BT40

EN

OPERATING MANUAL
BARBEQUE THERMOMETER

> TROTEC

TROTEC

Table of contents

Notes regarding the operating manual

Symbols

Hazardous electric current!
Warns about hazards from electric current which can lead to injuries or even death.

Danger!
Warns of a hazard which can lead to personal injury.

Caution!
Warns of a hazard which can lead to property damage.

The current version of the operating manual can be found at:

BT40

http://download.trotec.com/?sku=3510205007&id=1

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The only party responsible for determining valid measured results, drawing conclusions and deriving actions is the user! Trotec GmbH & Co. KG accepts no claims of warranty for the correctness of the determined measured values or measured results. Further, Trotec GmbH & Co. KG accepts no liability whatsoever for possible mistakes or damage which have been caused by utilising the determined measured results.

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Warranty and liability

The device complies with the fundamental health and safety requirements of the applicable EU regulations and was tested at the factory for perfect functionality multiple times.

If malfunctions occur nonetheless, please contact your dealer or distributor.

When manufacturer's instructions or legal regulations have not been followed, or after unauthorised changes to the device are made, the manufacturer is not responsible for the resulting damages. Changes to the device or unauthorised replacement of individual parts can drastically impact the electrical safety of this product and leads to the forfeit of the warranty. Liability does not extend to damages to people or property caused by the device being used other than as described in the instructions in this operating manual. Subject to changes to technical design and model changes as part of constant development and product improvement without prior notice.

No liability is accepted for damages resulting from improper use. In such a case, any warranty claims be voided also.

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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!

- Do not use the device in potentially explosive rooms.
- Do not use the device in aggressive atmosphere.
- Never use the device in a microwave!
- 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.
- Only use original measuring probes for operating the device.
- 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 with a tool.
- Observe the storage and operating conditions (see chapter Technical data).

Intended use

Only use the device BT40 for measuring the temperature of food whilst adhering to the technical data.

Improper use

Do not use the device BT40 in potentially explosive atmospheres or for measurements in liquids.

Do not use the device in a microwave.

Trotec accepts no liability for damages resulting from improper use. In such a case, any warranty claims will be voided.

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

Personnel qualifications

People who use this device must:
- have read and understood the operating manual, especially the Safety chapter.
- be aware of the dangers that occur when handling food at high temperatures, e.g. frying or grilling.

Residual risks

Danger!
When handling the device, keep a sufficient distance to hot surfaces.
Wear suitable protective gloves, e.g. barbecue or oven gloves.

Danger!
Do not leave the packaging lying around. Children may use it as a dangerous toy.

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

Caution!
Keep the base station and the hand-held receiver away from hot surfaces. The devices can be damaged by heat.

Caution!
Do not use the measuring probe in closed barbecues or ovens at temperatures above 200 °C. The measuring probe cable could be damaged.

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

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

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

## Information about the device

Device description

The radio barbeque thermometer BT40 serves for convenient, wireless temperature control during grilling, frying and baking.

The device features the following functions:

- Integrated cooking assistant for 8 preselectable types of meat or food
- Up to 5 cooking levels and individual target temperature selectable
- Acoustic signal and change of display colour when reaching the desired consistency
- Radio range of up to 20 m
- Stainless steel measuring probe and cable suitable for temperatures of up to 200 °C (in case of closed grills or ovens!)
- Large and easy-to-read LC display
- Stopwatch and timer function
- Hand-held receiver with magnetic holder and pocket clip
- Base station with magnetic holder and Velcro strap
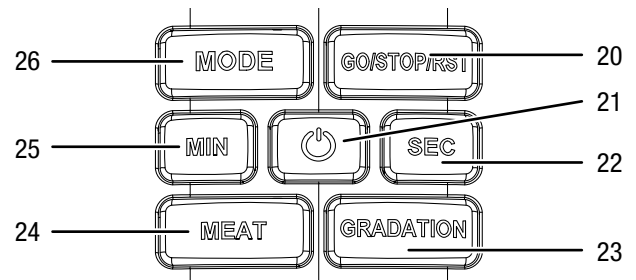
Device depiction
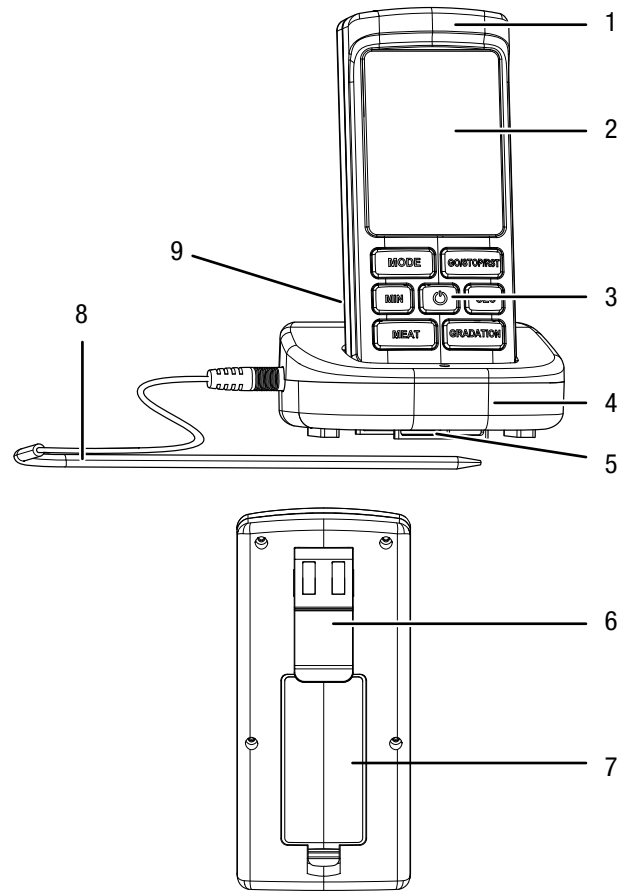
No.	Designation
1	Hand-held receiver
2	Display
3	Control panel
4	Base station with magnetic holder
5	Battery compartment base station
6	Pocket clip with magnetic holder
7	Battery compartment hand-held receiver
8	Measuring probe
9	Radio connection switch

