

PRESIDIUM[®]

Gem Tester | PGT

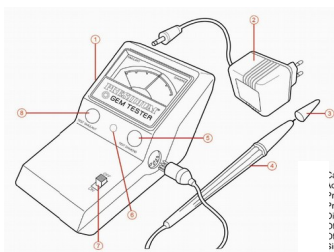
USER HANDBOOK

The Presidium Gem Tester features the following:

- Retractable thermoelectric probe tip that ensures constant pressure between probe tip and gemstone
- Industry's thinnest probe tip (0.6mm) for testing diamonds as small as 0.02ct
- Metal alert buzzer to ensure that probe tip is in contact with gemstone during testing
- Clear and easy-to-read analog dial
- No waiting time between tests
- Built-in diamond and simulant test discs for reference
- Powered by 2 x AA batteries or adaptor

Included in your package:

- Presidium Gem Tester (including Colored Stone Estimator)
- Probe pen
- Built-in test simulant discs
- AC adaptor
- User handbook
- Warranty card
- Protective carrying case



1	Thermal Conductivity Calibration Inlet
2	Adaptor
3	Probe Protective Cap
4	Probe Pen
5	Diamond Test Disc
6	ON/OFF LED Indicator
7	ON/OFF Switch
8	Simulant Test Disc

IMPORTANT NOTICE

- 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 battery, and allow the tester to dry completely before replacing it.
- Do not use, store or expose the tester in dusty and dirty areas. Its moving parts and electronic components can be damaged.
- 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.
- 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.
- Do not attempt to open the tester other than as instructed in this handbook.
- Do not drop, knock, or shake the tester. Rough handling can break internal circuit boards and fine mechanics.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the tester.
- 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 sales@indo-digital.com or

Jl. Raya Baturraden KM 7 No 17
Purwokerto
Jawa Tengah - 53100
Indonesia
0852 9177 1888

1. GETTING STARTED with your Presidium Gem Tester

Powering up your Presidium Gem Tester

This tester can be powered by either the use of an AC adaptor or through the use of batteries. If AC adaptor is used, connect one end of the AC adaptor to the tester and the other end directly into an electrical outlet. Please ensure that only the adaptor supplied by Presidium is used.

If batteries are used (2 x AA batteries), take note of the positive (+) and negative (-) directions of batteries when inserting the batteries into the tester (**Fig 1.1**). 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.

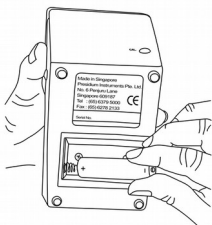


Fig. 1.1

Turning on your Presidium Gem Tester

Insert the probe pen into the socket at the side of the tester (**Fig 1.2**). Note that the probe pen must be inserted into the socket before turning on the unit. Otherwise, the indicator will rise to the green zone (Diamond) when turned on.



Fig. 1.2

Switch the tester to the ON position, wait for approximately 20 seconds for the initial warm-up period (**Fig. 1.3**). At this point, it is quite common if the reading slightly above zero is indicated on the meter.

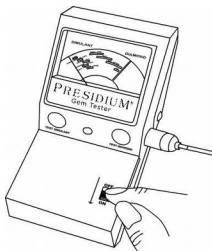


Fig. 1.3

Testing to ensure your Presidium Gem Tester is functioning properly

Simulant test disc

- Press the probe tip onto the simulant test disc located on the left of the indicator lamp (**Fig.1.4**). Apply sufficient pressure to retract the protruding tip completely into the probe pen. The indicator should rise to and remain within the white strip (preferably at the center of white strip) with "CAL" printed on top, within two to three seconds.

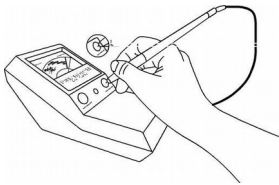


Fig. 1.4

Diamond test disc

- Press the probe tip onto the diamond test disc located on the right of the indicator lamp (**Fig. 1.5**). Apply sufficient pressure to retract the protruding tip completely into the probe pen. Once this has been completed, the needle should rise and reach its highest point well within the green band of the meter display, within two to three seconds.

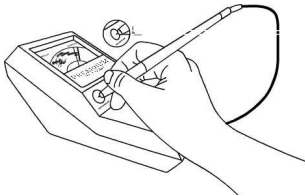


Fig. 1.5

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 risks associated, users should contact Presidium at sales@indo-digital.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/fro freight cost for the shipping of unit to the service center.

Recommended testing conditions

The gemstone should be clean and dry before testing. However, elaborate cleaning procedures are not normally necessary (**Fig. 1.6**).

