SMARTPRO

MAX

COLORLESS LAB-GROWN &
SIMULANT DIAMOND TESTER

USERS MANUAL BOOK

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W E L C O M E

MAX USERS MANUAL BOOK

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Colorless Lab-grown & Simulant Diamond Tester

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1. DISCLAIMERS, EXCLUSIONS AND LIMITATIONS OF LIABILITY

Please read and note SMARTPRO WARANTY TERMS AND CONDITIONS as stated in the warranty card. Smartpro warranty for its subject to proper use by its user in accordance with all the terms and conditions as started in the relevant user manual and shall cover only manufacturing defects.

Due to continues product improvement, Smartpro reserves the right to revise all documents including the right to make changes to the user

manual book with or without notice and no obligation to notify any person of such revisions or changes. Users are advised to check Smartpro's website at www.smartproinstrument.com.

Smartpro shall not be responsible for any damage or loss resulting from the use of the product or user manual, and under no circumstances shall Smartpro, 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 product.

To maximum extent permitted by applicable law, under no circumstances shall Smartpro, its manufacturer or any of its subsidiaries, licensors, distributors, resellers, servants and/or agents be liable for any special, incidental, consequential or indirect damages howsoever caused.

Smartpro MAX referred to in this user manual is provided and/or sold on "as is" basis. Except as required by applicable law, no warranties of any kind, expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

2. INTRODUCTION

Congratulations for having your Smartpro MAX (SPMAX)!

The first ever and unique handheld 5 in 1 colorless Lab-Grown and Simulant Diamond tester. A patented single probe of 2 in 1 thermal and optical technology designed to detect colorless to near colorless (D-J) earth-mined natural diamond (Type Ia) from colorless Lab Grown Synthetic CVD / HPHT / Type IIa Diamond, Moissanite (including F1 moissanite), Diamond Simulant, and CZ / Glass. Able to test polished diamonds of different sizes loose and mounted with at least 2.0 mm (>0.02 ct.), *(all types of fancy shapes are not guaranteed).*

Best for Round Brilliant cut polished stones, with colorless to near colorless, loose stones or jewelry (with or without under hole).

Smartpro Max is powered by a rechargeable battery. The test result will be displayed on colored LCD touch screen and able to rotate the screen view to support both left and right handed users. Multiple speaking languages are installed such as English, Chinese, French, German, Italian, Spanish, Japanese, Thai, Hindi, Korean and Russian.

3. QUICK START GUIDE

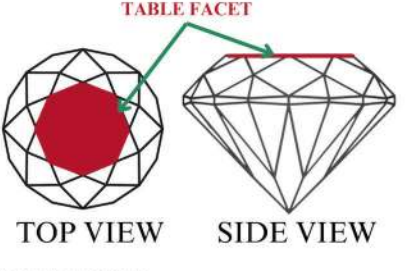
3.1. Do not remove the protective cover while warming-up.

3.2. Turn ON the device by pressing the power switch for about 3 seconds. Wait for the sensor to warm-up.

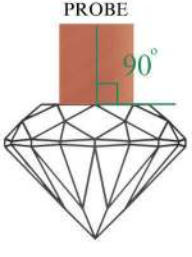
3.3. Test Setup

The tester's probe tip should be pushed within the table facet area of a gemstone while testing and wait for the result.

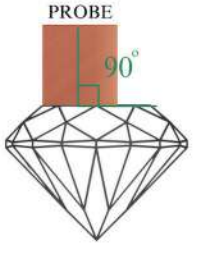
the table facet is the top flat surface of a stone

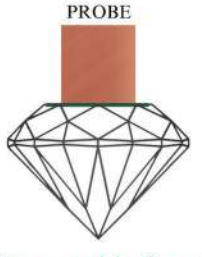


ACCURATE TESTING



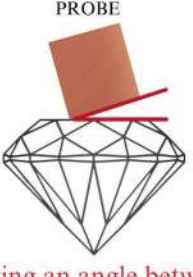
Pressing the probe perpendicularly (90 deg.) within the table facet



