

HAD[®]

ZETA Natural Diamond Scanner

USER GUIDE

ZETA



IMPORTANT PLEASE REVIEW THIS USER MANUAL PRIOR TO INSTALLATION AND UTILIZATION OF THIS PRODUCT



Precautions

- Keep the product away from moisture and liquids.
- Avoid placing any objects that contain liquids on the product.
- Protect the product from prolonged exposure to high temperatures, such as direct sunlight.
- Do not attempt to disassemble the product.
- Prevent the product from being subjected to impacts or vibrations, including knocks, drops, or crushing.
- Always use the original factory-configured adapter for powering and charging.
- Keep away from strong magnetic fields to avoid interference with the device's electronic components.



Disclaimer

The test results obtained through the ZETA Diamond Scanner do not provide a legal basis for the evaluation of natural diamonds and lab-grown diamonds. For any diamonds that are suspected to be natural, it is essential to have them re-evaluated by a recognized third-party authority. Such an evaluation should produce a corresponding report that holds legal validity.



Warranty Terms and Conditions

The ZETA warranty applies only if the product is used correctly by the user in accordance with all terms and conditions outlined in the relevant user manual. The warranty exclusively covers manufacturing defects.

General Information

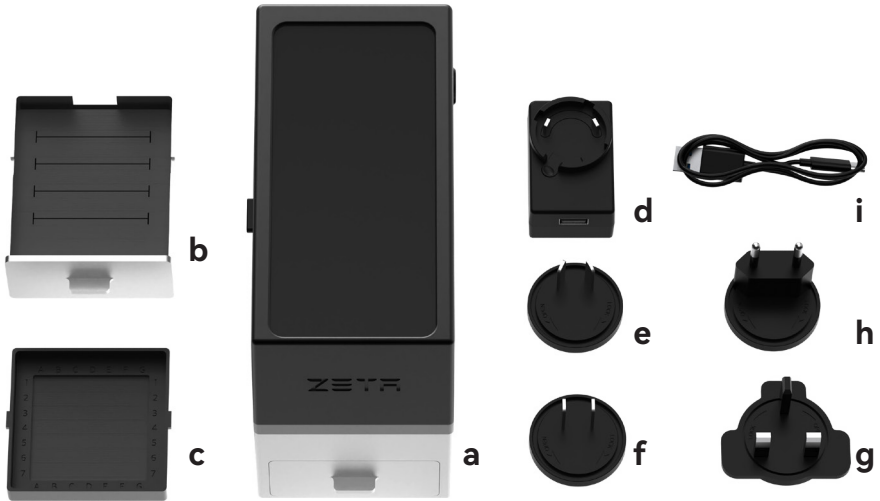
The ZETA Natural Diamond Scanner is a sophisticated and cutting-edge device designed to accurately identify CVD/HPHT lab-grown diamonds. This versatile scanner can detect diamonds in various forms, including loose stones, those elegantly set in fine jewelry, and parcels containing melee of any size.

With advanced detection technology, our scanner is specifically calibrated to recognize only white diamonds within the D-K color range, ensuring precise and reliable results. It is crucial to note that lower color diamonds and fancy color diamonds fall outside the scope of our detection capabilities, as these may yield inconclusive results.

Additionally, although the device performs well in identifying genuine diamonds, it also possesses the capability to detect diamond simulants such as cubic zirconia (CZ), moissanite, and diamond-coated variants. However, accurate detection of these simulants is most effective when they are tested in a loose state by an experienced user, as this allows for optimal differentiation from genuine diamonds.

To enhance the user experience, the ZETA Natural Diamond Scanner features an intuitive interface and provides instant feedback on the results, making it a valuable tool for jewelers, gemologists, and diamond dealers alike. Whether in a retail setting or during an appraisal, this scanner is an essential addition to any professional's toolkit.

HAD ZETA Parts List



Packing list		
a	ZETA Natural Diamond Scanner	1 piece
b	Jewelry Stage	1 piece
c	Loose Stone Tray	1 piece
d	AC Power Adapter	1 piece
e	Power Plugs-Australia	1 piece
f	Power Plugs-USA	1 piece
g	Power Plugs-Hong Kong	1 piece
h	Power Plugs-Europe	1 piece
i	USB Cable	1 piece



