Avoid blinding other persons intentionally (also in darkness).
- ➲ Make sure that the measuring position is secured sufficiently. (e.g. in streets, on construction sites, etc.)
- ➲ Make sure that the device is in proper and flawless condition.
- ➲ Do not use a defective device.

Correct usage

- ➔ measuring of distances
- ➔ calculation of functions e.g. areas and volumes
- ➔ Use the device exclusively in an atmosphere that is permanently inhabitable by humans.

Foreseeable misuse

- ➲ Do not use the device as a laser pointer.
- ➲ Do not use the device in explosive or aggressive environments.

Areas of responsibility

Area of responsibility of the manufacturer of the original equipment

Tajima AG
CH-6370 Stans

- ➔ Tajima is responsible for the safety-related flawless delivery of the device including the operating instruction.

Area of responsibility of other manufacturers of accessories

- ➔ Other manufacturers of accessories for Tajima F 03 are responsible for the development, the realization and the communication of safety concepts for their products and their effects in combination with the Fluke product.

Area of responsibility of the operator

Caution

Damage to property due to repairing!

➲ In case of malfunctions, contact the retailer.

The operator is obliged to observe the following:

- ➔ He understands the protection information on the device and the operating instruction.
- ➔ He is familiar with the customary in-house accident control directives.

Electromagnetic compatibility (EMC)

Warning

Possible disturbance of other devices (e.g. safety equipment, medical equipment) due to electromagnetic radiation!

➲ Observe the safety instructions of the respective devices.

Despite the compliance with all requirements of the corresponding directives and norms, a disturbance of other devices is possible.

Laser classification

The Tajima F 03 generates a visible laser beam that is emitted from the front of the device.

The device complies with laser class 2 according to:

- ➔ IEC60825-1: 2007 Safety of laser products
- ➔ EN60825-1: 2007 Safety of laser products

Laser class 2 products

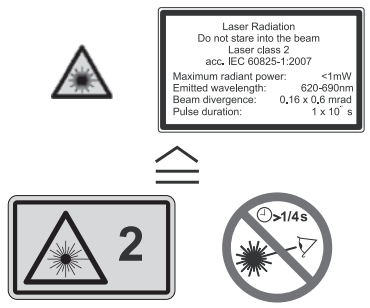
Do not look into the laser beam and do not unnecessarily aim at other persons. The eye is usually protected by preventive reactions such as the eyelid closure reflex.

Warning

Bodily harm due to laser beam!

- ➲ Do not look directly into the laser beam.
- ➲ Do not look directly into the laser beam with optical appliances (such as binoculars, telescopes).

Labels



Care

- ➲ Clean the device with a damp, soft cloth.
- ➲ Do not immerge the device in water.
- ➲ Do not use aggressive cleaning agents or solvents.

Measurement errors

Caution

Damage to property due to use of wrong measuring results!

- ➲ Avoid measuring errors due to unexpected events during distance measuring.
- ➲ Perform a control measurement.

Measuring errors are possible in case of:

- ➔ colorless fluids (e.g. water)
- ➔ clean, translucent glass
- ➔ styrofoam or similar semi-translucent surfaces
- ➔ strongly reflecting targets that deflect the laserbeam
- ➔ measurements aimed at moving objects

Causes:

- ➔ Strongly reflecting targets deflect the laser beam and cause measuring errors.
- ➔ Non-reflecting, dark surfaces increase the measuring time.

For constantly high-quality measurements

- ➲ Perform control measurements periodically.
- ➲ Perform control measurements before and after important measurements.

Disposal

Caution

Damage to property due to inappropriate disposal!

- ➲ Dispose of the device and the batteries according to the national, country-specific disposal directives.
- ➲ Protect the device and the batteries from access of unauthorized persons.