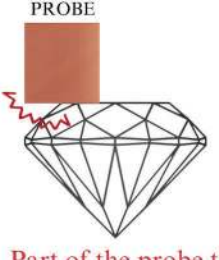


Stone table facet is bigger than the probe tip

INACCURATE TESTING



Having an angle between the probe tip and the table facet of a gemstone



Part of the probe tip is outside the table facet of a gemstone

Stone table facet is smaller than the probe tip

3.4. Test Modes

Default Test Mode

UV Quick Test Mode

Default Test Mode

Able to test stones with Thermal and Optical (UV) Testing.

UV Quick Test Mode

Able to test stones with Optical (UV) Testing only. Faster checking for Natural Diamonds, Moissanites and CVD/HPHT.

CZ and other Simulant Stones cannot be tested on this mode.
No speaking voice on test results for faster checking.

Default Test Mode

- ✓ Diamond
- ✓ Type IIa/CVD/HPHT
- ✓ Moissanite
- ✓ Simulant
- ✓ CZ

Thermal and Optical (UV) Testing

UV Quick Test Mode

- ✓ Diamond
- ✓ Type IIa/CVD/HPHT
- ✓ Moissanite
- ✗ Simulant
- ✗ CZ

Optical (UV) Testing only

4. TEST RESULTS

Default Test Mode

1. Diamond : Natural / Earth Mined Diamond (Type Ia)
2. Type IIa/CVD/HPHT : Type IIa / CVD / HPHT Diamond
3. Moissanite : Moissanite / F1 Moissanite
4. Simulant : Diamond Simulant
5. CZ : Cubic Zirconia / Glass

Note: Smarptro MAX was designed for Round Brilliant cut with carat weight of >0.02 (at least 2.0 mm diameter) polished stones, and with Colorless to Near Colorless (D – J) can be detected (all types of fancy shapes are not guaranteed). Metal will be displayed when conductive material was detected.

DIAMOND

TYPE IIA
CVD / HPHT

MOISSANITE

SIMULANT

CZ

5. FEATURES

- **5 in 1 Colorless Lab-grown and Simulant Diamond Tester**
  Diamond, Moissanite, Type IIa/CVD/HPHT, Diamond Simulant, and CZ / Glass

- **Patented Technology 2 in 1 Probe**
  Thermal and Optical Testing in a single probe

- **Multiple Speaking Languages**
  English, Chinese, French, German, Italian, Spanish, Japanese, Thai, Hindi, Korean and Russian

- **Colorful Capacitive Touch Screen Display**
  Easy to touch display

- **Loose and Mounted Stones**
  Capable to test loose and mounted stones (with and without under hole)
- **Rechargeable Battery**
  Powered by a rechargeable and replaceable battery
- **Bluetooth Connectivity**
  Through *Smartpro Mobile Application*
- **Screen Rotation**
  Designed for both Left and Right Handed
- **Automatic Power OFF when not used**
  After 20 minutes of idle, the device will automatically turns OFF

6. SPECIFICATIONS

Device Name	Smartpro Max | Colorless Lab-grown & Simulant Diamond Tester
Manufacturer	Smartpro Instrument Co., Ltd
Testing Results	Diamond : Natural / Earth Mined Diamond (Type Ia) Type IIa/CVD/HPHT : Type IIa / CVD / HPHT Diamond Moissanite : Moissanite / F1 Moissanite Simulant : Diamond Simulant CZ : Cubic Zirconia / Glass
Test Probe	1.0 mm copper tube with Optical Fiber
Stone Colors	Polished Colorless to Near Colorless (D – J)
Stone Size	At least 2.0 mm (>0.02 ct.)
Stone Cut	Round Brilliant (all types of fancy shapes are not guaranteed)
Battery Usage	Approx. 3 hours (continuous of usage)

