



SMARTPRO

USER'S MANUAL v3.0

SmartPro Aura
Synthetic Diamond Scanner
V2



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I. DISCLAIMERS, EXCLUSIONS, AND LIMITATIONS OF LIABILITY

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

Due to continuous product improvement, SmartPro reserves the right to revise all documents including the right to make changes to the user manual without notice and without obligation to notify any person of such revisions or changes. Users are advised to check SmartPro's website <http://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 the 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 Aura referred to in this user manual is provided and/or sold on the "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.

II. ABOUT SMARTPRO AURA

Congratulations on having your SmartPro Aura (SPAU). The first Synthetic Diamond Screener that can screen automatically for mounted jewelry and can also be used to test loose stones with various test results such as Natural Diamond, CVD Synthetic Diamond, and HPHT Synthetic Diamond.

III. FEATURES AND ADVANTAGES

1. FEATURES

- Able to test Mounted Jewelry and loose stones
- Able to Detect as small as 0.002 ct. stones
- Built-in high-end Smartphone with high camera resolution
- Low current consumption
- 360-degree view for Rings and Jewelry
- Test Result Sharing by email
- Manually observe stones on UV
- Auto Detection Mode View
- Able to test stones inside a transparent plastic bag for bulk testing

2. ADVANTAGES

- Automated test results
- Auto-generated test result certification
- No External Computer Needed
- Teamviewer Online Support
- Screen Sharing
- Easy Test Result Viewing
- Test Certificate Logo and Company Details Customization
- Able to share test results on a single e-mail

IV. PRODUCT SPECIFICATIONS

Stones Testing Capabilities	Natural Diamond CVD Synthetic Diamond HPHT Synthetic Diamond Moissanite (no fluorescent image) Colorless to Near Colorless (D-K)
Stone Colors (capable to detect)	0.002 carat and above
Stone Size (capable to detect)	17 secs. for Quick Test
Time Duration per test	93 secs. for 360 Test (total of 4 tests) 64 x 64 mm
Loose Stone Tray Size (camera view)	230 x 301.5 mm
Tester Body Dimensions	Approx. 5.0 Kg
Tester Weight	Red with Black
Body Color	100-240 VAC, 1.4A
Power Supply Input	3A
Power Fuse	

Power Cable Type	IEC C13
Screen Device	Samsung S21FE
Lamp Life	Approximately 675,000 tests
Operating System	Android
Screen Size	6.4 Inches
Screen Resolution	1080x2400pixels
Device Memory	8GB RAM
Mobile Battery	Auto-charging
Ventilation Requirements	Do not obstruct the ventilation holes

V. TESTER OVERVIEW

1. Tester Parts and Accessories

A.Aura Carrying Bag

B.Smartpro Aura Tester

C.AC Power Cable

D.Loose Stone Tray 1 (SPALST)