Not *Do not dispose of this product as unsorted municipal waste. Go to Tajima's website for recycling information.*

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Overview

Keys

See drawing **A**:

1. laser emitter
2. receiver lens
3. display
4. on/measure
5. Subtraction
6. measuring plane/unit
7. clear/off
8. area/space volume/Pythagoras
9. Addition

Display

See drawing **D**:

10. measuring plane
11. area/space volume/Pythagoras
12. battery symbol
13. 2nd row
14. fractions/exponents
15. units
16. summary row
17. Addition/Subtraction

Initial operation

Insert the batteries

See drawing **E:**

- ➲ To ensure a reliable use, use exclusively alkaline batteries.
- ➲ Remove battery compartment cover.
- ➲ Insert alkaline batteries (2 x AAA) observing the polarity.
- ➲ Close the battery compartment cover.

Changing the batteries

- ➲ Change the batteries when the battery symbol is blinking permanently.

How to use

Measuring conditions

The quality of the measurement depends on the surfaces to which you are measuring.

Switching on/off

- ➲ Switch on the device by pressing key **4** briefly.

The device shows the battery symbol until another key is pressed.

- ➲ Switch off the device by holding key **7** for several seconds.

If no key is pressed for 180 seconds, the device switches off automatically.

Delete key

- ➲ Undo the most recent action by pressing key **7** briefly.

Adjusting the measuring plane

See drawing **F:**

Rear measuring plane is the standard setting.

- ➲ For measurement from front edge, press key **6** briefly.
- ➲ For measurement from rear edge, press key **6** briefly again.

Adjusting the measuring units

Metric system is the standard setting.

- ➲ To change the unit, hold key **6** for several seconds.

With every keypress, the device switches to the next unit.

Possible units:

- ➔ meters with mm display
- ➔ feet inch fractional
  - ➔ summary row up to 1/16 inch
  - ➔ 2nd row up to 1/8 inch
- ➔ inch fractional
  - ➔ summary row up to 1/16 inch
  - ➔ 2nd row up to 1/8 inch

Measuring

Measuring individual distances

- ➲ Press key **4** briefly.
- ➲ Aim active laser at target area.
- ➲ Press key **4** briefly.
  The device measures the distance.

The device displays the result immediately.

Continuous measuring

This function enables distances to be staked out.

- ➲ Hold key **4** for several seconds.
  Continuous measuring starts.
- ➲ Press key **4** briefly.
  Continuous measuring stops.

The value last measured appears in the summary row.

Functions

Add/Subtract

Add:

- ➲ Measure the first distance.
- ➲ Press key **9** once.
  The device adds the second measuring result to the first measuring result.
- ➲ Measure the second distance.

Subtract:

- ➲ Measure the first distance.
- ➲ Press key **5** once.
  The device subtracts the second measurement result from the first measurement result.
- ➲ Measure the second distance.

Repeat if required. The device displays the result in the summary row and the previous value in the second row.

Area

- ➲ Press key **8** once.
  The area symbol appears on the display.
- ➲ Press key **4** and measure the first distance. (e.g. length).
- ➲ Press key **4** and measure the second distance.
  (e.g. width).

The device displays the result in the summary row and the respective measured distance to the next measurement in the second row.

Space volume

- ➲ Press key **8** twice.
  The volume symbol appears on the display.
- ➲ Press key **4** and measure the first distance (e.g. length).
- ➲ Press key **4** and measure the second distance (e.g. width).
- ➲ Press key **4** and measure the third distance (e.g. height).

The device displays the result in the summary row and the respective measured distance to the next measurement in the second row.

Pythagoras

See drawing **G:**

- ➲ Press key **8** three times.
  The Pythagoras symbol appears on the display.
- ➲ Press key **4** and measure the first distance (diagonal measurement).
- ➲ Press key **4** and measure the second distance (horizontal measurement).

The device displays the result in the summary row and the respective measured distance to the next measurement in the second row.

Troubleshooting

- ➲ If the message **Error** does not disappear after switching on the device repeatedly, please contact the retailer.
- ➲ If the message **InFo** appears with a number, observe the instructions in the following table.