Specifications

Display	240x320 px, 2.2 inches Capacitive Touch LCD
Power Input	5V / 1-2.4 A USB TYPE C
Rechargeable Battery	3.7 V Li-Po, 1700mAh, 6.29Wh, 35.5 x 6.2 mm Connector: Micro JST
Power Adaptor	Input : 100-240 VAC, 50/60 Hz, 0.3A Output: 5 V / 2.4 A
Time Duration Per Test	1.0 - 3.0 seconds
Start-up time (warm-up)	20 - 30 seconds
Bluetooth	V4.0 BLE
Device Dimensions	160 (L) x 50.5 (W) x 27.5 (H) mm.
Weight	145 g. (device / net weight), 530 g. (gross weight)

7. DEVICE OVERVIEW AND ACCESSORIES

Device & Accessories:

Smartpro Max

Pouch

Stone Tray

Power Adaptor

Users Manual Book

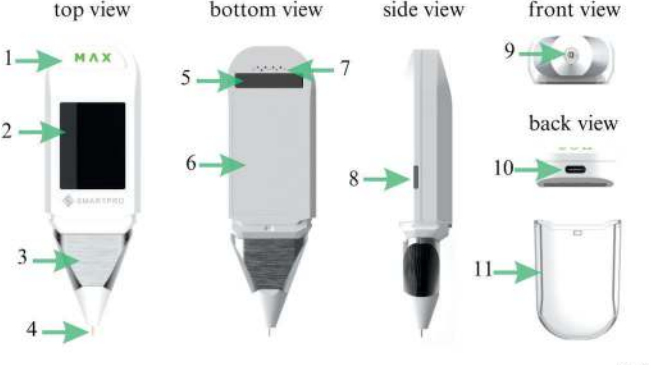
Microfiber Cloth

USB Cable

Warranty Cards

Device Overview:

1. Power Switch
2. Capacitive Touch Display
3. Conductive Hand Grip
4. Probe Tip Sensor
5. Device Serial Number
6. Battery Compartment
7. Speaker
8. Micro SD Card
9. Fiber Optics
10. Power Input - 5V / USB -C
11. Protective Cover



8. POWERING DEVICE AND CHARGING

Smartpro MAX is powered by a built-in and replaceable rechargeable battery and can be charged by a 5V/2.4A power adaptor provided by Smartpro.

It is generally recommended to charge a Li-Po battery for the first time use for about 3 to 4 hours. It is important to monitor the charging process and stop charging once the battery reaches its full capacity to avoid overcharging and damage to the battery.

To turn ON the device, click the power button. The button should lights-up in Green and the touch screen display turns ON. The probe cover must be attached with the device when start-up.

START-UP

At the start-up of the device there is a 20-30 seconds of warm-up time prior testing.

"READY!" will be showed on the screen when the device is ready for testing.

Battery Charging Status (Device OFF)
(connected with USB charger)

Power Button will light
Red while charging.

Power Button will have
no light when fully charged.

Battery Charging Status (Device ON)

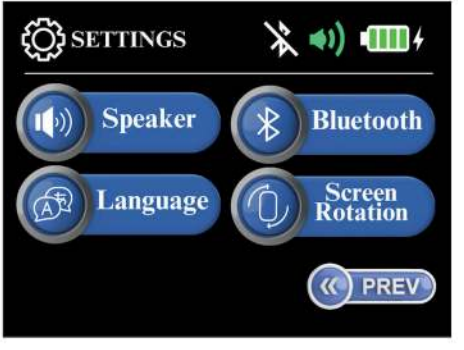
Power Button will light Light-Green while on charging.

Power Button will light Green when Fully Charged.

note: recommended to turn off device while charging.

9. SETTINGS AND CALIBRATION

Click the Settings button to view the Settings Page.



CALIBRATION (default mode)

Thermal Transfer Indicator helps user to estimate the heat transfer on a stone being tested.