E. Loose Stone Tray 2 (SPALST2)

F.Jewelry Tray G.Ring

Attachment 20mm H.Ring

Attachment 25mm I.Bracelet

Attachment 55mm J.Bracelet

Attachment 65mm K.Tester

User's Manual L.Warranty

Certificate Card M.International

Warranty Card

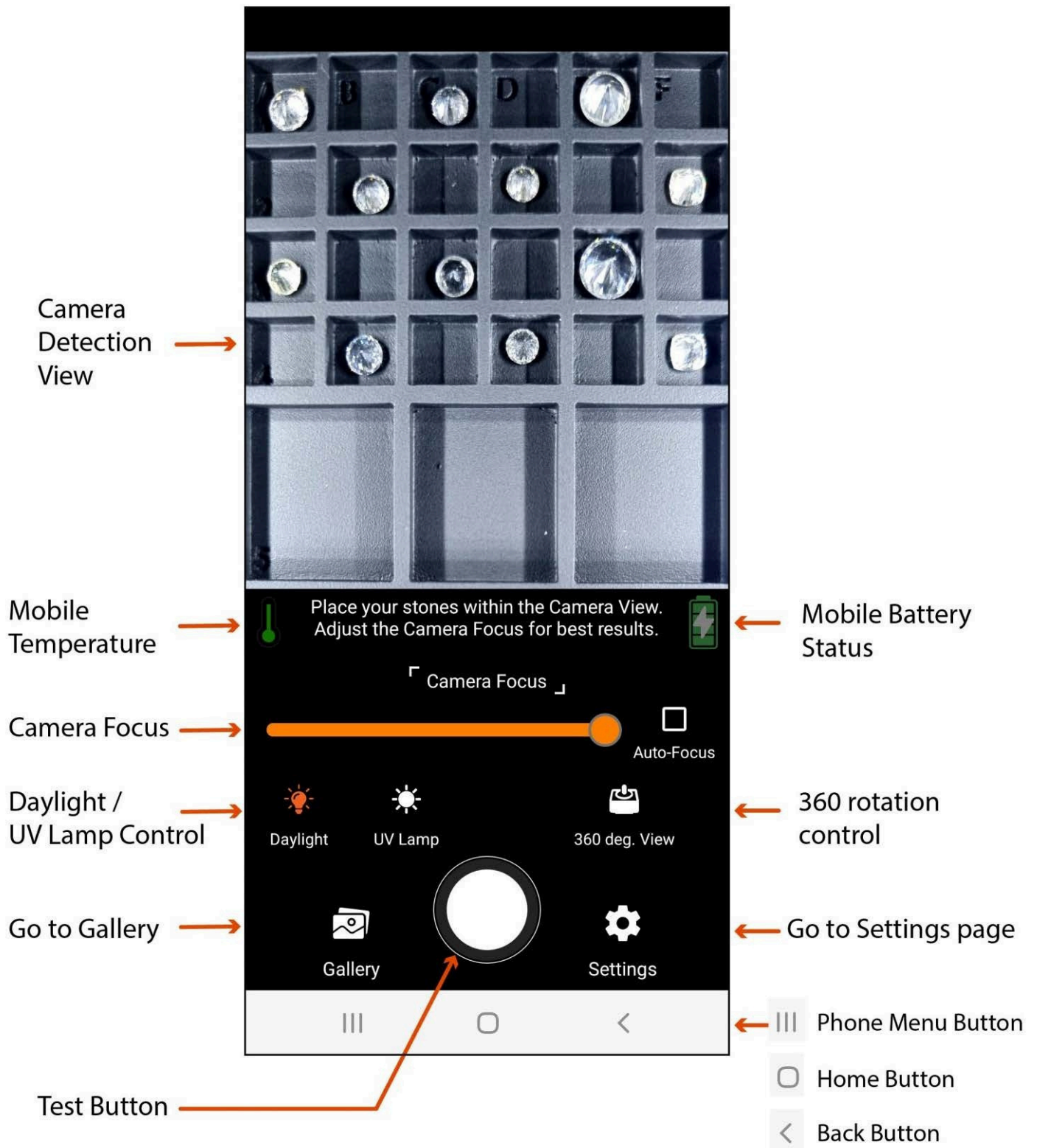


2. Tester Overview

Tester Overview



3. Mobile Screen Overview



VI. ACCESSORIES

1. Loose Stone Tray – view size: 64 x 64 mm

For Big and Separated Stones



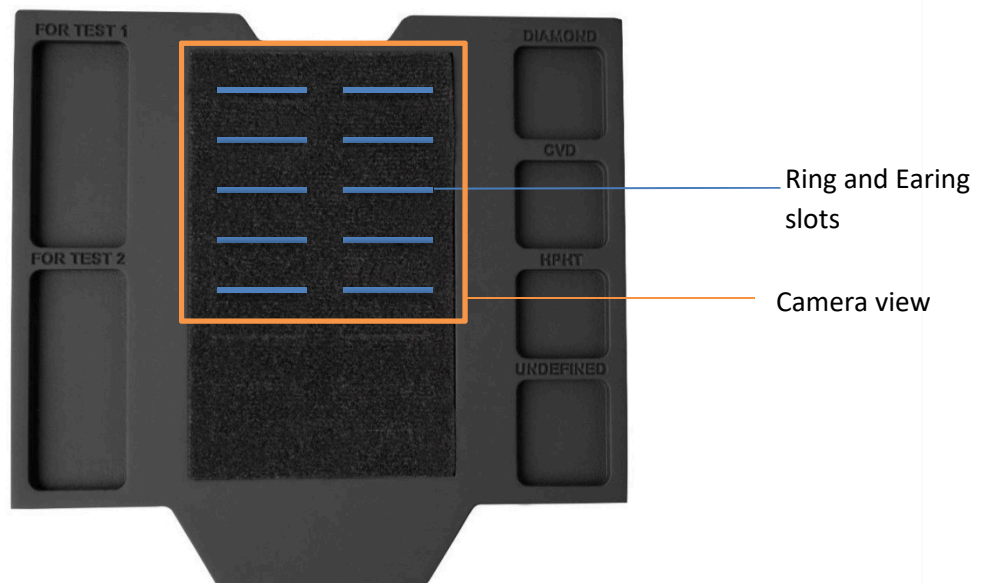
Tray Code: SPALST

For Bulk, Loose Stones / Stones inside Transparent Plastic



Tray Code: SPALST2

2. Ring / Jewelry Tray - 10 slots for ring and earrings.



3. Jewelry Attachment (for 360 views)

i. Ring attachment with 20mm and 25mm diameter



ii. Bracelet attachment with 55mm and 65mm diameter



VII. POWERING DEVICE

1. Turning ON the AURA Box.

i. Connect the Power Cable into the Inlet Power Socket at the backside of AURA and the other end of cable plug to the Power Outlet.



ii. Switch ON the Inlet Power Switch.



2. Turning ON the built-in mobile.

Click and hold the Mobile Switch at the right side of AURA until the mobile screen opens.



VIII. TESTER LIGHT INDICATORS

1. UV Lamp Indicator

- i. No light – indicates that the UV Lamp is turned OFF.
 - ii. Blue light – indicates that the UV Lamp is turned ON.
- Note: UV lamp will automatically turn OFF when the Door opens.*



2. Door Indicator

- i. No light – indicates that the door of the tester is fully closed.
- ii. Red light – indicates that the door of the tester is opened.



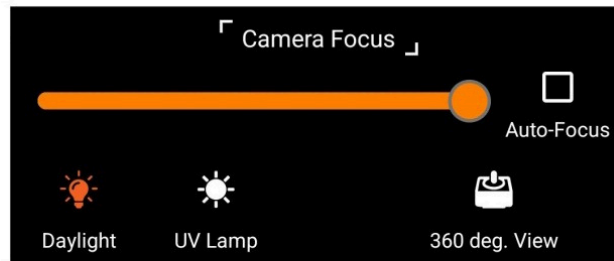
3. Power Indicator

- i. No light – indicates that the tester is switched OFF.
- ii. Blinking Green light – indicates that the tester is turned ON but it is not connected to the mobile phone.
- iii. Stable Green light – indicates the tester is turned ON and ready to use.



