

Professional

GVD 1000-17



Safety Instructions

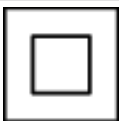


All instructions must be read and observed. The safeguards integrated into the voltage tester may be compromised if the voltage tester is not

used in accordance with these instructions. **STORE THESE INSTRUCTIONS IN A SAFE PLACE.**

- ▶ **Do not perform any measurements on electric circuits with voltages exceeding 1000 V.**
- ▶ **Do not use the voltage tester to determine the absence of voltages.**
- ▶ **Do not use the voltage tester if it looks damaged or it is not working properly. Test the test tips before using on cracks or breakages.**
- ▶ **Take extra care when working with voltages over 30 V AC or 60 V DC!** Even at these voltages, contact with live cables can cause life-threatening electric shocks.
- ▶ **Even if there is no visual or acoustic signal, there may still be a voltage.** Insulation, wire size, cable shielding or the removal of the voltage source can influence the test.
- ▶ **Make sure that you are properly earthed when taking measurements.** If you are not properly earthed (e.g. by wearing insulating footwear or by standing on a ladder), the voltage tester is unable to detect any voltages.
- ▶ **The voltage tester must only be used by qualified personnel in accordance with safe working practices.**
- ▶ **Only have the voltage tester repaired by qualified personnel using only original spare parts.** This will ensure that the safety of the voltage tester is maintained.
- ▶ **Do not use the voltage tester in explosive atmospheres which contain flammable liquids, gases or dust.** Sparks may be produced inside the voltage tester, which can ignite dust or fumes.
- ▶ **The voltage tester cannot detect a voltage in DC circuits or in shielded cables.**
- ▶ **Do not subject the voltage tester to extreme temperatures or variations in temperature.** As an example, do not leave it in vehicles for longer periods. In case of large variations in temperature, allow the voltage tester to adjust to the ambient temperature before putting it into operation. The precision of the voltage tester may be compromised if exposed to extreme temperatures or fluctuations in temperature.

Symbols and their meaning



Device with double or reinforced insulation



Caution: Risk of electric shock!

Product Description and Specifications

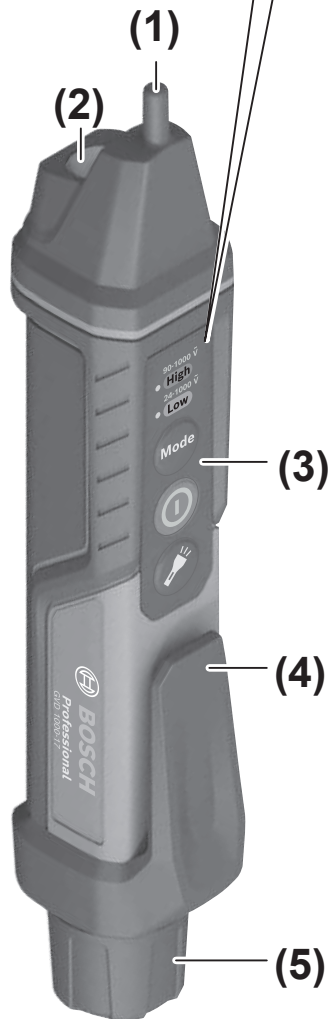
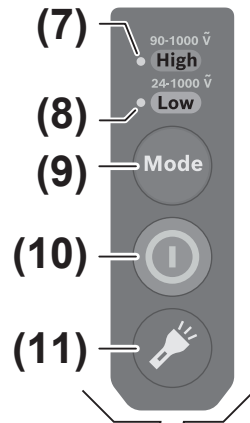
Intended Use

The voltage tester is intended for non-contact voltage testing of AC voltages between 24 and 1000 V.

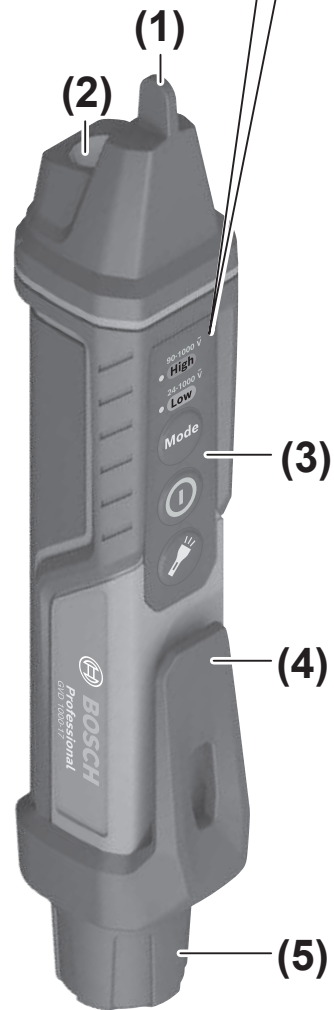
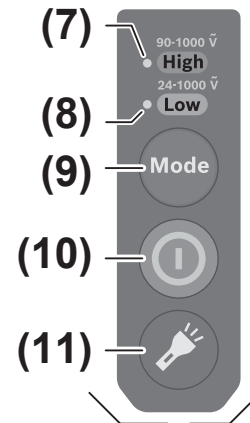
The voltage tester is suitable for indoor use.