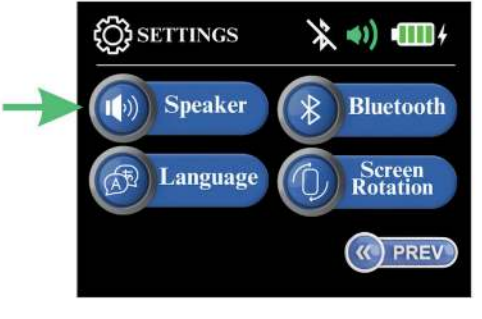
Thermal Range

Low : CZ

Middle: Simulant

High : Moi / Dia / CVD/HPHT

If the Thermal Transfer Indicator stays at red area for a long time, press the Calibrate button. Green area is a normal range during idle or prior testing.



Speaker ON

Speaker OFF

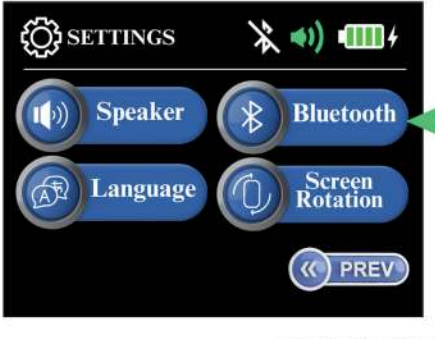
Click the Speaker Button to turn ON and OFF the Speaker

Multiple speaking languages are installed in the Micro SD-Card such as:

English	Chinese	French
German	Italian	Spanish
Japanese	Thai	Hindi
Korean	Russian	

Screen display language will not be changed but only the speaking language.

Connect Device to Smartpro Mobile Application by Bluetooth.



Bluetooth ON with blinking indicator - not connected

Bluetooth ON with stable indicator - connected

Bluetooth OFF

Download the Smartpro Mobile Application or email us at:
customercare@smartproinstrument.com

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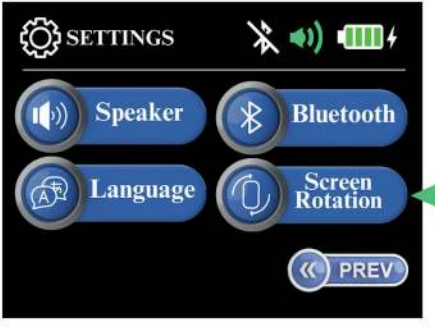


Click the Screen Rotation to support left / right handed users.

The settings will be saved and restore during start-up.

10. SAFETY INFORMATION

Smartpro MAX uses UV LEDs that radiate UV light during operations. UV light can be harmful to eyes, do not look directly into the probe sensor. UV light will be activated only for few milliseconds during testing and with the proper operation, device is not harmful to eyes and skin.

11. SAFE HANDLING AND MAINTENANCE

- Probe tip should be contact only on a table facet or flat surface of a stone. Sharp objects may damage the probe tip especially the sensor's fiber rod.
- Do not touch the sensor probe to avoid having dirt and oxidation. This may result to inconsistency of test results.
- When the Probe tip is dirty, gently wipe the probe tip with the clean microfiber cloth. Do not use other materials like paper or any other hard objects.
- Do not remove Micro SD Card in the device. Without this the device won't display graphics and won't work properly.
- Avoid exposing the device in dusty and moist places. The tester contains precise electronic circuits, so don't attempt to open anything of the sealed parts.

Smartpro MAX uses a rechargeable battery. Strictly observes the following needing attention. Smartpro Instrument Co., Ltd. will not be responsible for any accident occurred by using the Smartpro MAX device.

! Danger in Rechargeable battery

- Strictly prohibits heat or throw device into fire.
- Strictly prohibits throw and wet device in liquid such as water, gasoline or drink etc.
- Strictly prohibits leaving the device close to fire or inside of a car where temperature may be above 60℃. Also do not charge / discharge in such conditions.

- Stop using the device if abnormal heat, odor, discoloration, deformation or abnormal condition is detected during use, charge, or storage.
- Keep away from fire immediately when leakage or foul odor is detected.
- If liquid leaks onto your skin or clothes, wash well with fresh water immediately.
- If liquid leaking from the battery gets into your eyes, do not rub your eyes. Wash them well with clean edible oil and go to see a doctor immediately.
- Batteries have life cycles. If the time that the Cell powers equipment becomes much shorter than usual, the Cell / Battery life is at an end. Replace the Cell with a new same one.

