

# GEMORO<sup>®</sup> PRO-M 3

MOISSANITE TESTER

WITH NEW ADVANCED  
PATENTED UV-F1  
IDENTIFICATION  
TECHNOLOGY<sup>™</sup>



## **READ BEFORE USING**

A high percentage of the new generation, super-low electrically conductive Forever One or "F1" moissanite that was introduced in late 2015 will incorrectly be identified as diamond when tested on a traditional combination electrical and thermal conductivity tester. However, your PRO-M 3 electrical conductivity tester uses the new patented UV-F1 TECHNOLOGY™, and it is exclusively calibrated to identify this faint electrical conductivity property. Please note that the new Forever One moissanite can no longer be easily visually identified, as it is now D-E-F "colorless", with few inclusions.

Be aware that body oil is also electrically conductive. Due to the tester's enhanced sensitivity for electrical conductivity, dirty diamonds may potentially test as moissanite. To avoid false/positive readings on dirty diamonds, ALWAYS CLEAN THE STONE by simply wiping the body oil off on the provided STONE TESTING CLOTH prior to performing a test. Periodically, also clean any accumulated body oil off of the probe tip by gently rubbing it on a piece of uncoated paper - SEE MANUAL.

NEED HELP? Call GemOro at **800.527.0719** for immediate assistance.

The GemOro **PRO-M 3** is the ultimate tester for diamond fraud protection! The PRO-M 3 features exclusive **UV-F1 TECHNOLOGY™** and is capable of identifying the widest range of the electrically conductive moissanite material available, including the new super-low electrically conductive Forever One moissanite.

## **OPERATING PROCEDURE & OWNERS MANUAL**

Congratulations on your purchase of the PRO-M 3 from GemOro Superior Instruments, the most trusted name in gemological instrumentation for the jewelry industry. You've made a great choice. Built upon the foundation of the second generation and most popular moissanite tester to date, the PRO-M 3 offers even more. Identify moissanite with confidence.

## **IMPORTANT: PLEASE BE CERTAIN TO READ THE FOLLOWING COMPLETELY BEFORE USING.**

### **ELECTRICAL CONDUCTIVITY TESTING METHODS**

The recognized, most practical way for separating the vast majority of moissanite gemstones from diamond is the electrical conductivity test; since most moissanite conducts electricity, while diamonds, as well as other known diamond simulants do not. It should be noted that while the vast majority of moissanite may be electrically conductive, in some moissanite gemstones there might only be electrical conductivity in varying degrees. Further, with the

new Forever One moissanite its electrical conductivity may be so faint that most testers may not be able to correctly identify it at all. But have no fear. With the new **PATENTED UV-F1 TECHNOLOGY™** built into the PRO-M 3, you can identify the widest range of electrically conductive moissanite material available, including the new super-low electrically conductive Forever One moissanite.

Other than some rare and natural colored diamonds, as well as some lab grown synthetic diamonds, natural white diamonds do not conduct electricity. If a stone does not conduct heat or electricity, it will be determined to be more than likely a common CZ or other diamond simulant. **Because hand-oil is electrically conductive and the stone being tested may not be clean, any test result that indicates moissanite, especially on smaller size stones that haven't been cleaned, should be suspect, cleaned, and retested.**

Due to the electrical conductivity properties of some of the chemicals commonly used in the production of lab-grown synthetic diamonds, when the PRO-M 3 probe tip touches these stones the metal alert feature of the PRO-M 3 may be set off.

The GemOro Superior Instruments PRO-M 3 utilizes the electrical conductivity test and it will quickly help in identifying and separating the stone in question. The PRO-M 3 is an advanced, technologically based tool.

**IMPORTANT DISCLAIMER:** The PRO-M 3 is a helpful screening tool that by design is to be used as a quick method for helping to identify moissanite. The PRO-M 3 should not be used as the final method for determining the authenticity or identity of the gemstone being tested. The final determination of the identity of any gemstone, whether genuine or not, should only be made by a trained gemologist. Neither GemOro nor any of its affiliates, dealers, or distributors shall be held liable for any loss and/or damages associated with the use of the PRO-M 3. No warranties exist with respect to the PRO-M 3 or its use other than those expressly contained herein. All other warranties of any kind or character whatsoever, whether expressed or implied, including warranties of merchantability or fitness for a particular purpose, are hereby disclaimed and are excluded from the warranties hereunder. In the event that a claim is made with respect to the PRO-M 3 or its use, the maximum liability of GemOro, and its affiliates, dealers, and distributors shall be the amount paid for the PRO-M 3.

