TD200

EN

OPERATING MANUAL
LASER DISTANCE MEASURING DEVICE

TROTEC

TRT-BA-TD200-TC220304TTRT01-001-EN

Table of contents

Notes regarding the operating manual

Symbols

Warning of electrical voltage
This symbol indicates dangers to the life and health of persons due to electrical voltage.

Warning of laser radiation
This symbol indicates dangers to the health of persons due to laser radiation.

Warning
This signal word indicates a hazard with an average risk level which, if not avoided, can result in serious injury or death.

Caution
This signal word indicates a hazard with a low risk level which, if not avoided, can result in minor or moderate injury.

Note
This signal word indicates important information (e.g. material damage), but does not indicate hazards.

Info
Information marked with this symbol helps you to carry out your tasks quickly and safely.

Follow the manual
Information marked with this symbol indicates that the operating manual must be observed.

You can download the current version of the operating manual and the EU declaration of conformity via the following link:

TD200

https://hub.trotec.com/?id=46393

Safety

Read this manual carefully before starting or using the device. Always store the manual in the immediate vicinity of the device or its site of use.

Warning
Read all safety warnings and all instructions.
Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.
Save all warnings and instructions for future reference.

Danger
If non-rechargeable batteries are used, connecting the device to a power supply (also for data exchange) via a USB cable or via wireless charging may cause the batteries to burst, damage the device or cause fire and injuries.
Therefore, only use rechargeable batteries if possible!
However, if you need to use non-rechargeable batteries for a short time for technical reasons, it is mandatory to remove the non-rechargeable batteries from the device before connecting it to a computer or a charger!

- Do not use the device in potentially explosive rooms or areas and do not install it there.
- Do not use the device in aggressive atmosphere.
- Do not immerse the device in water. Do not allow liquids to penetrate into the device.
- The device may only be used in dry surroundings and must not be used in the rain or at a relative humidity exceeding the operating conditions.
- Protect the device from permanent direct sunlight.
- Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.
- Do not open the device.
- Avoid looking directly into the laser beam.
- Never point the laser beam at people or animals.

- Different types of batteries and new and used batteries must not be used together.
- Insert the batteries into the battery compartment according to the correct polarity.
- Remove the batteries from the device if you will not be using the device for a longer period of time.
- Never short-circuit the supply terminal in the battery compartment!
- Do not swallow batteries! If a battery is swallowed, it can cause severe internal burns within 2 hours! These burns can lead to death!
- If you think batteries might have been swallowed or otherwise entered the body, seek medical attention immediately!
- Keep new and used batteries and an open battery compartment away from children.
- Only use the device, if sufficient safety precautions were taken at the surveyed location (e.g. when performing measurements along public roads, on building sites etc.). Otherwise do not use the device.
- Observe the storage and operating conditions (see Technical data).

Intended use

Only use the device for measuring distances, areas and volumes by means of the integrated laser and within the measuring range specified in the technical data. Observe and comply with the technical data.

To use the device for its intended use, only use accessories and spare parts which have been approved by Trotec.

Foreseeable misuse

Do not use the device in potentially explosive atmospheres, or for measurements in liquids. Never point it at people or animals.

Do not connect the device to a charger or computer using a USB cable if non-rechargeable batteries are inserted into the device.

Any unauthorised modifications, alterations or structural changes to the device are forbidden.

Personnel qualifications

People who use this device must:

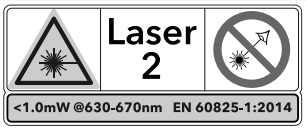
- be aware of the dangers that occur when working with laser measuring devices.
- have read and understood the operating manual, especially the Safety chapter.

Safety signs and labels on the device

Note

Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.

The following safety signs and labels are attached to the device:

Warning sign	
Meaning	The warning sign is located on the back of the device and indicates that the device is equipped with a class 2 laser. The power is less than 1.0 mW. The frequency range of the laser is 630 to 670 nm. **Do not look directly into the laser beam or the opening from which the laser beam emerges!**

Residual risks

Warning of laser radiation
Laser class 2, P max.: < 1 mW, λ: 400-700 nm, EN 60825-1:2014
Do not look directly into the laser beam or the opening from which it emerges.
Never point the laser beam at people, animals or reflective surfaces. Even brief eye contact can lead to eye damage.
Examining the laser output aperture by use of optical instruments (e.g. magnifying glass, magnifiers and the like) entails the risk of eye damage.
When working with a laser of class 2, observe the national regulations on wearing eye protection.

Warning
Risk of suffocation!
Do not leave the packaging lying around. Children may use it as a dangerous toy.

Warning
The device is not a toy and does not belong in the hands of children.

Warning
Dangers can occur at the device when it is used by untrained people in an unprofessional or improper way! Observe the personnel qualifications!

Caution
Keep a sufficient distance from heat sources.

Note

To prevent damages to the device, do not expose it to extreme temperatures, extreme humidity or moisture.

Note

Do not use abrasive cleaners or solvents to clean the device.

Information about the device

Device description

The laser distance measuring device TD200 is used to determine distances, areas and volumes in indoor and outdoor areas. The following measuring functions can be performed:

- Distance measurements (to a point or between two points)
- Continuous measurements (measuring minimum and maximum distances)
- Area measurements (rectangular, triangular and measuring circles)
- Volume measurements (rectangular or cylindrical)
- Height measurements, also of partial heights/indirect measurements
- Measurements of trapezoid sides
- Marking repetitive distances (stake-out function)

The device is equipped with an integrated camera that allows you to search for the target point and take a photo of the measurement situation.