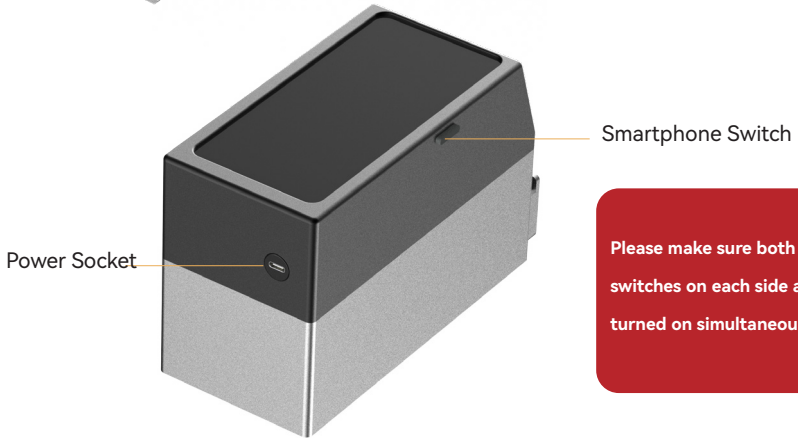
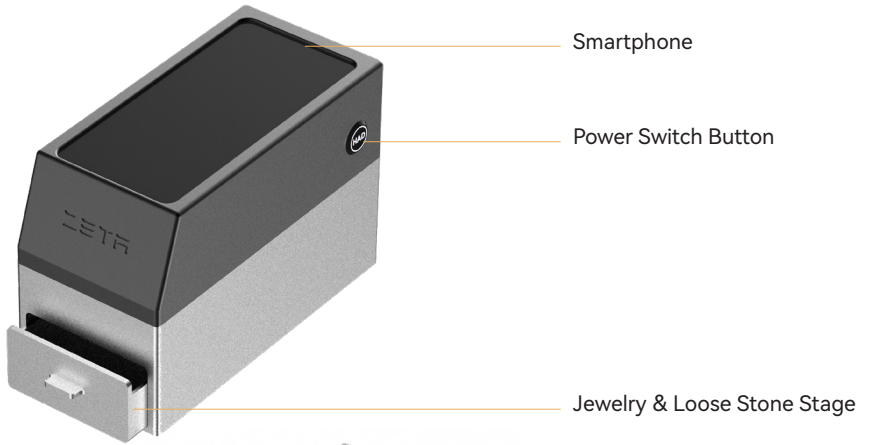
WARNING!

Do not use power adapters or power cords other than those provided with the instrument.

HAD ZETA Parts List

Product Specifications	
Stones Testing Capabilities	Natural Diamond CVD Synthetic Diamond HPHT Synthetic Diamond Moissanite (no fluorescent image) Cubic Zirconia
Stone Colors (Detection Capability)	Colorless to Near Colorless (D-K)
Time Duration per test	30 Seconds
Loose Stone Tray Size (Camera View)	6.7 x 6.7cm
ZETA Dimensions	18 x 8.5 x 12.5cm
ZETA Weight	Approx. 2.0 Kg
Power Supply Input	100-240V-50/60Hz 0.6A
Power Supply Output	5.0V/3.0A
Screen Size	6 Inches
Screen Resolution	2340 x 1080 pixels
Operating System	Android
LED Lamp Life	>100,000 hours
UV Lamp Life	~4,000 hours

Product Structure



Please make sure both power switches on each side are turned on simultaneously.

Note: The ZETA Natural Diamond Scanner must be plugged in and the switch turned on to function properly



Accessories

The loose stone stage holds loose diamonds and needs to be used together with the jewelry stage.



The jewelry stage is used for placing diamond jewelry such as rings, earrings, bracelets, and pendants.



Setting Up the Device



CAUTION! Please follow the installation instructions in the diagram below to ensure the device operates correctly. Note: Use the original power adapter, as any third-party adapter may cause damage to the device

