

# Contents

(English Version)

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## I. Disclaimers, Exclusions and Limitations of Liability

PLEASE READ AND NOTE PRESIDIUM WARRANTY TERMS AND CONDITIONS as stated in the warranty card. Presidium warranty for its testers are subject to proper use by its users in accordance with all the terms and conditions as stated in the relevant user handbook and shall only cover manufacturing defects.

Due to continuous product improvement, Presidium reserves the right to revise all documents including the right to make changes to the handbook without notice and without obligation to notify any person of such revisions or changes. Users are advised to check Presidium's website at <http://www.presidium.com.sg/> from time to time.

Presidium shall not be responsible for any damage or loss resulting from the use of this tester or handbook, and under no circumstances shall Presidium, its manufacturer or any of its subsidiaries, licensors, distributors, resellers, servants and/or agents be liable for any direct or indirect damages, resulting from the use of this tester.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, under no circumstances shall Presidium, its manufacturer or any of its subsidiaries, licensors, distributors, reseller, servant and/or agent be responsible for any special, incidental, consequential or indirect damages howsoever caused.

The tester or Presidium Diamondmate (PDMT) referred to in this handbook is provided and/or sold on an "as is" basis. Except as required by applicable law, no warranties of any kind, either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

## II. About this book

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Thank you for purchasing the Presidium Diamond Mate (“PDMT” or “tester”).

This handbook is designed to help you set up your tester and describes all you need to know about how to use your tester accurately and take care of it in line with its requirements. Please read these instructions carefully and keep them handy for future reference. This handbook is written for both PDMT-A and PDMT-C.

This book also contains the terms and conditions in relation to the use of the tester including the **Disclaimer, EXCLUSION and Limitation of Liability clauses stated above in Section I.**

### **III. About your Presidium Diamond Mate**

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The Presidium Diamond Mate is a pocket-sized instrument that instantly verifies the authenticity of diamonds based on their thermal properties. It is based on an invention of Professor Julian Goldsmid from the University of New South Wales in Australia. Diamonds, with their exceptional heat conductivity properties, are unlike any other simulants, natural or synthetic, and are therefore not easily replicable.

As with all thermal testers in the market, the Presidium Diamond Mate is not able to differentiate between natural diamonds and moissanite.

The Presidium Diamond Mate 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 advised to conduct further supporting tests.

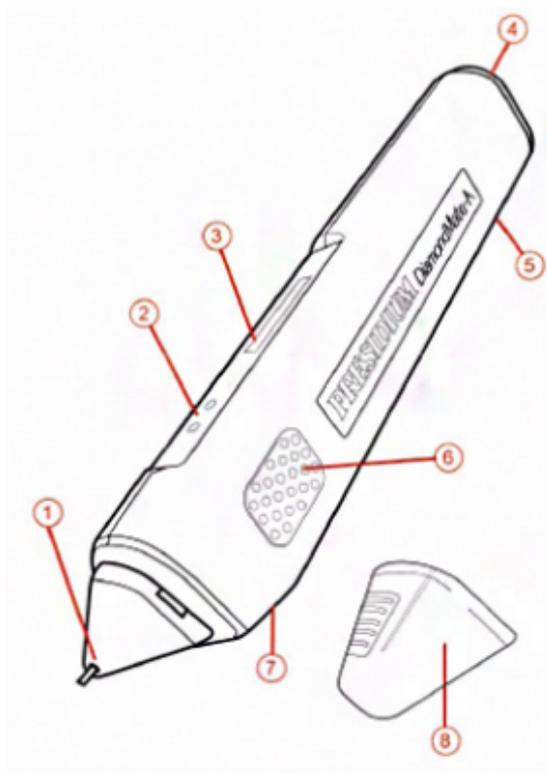
#### **The Presidium Diamond Mate features the following:**

- Retractable thermoelectric probe tip that ensures constant pressure between probe tip and gemstone
- Industry's thinnest probe tip (0.6mm) for testing gemstones as small as 0.02ct
- Metal alert buzzer to ensure that probe tip is in contact with gemstone during testing
- No waiting time between tests
- Clear and easy-to-read LED display
- Low battery indicator
- Low battery consumption

#### **Included in your package:**

- Presidium Diamond Mate Tester
- Protective carrying case
- 3 x AAA rechargeable batteries\*
- AC adaptor/Charger (120/230 volts)\*
- Quick Guide
- QR Code Card