The timer allows to perform delayed measurements after 5 seconds.

The device is equipped with separate operating elements for the different measuring functions. The multi-line, backlit display indicates the determined values and measuring functions.

Measured values can be added or subtracted and up to 1000 measurements can be retrieved from the data memory.

Measuring distance

The range of the device can be gathered from the Technical data chapter. Under certain conditions – e.g. at night, in twilight or when the target is hidden in the shade – greater distances are possible even without target plate. During the day use a target plate to increase the distance for poorly reflecting targets, if required.

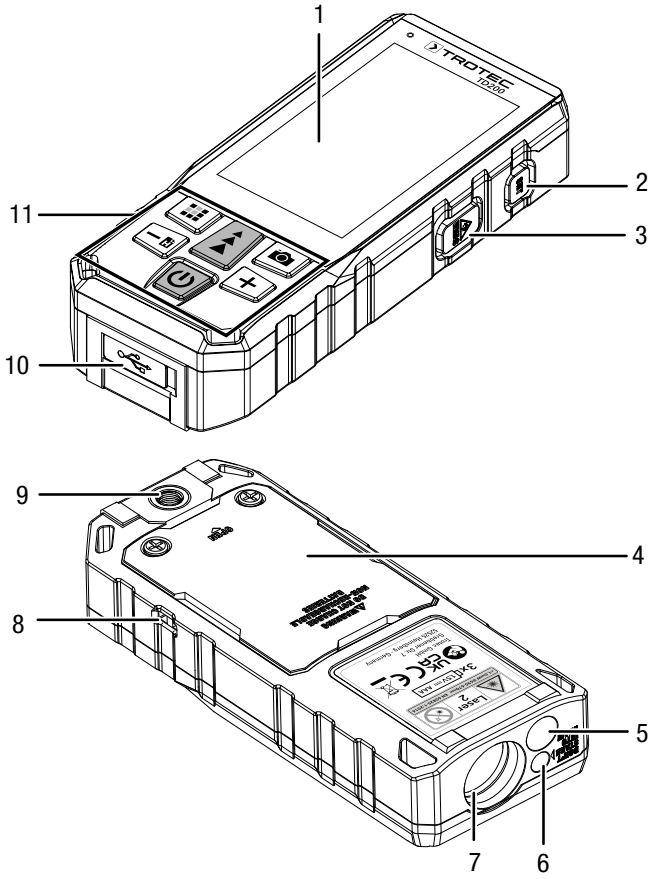
Target surfaces

There might be measurement errors when the laser encounters colourless liquids (e.g. water), dust-free glass, styrofoam or other semi-permeable materials. The measurement result may also be falsified if the laser encounters a high-gloss surface and is deflected by it. Non-glossy, non-reflective or dark surfaces can extend the measurement duration.

Wireless charging

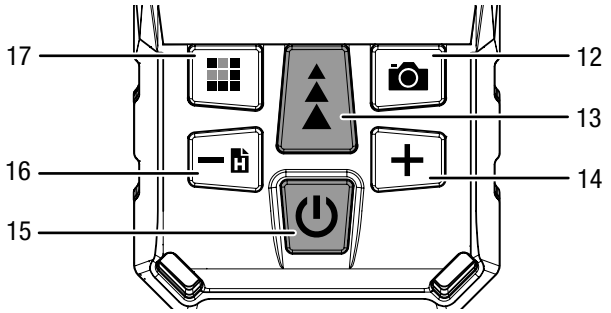
You have the option to charge the device wirelessly. To do so, you require an inductive charger (5 V, 1 A/5A) which is not included in the scope of delivery.

Device depiction



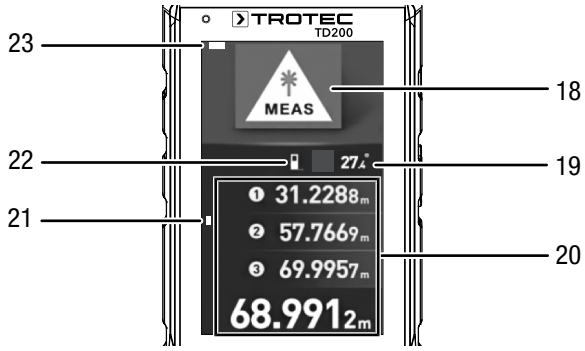
No.	Designation
1	Display
2	*SET* button
3	MEAS button
4	Cover of the battery compartment
5	Camera opening
6	Laser
7	Laser reception
8	Opening for carrying strap
9	Tripod connection
10	USB port
11	Keypad

Keypad



No.	Button	Function
12		Press briefly: switches on the camera when in settings menu: changes the menu item when in memory: opens the Delete menu
		Press for a long time: for taking a photo with a single distance measurement
13		Press briefly: switches on the laser/performs measurement
		Press and hold: continuous measurement
14	+	Press briefly: initiates an addition of a measured value when in measuring menu/settings menu: changes the submenu when in memory mode: selects the next memory point
15		Press briefly: deletes last value/back to single distance measurement
		Press for a long time: switches the device on and off
16	−	Press briefly: initiates a subtraction of a measured value when in measuring menu/settings menu: changes the submenu when in memory mode: selects the previous memory point
		Press for a long time: opens the memory mode
17		Press briefly: opens the measuring menu when in memory mode: changes between data values and photos when in settings menu: changes the submenu
		Press and hold: time-delayed measurement (5 s)