**PLEASE READ BEFORE USING THE PROVIDED NIMH RECHARGEABLE BATTERIES:**

Before using the NiMH rechargeable batteries that have been provided with your tester, the batteries should be fully charged as indicated by the small round LED indicator next to the power button glowing green when the PRO-M 3 is plugged in. While

the batteries are being charged, the tester may be used as desired while powered by the AC current.

## CONDITIONS FOR IDEAL OPERATION

1. The stone being tested must be clean. Aside from obvious visible dirt that may be present on the stone, there may also be hand oil or other contaminants on the stones surface that may not be visible and which could impact the accuracy of the test. Always be certain to clean the stone being tested with an ultrasonic or steamer or other appropriate means, and thoroughly dry it and/or remove any cleaning chemicals remaining on the stone prior to testing.
2. The stone being tested must be dry. If the surface of the stone is wet or has any type of surface moisture it may not test correctly.
3. The stone being tested must be clean. Aside from obvious visible dirt that may be present on the stone, there may also be hand, body oil or other contaminants on the stones surface that may not be visible and which could impact the accuracy of the test. Always be certain to clean the stone being tested with an ultrasonic or steamer or other appropriate means, and thoroughly dry it and/or remove any cleaning chemicals remaining on the stone prior to testing. A GemOro STONE TESTING CLOTH (shown below) has been provided

with each PRO-M 3 and for convenience it should be used to wipe any hand or body oil from the stones surface prior to testing.



4. It is imperative that the probe tip be cleaned regularly or ideally prior to performing a test. Please be aware that there may be hand oil or other contaminants that may not be visible on the probe tip, which could impact the accuracy of the test. To clean the tip, take a piece of uncoated white printer or copy paper and place the probe tip of the tester at a 90 degree angle against the paper while gently rubbing it in a forward motion a few times. Repeat this process routinely or prior to testing each time to ensure the cleanliness of the probe tip.

## PRO-M 3 FEATURES

1. Helps to identify the largest range of electrically conductive moissanite, including the new super-low conductivity Forever One moissanite. The test results are shown via its PATENTED color-coded light pipe and unique sounding beep tones.
2. Quickly assists with testing most any size moissanite, whether mounted or loose.

3. The sleek and ergonomic shape comfortably rests in and on your hand when held, and the tester has PATENTED intuitive finger grip pads for increased user-friendliness and ease of use.
4. The LED illuminator is positioned under the probe tip. The LED Illuminator is a super bright UV LED that illuminates the stone being tested.
5. The tester is equipped with a retractable probe tip designed to protect the probe tip if excessive force is used while testing or if it is accidentally dropped.
6. The tester housing is made from durable ABS and is covered with GemOro's exclusive rubberized paint that provides an even greater grip.
7. Powered by (3) supplied 1.5V AAA NiMH rechargeable batteries and conveniently charged by a micro-USB adapter. The rechargeable batteries may be substituted with AAA alkaline batteries if a suitable power outlet is unavailable to recharge the NiMH batteries.
8. The tester is also designed to have its batteries charged with the optional GemOro UltraDock 3 charging station accessory (Item #0772).
9. Includes a GemOro protective ballistic nylon carrying case, aluminum loose stone holder, GemOro Test Stone Cloth, as well as (3) user-replaceable AAA NiMH rechargeable batteries, a universal multi-voltage 100V-240V AC adapter / charger cube with premium micro-USB cord.
10. The tester is also designed to be used with the optional handy PATENTED GemOro Test Stone Magnifier attachment, which when clipped onto the tester's tip area allows the user to more easily see and test small diamonds without accidentally touching the setting or prongs (Item #0780).
11. The tester has an auto-off function to preserve the battery life and it will automatically turn itself off after a period of 10 minutes of non-use. After powering down, if you wish to resume using the PRO-M 3, simply touch the tester's power button and within seconds the tester will turn itself back on again.
12. Glowing LED Light Pipe and Probe Tip Indicator. Innovative PATENTED colored LEDs visually indicate:  
**BLUE** = Moissanite **A**  
**RED** = Metal Alert **B**