Base station rear view
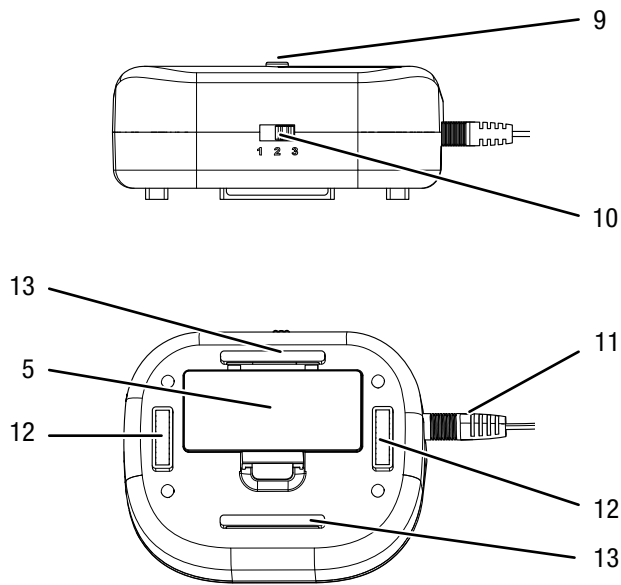
No.	Designation
5	Battery compartment base station
9	Radio connection switch
10	Radio channel selector switch
11	Measuring probe connection
12	Magnetic holder
13	Eyelet for Velcro strap

Display

No.	Designation
14	Type of food indication
15	Target temperature indication in °C or in °F
16	Minutes/seconds indication (stopwatch or timer)
17	Current temperature indication in °C or in °F
18	Desired cooking level indication

Control panel

No.	Designation
20	*GO/STOP/RST* button
21	ON/OFF button
22	*SEC* button
23	*GRADATION* button
24	*MEAT* button
25	*MIN* button
26	*MODE* button

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Technical data

Parameter	Value
Device name	BT40
Weight (incl. battery)	base station: 73 g hand-held receiver: 110 g
Dimensions (height x width x depth)	base station: 35 x 86 x 66 (mm) hand-held receiver: 112 x 52 x 25 (mm)
Power supply	base station: 2 x battery AAA 1.5 V hand-held receiver: 2 x battery AAA 1.5 V
Temperature measuring range	0 °C to 250 °C (32 °F to 482 °F)
Temperature measuring range resolution	1 °C / 1 °F
Range	max. 20 m
Receiver category	3
Response time	up to 30 s [1]
Accuracy	± 4%
Operating conditions	0 °C to 50 °C (32 °F to 122 °F) with 10% to 80% RH
Storage conditions	-10 °C to +50 °C (14 °F to 122 °F)

[1] If the temperature only changes slightly, temperature changes will be transmitted every 30 seconds. If the temperature changes rapidly, it will be transmitted by the sensor every 2 seconds. The transmission of measured values is indicated by the LED on the base station flashing.