IX. CONTROL SETTINGS

Users may control the Daylight ON and OFF as well as the UV Lamp to manually observe stones. Camera Focus and 360-view may also adjust for a better angle view.



1. Daylight Icon – controls the Daylight LED source ON/OFF.

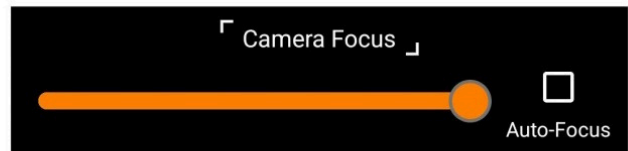


2. UV Lamp Icon – controls the UV Lamp ON/OFF.



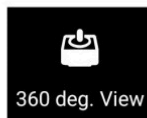
Note: UV Lamp is automatically turned OFF after 9 sec. and turns ON again after 2 secs. for maintaining the Lamp's standard operating temperature.

3. Camera Focus Bar – able to adjust the focus manually to get the best quality image.

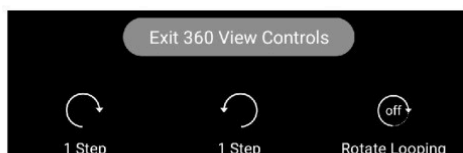


Note: auto-focus is best for many and high fluoresce stones.

4. Stepper Motor Movement Icon – used to control the rotation of the ring and mounted jewelry holders and to have a 360-degree view while the Daylight or UV Lamp is ON.



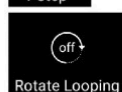
360 Controls:



Rotate 1 step clockwise



Rotate 1 step counter clockwise



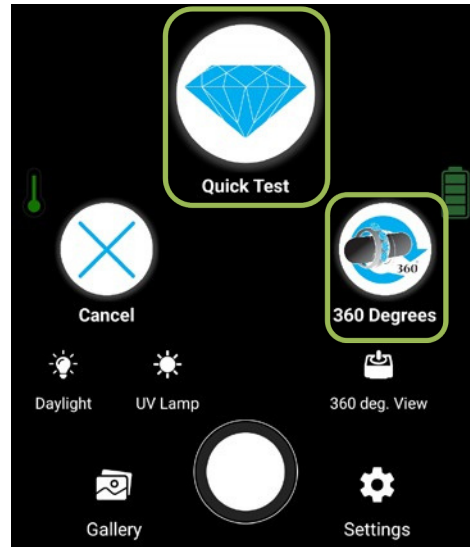
Rotate continuously


(cw/cc following the previous settings)

User may turn control the daylight or UV lamp while the motor is rotating.

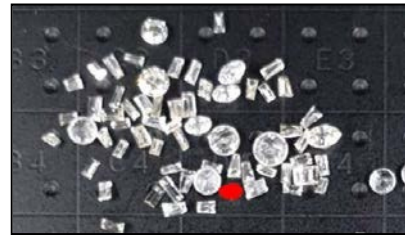
X. TESTING / DETECTION

There are many types of mounting of stones in Jewelries and some are selling loose. So we created a tester that can test in almost all types of settings. Here are the available Detection Options:



1. Quick Test Mode  – this mode is capable to test the following:

Bulk Stones on Tray



Bulk Stones in Clear Plastic



Jewelries on Tray

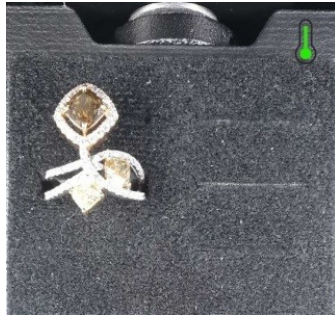


Notes:

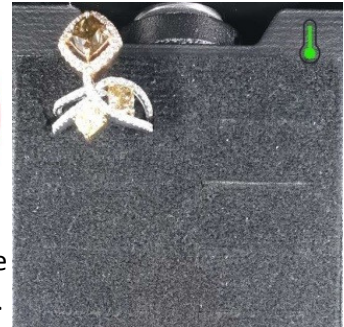
- Do not place stones or Jewelry over the Detection Area (black foam area).



Jewelry is placed within the detection area.



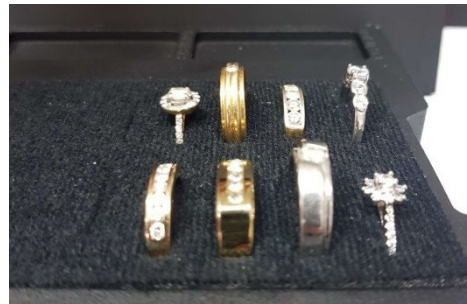
Jewelry is placed over the detection area.



- Arrange the Jewelries on the same height as possible to get a better camera focus for the best detection process.



Jewelries are placed with the same height as possible.



Jewelries are placed with not the same height.

2. 360 Degrees Detection



- used to test mounted stones such as rings, necklaces, and bangles that are attached to a built-in motor to rotate in 360 degrees view. There will be 4 angle tests with auto-generated test results and certificates by one click only.

XI. TEST RESULTS

1. Quick Test Mode Results



RESULT PAGE OVERVIEW

The screenshot shows the 'QUICK TEST MODE RESULTS' page. At the top left is a back button. The title 'QUICK TEST MODE RESULTS' is at the top right. Below the title is a 'REFERENCE IMAGES' section with a row of seven diamond images and a right arrow. A text instruction states: 'Stones with Red marking are Synthetic. For no markings, compare them with the Reference images.' The main area is an 'Image Viewer' showing a diamond with red markings. At the bottom are four result images: 'Daylight', 'Fluo. Result' (highlighted), 'Fluo.', and 'Short Phos.'. Below these are three circular buttons: 'Save', 'Certification', and 'Gallery'. The bottom of the screen shows the phone's navigation bar with three icons: a menu button, a home button, and a back button.