Connect the power supply to the device



Turn on the main power switch



Connect to Wi-Fi and open the HAD app



Turn on the smartphone



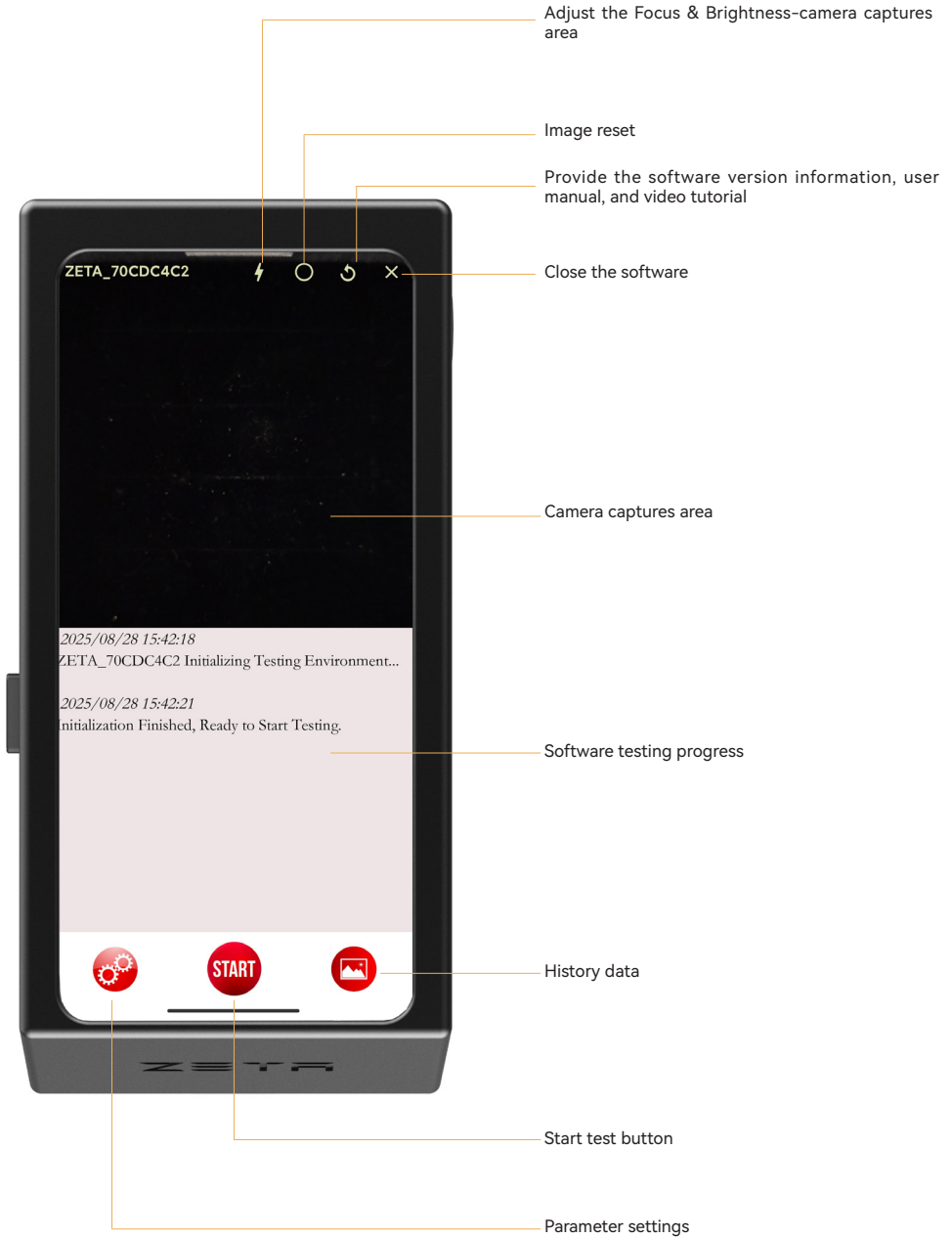
HAD APP

The HAD APP is an Android software specifically developed for Zeta, integrating functions such as photography, light control, image analysis, result display, storage, and sharing. After analyzing numerous samples, we have built the identification parameters into the application, enabling instant accurate and reliable results for natural diamonds, lab-grown diamonds, and some white gemstones similar to diamonds with easy operation.

- (1) Put your testing stones in the stone stage and close the stage;
- (2) Press "Start" button on main screen of device;
- (3) Wait for 30 seconds, the application can give you a comprehensive result.