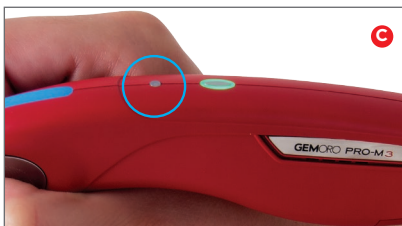


MOISSANITE



METAL ALERT

13. LED Indicator. The round LED indicator is located next to the oval shaped power button **C**:
- GREEN** = Fully Charged Batteries
  - YELLOW** = Charging Batteries
  - RED** = Low Batteries



BATTERY LED INDICATOR

14. Bright green LED illuminated power button.

15. Pocket-sized and portable.

16. Simple to operate.

## SPECIFICATIONS

- Working Voltage: DC 1.2V (3) x AAA NiMH, DC 1.5V, (3) x AAA alkaline batteries or its universal voltage 100V-240V AC adapter cube.
- Probe Tip Warm-Up Time: Immediate.
- NiMH and Alkaline Battery Working Time: Approximately two hours of continuous use.
- Working Temperature: 65°F-80°F (18°C-27°C).
- Air Relative Humidity: 45%-75%.
- Net Weight: Approximately 100g (including batteries).

## CAUTION

DO NOT disassemble the PRO-M 3 other than to replace the batteries or the warranty will become void.

## OPERATION

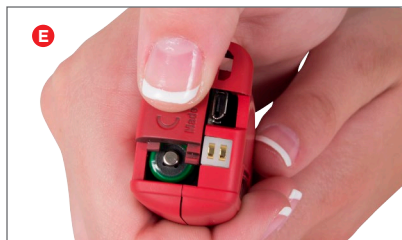
1. NiMH Battery Usage and Alkaline Battery Installation: To activate the (3) NiMH rechargeable batteries, **REMOVE THE BATTERY DISCHARGE INSULATOR TAB **D**** that is extending out of the battery compartment by simply pulling it out. To increase the life of the NiMH rechargeable batteries, after removing the discharge insulator tab in the battery compartment, fully charge the batteries prior to use.

If you wish to replace the NiMH batteries with alkaline batteries,

remove the battery compartment door located on the end of the PRO-M 3 by using your thumb to slide the textured area down and in the direction of the arrow **E**. Remove the NiMH rechargeable batteries while making note of the polarity positioning on batteries. Then insert (3) high-quality AAA 1.5V alkaline batteries into the battery compartment. The proper polarity positioning is indicated on the side of the battery compartment wall showing the direction of positive (+) and negative (-) polarity **F**. Always be certain that the batteries are correctly positioned in the battery holder. Then carefully replace the battery compartment door.



BATTERY DISCHARGE INSULATOR TAB



TESTER BATTERY COMPARTMENT



BATTERY POLARITY

2. The PRO-M 3 batteries may be charged by placing it in the optional UltraDock 3 battery charging station with the micro-USB power cord plugged into the rear of the charging station or by plugging its supplied micro-USB power cord into the rear of the tester and the USB adapter cube directly into a wall outlet. Once the tester is connected to the AC adapter or the charging station, the tester will switch to its DC power mode. The tester's built-in Intelligent Charging Circuit ICC will automatically identify the type of batteries installed (NiMH rechargeable batteries or alkaline batteries). If alkaline batteries are installed, the circuit will automatically cut off the power supply to the batteries so that the alkaline batteries will not be recharged. If NiMH rechargeable batteries are installed, the batteries will be recharged and at the same time the tester may be used with the AC adapter.
3. To turn the PRO-M 3 ON press the oval shaped power button, located on the top center edge

of the tester **G** and hold it down for approximately one second, then release the button. There is no warm-up time required. When the green LED lights up a beep tone will be sounded. You may now begin using the tester.