Back Button →

Use to compare stones' fluorescent result images. Available for:
1. Natural Diamonds
2. Synthetic CVDs
3. Cubic Zirconia

Image Viewer (pinch-to-zoom) →

Options →

- Save Results Images to Gallery
- Go to Test Certification
- Go to Gallery (auto save results)

→ Type of test mode

→ Button for next type reference stones

→ Result Instructions

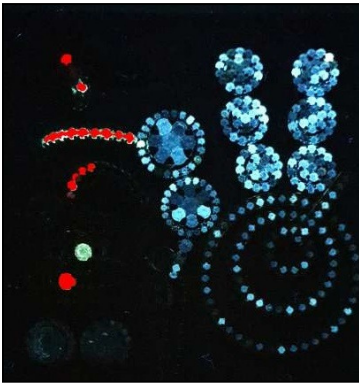
→ Result Images (click to view on Image Viewer)

→ Phone Menu Button

→ Home Button

→ Back Button

i. Test Result Analysis



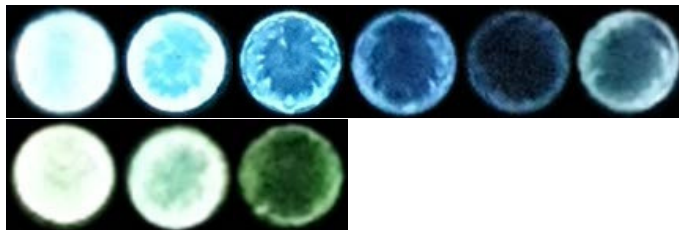
Stones with Red Marks = Synthetic / Lab Grown Diamond
Stones without Red Marks = Natural Diamond / Unknown Stones

Important:

No red mark stones must compare with the given fluorescent reference images to confirm its type.

Here are the Fluorescent Reference Images:

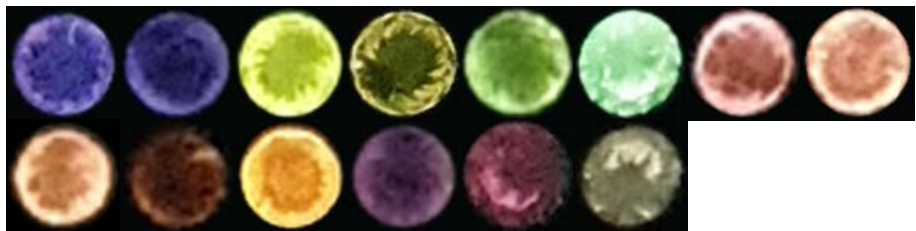
Diamond



Cubic Zirconia (CZ)



CVD Synthetic



Note: If the User still doubts determining the type of the Stones whether the stone is Synthetic or Natural, do a Longwave Fluorescent test using a regular UV light source. Lab-Grown Diamonds will not fluoresce unlike about 25% to 30% of Natural Diamonds will do.

ii. Identifying Stones by Fluorescent Image and Short Phos. Image.

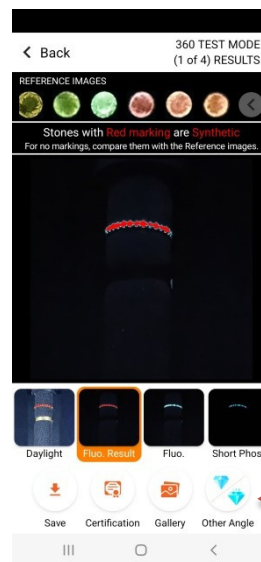
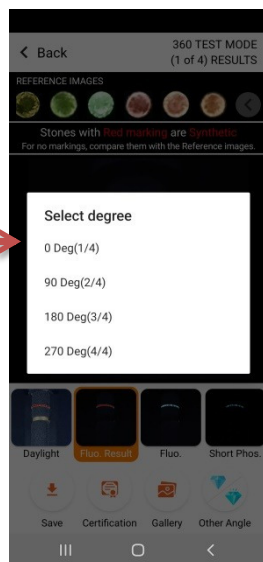
STONE TYPE	FLUORESCENT (Fluo)	SHORT PHOSPHORESCENT (Phos)
Natural Diamond	(compare with fluorescent reference images)	Has no image
CVD Synthetic	(compare with fluorescent reference images)	Some has no image, some have low glow image
HPHT Synthetic	Has high glow image, some are bright white color image like Diamond	Has a high glow image
Cubic Zirconia (CZ)	(compare with fluorescent reference images)	Has no image
Moissanite	No image or pure black image	Has no image

2. 360 Detection



The same process as Quick Test but using a Jewelry attachment to hold Rings and Jewelries. A 4 in 1 detection which the motor automatically rotates every 90 degrees and test.

4 detection results available. Select one to view one set of result.



Tap the "Other Angle" select the different degree view.

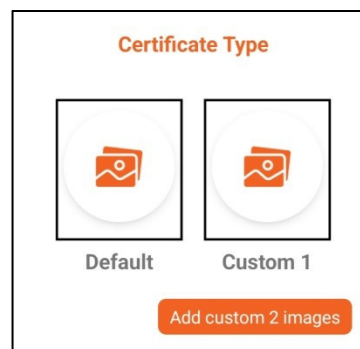
XII. TEST CERTIFICATE

To show the test result professionally, Smartpro has made an auto-generated Test Certificate that will be found in the Preview Page after the detection process.