Display



No.	Display element
18	Indication of the measuring function used
19	Digital display of inclination angle
20	Measured value and result display
21	Graphic display of inclination angle
22	Indication of the set reference point
23	Battery status

Technical data

Parameter	Value
Model	TD200
Weight (incl. batteries)	190 g
Dimensions (H x W x D)	130 x 54 x 28 mm
Measuring range of laser	0.05 m to 200 m / 2 in to 656 ft
Display	3-inch HD colour display
Measuring units	m/mm/ft/in/ft+in
Accuracy	±2.0 mm + 5 x 10^{-5} D
Measuring range resolution	1 mm
Reference point at measuring device	front/rear/tripod
Number of recordings logged in the history	Max. 1000
Number of storable screenshots	Max. 100
Operating temperature	0 °C to 40 °C 32 °F to 104 °F
Storage temperature	-10 °C to 60 °C
Relative humidity	max. 90 %
Laser output	< 1 mW (630-670 nm)
Laser class	II
Device switch-off	After approx. 3 minutes of non-use
Automatic switch-off of the laser	After approx. 30 seconds of non-use
Protection class	IP 65
USB port	Micro USB
Power supply	3 x 1.2 V rechargeable batteries (type AAA)
Wireless charging	5 V, 1 A/5 A

Scope of delivery

- 1 x Device TD200
- 3 x rechargeable batteries 1.2 V AAA
- 1 x Wrist strap
- 1 x Bag/holster
- 1 x USB cable
- 1 x screwdriver
- 1 x Quick guide

Transport and storage

Note

If you store or transport the device improperly, the device may be damaged.
Note the information regarding transport and storage of the device.

Transport

For transporting the device, use the bag included in the scope of delivery in order to protect the device from external influences.

Storage

When the device is not being used, observe the following storage conditions:

- dry and protected from frost and heat
- protected from dust and direct sunlight
- with a cover to protect it from invasive dust if necessary
- the storage temperature complies with the values specified in the Technical data
- Remove the batteries from the device.

Operation

Inserting the batteries

Danger

If non-rechargeable batteries are used, connecting the device to a power supply (also for data exchange) via a USB cable or via wireless charging may cause the batteries to burst, damage the device or cause fire and injuries.

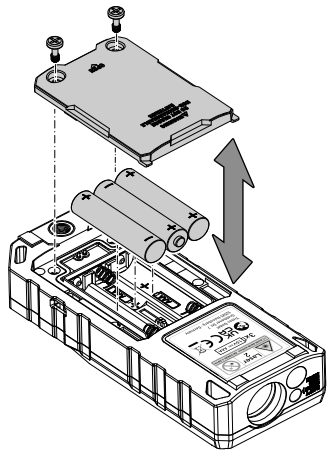
Therefore, only use rechargeable batteries if possible!

However, if you need to use non-rechargeable batteries for a short time for technical reasons, it is mandatory to remove the non-rechargeable batteries from the device before connecting it to a computer or a charger!

Note

Make sure that the surface of the device is dry and the device is switched off.

1. Loosen the cover of the battery compartment (4) with a screwdriver.
2. Insert three rechargeable batteries of type AAA (1.2 V, included in the scope of delivery) into the battery compartment with correct polarity (+/-).



3. Put the cover of the battery compartment back onto the device and tighten it with the screws.

Switch-on

1. Press the ⏻ button (15) for approx. 1 second.
   - ⇨ The display will be activated and the device is in single distance measurement mode.
   - ⇨ The display indicates the inclination angle digitally in degrees and graphically by means of a bar on the left edge of the display.

Basic settings

1. Press the *SET* button (2) to open the menu for the settings.
   - ⇨ The menu items that can be selected are indicated on the right of the display.
   - ⇨ The possible options for the menu item are indicated on the left side.

You can make the following settings:

Measuring unit	0.000 m: metres – three decimal places 0.0000 m: metres – four decimal places mm: millimetres ft: foot in: inch ' '': foot and inch
Reference point	: front edge of device : rear edge of device : centre of tripod connection
Screen rotation	: screen rotation enabled : screen rotation disabled
Sounds	: acoustic signal enabled : acoustic signal disabled
Menu languages	EN: English 中: Chinese
Display background	123: white background 123: black background
Time-delayed measurement	: starts a time-delayed measurement (5 s)
Memory	: opens the memory for measurements and photos
Measurement constant	: opens the menu for setting a base value that is added or subtracted when measuring

1. Use the + button (14) and the 📷 button (12) to switch between the menu items.
2. Use the − button (16) and the ▦ button (17) to switch between the submenu options.
3. Press the 🔍 button (13) to select the option highlighted in the submenu.
   - ⇨ The selected option is adopted and displayed in the menu item on the right.
4. Press the ⏻ button (15) to exit the settings menu and return to the measuring menu.

Selecting the measuring function

Press the ▦ button (17) to open the menu for the measuring functions. You can select the measuring functions with the + button (14) or the − button (16) and confirm with the button (13).
The following measuring functions are available:

MEAS	Single distance measurement: - you can add or subtract measured values - continuous measurements (measuring minimum or maximum distances)
S	Area measurements (rectangle)
V	Volume measurements (cube)
A B α	Point-to-point measurement
A B B	Stake-out function (mark equal distances)
S	Measuring circular areas
V	Measuring cylinder volumes
S	Measuring triangular areas
α	Trapezoidal measurement 2 (through one height and a diagonal)
	Trapezoidal measurement 1 (through two heights and a baseline)
α	Automatic height measurements
α	Levelled distance/height and angle measurements
	Measuring partial heights over three points (Pythagoras 2, 3-point)
	Measuring heights over three points (Pythagoras 1, 3-point)
	Measuring heights over two points (Pythagoras 2-point)

By pressing the ⏻ button (15) you can exit the measuring function and return to the individual measurement mode.