\* For PDMT-C only



1	Retractable Probe Tip
2	Power Indicator LED
3	Display Panel
4	Adaptor Inlet
5	Battery Compartment
6	Serrated Metal Part
7	ON/OFF Switch
8	Probe Protective Cap

#### IV. IMPORTANT NOTICE

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- Keep the tester dry. Precipitation and all types of liquids or moisture can contain minerals that will corrode electronic circuits. If your tester gets 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 tester and damage its 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 may 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 [service@presidium.com.sg](mailto:service@presidium.com.sg). or:

Presidium Instruments Pte Ltd  
Unit 7, 207 Henderson Road  
Singapore 159550  
Attn: Customer Service Executive

## 1. GETTING STARTED with your Presidium Diamond Mate

### Powering up your Presidium Diamond Mate-A

This tester can be powered 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 adaptor supplied by Presidium is used.

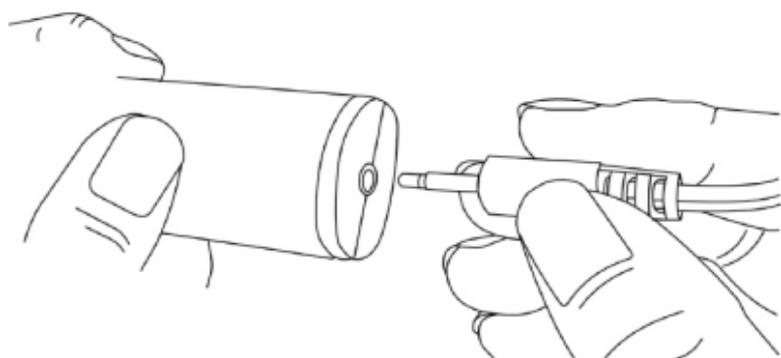


Fig. 1.1

If batteries are used (3 x AAA batteries), take note of the positive (+) and negative (-) directions of 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.

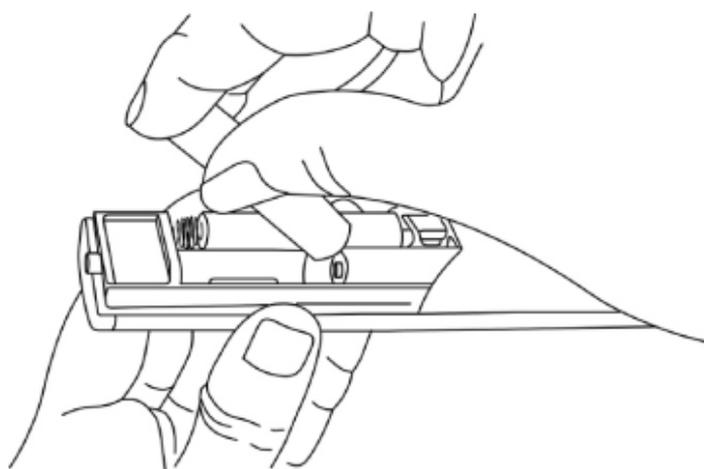


Fig. 1.2

## Powering up your Presidium Diamond Mate-C

Batteries will need to be charged for at least 6 hours prior to the first use. Simply insert the AC adaptor / Charger (supplied with this model) into a suitable electrical outlet. Your Diamond Mate can be used while the batteries are being charged. A fully charged battery should work continuously for 2 hours.

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

## Turning on your Presidium Diamond Mate

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



Fig. 1.3

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

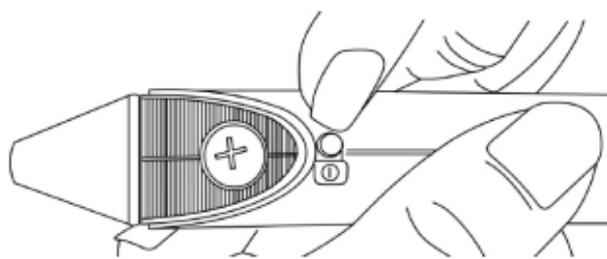


Fig. 1.4

While in this preparation mode, a Green light will blink continuously. The light will stop blinking when it is "READY" to be used (Fig. 1.5).