This Certification may send directly to any email address by clicking the share button. Users may also save this test certificate in the Gallery together with the other related captured images. The file will be saved in a pdf format.

1. CHOOSING THE CERTIFICATE TYPE

User may choose, change or edit the Logo and the Company Details to show on the certificate.



- i. Default - Smartpro default logo and company details.
- ii. Custom 1 – 1st user Custom logo and company details picture.
- iii. Custom 2 – 2nd user Custom logo and company details picture.

Changing Logo and Company Details sequence:

- a. Click Custom 1.
- b. Click Company Logo.
- c. Choose and select where the picture/logo is located Note:
The new logos or pictures to be uploaded should be already saved on the Phone's files/gallery or already on the gmail/Outlook account.
- d. Crop the image then click the check symbol on the upper right of the screen to proceed.


- e. Follow the same steps as for the Company Logo for changing the Company Details Logo.

Customized Certificate Logo Sample:

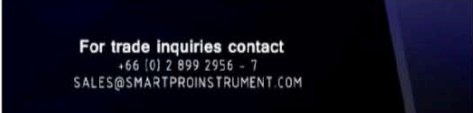
Test Certificate with New / Custom Logo by User

New Logos for Test Certificate Preview

Upload Images




Company Logo

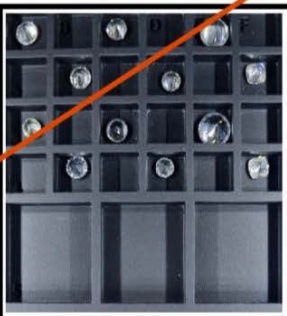


Company Detail

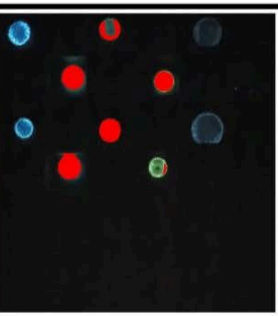
Cancel
Ok


SPI 20220921-0003
21 SEP 2022

Stones with Red markings are Synthetic
For no markings, compare them with the Fluorescent Reference Images.



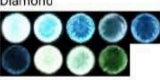
Daylight Image



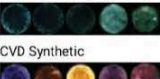
Fluo. Result Image

Fluorescent Reference Images:


Diamond



Cubic Zirconia(CZ)



CVD Synthetic



Seller Name:
Batch No:
LOT No:
SKU:
Remarks:

For trade inquiries contact
+66 (0) 2 899 2956 - 7
SALES@SMARTPROINSTRUMENT.COM

Important Disclaimer:
Our Company shall not be responsible for any damage or loss resulting from the use of the tester and under no circumstances shall SmartPro, any of its subsidiaries, licensors, distributors, resellers, servants and 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.

SPAU-01073

2. REGISTRATION

Fill-up necessary details on registration page to have better information of the test results. This certificate may save in the gallery, print and share through email.

QUICK TEST MODE RESULTS

REFERENCE IMAGES

Registration SKIP

Buyer Seller

Smartpro

Batch no:
12


Lot no:
20

Sku
12345

Remarks
Mixed stones samples.


CANCEL OK

Save Certification Gallery

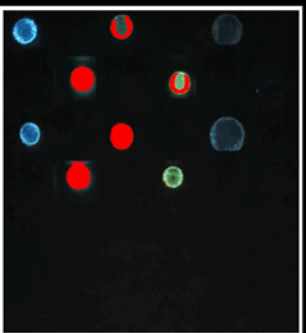


SPI 20220921-0002 21 SEP 2022

Stones with Red markings are Synthetic
For no markings, compare them with the Fluorescent Reference Images.

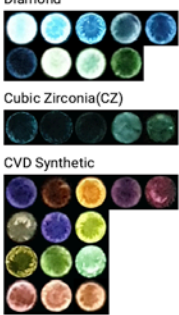


Daylight Image



Fluo. Result Image

Fluorescent Reference Images:




Diamond


Cubic Zirconia (CZ)

CVD Synthetic

Seller Name: Smartpro
 Batch No: 12
 LOT No: 20
 SKU: 12345
 Remarks: Mixed stones samples.



THIS CERTIFICATION IS GENERATED BY SMARTPRO AURA
 COLOR AND CLARITY GRADE ARE NOT TESTED
SMARTPRO INSTRUMENT CO., LTD.
 56/10 MOO 8 NADI, AMPHOE MUEANG SAMUT SAKHON, SAMUT SAKHON, 74000,
 THAILAND.
WWW.SMARTPROINSTRUMENT.COM



WWW.SMARTPROINSTRUMENT.COM

Important Disclaimer:
 Our Company shall not be responsible for any damage or loss resulting from the use of the tester and under no circumstances shall SmartPro, any of its subsidiaries, licensors, distributors, resellers, servants and 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.

SPAU-01073

3. OVERVIEW

Test Unique ID → SPI 20220921-0002

Result Information → Stones with Red markings are Synthetic
For no markings, compare them with the Fluorescent Reference Images.

Test Result Images →

Daylight Image

Fluo. Result Image

Fluorescent Reference Images:
Diamond
Cubic Zirconia(CZ)
CVD Synthetic

Details from Registration Page →

Seller Name: Smartpro
Batch No: 12
LOT No: 20
SKU: 12345
Remarks: Mixed stones samples.