Carrying out measurements

Warning of laser radiation
Laser class 2, P max.: < 1 mW, λ: 400-700 nm, EN 60825-1:2014
Do not look directly into the laser beam or the opening from which it emerges.
Never point the laser beam at people, animals or reflective surfaces. Even brief eye contact can lead to eye damage.
Examining the laser output aperture by use of optical instruments (e.g. magnifying glass, magnifiers and the like) entails the risk of eye damage.
When working with a laser of class 2, observe the national regulations on wearing eye protection.

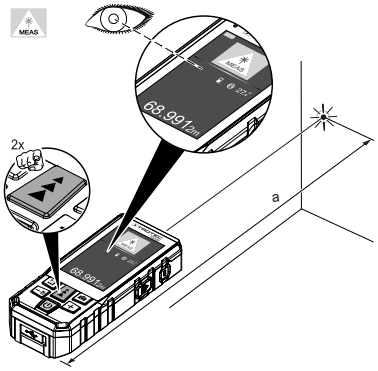
Info
The device is equipped with two buttons that can be used to start the distance measurement:
- button 13) below the display
- MEAS button (3) on the right side
In this manual, only the button (13) is mentioned in the following for simplification. Depending on the measurement situation, you can use the button that is easier for you to use.

Aiming at the target:

If the laser is not visible at the measuring point, you can activate the camera by pressing the 📷 button (12). The camera has a viewfinder function that places crosshairs on the laser dot which allows you to aim at the target very precisely. By pressing the button (13) you can start the distance measurement of the targeted point. Afterwards, the display switches back to the measuring menu.

Single distance measurement

1. Briefly press the button (13) to activate the laser.
2. Point the laser at the target area.
3. Briefly press the button (13) again to perform a distance measurement.
   ⇨ The measured value is indicated on the display.

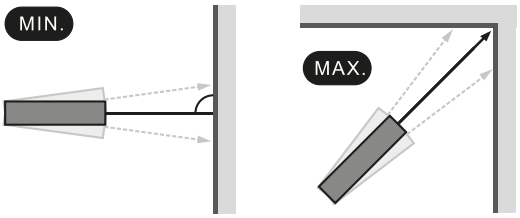


Info
In single distance measurement mode, you can activate the camera function by pressing the button (12). By pressing again for approx. 3 seconds, a photo is taken and saved together with the measured value.

Continuous measurement (min./max.)

With this measurement method the device can be moved during the measurement with the measured value being recalculated roughly every 0.5 seconds. You can use the function for performing the following measurements, for example:

- **MIN value:** determining the perpendicular length to a wall/ floor area
- **MAX value:** measuring a diagonal



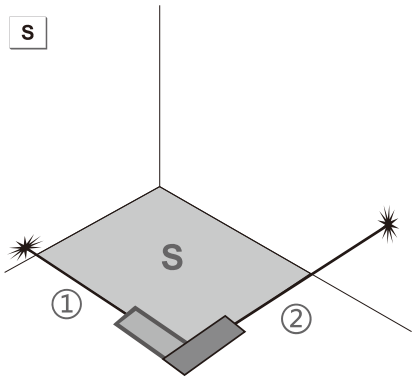
✓ You have selected the single distance measuring function.

1. Press the button (13) and keep it pressed.
   ⇨ With activated signal indication function, a recurring acoustic signal is emitted.
   ⇨ The maximum, minimum and current value are indicated on the display.
2. Depending on the desired measurement, move the device slowly forwards, backwards, up or down (e.g. in the corner of a room).
3. Briefly press the button to terminate the non-stop measurement.
   ⇨ The maximum, minimum and last measured value are indicated on the display.

Area measurements (rectangle)

✓ You have selected the area measuring function.

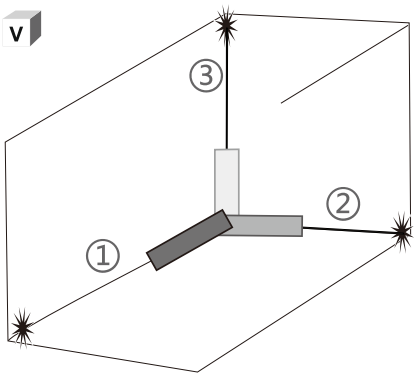
1. Briefly press the button (13) to carry out measurement ①.
   ⇨ The length of the distance is indicated on the display.
2. Turn the device by 90 ° and press the button (13) again briefly to perform measurement ②.
   ⇨ Upon pressing the button for the second time the device independently calculates the area (S) and the circumference and indicates these values on the display.



Volume measurements (cube)

✓ You have selected the volume measuring function.

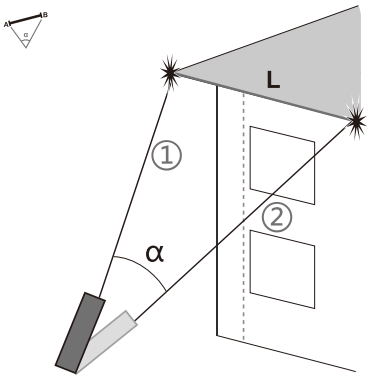
1. Briefly press the button (13) to measure length ①.
   ⇨ The length of the distance is indicated on the display.
2. Briefly press the button again to measure width ②.
   ⇨ The second measured value is also indicated on the display.
3. Briefly press the button again to measure height ③.
   ⇨ The third measured value is also indicated on the display.
   ⇨ The device automatically calculates the volume and indicates this value on the display.