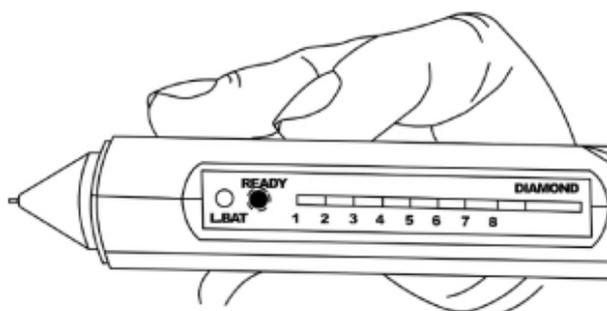


Fig. 1.5

The tester will shut down automatically after 10 minutes of inactivity.

## 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 [service@presidium.com.sg](mailto:service@presidium.com.sg) 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**).

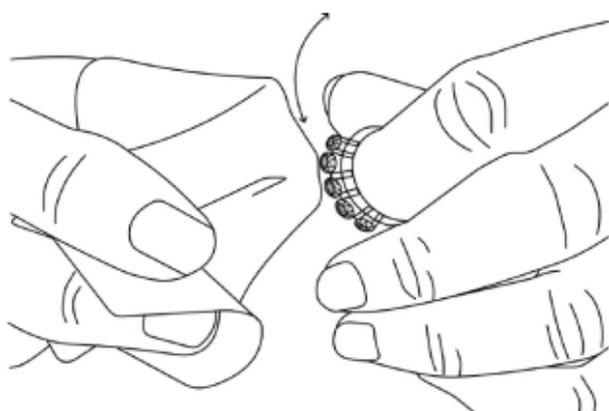


Fig. 1.6

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 room temperature will 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.

To prevent inaccurate readings, replace with new batteries as soon as the low battery indicator lights up or starts to blink. A test should not be performed when the battery power is low or weak.

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

### **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).

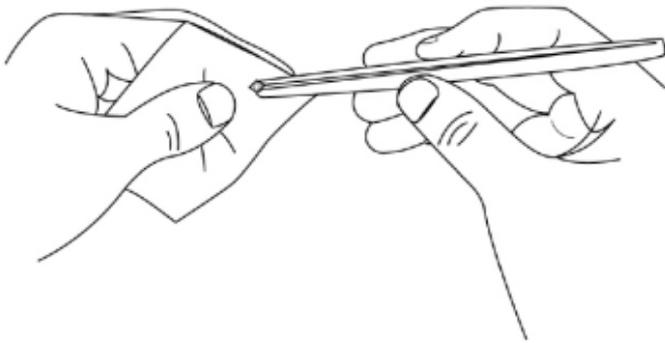


Fig. 1.7

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 Diamond Mate

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 steady and constant contact 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**). 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.

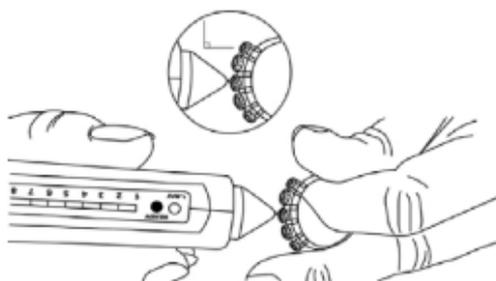


Fig. 2.1

### For testing loose gemstones:

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



Fig. 2.2

Note : Metal stone rest is not provided by Presidium.

### Tips for using your Presidium Diamond Mate

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

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

For proper operation of the tester, fingers must be placed on the metal-plated serrated located on both sides of the tester at all times.

To achieve optimum accuracy for tests involving very small mounted gemstones (1.2 mm exposed diameter and below), it is extremely important that no contact is made on any mounted/ metal part of the jewelry piece.

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.

### **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 a piece of paper to attain a consistent and accurate reading:

- Ensure the unit is switched off.
- Hold the probe pen with the pen tip forming a right-angle (90-degree) with any paper or stone rest (as provided). Gently move in a circular motion without retracting the tip (**Fig. 2.3**).
- Repeat the same motion several times. The cleaning process is completed and the tester is now ready for use.



Fig. 2.3

### **3. READING TEST RESULTS on your Presidium Diamond Mate**

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The test results are indicated as follows:

1. Red LED lights up:
  - Simulant is detected
2. Green LED lights up:
  - Diamond is detected with a continuous audible beep.
3. Metal is detected with an intermittent beep at "Metal" segment

#### 4. TAKING CARE of your Presidium Diamond Mate

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- The probe and wire tip is extremely sensitive and should be handled with care, especially during the removal of the protective cap from the pen tip. Always replace the protective cap of the pen tip when the probe is not in use. Caution should be taken so as not to damage the probe and wire tip.
- 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.

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

Thank you for taking the 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.presidium.com.sg/>