Certificate Stamp and Company Details →

THIS CERTIFICATION IS GENERATED BY SMARTPRO AURA
COLOR AND CLARITY GRADE ARE NOT TESTED
SMARTPRO INSTRUMENT CO., LTD.
56/10 MOO 8 NADI, AMPHOE MUEANG SAMUT SAKHON, SAMUT SAKHON , 74000, THAILAND.
WWW.SMARTPROINSTRUMENT.COM

Smartpro Website QR Code

Certificate Disclaimer →

Important Disclaimer:
Our Company shall not be responsible for any damage or loss resulting from the use of the tester and under no circumstances shall SmartPro, any of its subsidiaries, licensors, distributors, resellers, servants and 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.

Tester Serial No. → SPAU-01073

Company Logo

Date Generated → 21 SEP 2022

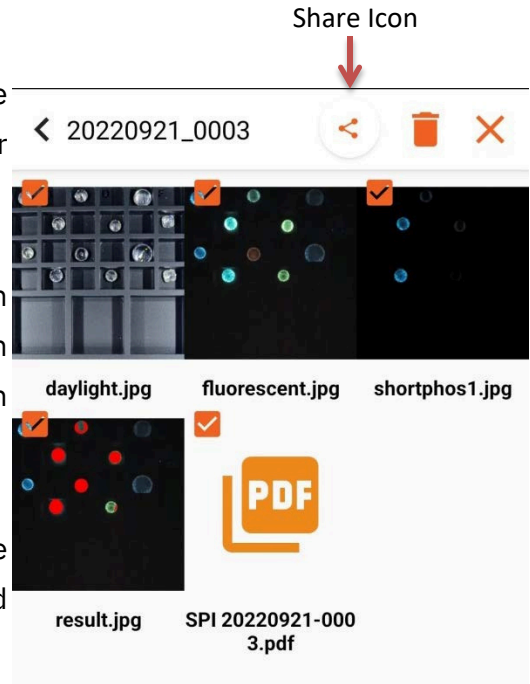
Reference images for stones which have no red mark

XIII. SHARING IMAGES / TEST CERTIFICATE

Go to the Gallery and choose the image/file to share and tap the share Icon then enter the recipient email address.

To send multiple images click and hold an image then the check box will appear on the upper left of each image, tap each check box to select.

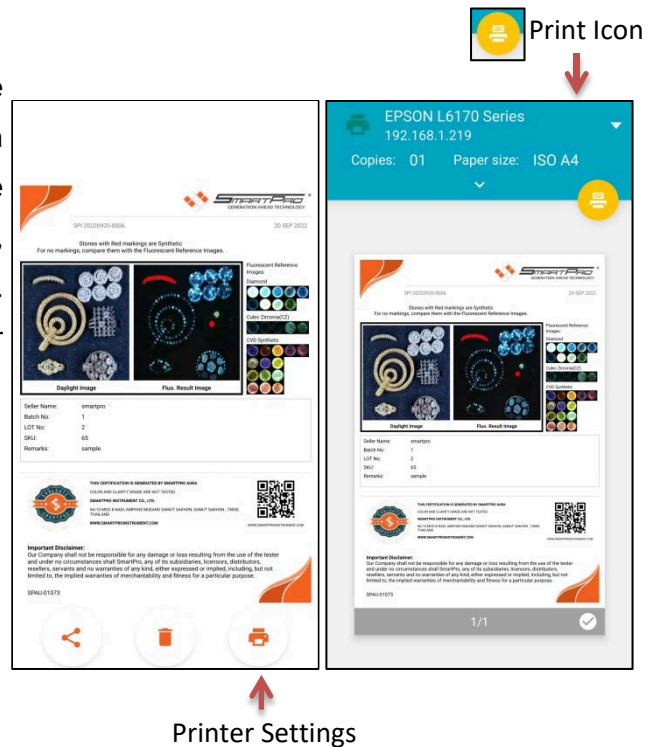
This needs an internet connection make sure that you turned ON the Wi-Fi and connect to the internet.



XIV. PRINTING IMAGES / TEST CERTIFICATE

Go to the Gallery and choose the image/file you want to print, and then touch the print Icon to open the printer settings. In printing settings, find a Wi-Fi ready printer to connect. Make sure to choose the ISO A4 for the paper size before printing.

Note: Mobile and printer must be connected on the same Wi-Fi router.



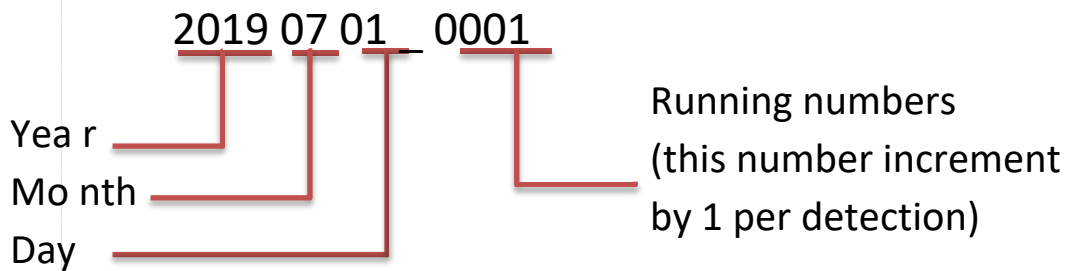
XV. GALLERY / FOLDER GALLERY

Image Gallery has available folders to save images from detection and all images will be saved automatically to their respective folder. All files from the older mobile app. version (v.2.2 and earlier) will be in the Old Files Folder.

