

For testing loose gemstones

Place the gemstone on the metal stone tray and hold it with one hand while holding the tester with the other hand (**Fig.2.2**).

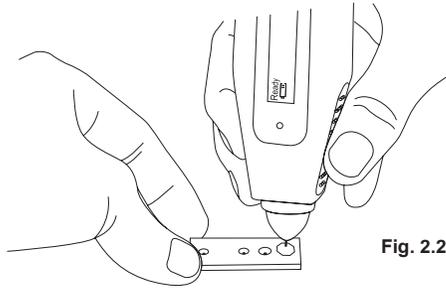


Fig. 2.2

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2. PERFORMING A TEST

Place the tip of the probe pen against the gemstone. Apply minimal pressure to fully depress the tip into the probe pen for correct reading. This is to provide a steady and constant contact made between the probe tip and the gemstone.

For mounted jewelry or gemstones

Hold the jewelry or gemstone with one hand and the tester with other hand (**Fig.2.1**). For proper operation of the tester, the thumb and index finger must always be placed on the metal-plated serrated part located on both sides of the tester at all times. Care should be taken when testing mounted jewelry. User must ensure that the stones are securely mounted before conducting a test as gap between stone and setting might lead to inaccurate reading.

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Gently rub the table of gemstone against the tissue / jewelry cloth and place the gemstone on the center of the test pad (**Fig.1.9**).

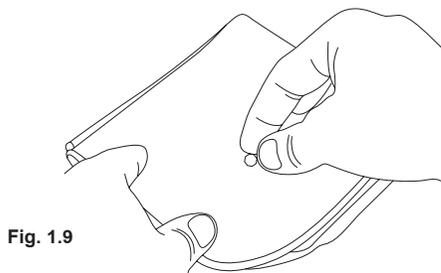


Fig. 1.9

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II. About the SmartPro Reader I

The SmartPro Reader I precisely measures the thermal electrical conductivity of the specific gemstone and determine if it is a diamond, moissanite or simulant. Via a customized micro-controller. The results will be display within second.

The Smartpro Reader I has been subjected to thorough and extensive laboratory tests, and will generally give a clear and reliable reading of the gemstone being tested under proper use. However, you are advice to conduct further supporting tests.

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Included in your package:

- SmartPro Reader I
- User manual book
- Warranty card
- Protective carry case
- Probe tip oxidation sheet
- Neck strap
- Metal stone tray

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I. Introduction

Congratulations on your new SmartPro Reader I the newly 3 in 1 impeccable tester that can eventually ascertain your stone between Diamond, Moissanite and Simulant, based on their thermal and Electrical conductivity with its readable LCD display for easy reading measurements.

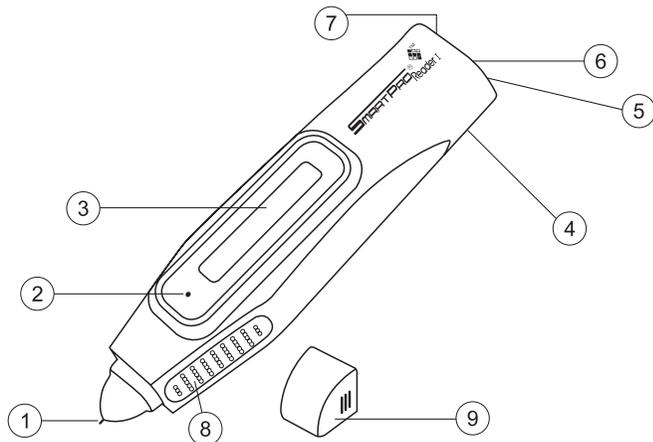
In creating SmartPro Reader I, professional engineers selected every material and element to have this fine-looking and effective tester that helps in the identification of the diamond moissanite and simulants. This device provides fairly consistent and reliable test results.

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The SmartPro Reader I features the following:

- a. Retractable thermoelectric probe tip that ensures constant pressure between probe tip and gemstone.
- b. Industry's thinnest probe tip (0.48mm) for testing gemstones as small as 1.0mm (0.01ct)
- c. Metal alert buzzer to ensure that probe tip is in contact with gemstone during testing.
- d. No waiting time between tests.
- e. Ergonomic design for better handling during testing.
- f. LCD display.
- g. International voltage compatibility.
- h. Low battery indicator.
- i. Automatic power off.
- j. Help in the identification of the diamond and moissanite with a single instrument.
- k. Provide fairly consistent and reliable test results under proper use.