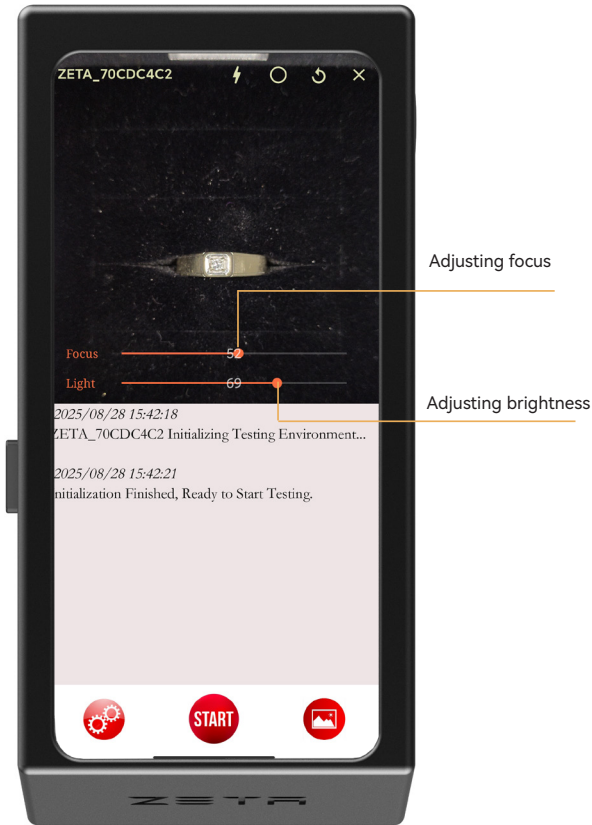
Software Function Introduction



Software Information

-Adjust the Focus & brightness

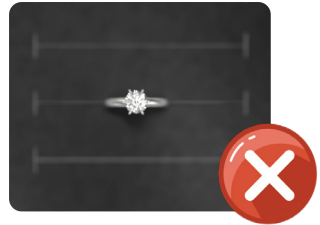
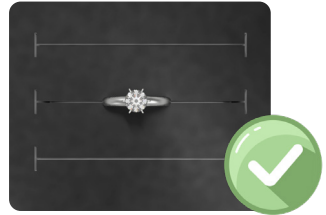
- Double-click the camera area to enlarge the image.
- Adjust the focus until the image appears clear.
- Once focused, you may proceed with the next step of testing.



Adjusting focus

Adjusting brightness

Focus



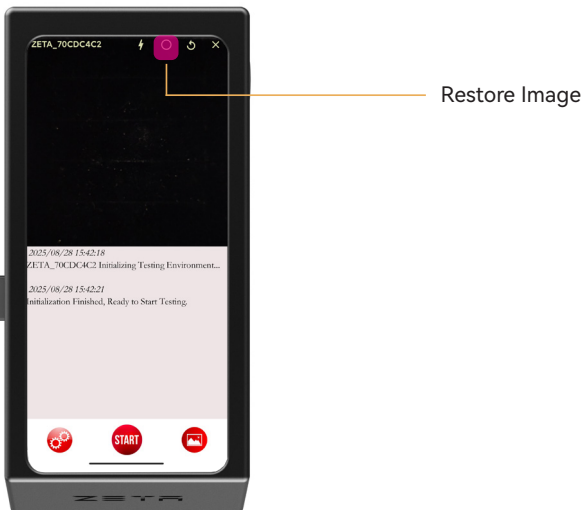
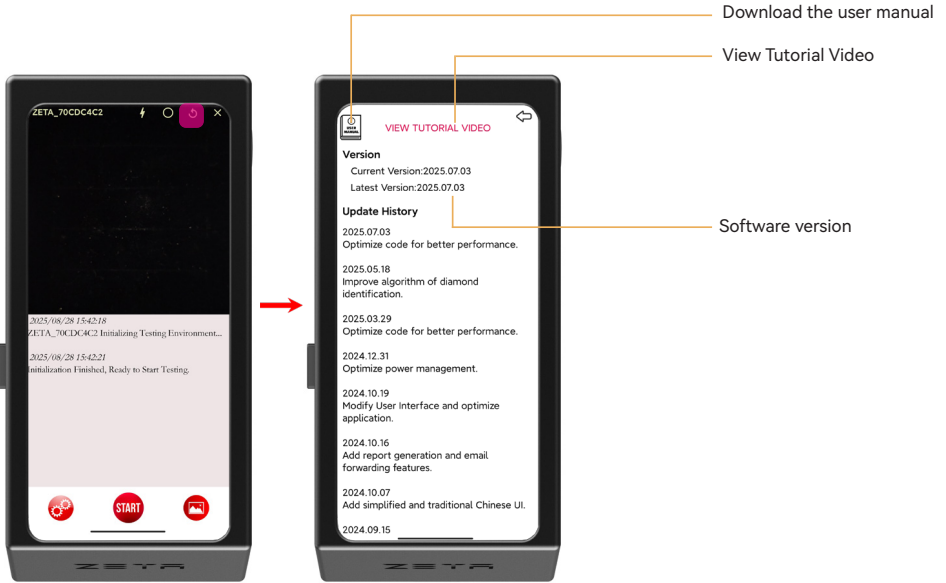
Light



Software Information

-Software version information & user manual & tutorial video.

