

EN

ORIGINAL INSTRUCTIONS
ENERGY COST MEASURING
DEVICE

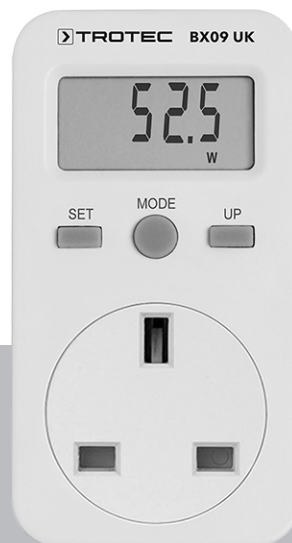
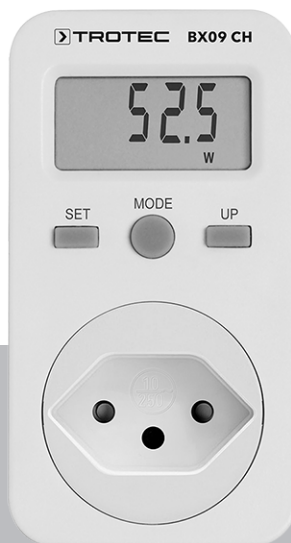


Table of contents

Information on the use of these instructions 2

Safety 3

Information about the device..... 4

Transport and storage..... 5

Operation 6

Maintenance and repair 7






Errors and faults..... 7

Disposal 7

You can download the current version of these instructions via the following link:

Information on the use of these instructions

Symbols

-  **Warning**
This signal word indicates a hazard with an average risk level which, if not avoided, can result in serious injury or death.
-  **Warning of electrical voltage**
This symbol indicates dangers to the life and health of persons due to electrical voltage.
-  **Caution**
This signal word indicates a hazard with a low risk level which, if not avoided, can result in minor or moderate injury.
- Notice**
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 instructions must be observed.



BX09 EU



<https://hub.trotec.com/?id=42345>

BX09 CH



<https://hub.trotec.com/?id=47143>

BX09 FR



<https://hub.trotec.com/?id=47144>

BX09 UK



<https://hub.trotec.com/?id=47145>

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.

- The device is supplied with a warning sign. Stick the warning sign in your local language onto the side of the device prior to initial start-up.

Do not plug in line!
For use in dry rooms only!
Voltage-free only with plug disconnected!
Do not cover during operation!

- Do not use the device in potentially explosive rooms or areas and do not install it there.
- Do not use the device in an aggressive atmosphere.
- Do not immerse the device in water. Do not allow liquids to penetrate into the device.
- Observe the input values specified in the Technical data chapter and do not exceed them under any circumstances.
- Protect the device from permanent direct sunlight.
- Do not cover the device! With a higher power input the device will warm up. Covering the device may cause overheating and consequently may cause a fire!
- Do not open 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 connect several devices by plugging one into another.
- Only operate the device in dry surroundings.
- Please note that the device is only de-energized when the plug has been disconnected from the mains.
- Observe the storage and operating conditions (see Technical data).

Intended use

Only use the device for measurements on circuits directly connected to the low-voltage grid via a plug connection, e. g. household appliances, portable electrical appliances etc., whilst adhering to the technical data.

Any use other than the intended use is regarded as misuse.

Reasonably foreseeable misuse

The device is not suitable for use with any type of extension cables. The device may not be used in potentially explosive atmospheres, when wet or very humid.

Personnel qualification

People who use this device must:

- have read and understood the instructions, especially the Safety chapter.

Residual risks



Warning of electrical voltage

Electric shock due to insufficient insulation! Check the device for damages and proper functioning before each use.

If you detect damages, do not use the device any longer. Do not use the device when either the device or your hands are damp or wet!

Do not use the device when the battery compartment or the housing is open.



Warning

There is a danger of suffocation for children due to packaging material! Keep packaging films and parts away from children. There is a risk of death due to suffocation.



Warning of electrical voltage

There is a risk of a short-circuit due to liquids penetrating the housing!

Do not immerse the device and the accessories in water. Make sure that no water or other liquids can enter the housing.



Warning of electrical voltage

Work on the electrical components must only be carried out by an authorised specialist company!



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.