Product Features

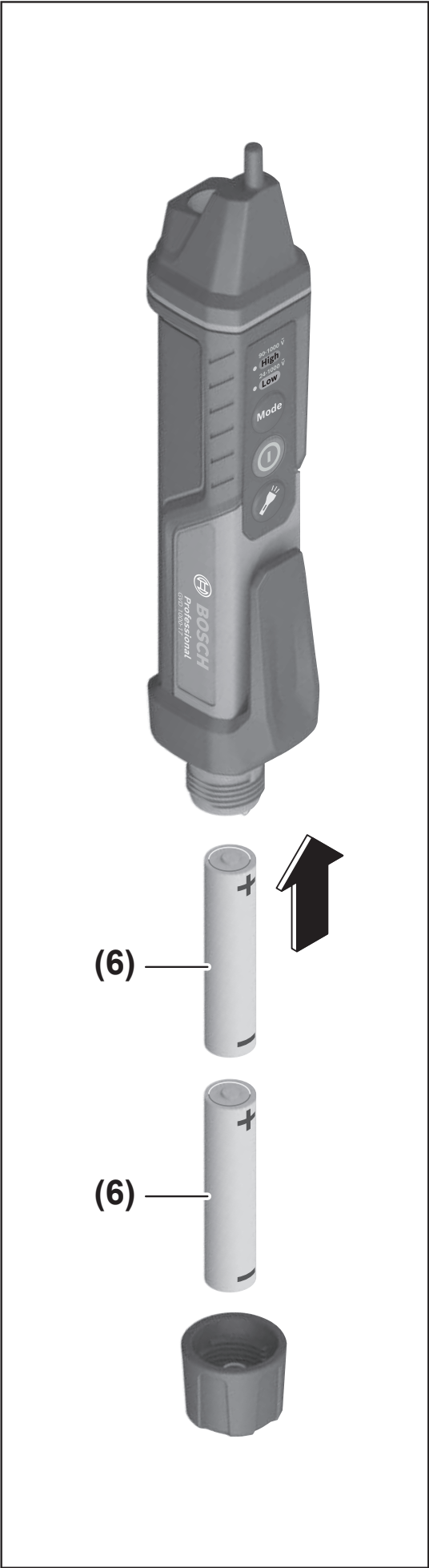
The numbering of the product features refers to the representation of the voltage tester in the figures.





3 601 K77 000



3 601 K77 0K0
3 601 K77 050



- (1) Probe tip
- (2) Torch
- (3) Control panel
- (4) Belt clip
- (5) Battery compartment cap
- (6) Non-rechargeable batteries^{A)}
- (7) **High** High-voltage mode LED (90–1000 V AC)
- (8) **Low** Low-voltage mode LED (24–1000 V AC)
- (9) **Mode** Mode button
- (10)  On/off button
- (11)  Torch on/off button

A) This accessory is not part of the standard scope of delivery.

Technical data

Voltage tester	GVD 1000-17
Article number	3 601 K77 0..
Measuring ranges	90–1000 V AC/ 24–1000 V AC
Frequency range	50/60 Hz
General	
Operating temperature	–10 °C to +50 °C
Storage temperature	–40 °C to +70 °C
Relative air humidity max.	80 % (non-condensing)
Max. altitude	2000 m
Pollution degree according to IEC 61010-1 ^{A)}	2
Automatic switch-off after approx.	5 min
Weight ^{B)}	0.05 kg
Protection rating	IP 67 (protected against dust and temporary submersion)
Safety class	CAT IV 1000 V ^{C)}
Dimensions (L x W x H)	161.5 × 28 × 33 mm
Batteries	2 × 1.5 V LR03 (AAA)

A) Only non-conductive deposits occur, whereby occasional temporary conductivity caused by condensation is expected.