4. To turn the PRO-M 3 OFF, press the oval shaped power button once again **G** and hold it down for approximately one second, then release the button. The power button's blue LED indicator will no longer be illuminated indicating it has been turned OFF. If the PRO-M 3 has been left on for a period of approximately 10 minutes without being used, it will automatically turn itself OFF.



POWER BUTTON

5. The PRO-M 3 is also equipped with a PATENTED color-coded light pipe and probe tip cone indicator. This line of sight colored indicator allows the user to easily see the test results while keeping their eyes on the stone being tested.  
**BLUE** = Moissanite  
**RED** = Metal Alert

6. **Prior to using the PRO-M 3, be certain to REMOVE THE WHITE CAP at the front end of the tester that serves to protect the probe tip from accidentally being bent or broken **H**.** The cap may be easily removed by simply applying a minimal amount of pressure to the sides of the cap, as you hold it between your thumb and forefinger. Then gently pull it out and off. Always replace the cap when the PRO-M 3 is not in use.



PROBE TIP CAP

7. To properly hold the PRO-M 3, it is important to grasp the tester with your thumb and forefinger while touching them to the PATENTED finger pads located on either side of the tester **I**. This will allow you to easily manipulate the tester and make the best contact with the stone being tested. While holding the tester, its ergonomic shape allows it to comfortably rest in and on the top of your hand. If you hold the tester without touching the finger pads, the metal alert feature will not function.





HOW TO PROPERLY HOLD THE TESTER

8. The LED Illuminator allows the user to easily see the stone being tested to confirm that only the stone is being tested and that the setting or prongs are not accidentally being touched. This LED is a special UV type **J** that may also be used to identify the fluorescence characteristic found in approximately 30% of all diamonds. You may also attach the optional GemOro Test Stone Magnifier (Item# 0780) to the PRO-M 3 by clipping it onto the end of the tester's probe tip cone. This will allow you to see a magnified view of the stone being tested and help ensure proper contact with the stone while not accidentally touching the setting or prongs.



FLUORESCING STONE

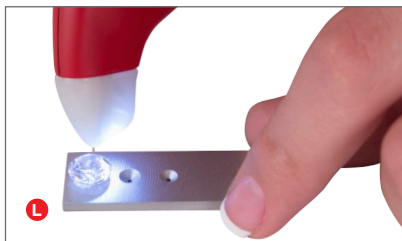
9. Testing Mounted Stones: **With one hand, hold the ring (or setting) that contains the stone you wish to test and in your other hand hold the PRO-M 3 **K**. NEVER TEST A RING WHILE PLACED IN A RING BOX OR IT MAY NOT TEST CORRECTLY.** Quickly, yet firmly touch the tester's probe tip to the stone's table, while being certain not to allow the probe tip to make contact with the metal setting or prongs. While firmly depressing the retractable probe tip all of the way in until you hear a click sound, touch the stone just long enough to allow the tester to indicate a reading (1 or 2 seconds) and then take the probe tip away from the stone.



TESTING A MOUNTED STONE

10. Testing Loose Stones: Place the loose stone in the supplied aluminum loose stone testing plate positioned with the culet facing down into the recessed hole part of the testing plate. **Then hold the testing plate steady with one hand, as this will also allow the electrical current to pass through your body, permitting the tester to**

**function as designed and test properly.** While holding the PRO-M 3 in your other hand, firmly touch the probe tip to the loose stone's table until the test result it indicated **L**. **YOU MUST FOLLOW THIS PROCEDURE WHEN TESTING LOOSE STONES OR THE TESTER MAY NOT TEST CORRECTLY. DO NOT ATTEMPT TO TEST LOOSE STONES WHILE HOLDING THEM IN YOUR FINGERS OR THE TESTER MAY NOT TEST CORRECTLY.**



TESTING LOOSE STONES WITH TESTING PLATE

- 11 . The probe tip must be cleaned routinely to ensure proper contact with the stone being tested. To clean the probe tip, take a piece of uncoated white copy or printing paper and lay it on a table or counter or other flat surface. Place the tester in a 90-degree angle to the paper with the probe tip lightly touching the paper. Apply enough pressure to gently depress the retractable probe tip slightly inside the housing. Then carefully rub the probe tip in one direction on the paper to clean it.