Scope of delivery

- 1 x Base station
- 1 x Hand-held receiver
- 1 x Stainless steel measuring probe
- 1 x Velcro strap
- 4 x Battery AAA 1.5 V
- 1 x Getting started guide

Transport and storage

Transport

For transporting the device use a suitable bag to protect it from external influences.
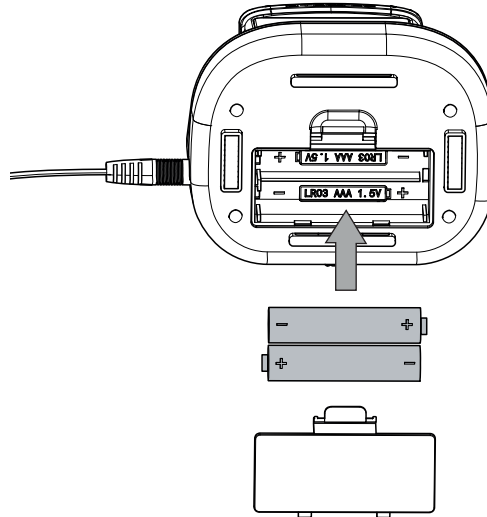
Storage

When the device is not being used, observe the following storage conditions:
- Dry.
- Protected from dust and direct sunlight.
- With a cover to protect it from invasive dust, if necessary.
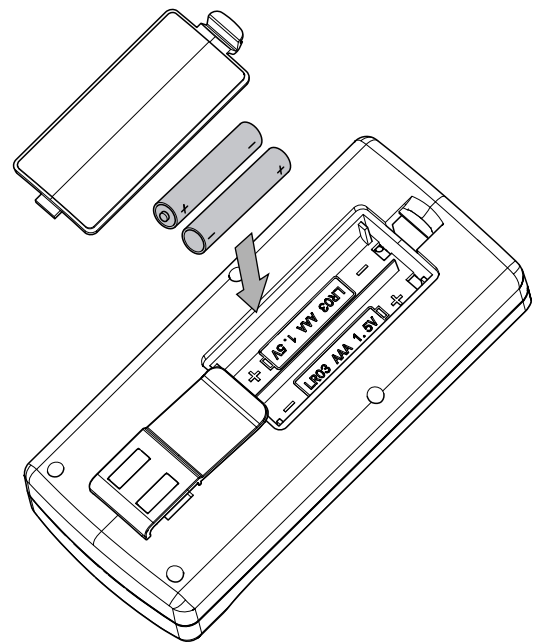- Remove the batteries from the device.

Operation

Inserting the batteries

- Base station

- Hand-held unit

Switching the hand-held unit on

1. Press the ON/OFF button (21) on the hand-held unit for approx. 3 s.

   ⇨ A brief acoustic signal is emitted.
   ⇨ The hand-held unit is switched on.

Establishing a radio connection between hand-held unit and base station

Up to three devices (base station with hand-held receiver) can be operated in parallel within the same radio range. To avoid interference between the devices, you can choose one of three radio channels at the respective base station.

Please proceed as follows to establish a radio connection between the base station and the hand-held receiver:

1. Connect the measuring probe to the base station.

2. Select the desired radio channel using the switch (9).

3. Press the button for radio connection on the base station for approx. 3 s.

   ⇨ The red LED on the base station lights up.
   ⇨ A measuring value appears in the current temperature display (17) of the hand-held receiver.

If the current temperature display (17) of the hand-held receiver continues to show three dashes, this means that either the base station is not switched on, the temperature sensor is not connected to it, or the radio channel was not properly set. Check the connection between the measuring probe and the base station. Select another radio channel and repeat steps 1 to 3.

Temperature measurement

Note:

The thermometer is able to indicate temperatures within the range of 0 °C to 250 °C (32 °F to 482 °F).

If the measured temperature is below 0 °C (32 °F), *LLL* will be shown in the display for the current temperature (17).

If the measured temperature exceeds 250 °C (482 °F), *HHH* will be shown in the display for the current temperature (17). In this case, remove the measuring probe immediately to avoid damage.

⚠ ♨ **Danger!**
When handling the device, keep a sufficient distance to hot surfaces.
Wear suitable protective gloves, e.g. barbecue or oven gloves.

⚠ **Caution!**
Keep the base station and the hand-held receiver away from hot surfaces. The devices can be damaged by heat.

⚠ **Caution!**
Do not use the measuring probe in closed barbecues or ovens at temperatures above 200 °C. The measuring probe cable could be damaged.

✓ The hand-held receiver and the base station are switched on and interconnected by radio.

1. Select the type of meat or food by pressing the *MEAT* button (24) until the desired type of meat or food is displayed.

   ⇨ The display shows an image and the designation of the type of meat or food.

2. Select the desired cooking level by pressing the *GRADATION* button until the desired cooking level is displayed.

   ⇨ The selectable cooking levels can be taken from the table below.