- Do not exceed these ranges of the following temperature ranges:

  Operating Temperature Range:

  10 ℃ to 45 ℃

  Storage Temperature Range:

  -20 ~ 60℃ less than or equal to 1 month

  -20 ~ 45℃ less than or equal to 3months

  -20 ~ 30℃ less than or equal to 12months

  Guarantee period of quality is 12 months after sold

  Operating And Storage Humidity Range:

  65±20% RH

- Rechargeable Battery Replacement:
  - Remove the back cover in the battery slot.
  - Remove the battery from its connection and replace with the new battery.

Caution!: Use only the same type and voltage rating rechargeable battery or contact customercare@smartproinstrument.com.

Rechargeable Battery Specs:

3.7 V Li-Po, 1700mAh, 6.29Wh, 35.5 x 6.2 mm

Connector: Micro JST

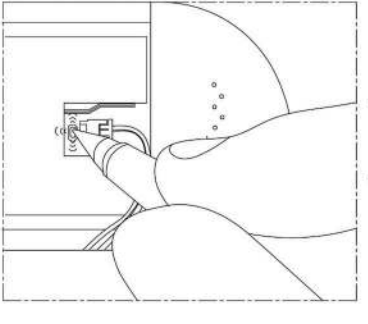
11. TROUBLESHOOTING

1. DEVICE IS NOT TURNING ON
   - The battery might be drained or no charge. Charge the battery before turning ON again. The power button must be light in Red (when device is OFF) indicating of charging.
2. DEVICE IS NOT CHARGING
   - Check the cable and power adaptor connections. The connections should be connected properly and also check the connection to the power socket.
3. THE SCREEN TURNS WHITE OR SCREEN HANG
   - Click and hold the power button to turn off the device.

3. THE SCREEN TURNS WHITE OR SCREEN HANG (CONT.)

- In case the device cannot be turned OFF, reset the device by following the instructions below:
  i. Remove the back cover in the battery slot.
  ii. Move the battery out from its place (do not disconnect the battery from its connector). The battery might be glued with the device body, do not use sharp object in moving the battery out to protect it from damaging. Remove the battery with caution and care.
  iii. Using a tip of a pen or any small rounded tip object, push the small push button with S2 marking near the battery connector to reset the device.

3. THE SCREEN TURNS WHITE OR SCREEN HANG (CONT.)



iv. After resetting the device, check the screen to confirm the reset is successful.

v. Return the battery to its original position with its cover.

4. TESTING RESULTS ARE INACCURATE OR WRONG RESULTS

- Follow the Test Setup provided in this Users Manual Book to get accurate results. Press Calibrate (default mode).
- Clean the stone first prior testing and test on the table facet only.
- Try to retest and confirm if the device really have problem. Test only with confirmed type of stones.
- The Probe tip might be dirty or oxidized. Gently wipe the probe tip with the clean microfiber cloth. If still have issues with the results, try to recalibrate after cleaning. Go to the Settings page and click Calibration then follow the calibration guidelines.

5. THERE IS NO GRAPHICS ON SCREEN
   - The Micro SD Card might be damaged or corrupted. Please Contact customercare@smartproinstrument.com.
6. DEVICE IS NOT STARTING TO TEST

Probe Push Indicator

When the Probe Push Indicator is color Green or dark Green after contacting the probe tip to a gemstone, the push is not enough to start the testing. Add more force to start the testing.

If issues are not solved from the Troubleshooting guide or if any have other issues, do not open the device. contact us at customercare@smartproinstrument.com.

We thank you for purchasing Smartpro MAX (SPMAX). Enjoy! Smartpro recommends to register your warranty by sending the warranty registration card to us or registering online at https://www.smartproinstrument.com.

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