12. Using the Optional UltraDock 3: Place the charging station in a convenient location near where it will be used such as on a desk, showcase or repair area. Take the testers micro-USB power cord and plug it into the rear of the UltraDock 3, while plugging the USB into its AC power cube adapter. Plug the adapter into a convenient wall outlet. You may now simply place the PRO-M 3 in the charging stations cradle with its on bottom edge facing down, and the rear of the PRO-M 3 facing the back end of the cradle. The PRO-M 3 will automatically have its NiMH batteries charged while in the UltraDock 3. **M**



TESTER IN OPTIONAL ULTRADOCK 3

13. Using the Optional Test Stone Magnifier: Insert the PRO-M 3's probe tip cone through the wider opening of the magnifiers oval shaped bracket and clip it into place. Depending on whether you are right or left handed, you may conveniently position it on either side of the tester. Pivot the hinged magnifier so that it is positioned in front of the testers probe tip. You may now view the stones you are testing under magnification. **N**



HOW TO USE THE MAGNIFIER



HOW TO REMOVE THE MAGNIFIER

## MAINTENANCE

1. The PRO-M 3 is not user serviceable other than battery replacement, probe tip cleaning, and recalibration. If service is required, please contact your supplier or the factory. **Any other attempt to repair the tester by a user will void the warranty.**
2. Always replace the protective probe tip cap to keep the probe tip from becoming damaged.
3. If using alkaline batteries, always replace the batteries after long periods of time to prevent

premature corrosion or battery leakage, which is common with old or spent alkaline batteries after a period of time. Be aware that damage to the PRO-M 3 may occur if there is battery leakage and it will void the warranty.

4. In the event the PRO-M 3 is not used for an extended period of time, the batteries should be removed.
5. Routinely clean the probe tip.
6. The PRO-M 3 is not user serviceable other than battery replacement, probe tip cleaning, and recalibration. If service is required, please contact your supplier or the factory. Any other attempt to repair the tester by a user will void the warranty.

## HELPFUL SUGGESTIONS

1. If substituting alkaline batteries for the NiMH rechargeable batteries, only use high-quality AAA alkaline batteries.
2. The PRO-M 3 is designed to be able to easily test faceted or rough stones of virtually all sizes.
3. The PRO-M 3 has been precision calibrated at the factory and will provide years of trouble-free use. If after using the PRO-M 3 you encounter issues with it performance or functionality, please contact the factory for troubleshooting instructions and corrective measures.

## WARRANTY

Congratulations on your purchase of the GemOro® PRO-M 3! Your PRO-M 3 features a 2-YEAR PROBE TIP and BATTERY WARRANTY plus a LIFETIME LIMITED WARRANTY on the electronics within the tester. **Damage caused by abuse will void the warranty.** These warranties become effective from the date of the original purchase assuming the purchaser fills out the WARRANTY REGISTRATION FORM at [www.gemoroproducts.com/warrantyregistration](http://www.gemoroproducts.com/warrantyregistration) or the purchaser provides a copy of their invoice (bill of sale) when making a warranty claim. In the event the tester's owner has not registered their tester or provided a copy of their invoice for when they purchased the PRO-M 3, warranty service will be determined by the serial number tracking system as interpreted by the factory. In the event the PRO-M 3 is no longer available or has been discontinued and warranty coverage is applicable, at the factory's sole discretion, an equivalent tester may be substituted for the defective PRO-M 3. The purchaser shall incur the cost for postage, insurance, and handling for all warranty and non-warranty repairs. Warranty repairs and/or replacements will be shipped back to the customer FOB Destination to the location of the customer's choosing if within the continental United States. Non-warranty repairs will be shipped back to the customer FOB Factory. Should the customer require the repair and/or replacement unit(s) to

be shipped outside the continental United States, the customer will be required to pay any related shipping charges and any related taxes / duties for the respective destination country, regardless of whether it is a warranty or non-warranty claim.



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