Provide information about software version. Additionally, users can download user manual and view tutorial video for reference.



Software Information

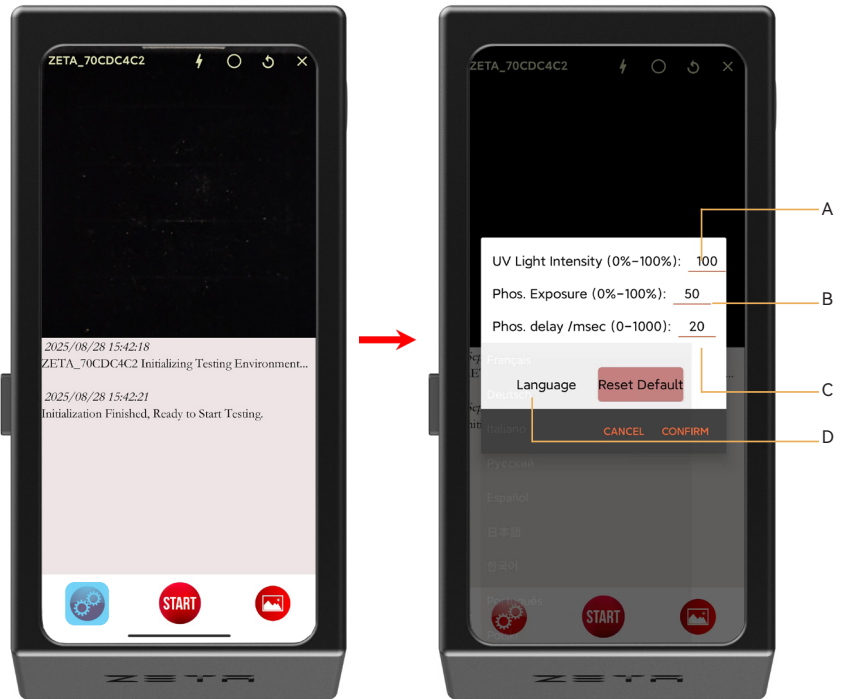
-Parameter settings

A-- UV Light Intensity: 0 – lowest level of UV power, 100 – highest level of UV power

B-- Pho. Exposure: 0 – lowest level camera sensitivity, 100 – highest level of camera sensitivity

C-- Pho. Delay: time delay for phosphorescence image capturing.

D--Language Settings

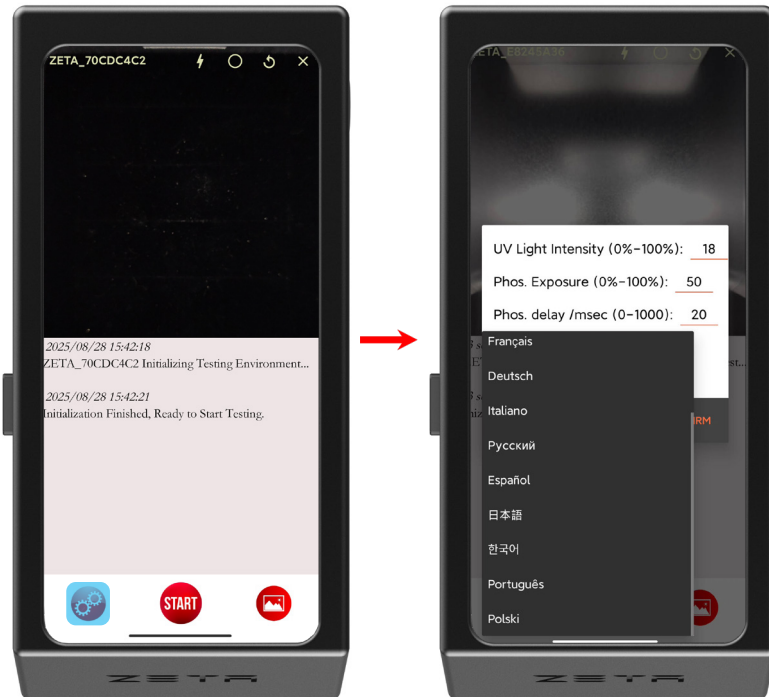


Note: For routine testing, there is no need to adjust any parameters in the settings—simply use the default values. Modifications are only recommended for research purposes.

Software Information

-Language settings

12 languages, including: Traditional Chinese (zh_TW), Simplified Chinese (zh_CN), French (fr), German (de), Italian (it), Russian (ru), Spanish (es), Japanese (ja), Korean (ko), Portuguese (pt), Polish (pl), English (en)



Software Information

-History data

The Gallery allows for searching and viewing saved test data, as well as sharing with email.