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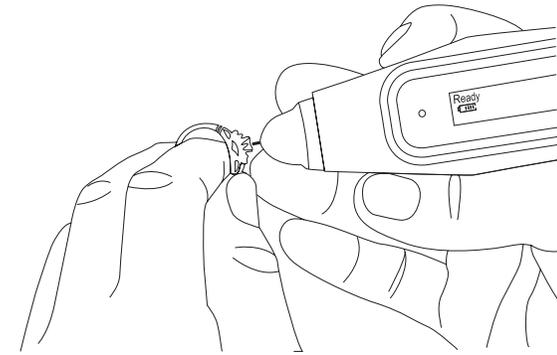


Fig. 2.1

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Battery information

Do not leave worn out batteries in the battery compartment as the batteries may corrode, leak, and damage the tester. Batteries should be removed when the tester is expected to be stored for an extended period of time.

To prevent inaccurate readings, replace with new batteries as soon as the low battery indicator will show. A test should not be performed when the battery power is low or weak.

Calibration

All testers have been calibrated during the manufacturing process and no further adjustment or user intervention to the tester is required.

Self-calibration should not be attempted. To minimize any risk associated, user should contact SmartPro at customercare@smartproinstrument.com or its service center for assistance. In the event that users require the manufacturer to re-calibrate the unit, the users will bear the associated to/from freight cost for the shipping of unit to the service center.

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Cleaning your gemstone prior to testing

Prepare clean tissue / jewelry cloth. Carefully retrieve the gemstone with tweezers and place the gemstone face down the table (Fig.1.8).

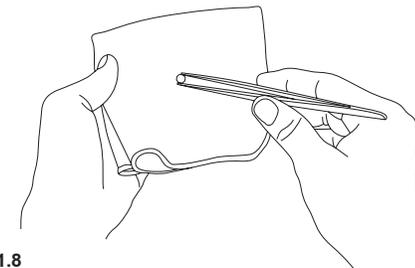


Fig. 1.8

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The recommended testing temperature is 18°C - 27°C or 65°F - 80°F Please allow the gemstone or jewelry piece to adjust to room temperature prior to testing. Exposure and/or operation of the tester outside the room temperature would affect the result and performance of tester.

The probe tip must be placed at the right angle or perpendicular to the facet of gemstone for an accurate reading.

Tests should be conducted on the table of the gemstone. In the event of any doubt, kindly test on the girdle of the gemstones instead.

To achieve optimum accuracy for tests involving very small, it is important to allow the gemstone to cool down before subsequent tests.

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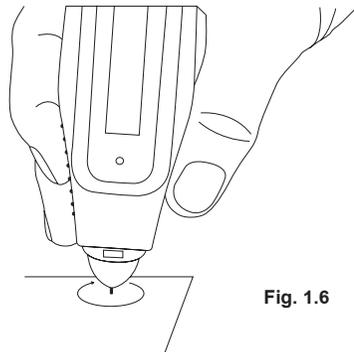


Fig. 1.6

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While in this preparation mode, a "SmartPro" will blink continuously on the LCD. The "SmartPro" will stop blinking when it shows "READY" on the LCD and is now ready to be used (Fig. 1.5). The tester will shut down automatically after 2 minutes of inactivity.

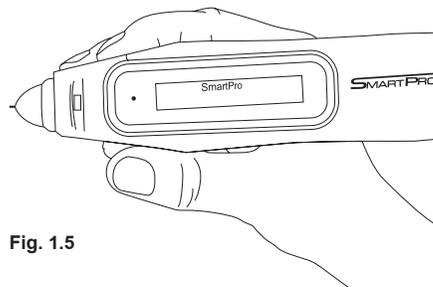


Fig. 1.5

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Composition

1. Retractable Probe Tip
2. "Ready" Indicator LED
3. LCD Display
4. Battery Compartment
5. Neck Strap Attachment
6. Adaptor Inlet
7. ON/OFF Switch
8. Ergonomic Grip
9. Probe Protective Cap

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- f. Do not drop, knock, or shake the tester. Rough handling can break internal circuit boards and fine mechanics.
- g. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the tester.
- h. Do not paint the tester. Paint can clog the moving parts and prevent proper operation.

If the tester is not working properly, kindly contact our customer service at customer@smartproinstrument.com

SmartPro Instrument co.,ltd
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Bangbon 1 Rd., Bangbon
Bangkok 10150 Thailand
+66 (0) 2 899 2956-7
Attn: Customer Service Executive

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If batteries are used (3 x AAA batteries), take note of the positive (+) and negative (-) directions of the batteries when inserting the batteries into the tester (Fig. 1.2). The use of alkaline batteries is preferred, as it should generally give approximately two and a half hours of continuous operation, while the use of ordinary batteries will give a shorter working life.