Point-to-point measurement

After selecting the measuring function “point-to-point measurement”, the device performs a calibration. You must hold the device absolutely still to do so. After successful calibration you can start the measurement:

1. Aim the laser at the starting point and press the button (13) briefly to perform measurement ①.
   ⇨ The length of the distance is indicated on the display.
2. Aim the laser at the endpoint and press the button again briefly to perform measurement ②.
   ⇨ The second measured value is also indicated on the display.
   ⇨ The device automatically calculates the distance (L) between the two measuring points and the angle between the two measuring distances (α) and indicates these results on the display.



Marking-out function

This measuring function is used to mark equal distances, e.g. when assembling construction components. You can enter two values for the measurement:

- A: the initial value at which the measurement is supposed to start (e.g. the distance from a wall to the first construction element)
- B: the recurring distance you would like to mark (e.g. the distance between individual construction elements).

After selecting the measuring function, the input mask for the values A and B appears. The following buttons are available for entering the values:

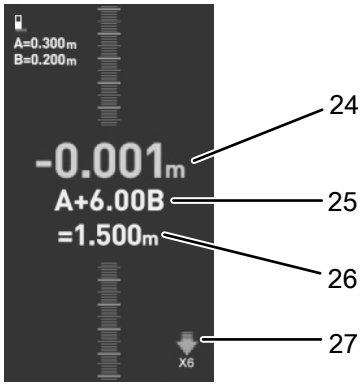
Button	Function
	navigate to the left
	navigate to the right
+	increase the value
−	reduce the value
	save displayed value
	Exit menu

Info

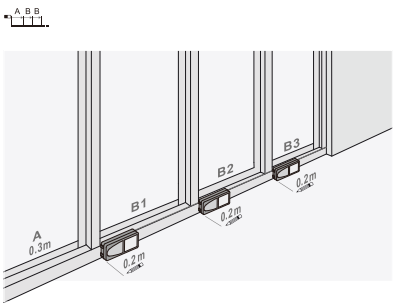
Before marking, note which reference point is selected!

After the values have been entered, the stake-out function is started and you can start marking. The indicators on the display are for your guidance:

- The upper value (24) indicates the distance to a point to be marked.
- The value in the centre (25) indicates how often A and B have been reached at the current point.
- The lower value (26) indicates the total distance.
- Directional arrows (27) indicate the direction to the closest point.



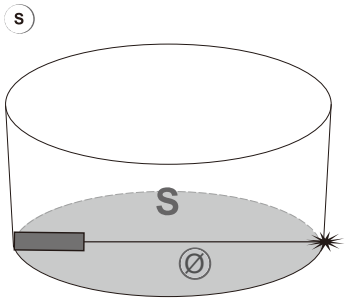
1. Move the device slowly along the marked line.
   ⇨ When you approach the point for value A, acoustic signal sounds are emitted rapidly (if the acoustic signal function is switched on).
2. Mark the point when the upper value is zero. The reference point can be set to the front or the back of the device.
   ⇨ The starting point (A) for the stake-out function is set.
3. Continue to move the device along the marked line.
   ⇨ When you approach the point for distance B, acoustic signal sounds are emitted rapidly (if the acoustic signal function is switched on).
4. Mark the point when the upper value is zero.
   ⇨ The first distance B is now marked.
5. Continue as in steps 3 and 4 until all desired points have been marked.



Measuring circular areas

✓ You have selected the circular area measuring function.

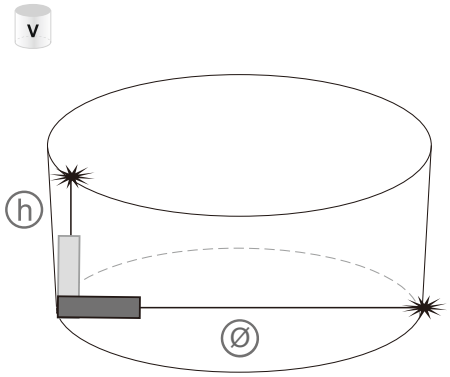
1. Briefly press the button (13) to determine the diameter (Ø) of the circular area.
   ⇨ The device automatically calculates the size and circumference of the circular area and indicates the values on the display.



Measuring cylinder volumes

✓ You have selected the cylinder volume measuring function.

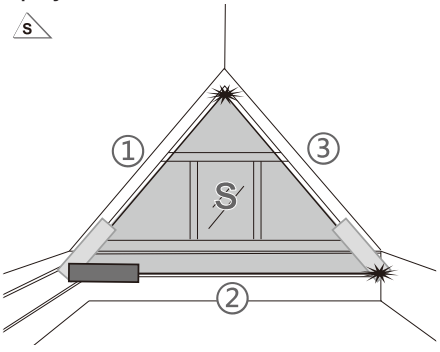
1. Briefly press the button (13) to determine the diameter (Ø) of the cylinder.
   ⇨ The length of the distance is indicated on the display.
2. Briefly press the button (13) again to measure the height (h) of the cylinder.
   ⇨ The length of the distance is indicated on the display.
   ⇨ The device automatically calculates the size of the circular area and the volume of the cylinder and indicates the values on the display.