Loose Diamond Test

The ZETA Natural Diamond Scanner can test batches of loose diamonds, and its software has the functionality to match and automatically count the diamonds, categorizing the test results.

Please ensure that the stone stage is placed within the jewelry stage. Maintain a certain gap between the stones. Clustering stones will deteriorate the analyzing capability of device.

Send Report Via Email

Enter SKU & Description

Save Data

Zoom out the image

Camera captures area

Result image

Phosphorescence image

Fluorescence image


Test result image area

Color Chart


ND: 1 Lab-G: 1 C/M: 4 Refer: 1 ColorChart

The test results will be displayed in the image with colored boxes: a blue box indicates natural diamonds, a red box indicates laboratory-grown diamonds, a yellow box indicates cubic zirconia or moissanite, and a green box indicates referral samples that require further inspection.


Automatically count the test results.




Natural Diamond



Laboratory-Grown Diamond



Cubic Zirconia & Moissanite



Refer

Loose Diamond Test

When testing loose stones, users must strictly follow the diagram. The table of the loose stone must be placed facing downward; otherwise, it will affect the accuracy of the test results.



Result image



- Stones of **Blue** Box in Original/ Result Image Represents Natural Diamonds.
- Stone of **Red** Box in Original/ Result Image Represents Laboratory-grown diamonds.
- Stone of **Yellow** Box in Original/Result Image Represents Cubic Zirconia & Moissanite
- Stones **Green** Box Need Further Test.

Loose Diamond Test



Send Report Via Email
Save Data

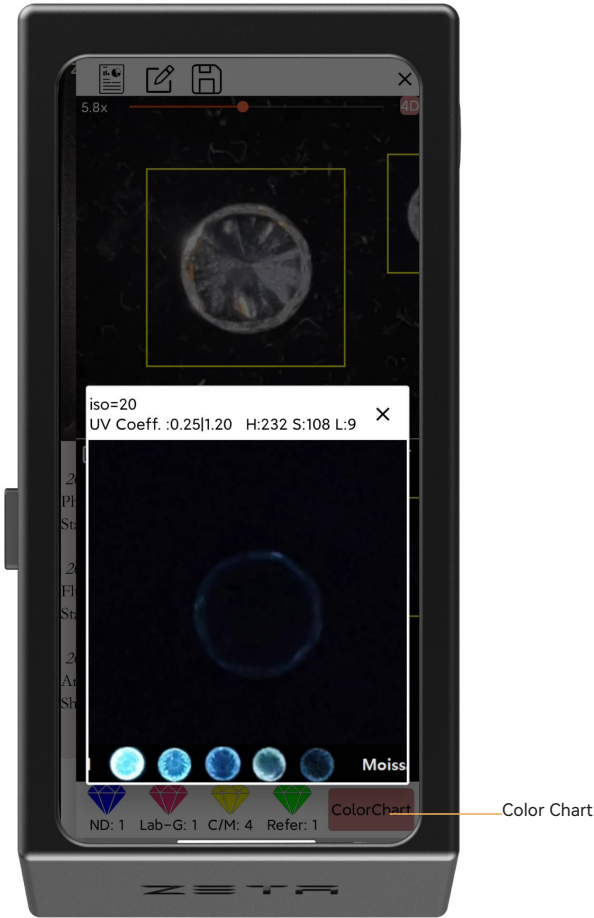
Send test results and data via email, where the content is editable.



Enter SKU & Description

Enter SKU and description.