B) Weight without batteries


C) Measuring category IV applies for test and measurement circuits connected to the source of the low-voltage grid installation of the building.


Inserting/Changing the Battery

It is recommended that you use alkaline manganese non-rechargeable batteries to operate the voltage tester.

» Unscrew the battery compartment cap (5).

» Insert the non-rechargeable batteries.

 Always replace all the non-rechargeable batteries at the same time. Only use non-rechargeable batteries from the same manufacturer and which have the same capacity.

 Make sure that the polarity is correct and corresponds to the sideward diagram on the voltage tester.

If the batteries are drained, an audio signal will sound, both LEDs ((7)/(8)) will flash, and the voltage tester will switch off.


► **Take the batteries out of the measuring tool when you are not using it for a prolonged period of time.** The batteries can corrode during prolonged storage in the measuring tool.

Operation

► **Before each use, try the voltage tester on a known voltage source.**


► **Protect the voltage tester against moisture and direct sunlight.**

Switching On and Off

» Briefly press the  button to switch on the voltage tester. The voltage tester will perform a self-check. An audio signal will sound, the voltage tester will vibrate and the test probe (1) will flash red/green/orange and both LEDs ((7)/(8)) will flash.

After a successful self-check, the high-voltage mode LED **High** will light up white and the probe tip (1) will light up green. The voltage tester is ready to use for detecting AC voltages between 90 and 1000 V AC. The self-test will be continuously repeated in the background every 5 seconds until the voltage tester is switched off. If the self-check was not successful, the voltage tester will switch off.

» Press and hold the  button to switch off the voltage tester. An audio signal will sound.

 Do not use the voltage tester if, upon switching it on, there is no audio signal and/or the voltage tester does not vibrate.

If no button on the voltage tester is pressed or no voltage is detected for approx. 5 min, the voltage tester will switch off automatically to preserve the non-rechargeable batteries.

Measuring Process

After switching on, the voltage tester is in high-voltage mode. The high-voltage mode LED **High** lights up white.

» To switch the voltage range to low-voltage mode, press the **Mode** button. The low-voltage mode LED **Low** will then light up white. The voltage tester is ready for detecting AC voltages in the range of 24 to 1000 V AC.

i In the low-voltage mode **Low**, the voltage tester is more sensitive to electrical interference and faults. Only use the low-voltage mode in environments with weak electrical fields.


» Hold the probe tip **(1)** near the test object or the plug socket with AC voltage.

An audio signal will sound and the voltage tester will vibrate when it detects an AC voltage. The frequency of the audio signal and the vibration increases the stronger the detected voltage is.

The probe tip **(1)** indicates different states of the voltage tester according to the table below.


Probe tip	Meaning
Continuous green light	Ready for operation, no voltage is detected.
Flashing red light	AC voltage detected.
Flashing orange light	AC voltage lower than or equal to 50 V detected.

Torch

» Press the  button to switch the torch on or off.

If the voltage tester is not being used for approx. 5 min, the torch will automatically switch off.

Signal tone

» Press the  button for approx. 1.5 seconds to switch off the audio signal.

The audio signal will be ready again the next time you switch on the voltage tester.

Troubleshooting

The voltage tester can no longer be switched on.

Cause: The battery voltage is no longer sufficient (i.e. less than 2.4 V).

Remedy: Change the batteries.

The voltage tester does not detect any voltage.

Cause: The operator is not holding the voltage tester firmly or is wearing gloves during the voltage testing.

Remedy: Hold the voltage tester in your hands without gloves.

Cause: The wire being tested is partially laid underground or is in a grounded metal wire.

Remedy: Find an appropriate location without a ground fault to take the measurement.

Cause: The magnetic field generated by the voltage source is being interfered with or it is being suppressed.

Remedy: Eliminate the fault.

Cause: The voltage tester is not being used in accordance with the technical data.

Remedy: (see "Technical data", page 5).

Maintenance and Service

Maintenance and Cleaning

Always keep the voltage tester clean.

Do not immerse the voltage tester in water or other liquids.

Wipe off any dirt using a damp, soft cloth. Do not use any detergents or solvents.

Send in the voltage tester if it requires repair.

After-Sales Service and Application Service

Malaysia

Tel.: (03) 79663194

In all correspondence and spare parts orders, please always include the 10-digit article number given on the nameplate of the product.

Disposal

Measuring tools, accessories and packaging should be recycled in an environmentally friendly manner.



Do not dispose of measuring tools or batteries with household waste.