Notice

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

Notice

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

Information about the device

Device description

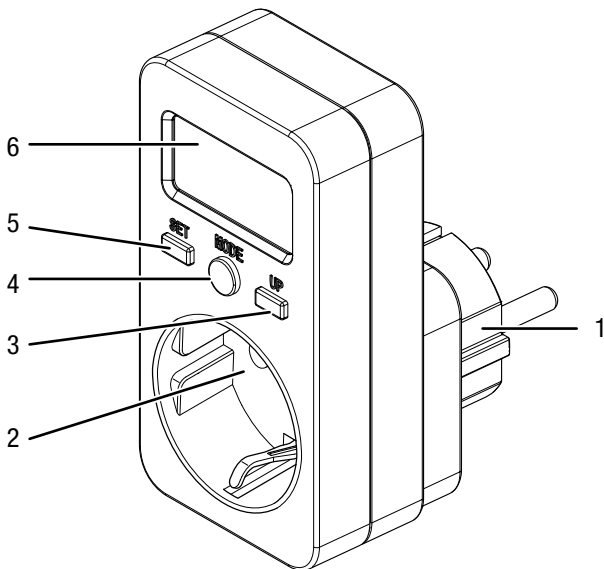
The device BX09 measures the energy demand of a connected terminal device.

The consumption of the device can be displayed in watts, kWh, the price or costs per kWh.

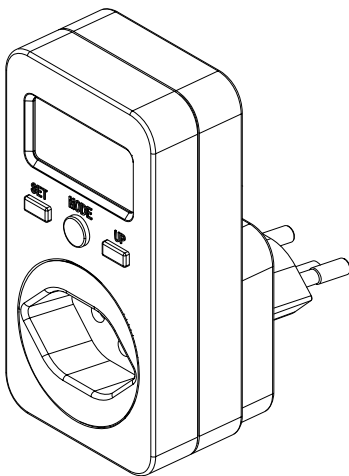
The device BX09 is available in different versions for connection to mains sockets in the EU (BX09 EU), Switzerland (BX09 CH), the United Kingdom (BX09 UK) and France (BX09 FR). The images in these instructions show the BX09 EU by way of example.

Device depiction

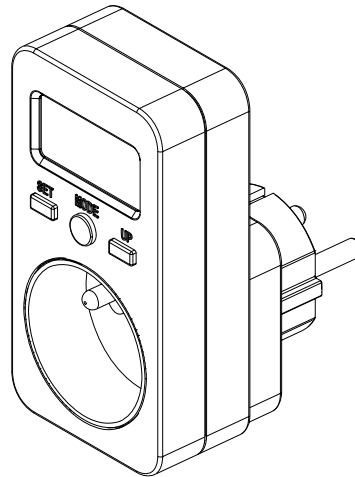
BX09 EU



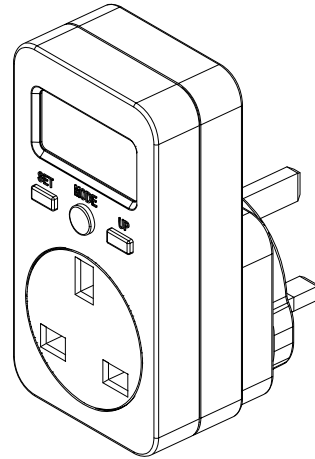
BX09 CH



BX09 FR

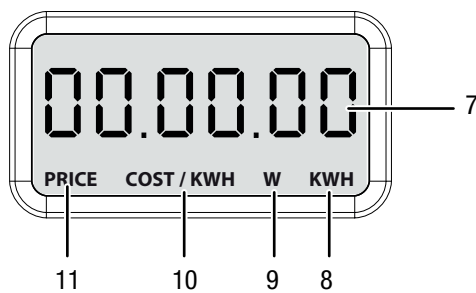


BX09 UK



No.	Designation
1	Socket connection
2	Connection for the terminal device (plug adapter)
3	UP button
4	MODE button
5	SET button
6	Display

Display



No.	Designation
7	Measurement value display
8	<i>KWH</i> display – consumption indicated in kilowatt hours
9	<i>W</i> display – consumption indicated in watts
10	<i>COST/KWH</i> display – consumption indicated as costs per kilowatt hours
11	<i>PRICE</i> display – consumption indicated as the overall costs

Technical data

Parameter	Value
Model	BX09
Power supply	230 V AC , 50/60 Hz
Load, max.	EU: 16 A, 3680 W CH: 10 A, 2300 W FR: 16 A, 3680 W UK: 13 A, 2990 W
Measuring range resolution	0.1 W 0.01 kWh
Accuracy	±2 % or ±2 W (0–100 W); ±2 % (100–3680 W)
Display range	0.00 to 9999.9 kWh 0.00 to 9999 overall costs
Storage conditions	5 °C to 40 °C, <85 % RH
Measuring circuit category	CAT II, 2500 V
Type of protection	IP20
Dimensions (length x width x height)	97 x 51 x 75 mm
Weight (packaging excluded)	100 g

Scope of delivery

- 1 x Energy cost measuring device BX09
- 1 x Quick guide

Transport and storage

Notice

If you store or transport the device improperly, the device may be damaged.