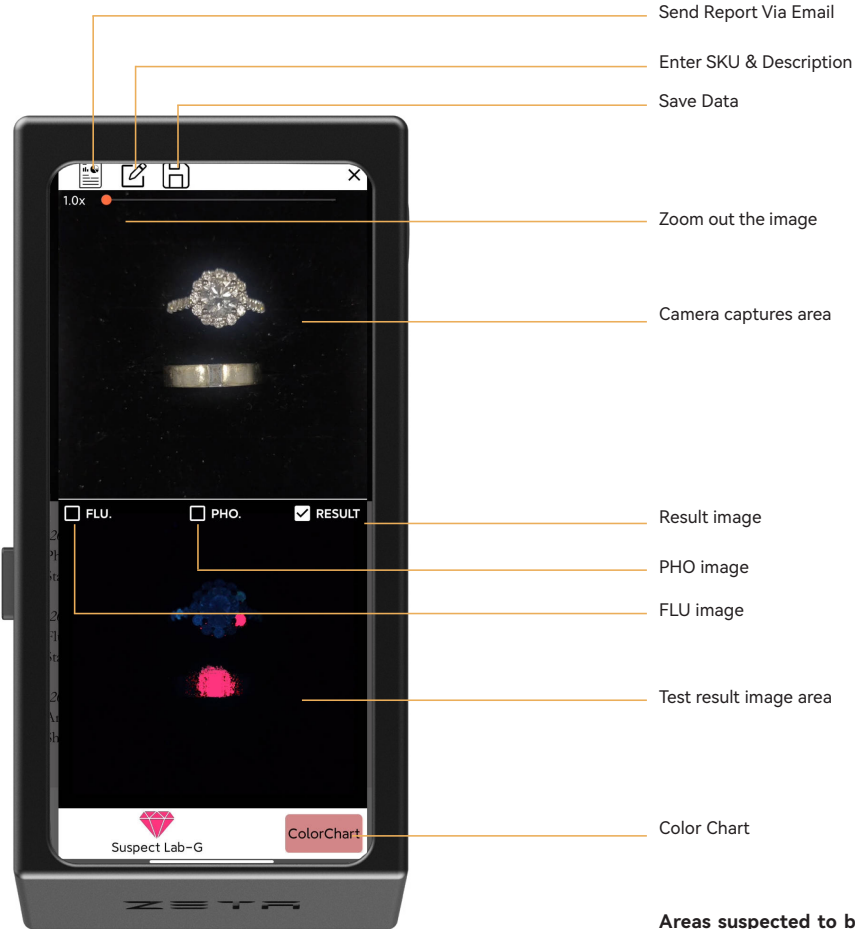
Loose Diamond Test



Double-click on a stone, click the ColorChart button, and you will enter the interface where you can observe the fluorescence images and color data under different camera exposures. Natural diamonds emit blue fluorescence on their own, and the brightness inside the stone is relatively uniform. In contrast, CZ or moissanite produce no fluorescence and appear black in the center. Lab-grown diamonds, however, show phosphorescence or fluorescence in colors other than blue.

Mounted Diamond Test

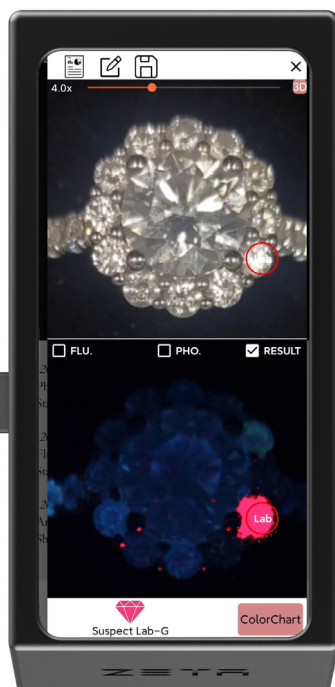
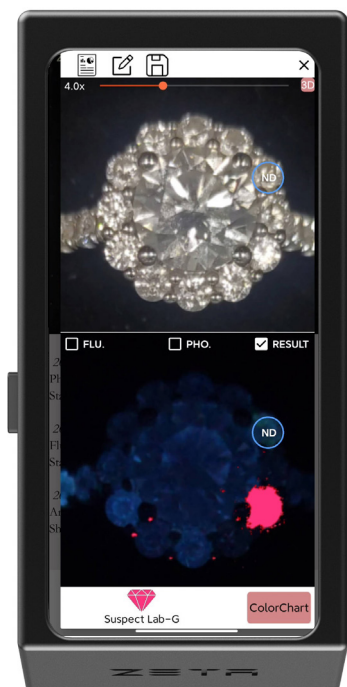
The ZETA Natural Diamond Scanner can test mounted diamond jewelry in bulk, such as rings, bracelets, pendants, and earrings, and automatically identifies whether the diamonds are natural or lab-grown.



Suspect Laboratory-Grown Diamond

Areas suspected to be laboratory-grown diamonds will be marked in red. For regions not highlighted in red, zoom in on the area of interest, then tap the screen to perform calculations and analysis.