1. Folder Name

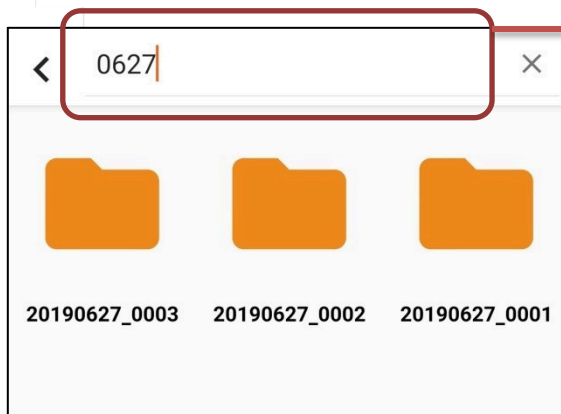
Each Detection result will have a unique folder containing captured images with result images and Test Certificate. Folder names are generated by the mobile application automatically using the current date when the detection has made.

Example of auto-generated Folder (yyyymmdd_nnnn): 20190701_0001



2. Folder Search

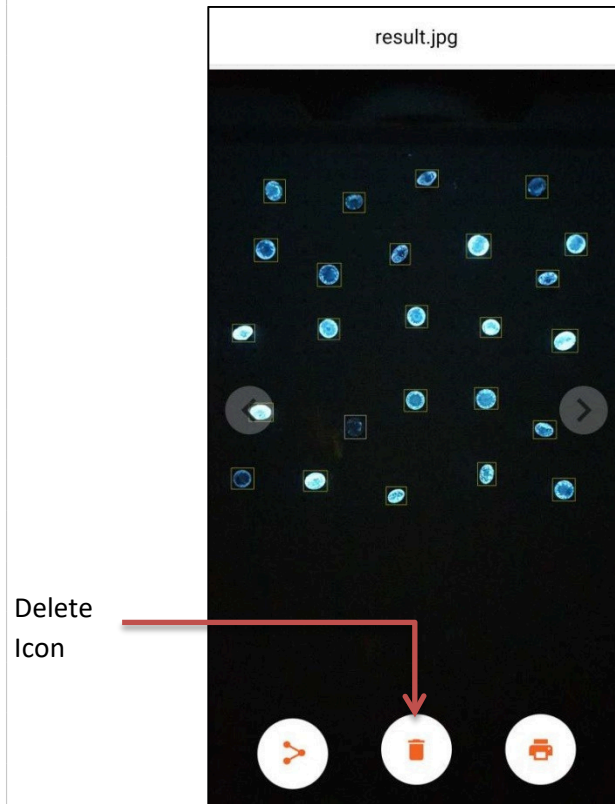
Users can search folder by date like in the picture below:



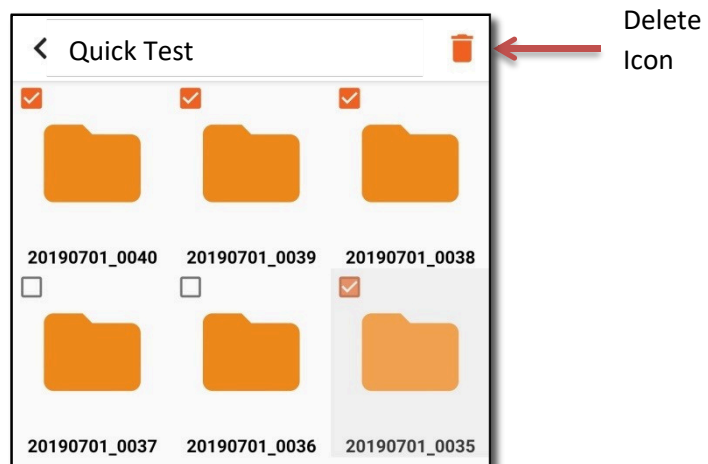
Type the date here to filter the folders.

3.Deleting Folders or Images

In case the user wants to delete each image or folder, just click the delete icon between the share and print icons.



For Multiple folders/images deletion, touch and hold an image/folder, choose the images/folders to be deleted and then touch the Delete icon on the upper right side of the screen.



XVI. SETTINGS PAGE

1. BLE H/W Connection – Used to connect built-in mobile to the tester controller board. This should always be turned ON.

2. Wi-Fi Connection – the connection used to connect to Wi-Fi Router for internet connection. Used for checking software updates, sharing images/certificates and teamviewer support.

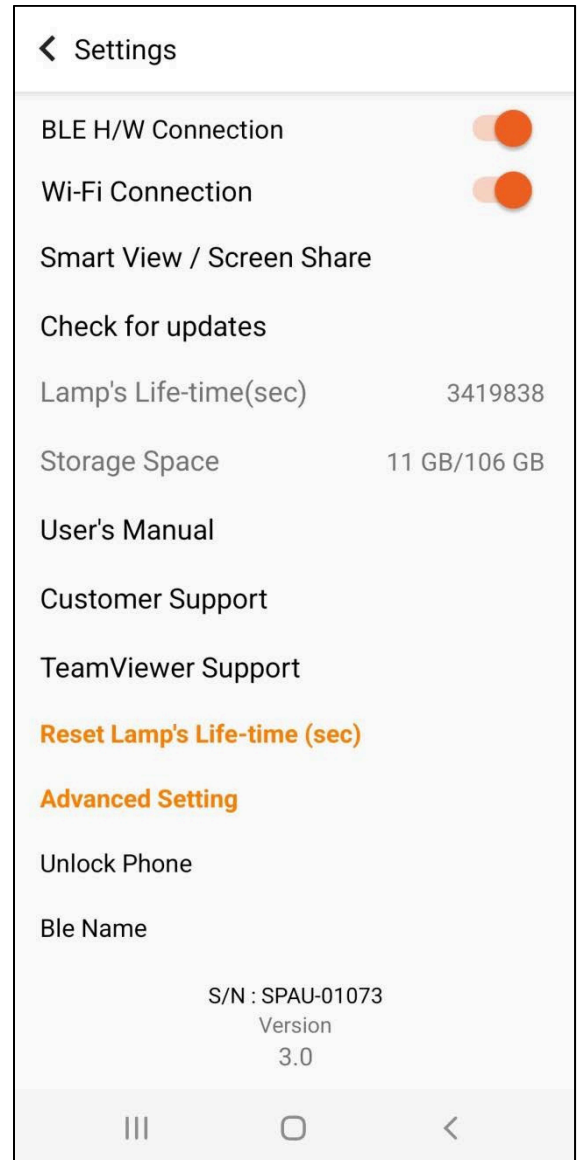
3. Check for Updates – this is to check if there is a newer software version of mobile application on Smartpro server. This requires an internet connection via Wi-Fi.