Measuring triangular areas

✓ You have selected the triangular area measuring function.

1. Briefly press the button (13) to measure side ① of the triangle.
   ⇨ The length of the distance is indicated on the display.
2. Re-align the device and press the button (13) again briefly to measure side ② of the triangle.
   ⇨ The length of the distance is indicated on the display.
3. Place the measuring device at the endpoint of side ② and press the button (13) again briefly to measure side ③ of the triangle.
   ⇨ The length of the distance is indicated on the display.
   ⇨ The device automatically calculates the size of the triangular area (S) and indicates the value on the display.



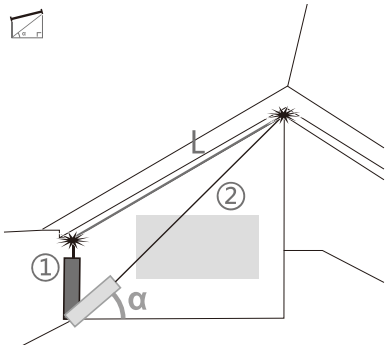
Info

If the measured sides cannot form a triangle mathematically, the display indicates an error message.

Trapezoidal measurement 2 (through one height and a diagonal)

✓ You have selected the triangular area 2 measuring function.

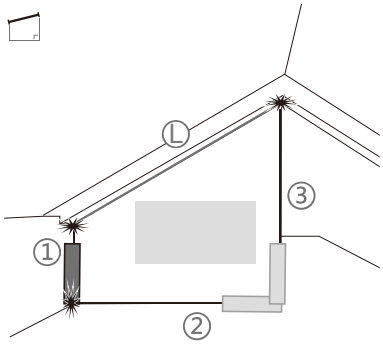
1. Briefly press the button (13) to measure height ① of the trapezoidal area.
   ⇨ The length of the distance is indicated on the display.
2. Re-align the measuring device and press the button (13) again briefly to measure diagonal ② of the trapezoidal area.
   ⇨ The length of the distance is indicated on the display.
   ⇨ The device automatically calculates the length (L) and the angle (α) between the diagonal and the baseline of the trapezoidal area and indicates the values on the display.



Trapezoidal measurement 1
(through two heights and a baseline)

✓ You have selected the triangular area 1 measuring function.

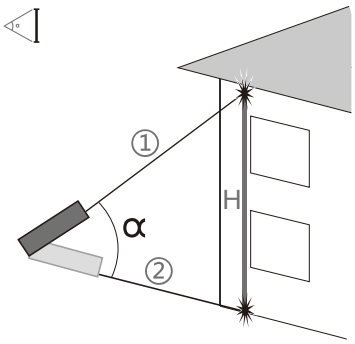
1. Briefly press the button (13) to measure height ① of the trapezoidal area.
   ⇨ The length of the distance is indicated on the display.
2. Place the measuring device at the endpoint of side 2 and press the button (13) again briefly to measure baseline ② of the trapezoidal area.
   ⇨ The length of the distance is indicated on the display.
3. Re-align the measuring device and press the button (13) briefly to measure the second height ③ of the trapezoidal area.
   ⇨ The length of the distance is indicated on the display.
   ⇨ The device automatically calculates the missing length (L) of the triangular area and indicates the value on the display.



Automatic height measurements

✓ You have selected the automatic height measuring function.

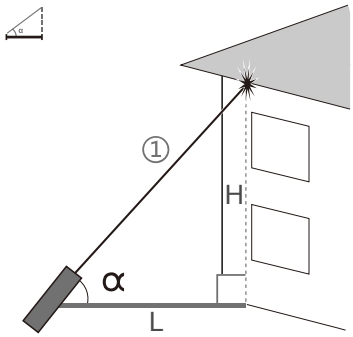
1. Aim the laser at the upper endpoint and press the button (13) briefly to perform measurement ①.
   ⇨ The length of the distance is indicated on the display.
2. Aim the laser at the lower endpoint and press the button (13) briefly to perform measurement ②.
   ⇨ The length of the distance is indicated on the display.
   ⇨ The device automatically calculates the height (H) and indicates this value on the display.



Levelled distance/height and angle measurements

✓ You have selected the levelled distance/height and angle measuring function.

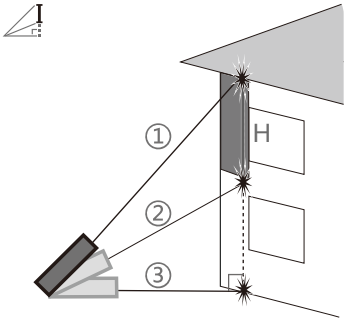
1. Aim the laser at the endpoint of the height and press the button (13) briefly to determine the distance ① to the endpoint.
   ⇨ The length of the distance (1) is indicated on the display.
   ⇨ The device automatically calculates the horizontal distance (L), the height (H) and the angle (α) and indicates these values in the display.



Measuring partial heights over three points
(Pythagoras 2, 3-point)

✓ You have selected the Pythagoras 2, 3-point measuring function.