No.	Cause	Remedy
204	Calculation error	Perform measurement again.
252	Temperature too high	Let the device cool down.
253	Temperature too low	Warm the device up.
255	Reception signal too weak, measuring time too long	Change target surface (e.g. white paper).
256	Input signal too high	Change target surface (e.g. white paper).
257	Measuring error, too much background light	Shadow the target area.
258	Measurement outside of the measuring range	Mind the range.
260	Laser beam interrupted	Repeat the measurement.

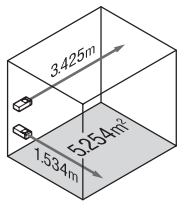
Technical data

Range	0.1 m to 30 m 0.33 ft to 100 ft
Measuring accuracy (2 σ)	Typ.: ± 2.0 mm* ± 0.12 in*
Smallest unit displayed	1 mm (1/16 in)
Laser class	2

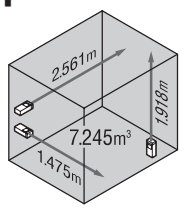
Laser type	635 nm, < 1 mW
Automatic switch-off	after 180 s
Continuous measuring	yes
Addition/Subtraction	yes
Area	yes
Volume	yes
Pythagoras	yes
Unit switching	yes
Dimension (H x D x W)	118 x 50 x 26 mm 4.65 x 1.97 x 1.02 in
Battery durability (2 x AAA)	up to 3000 measurements
Weight	100 g 3.22 ounce
Temperature range: - Storage - Operation	 -25°C to +70°C (-13°F to +158°F) 0°C to +40°C (32°F to +104°F)

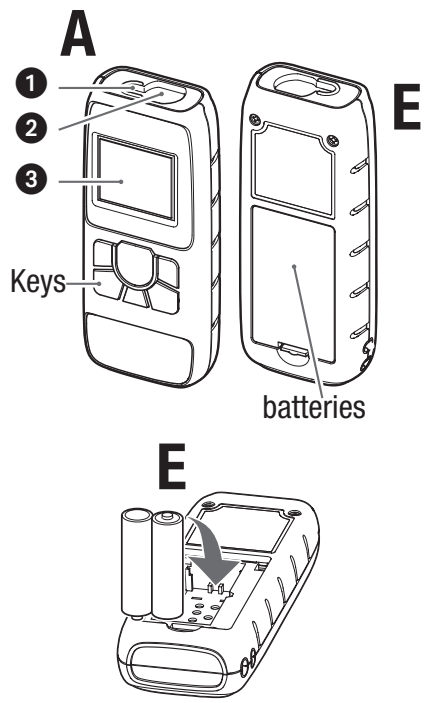
* under favorable conditions (good target surface, room temperature) up to 10 m (33ft). Under unfavorable conditions such as bright sunlight, a very weakly reflecting target surface or large temperature fluctuations, the deviation can rise by ± 0.25 mm/m (±0.01 in) for distances over 10 m (33 ft).

area

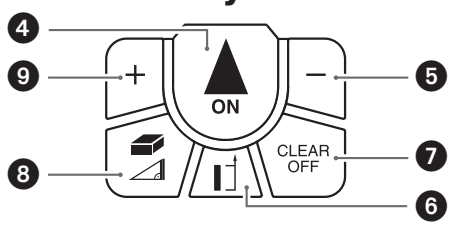


space volume

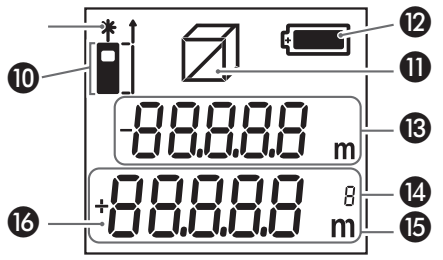


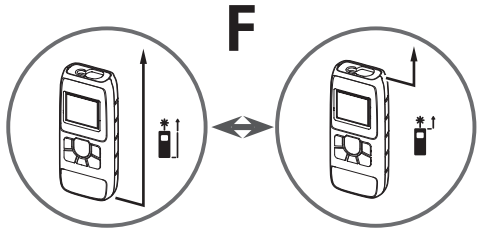


Keys



Display





pythagoras