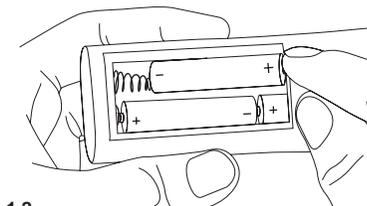


Fig. 1.2

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III. IMPORTANT NOTICE

- a. Keep the tester dry. Precipitation and all types of liquids or moisture can contain minerals that will corrode electronic circuits. If your tester does get wet, remove the batteries, and allow the tester to dry completely before replacing it.
- b. Do not use, store or expose the tester in dusty and dirty areas. It's moving part and electronic components can be damage.
- c. Do not use, store or expose the tester in hot areas. High temperatures can damage or shorten the life of the tester, damage batteries, and warp or melt certain plastics.
- d. Do not use, store or expose the tester in cold areas. When the tester returns to its normal temperature, moisture can form inside the device and damage electronic circuit boards.
- e. Do not attempt to open the tester other than as instructed in user manual book.

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1. GETTING STARTED

Powering up

This tester can be power by either the use of an AC adaptor (optional item sold separately) or through the use of batteries. If AC adaptor is used, connect one end of the AC adaptor to the tester (**Fig. 1.1**) and the other end directly into an electrical outlet. Please ensure that only the adapter supplied by SmartPro is used.

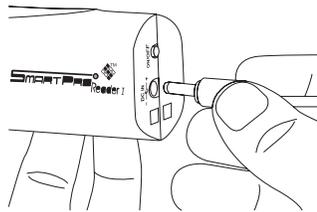


Fig. 1.1

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Turning on

Remove the protective cover from the probe tip (**Fig. 1.3**).

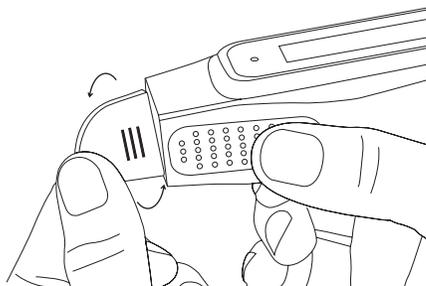


Fig. 1.3

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Recommended testing conditions

The gemstone should be clean and dry before testing. However, elaborate cleaning procedures are not normally necessary (**Fig. 1.7**).

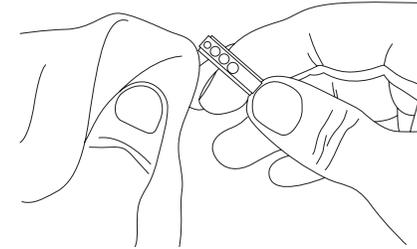


Fig. 1.7

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Cleaning the probe tip

Please note that if the tester is being used for the first time, or if the tester has not been used for a week, it is advisable to clean the probe tip using an oxidation removal sheet to attain consistent and accurate reading.

- a. Ensure the unit is switched off.
- b. Hold the probe pen with pen tip forming the right angle (90 degree) with an oxidation removal. Gently move in a circular motion without retracting the tip (**Fig. 1.6**).
- c. Repeat the same motion several times. The cleaning process is completed and tester is now ready for use.

Press the [ON/OFF] button located at the back of the tester (**Fig. 1.4**) and wait for about 20 seconds to warm up the instrument.

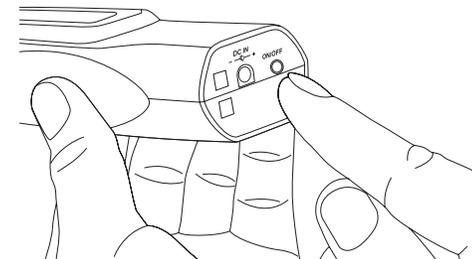


Fig. 1.4

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4. TAKING CARE

- a. The probe and wire tip is extremely sensitive and should be handled with care. Please always replace the protective cap. Caution should be taken so as not to damage the probe and wire tip.
- b. Do not leave worn out batteries in the battery compartment as the batteries may corrode, leak or damage the tester. Batteries should be removed when the tester is expected to be stored for an extended period of time.

Thank you for choosing our SmartPro Reader I and taking time for the user manual book which will enable you to understand your recent purchase better.

SmartPro Instrument also recommends that you register your warranty by sending the warranty registration card to us or registering online at <http://www.smartproinstrument.com>



3. READING TEST RESULTS

The test results are indicated as follow:

- a. SIMULANT popup on LCD:
 - (I) Gemstone with high thermal conductivity such as sapphire and topaz are detected.
 - (II) Gemstone with low thermal conductivity such as glass and cubic zirconia will not give any reading on the tester.
- b. MOISSANITE popup on LCD: Moissanite is detected.
- c. DIAMOND popup on LCD with a continuous audible beep: Diamond is detected.
- d. METAL popup on LCD with continuous audible beep: Metal is detected.