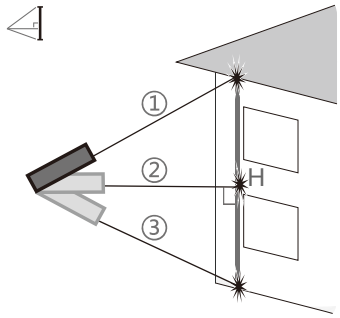
1. Aim the laser at the upper endpoint and press the button (13) briefly to determine the distance ① to the endpoint.
   ⇨ The length of the distance is indicated on the display.
2. Aim the laser at the lower point of the partial height and press the button (13) briefly to determine the distance ② to the lower point of the partial height.
   ⇨ The length of the distance is indicated on the display.
3. Aim the laser at the base point (at a 90 ° angle to the partial height) and press the button (13) briefly to determine the distance ③ to the base point.
   ⇨ The length of the distance is indicated on the display.
   ⇨ The device automatically calculates the height (H) and indicates this value on the display.



Measuring heights over three points (Pythagoras 1, 3-point)

✓ You have selected the Pythagoras 1, 3-point measuring function.

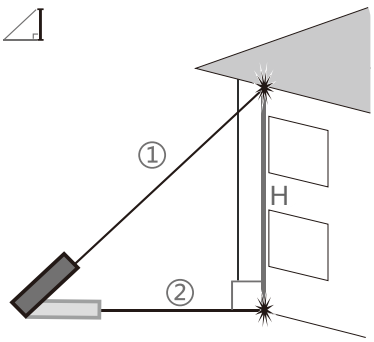
1. Aim the laser at the upper endpoint and press the button (13) briefly to determine the distance ① to the endpoint.
   ⇨ The length of the distance is indicated on the display.
2. Aim the laser at the point at the centre of the height (at a 90 ° angle to the height) and press the button (13) briefly to determine the distance ② to the point at the centre of the height.
   ⇨ The length of the distance is indicated on the display.
3. Aim the laser at the lower endpoint of the height and press the button (13) briefly to determine the distance ③ to the lower endpoint.
   ⇨ The length of the distance is indicated on the display.
   ⇨ The device automatically calculates the height (H) and indicates this value on the display.



Measuring heights over two points (Pythagoras 2-point)

✓ You have selected the Pythagoras 2-point measuring function.

1. Aim the laser at the upper endpoint and press the button (13) briefly to determine the distance ① to the endpoint.
   ⇨ The length of the distance is indicated on the display.
2. Aim the laser at the lower endpoint of the height (at a 90 ° angle to the height) and press the button (13) briefly to determine the distance ② to the lower endpoint.
   ⇨ The length of the distance is indicated on the display.
   ⇨ The device automatically calculates the height (H) and indicates this value on the display.



Adding / subtracting measured values

Info

You can add or subtract measured values when using the following measuring functions:
- single distance measurements
- area measurements
- volume measurements

Setting the measurement constant

You have the option of setting a measurement constant on the device (see *Making Basic Settings*) and subtracting this set value from the measured value or adding it. Please proceed as follows to set the measurement constant:

✓ The Measuring constant menu item in the settings menu must be activated.

✓ The menu for setting the measurement constant has opened.

1. Set the value for the measurement constant and activate the use of the measurement constant with the following buttons:

Button	Function
	navigate to the left
	navigate to the right
+	increase the value
−	reduce the value
	save displayed value
	Exit menu

Delayed measurement

There are two ways to trigger a time-delayed single distance measurement of 5 seconds:

- Open the settings menu with the *SET* button, navigate to the time-delayed measurement (see chapter *Basic settings*) and start the time-delayed measurement with the button (13).
- Press and hold the button (17) for a long time

Display saved measured values and photos

The device automatically saves the last 1000 measured values and up to 100 photos.

There are two ways to access the memory:

- Open the settings menu with the *SET* button, navigate to the memory function (see chapter *Basic settings*) and press the button (13) to open the memory.
- Press and hold the button (16) for a long time

1. Briefly press the button (17) to switch between the measured value memory and the photo memory.
2. Press the button (14) to access the next data point.
3. Press the button (16) to return to the previous data point.
4. Press the button (12) to open the menu for deleting saved data.
   - ⇨ In the Delete menu you have the option of deleting all data values or the data value currently displayed.
   - ⇨ You can use the button (14) or the button (16) to switch between the displayed options.
   - ⇨ You can press the button (13) to select the displayed option and delete data.
   - ⇨ Press the button (15) to exit the Delete menu and return to the memory.

Loading measured values and photos to a computer

Danger

If non-rechargeable batteries are used, connecting the device to a power supply (also for data exchange) via a USB cable or via wireless charging may cause the batteries to burst, damage the device or cause fire and injuries.

Therefore, only use rechargeable batteries if possible!

However, if you need to use non-rechargeable batteries for a short time for technical reasons, it is mandatory to remove the non-rechargeable batteries from the device before connecting it to a computer or a charger!

You have the option to transmit any stored photos and measured values to a computer. To do so, connect the device to a computer via the USB cable. The measured values can be found in the Excel file displayed, the photos are stored in the *IMG* folder.

Switch-off

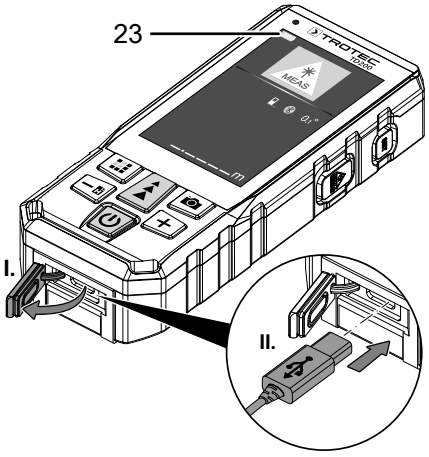
1. Press the button (15) for a long time.
   - ⇨ The display is switched off.

