

1 General

The DSP10 is a measuring instrument that provides measurement results for distinguishing diamonds, moissanites and simulants. The 0.48-mm measuring probe identifies diamonds and other stones on the basis of their thermal and electrical conductivity. It's operated with three batteries (AAA cell) or with power supply. Both are not included.

DEVICE DATA

DISPLAY	LCD display	WEIGHT	Ca.105 g
DIMENSIONS	166 mm x 26 mm x 31 mm	MIN. SIZE MEASURM. OBJEKT	1-mm or 0,01-ct

2 Application

2.1 Operation readiness

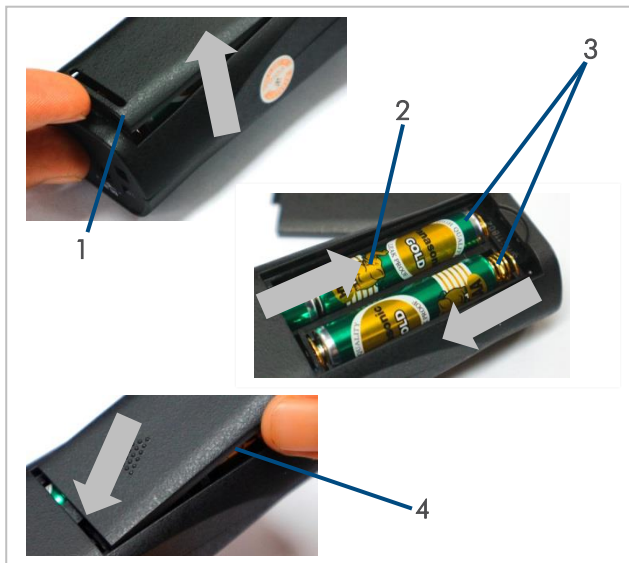


Figure 1 Insert batteries

2.2 Switch on the device

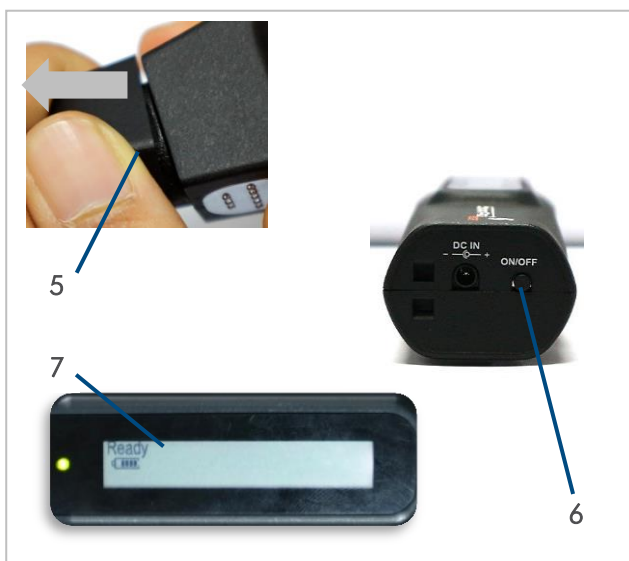


Figure 2 Start up the device

⇒ Requirments

- ✓ Test stone must be clean and dry. If necessary, clean test stone with a cloth.
- ✓ For the test procedure, the ambient temperature must be 18 ° - 27 ° C.

⇒ Procedure

1. Remove protection cover (1) of the battery compartment.
2. Insert batteries (2).
- ⇒ DSP10 is operated with three batteries (AAA cell).
- ⇒ Observe the specified insertion direction (3).
3. Close battery compartment (4) with protective cap(1).

⇒ Result

- ✓ The device is ready for operation and can be switched on.
- ⇒ The operating time is approx. 2.5 hours.
- ⇒ When the DSP10 is powered by the AC adapter, the batteries can stay in the device.

⇒ Procedure

1. Remove protection cover (5) of the device.
2. Switch on the device at the ON/OFF button (6).
- ✓ After 20 seconds, the display will show "READY" on the LCD.

⇒ Result

- ✓ The device is switched on; the measuring process can be started.
- ⓘ The tester shuts off automatically after two minutes of inactivity.

2.3 Measuring

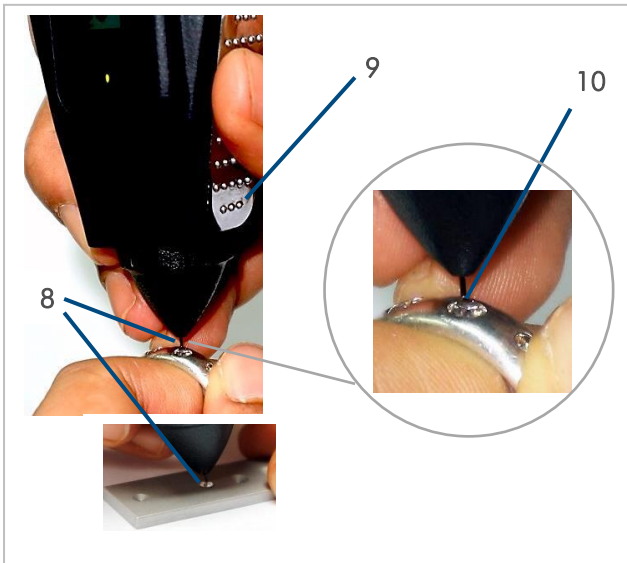


Figure 3 - measuring process

⇒ Procedure






1. For the measurement place the test probe (8) perpendicular to the stone.
2. To ensure precise testing: Keep the pen in the way, that the index finger and thumb are always placed on the metal side parts (9) of the device.
3. For testing set stones, keep the die test prod (10) in the way that no metal part of the jewel touches the test prod.

ⓘ Touching the metal parts will result in incorrect test results.

⇒ Result

- ✓ The measurement result appears on the LCD display.

3 Read measurement results

LCD DISPLAY INDICATE	RESULT OF MEASUREMENT	ACUSTIC SIGNAL
	<ul style="list-style-type: none"> ■ The tested stone has a high thermal conductivity, which has sapphires or Topaze. 	
	<ul style="list-style-type: none"> ■ The tested stone has a lower electrical conductivity, it is a diamond. 	<ul style="list-style-type: none"> ■ Continuously, audible beep
	<ul style="list-style-type: none"> ■ The tested stone has a higher electrical conductivity, it is a moissanite. 	
	<ul style="list-style-type: none"> ■ The measuring probe has become in contact with metal. 	<ul style="list-style-type: none"> ■ Continuously, audible beep
	<ul style="list-style-type: none"> ■ The tested stone has low thermal conductivity; the stone is glass or cubic zirconia. 	

- ⊖ If the LCD display shows "LOW BATTERY", replace the batteries. Accurate measurements are only possible with full batteries.
- ⊖ Remove the batteries from the device, when it is not in use for a long time or when decommissioning.
- ⊖ Remove defective or leaking batteries immediately. Broken batteries can permanently damage the device.