4. Lamp Lifetime (sec) – This indicates the remaining time of the lamp to be used before it expired. This time reduces during tests and turning ON the UV lamp manually.

5. Storage Space – the total used space over the total memory space available. If there is no enough space, delete folders from the Gallery.

6. User's Manual – this includes the User's Manual and some supporting files which may be useful in using the Smartpro Aura tester.

7. Customer Support – Used to send issues or inquiry to Smartpro sales representative. Fill-up the form with your Name, Email Address, Contact Number, and Problems or Issues details to be sent automatically to customercare@smartproinstrument.com for support. In case of having



trouble in sending emails, please send directly to customer care email using your personal email.

8. Team Viewer Support – this is used to remotely control online for support. Give the Teamviewer ID number to your Distributor or to Smartpro Technical Support Team to connect and support online. Internet connection is required.

9. Reset Lamp's Life-time (sec) – This is used to reset the lamp to its default value when replacing the new lamp. This requires a passcode from the Distributor or Manufacturer.

10. Advanced Settings, Unlock Phone, and BLE Name are used for Smartpro Technical Team.

XVII. SAFE HANDLING / MAINTENANCE

1. Avoid exposing the tester to dusty and moist places. This tester contains precise electrical circuits inside, so never attempt to open anything of the sealed parts. If the tester will not going to be used for an extended amount
 2. of time, it should keep on its proper place. Operating temperature of SPAU is designed to work in ambient temperatures between 32° and 95° F (0° and 35° C) and stored in temperatures between -4° and 113° F (-20° and 45° C). The tester can be damaged and tester life shortened if stored or operated outside of these temperature ranges. Avoid exposing it to dramatic changes in temperature or humidity. To get the best of your tester software, please keep your tester up to date and regularly check for updates.
 - 3.
 - 4.
-

XVIII. TROUBLESHOOTING

1. Why the tester and/or mobile have no power?

- Check the power switch at the back of the tester if turned ON. There should be light on the power switch that indicates power. Check the
- fuse if broken inside the power switch. If mobile is unable to turn-
- on, let it charge its battery by turning ON the AURA Box power switch at the back of the tester. Let the mobile charge for some time before using it.

2. How can I contact online support?

- Go to the setting Menu then click Customer Support Text then fill-up the form. Smartpro Support will contact you through your e-mail and contact number. Send an email directly to
- customercare@smartproinstrument.com

3. How can I know if the Lamp is still working fine?

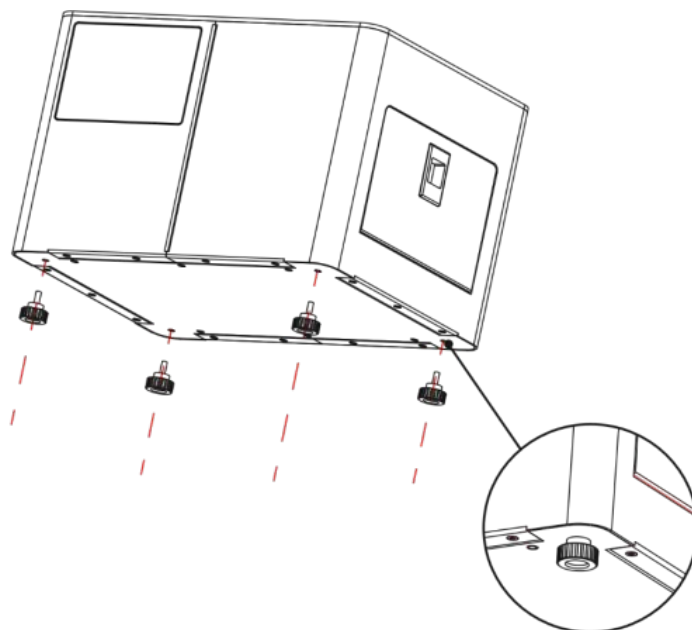
- Smartpro Aura has a UV lamp sensor for when turning ON and turning OFF the lamp it checks accordingly. If there have some errors, it will show a notice on the screen that Lamp is not working properly. In this case, you may contact your distributor for the Lamp replacement. Check if the Lamp's Life Time (sec) value in Menu
- Settings. If the value is lower than 360,000 sec, you may contact your distributor for the Lamp replacement.

4. Why does the Power Indicator OFF even if I turned ON the Tester and the Mobile Phone already?

- Possible the lamp driver is broken. Contact your Distributor for the Lamp replacement.

XIX. TESTER THUMBSCREW ASSEMBLY

There are 4 pcs. of Thumbscrews to support the tester. See the picture below on how to assemble.



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