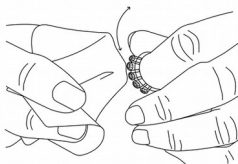


Fig. 1.6

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 results and performance of the tester.

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.

Batteries do not have to be removed when the AC adaptor is in use.

To prevent inaccurate readings, replace with fresh battery if the red LED does not light up after 20 seconds. A test should not be performed when the battery is low or flat.

Cleaning your gemstone prior to testing

Prepare a clean tissue. Carefully retrieve the gemstone with tweezers and place the gemstone face down on the table (Fig. 1.7).

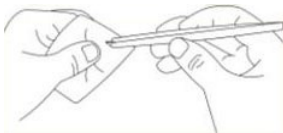


Fig. 1.7

Gently rub the table of gemstone against the tissue/jewellery cloth and place the gemstone on the centre of the Test Pad (Fig. 1.8).



Fig. 1.8

2. PERFORMING A TEST with your Presidium Gem Tester

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 the other hand (**Fig. 2.1**). 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.

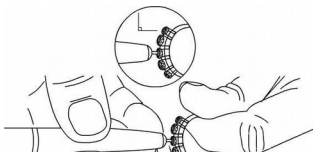


Fig. 2.1

For testing loose gemstones:

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

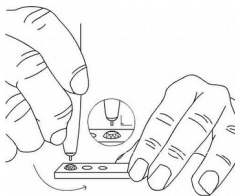


Fig. 2.2

Note: Metal stone rest is not provided by Presidium.

Tips for using your Presidium Gem Tester

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 a piece of paper to attain consistent and accurate reading. Rub the tip gently across the paper surface before testing.

The probe tip must be placed at a 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.

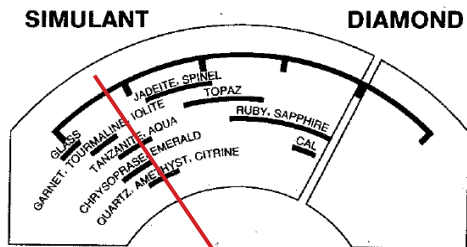
To achieve optimum accuracy for tests involving very small gemstones (10 points and below), it is important to allow the gemstone to cool down before subsequent tests.

It is advisable to take multiple readings regarding the test results indicated.

3. READING TEST RESULTS on your Presidium Gem Tester

The test results are indicated as follows:

- After pressing the probe tip on the stone for about 2 seconds, the indicator will reach its highest position, then slowly fall back. Take the reading at the highest position.
- The tester will provide all possible results on the display.
- The Presidium Gem Tester should be used only to confirm the identity of suspected gemstone.
- An example of reading the result on the meter is given below:



When the indicator stops at the above position, the stone tested may be Quartz, Amethyst, Citrine, Tanzanite or Aqua, i.e., any stones that fall within the white strip that the indicator passes.

Metal Alert Buzzer: If the tip of the pen comes in contact with the metal mounting of a stone, an audible signal is emitted.

- **RED band:** Simulant is detected if the needle falls into this band
- **GREEN band:** Diamond/Moissanite is detected if the needle falls into this band.

Relatively low readings in the green zone must be expected with very small diamonds.

Based on the thermal test results, Presidium Gem Tester can easily distinguish between:

Sapphire	vs.	Tanzanite	Jadeite	vs.	Chrysoprase
Sapphire	vs.	Iolite	Jadeite	vs.	Aventurine Quartz
Sapphire	vs.	Spinel	Ruby	vs.	Spinel
Sapphire	vs.	Citrine	Ruby	vs.	Garnet
Sapphire	vs.	Topaz	Topaz	vs.	Aquamarine
Sapphire	vs.	Tourmaline	Topaz	vs.	Amethyst
Emerald	vs.	Jadeite	Topaz	vs.	Citrine
Emerald	vs.	Garnet	Spinel	vs.	Garnet
Jadeite	vs.	Garnet	Gem- stones	vs.	Glass

The use of the thermal results is restricted to the gemstones listed above and will assist the jeweler to distinguish the many confusing gemstones in the market.

4. TAKING CARE of your Presidium Gem Tester

- The probe and wire tip is extremely sensitive and should be handled with care. Caution should be taken so as not to damage the probe tip.
- Do not use the tester if the indicator lamp does not glow or glow as brightly. This is to prevent inaccurate measurements.
- 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.

Your tester is a product of extensive design and craftsmanship and should be treated with care.

Thank you for taking time to go through the user handbook which will enable you to understand your recent purchase better.

Presidium also recommends that you register your warranty by sending the warranty registration card to us or registering online at <http://www.indo-digital.com/>