Note the information regarding transport and storage of the device.

Transport

When transporting the device, ensure dry conditions and protect the device from external influences e.g. by using a suitable bag.

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
- at the temperature specified in the technical data

Operation

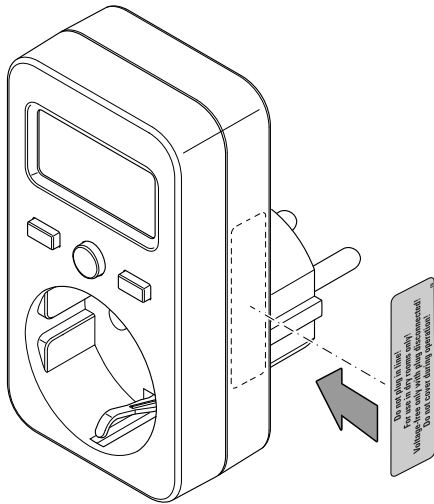
Switching the device on



Info

Please note that moving from a cold area to a warm area can lead to condensation forming on the device's circuit board. This physical and unavoidable effect can falsify the measurement. In this case, the display shows either no measured values or they are incorrect. Wait a few minutes until the device has become adjusted to the changed conditions before carrying out a measurement.

1. The device is supplied with a warning sign. Stick the warning image in your local language onto the side of the device prior to initial start-up.



2. Plug the device into a properly fused socket.
3. Connect the terminal device to the plug adapter.
 - ⇒ The device is switched on.

Setting the price per kilowatt hour

Notice

The default setting ex factory of the price per kilowatt hour is 0.0.

1. Press the *MODE* button (4) several times until *COST/KWH* (10) appears on the display (6).
 - ⇒ The currently set price per kilowatt hour is indicated on the display (6).
2. Press the *SET* button (5).
 - ⇒ The first digit in the measurement value display (7) flashes.
3. Repeatedly press the *UP* button (3) to set the desired value.
4. Then press the *SET* button (5) again.
 - ⇒ The second digit in the measurement value display (7) flashes.
5. Repeatedly press the *UP* button (3) to set the desired value.
6. Continue until all four digits have been set.
7. Then press the *SET* button (5) again.
 - ⇒ The decimal point in the measurement value display (7) flashes.
 - ⇒ If required, you can change the position of the decimal point by use of the *UP* button (3).
8. Press the *SET* button (5).
 - ⇒ The price per kilowatt hour is set and indicated on the display (6).

Changing the display mode

The device can display the following values:

- the overall costs (*PRICE*, 11)
- the price per kilowatt hour (*COST/KWH*, 10)
- the consumption in real time (*W*, 9)
- the overall consumption since switch-on (*KWH*, 8)

1. Press the *MODE* button (4) until the desired display mode is set.

Reset

Please proceed as follows to reset the display for the measured kilowatt hours to 0.00:

1. Repeatedly press the *MODE* button (4) until the device is in the display mode for overall consumption since switch-on (*KWH* display, 10).
2. Press and hold the *MODE* button (4) for approx. 3 s.
 - ⇒ The overall consumption since switch-on is reset to 0.00.

Internal memory

The device comes with an internal memory. The price per kilowatt hour and the overall costs are saved, even if the device is not connected to the mains.

Shutdown

1. Disconnect the terminal device from the plug adapter.
2. Disconnect the device from the mains.
3. Store the device according to the Storage chapter.

Maintenance and repair

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.

Fault	Remedy
The device display indicates unusual characters or values.	Disconnect the device from the mains and reconnect it after a brief period of time. Check whether the fault is eliminated. Please contact the Trotec customer service if the problem persists.
The device does not respond to the push of a button.	

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 wheeled bin indicates that this device and any associated components must not be disposed of with household waste at the end of their life, in accordance with the Waste Electrical and Electronic Equipment Directive (2012/19/EU) and national laws.

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.

Only for United Kingdom

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

Trotec GmbH

Grebbener Str. 7
52525 Heinsberg
Germany

☎ +49 2452 962-0

☎ +49 2452 962-200

✉ online@trotec.com

www.trotec.com