3. Bring the tip of the measuring probe into contact with the food to be cooked.

   Note:
   Select the thickest part of the food and insert the measuring probe from the side so that you can turn the food while measuring.
   Make sure that the tip of the measuring probe does not touch fat, cartilage or bone as this may distort the measurement result.

   ⇨ Once the target temperature is reached, an acoustic signal is emitted and the display lights up in red.

Types of food with preselected target temperatures

Food	Display indication	Well done WELL	Medium well M WELL	Medium MEDIUM	Medium rare M RARE	Rare RARE
BEEF		77 °C	74 °C	71 °C	66 °C	63 °C
LAMB		77 °C	74 °C	71 °C	63 °C	-
VEAL		77 °C	71 °C	66 °C	63 °C	-
HAM-BURGER		77 °C	-	-	-	-
PORK		77 °C	74 °C	71 °C	-	-
FISH		63 °C	-	-	-	-
TURKEY		74 °C	-	-	-	-
CHICKEN		74 °C	-	-	-	-

Setting the target temperature manually

1. Select the food and the cooking level for which you want to change the target temperature.
2. Press and hold the *MODE* button (26) until the target temperature indication *TARGET TEMP* (15) flashes.
3. Press the *MIN* button (25) or the *SEC* button (22) until the desired target temperature is set. By holding these buttons, the target temperature can be increased or decreased more quickly.
4. Press the *MODE* button (26) again to confirm the set target temperature.

Setting the timer

The device is equipped with a timer which can be used independently of the temperature measuring probe. The maximum selectable time is 99:59 (MIN:SEC).

1. To set a countdown, press the *MIN* (25) or *SEC* button (22) until the desired time is displayed. By holding these buttons, the time can be increased or decreased more quickly.
2. Press the *GO/STOP/RST* button (20) to activate the timer.
   ⇨ When the timer has expired, a continuous acoustic signal is emitted and the indication for minutes/seconds flashes.
3. Press the *GO/STOP/RST* button (20) to confirm.
   ⇨ The acoustic signal is muted and the display stops flashing.

Setting the stopwatch

The device is equipped with a stopwatch which can be used independently of the temperature measuring probe.

1. Press the *GO/STOP/RST* button (20).
   ⇨ The stopwatch starts running.
2. Press the *GO/STOP/RST* button (20) again to pause the stopwatch.
3. Hold the *GO/STOP/RST* button (20) until the time is reset to 0M:00S.

Switching between °C and °F indication

1. Press the *MODE* button (26) to switch between °C and °F for temperature indication.

Attaching the device with the magnetic holder or Velcro strap

⚠ **Caution!**
Keep the base station and the hand-held receiver away from hot surfaces. The devices can be damaged by heat.

- You can attach the hand-held receiver and/or the base station to magnetic surfaces (e.g. refrigerator door) using the magnetic holder.
- You can attach the base station e.g. to the oven handle or barbecue leg using the Velcro strap contained in the scope of delivery.
  – To do so, pull the Velcro strap through the two eyelets (13) at the bottom of the base station.
  – Fasten the Velcro strap in a way that the base station cannot shift.

Switch-off

1. Press the ON/OFF button (21) on the hand-held receiver for approx. 3 s.

   ⇨ A brief acoustic signal is emitted.

   ⇨ The hand-held receiver is switched off.

   ⇨ The base station tries to establish a new connection to the hand-held receiver for a short time. Since this is impossible, the base station switches off automatically after a while.

- When not in use for a longer period of time, remove the batteries from the hand-held unit and from the base station.

Maintenance and repair

Cleaning

Danger!
Allow the measuring probe and the cable to cool down before cleaning them.

Clean the device with a soft, damp and lint-free cloth. Ensure 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.

The device and its components are **not** dishwasher-safe.

Repair

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

Battery change

A battery change is required when the battery status indication flashes or the device can no longer be switched on (see chapter Inserting the batteries).

Disposal

In the European Union, electronic equipment must not be treated as domestic waste, but must be disposed of professionally in accordance with Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE). At the end of its life, please dispose of this device according to the valid legal requirements.

Declaration of conformity

in accordance with the EC Low Voltage Directive 2006/95/EC and the EC Directive 2004/108/EC about electromagnetic compatibility.

Herewith, we declare that the device BT40 was developed, constructed and produced in compliance with the named EC directives.

The CE marking is found on the rear of the device.

Manufacturer:

Trotec GmbH & Co. KG

Grebbener Straße 7

D-52525 Heinsberg

Phone: +49 2452 962-400

Fax: +49 2452 962-200

E-mail: info@trotec.com

Heinsberg, 09.12.2015

Detlef von der Lieck

Managing Director