Mounted Diamond Test

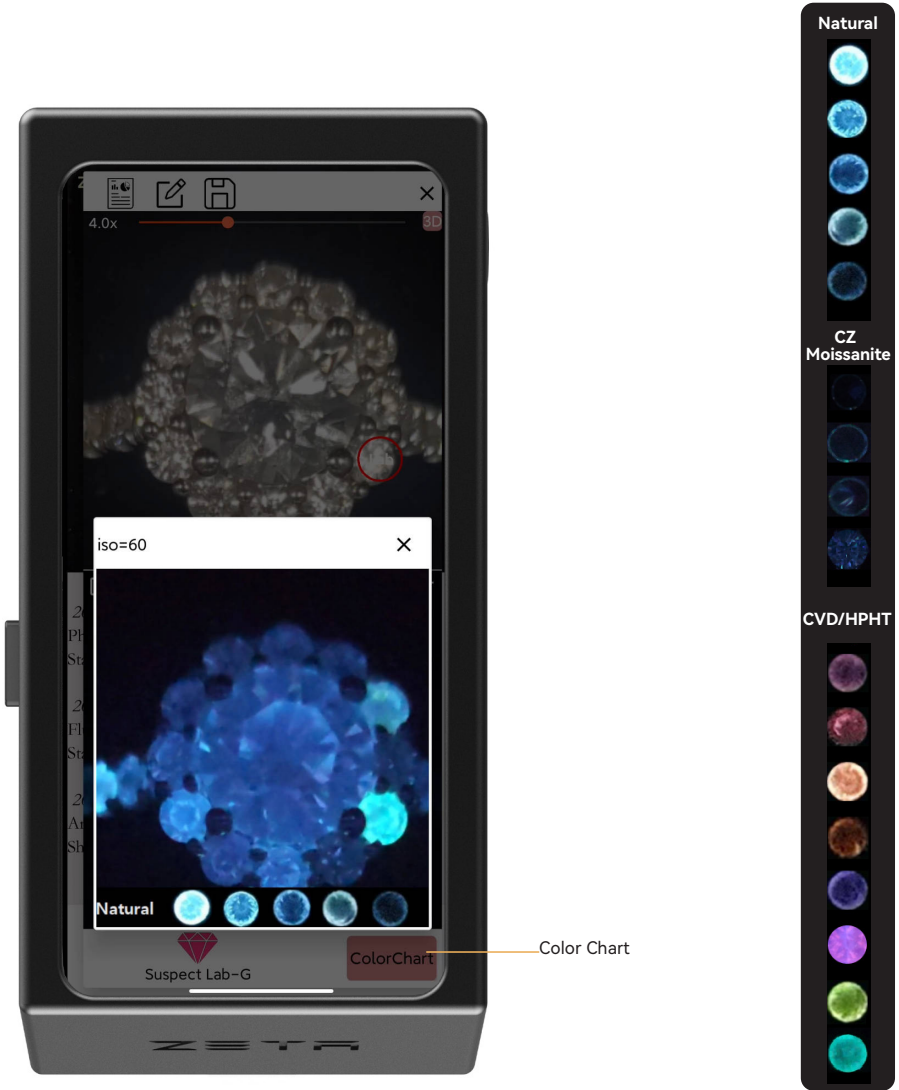


There are two ways to zoom in, with a maximum magnification of 10 \times .

1. Double-tap the area of interest—the screen will zoom in, centered on that point.
2. Use the zoom bar at the top of the screen; drag the slider to enlarge the view.

After zoom in for a closer look and click on the area of interest. The program will then calculate the fluorescence data of that area to make a determination, providing definitive results such as ND, CZ/M, or Lab, and a non-definitive Refer result. For results labeled as Refer, you can click the Color Chart button to observe the fluorescence image for further judgment.

Mounted Diamond Test



Select a specific observation range, click the ColorChart button, enter the interface to observe fluorescence images under different camera exposures.

Important Notes

1. After testing, do not leave the tray inside the instrument, and never tilt the device sideways.
2. Always use the original power adapter and power cord.
3. Keep the black velvet on the testing stage clean at all times.

When testing loose stones, place them with the table facing down. For loose stones that return a “refer” result, move them to the center of the stage and retest—this can improve accuracy.

Accuracy drops for stones smaller than 1.5 mm in diameter (≈ 0.01 ct); it is recommended to test only those 1.5 mm or larger.

The test results of the program sometimes show "refer." This usually occurs either because the fluorescence signal is not strong enough to confirm a natural diamond, or because it is not weak enough to identify non-fluorescent stones such as Cubic Zirconia (CZ) or Moissanite. In such cases, the stone being tested should be placed in the center of the testing tray for a secondary test. If the result remains "refer," further testing with other instruments is necessary.

Tutorial Video

Scan the QR code to view tutorial videos



Contact us

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Sales

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