Maintenance and repair

Charging the batteries

Recharge the rechargeable batteries once the battery status indicator (23) indicates that the batteries are empty or if the device can no longer be switched on. Ideally, the rechargeable batteries are always charged on a suitable USB port/charger by means of the charging cable included in the scope of delivery.

1. Plug the charging cable into a suitable USB port or into a charger with a USB output. Only use the original charging cable or one with identical specifications.
2. Open the protective cover for the micro USB connection (10) at the device.
3. Connect the charger to the micro USB connection.



4. Disconnect the charging cable again once the battery status indication (23) shows a charged battery.

Info

You also have the option to charge the device wirelessly. To do so, you require a suitable inductive charger ((5 V, 1 A/5 A), not included in the scope of delivery).

Danger

If non-rechargeable batteries are used, connecting the device to a power supply (also for data exchange) via a USB cable or via wireless charging may cause the batteries to burst, damage the device or cause fire and injuries.

Therefore, only use rechargeable batteries if possible!

However, if you need to use non-rechargeable batteries for a short time for technical reasons, it is mandatory to remove the non-rechargeable batteries from the device before connecting it to a computer or a charger!

Changing rechargeable batteries

To replace the batteries, proceed as described in the chapter *Operation* under *Inserting the batteries*. Remove the old batteries before inserting the new ones.

Cleaning

Clean the device with a soft, damp and lint-free cloth. Make sure that no moisture enters the housing. Do not use any sprays, solvents, alcohol-based cleaning agents or abrasive cleaners, but only clean water to moisten the cloth.

Repair

Do not modify the device or install any spare parts. For repairs or device testing, contact the manufacturer.

Errors and faults

The device has been checked for proper functioning several times during production. If malfunctions occur nonetheless, check the device according to the following list.

The following fault indications may appear on the display:

Display	Cause	Remedy
204	Calculation error	Repeat the measurement. Pay attention to the measurement sequence and position of the device.
208	Excessive power consumption	Please contact the Trotec customer service.
220	The batteries are almost empty.	Change the batteries, see chapter Battery change.
255	The reception of the reflected signal is too weak.	Repeat measurement on another surface with better reflective properties or use a target plate.
256	The reception of the reflected signal is too strong.	
261	Range exceeded	Observe the range values specified in the Technical data chapter.
500	Hardware fault	Repeatedly switch the device on and off. If the indication continues to appear, please contact the Trotec customer service.

Disposal

Always dispose of packing materials in an environmentally friendly manner and in accordance with the applicable local disposal regulations.

The icon with the crossed-out waste bin on waste electrical or electronic equipment stipulates that this equipment must not be disposed of with the household waste at the end of its life. You will find collection points for free return of waste electrical and electronic equipment in your vicinity. The addresses can be obtained from your municipality or local administration. You can also find out about other return options that apply for many EU countries on the website https://hub.trotec.com/?id=45090. Otherwise, please contact an official recycling centre for electronic and electrical equipment authorised for your country.

The separate collection of waste electrical and electronic equipment aims to enable the re-use, recycling and other forms of recovery of waste equipment as well as to prevent negative effects for the environment and human health caused by the disposal of hazardous substances potentially contained in the equipment.

In the European Union, batteries and accumulators must not be treated as domestic waste, but must be disposed of professionally in accordance with Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators. Please dispose of batteries and accumulators according to the relevant legal requirements.

Only for United Kingdom

According to Waste Electrical and Electronic Equipment Regulations 2013 (SI 2013/3113) (as amended) and the Waste Batteries and Accumulators Regulations 2009 (SI 2009/890) (as amended), devices that are no longer usable must be collected separately and disposed of in an environmentally friendly manner.

Declaration of conformity

We – Trotec GmbH – declare in sole responsibility that the product designated below was developed, constructed and produced in compliance with the requirements of the EU Radio Equipment Directive in the version 2014/53/EU.

Product model / Product: TD200

Product type: laser distance measuring device

Year of manufacture as of: 2022

Relevant EU directives:

- 2011/65/EU
- 2012/19/EU

Applied harmonised standards:

- EN 300 328 V2.2.2:2019-07
- EN 55032:2015
- EN 55032:2015/A11:2020-03
- EN 55035:2017
- EN 60825-1:2014
- EN 61326-2-1:2013
- EN 61326-2-2:2013

Applied national standards and technical specifications:

- Regulation (EC) 1907/2006
- EN 301 489-1 V2.2.3:2019-11
- EN 301 489-3 V2.1.1
- EN 303 417 V1.1.1:2017-9
- EN 50663:2017-10
- EN 50665:2017
- EN 55035:2017/A11:2020-05
- EN 61010-1:2010
- EN 61010-1:2010/A1:2019-02
- EN 62321-1:2013
- EN 62321-2:2014
- EN 62321-3-1:2014
- EN 62321-4:2014
- EN 62321-4:2014/A1:2017-11
- EN 62321-5:2014
- EN 62321-6:2015
- EN 62321-7-1:2015
- EN 62321-7-2:2017
- EN 62321-8:2017
- EN 62479:2010
- IEC 60529:1989/AMD1:1999
- IEC 60529:1989/AMD2:2013
- IEC 60825-1:2014
- IEC 61010-1:2010
- IEC 61010-1:2010/AMD1:2016

Manufacturer and name of the authorised representative of the technical documentation:

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