



GIA®

GIA iD₁₀₀®

USER GUIDE

SCIENTIFIC INSTRUMENTATION BY GIA



IMPORTANT!

READ THIS USER GUIDE BEFORE SETTING UP AND USING THIS PRODUCT



CAUTION!

Ultraviolet (UV) Light Hazard

For best results, device should be used in manner specified by manufacturer. Using the device in any other way may result in decreased protection from UV light.

The device enclosure should not be opened. Unless specified otherwise, there are no user serviceable parts.

This device includes a light source that emits CLASS 1M long-wave, ultraviolet-A (UV-A) radiation during operation. Avoid looking directly at the light-emitting portion of the fiber probe or using any optical device such as magnifiers or loupes at the light-emitting end of the fiber probe. Doing so may cause permanent eye damage.



CAUTION!

Environmental

For indoor use only. Use only in a dry location. Pollution Degree 2, Installation Category (CATII).

Do not use above a maximum altitude of 2000 meters (~6500 feet).

Ambient temperature range should not exceed 0°C to 40°C (32°F to 104°F)

Maximum relative humidity should not exceed 80% for temperatures up to 31°C (87°F).

Main supply voltage fluctuations can reach +/- 10% of the normal voltage.

Technical Specifications for the GIA iD100*

Input: AC 100-240V, 45-65VA, 0.58A

HZ: 50/60

Output: DC 5V 4A



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For the online and translated versions of the user guide, visit
GIA.edu/id100-user-guide

General Information

GIA iD100® distinguishes natural diamonds from potentially laboratory-grown diamonds and diamond simulants (see Notes on next page).

Different types of diamonds are distinguished through a process called luminescence analysis – a highly sensitive, accurate method of detecting a diamond’s crystallographic defects. The vast majority of natural diamonds have nitrogen-related defects that can be excited by ultraviolet (UV) light and measured spectroscopically. By contrast, laboratory-grown diamonds and diamond simulants do not have the same nitrogen-related defects. Therefore, mined diamonds can be identified through luminescence analysis.

The GIA iD100 automatically collects and analyzes the optical signal to detect a diamond’s luminescence signature. It identifies natural diamonds based on luminescence signatures specific to diamonds, while referring items without those patterns for further testing.

The GIA iD100 can be used to test both loose stones and stones mounted in jewelry. It is designed for colorless to near-colorless, blue-to-green, and brown diamonds of any shape that are about 0.9mm or greater in diameter. With additional software, pink diamonds can also be tested. UV light, directed to the sample using the fiber probe, interacts with natural defects in the diamond to produce luminescence that is collected by the fiber probe and transmitted back to the sensor inside the device. The device displays an easy-to-see readout on the screen accompanied by an audio reading with the same result (“PASS” or “REFER”). This enables the operator to use both hands while performing the testing.

If the device detects a natural diamond’s luminescence signature, a “PASS” result will appear on the display. If a natural diamond’s luminescence signature is not detected, a “REFER” result will appear on the display. This will indicate that the tested item may be a laboratory-grown diamond or a diamond simulant. The tested item should be referred for further testing. The GIA iD100 cannot confirm whether a mined diamond has been treated. The GIA iD100 Pink Diamond Software Upgrade can detect and will “REFER” the most common treatment for that color range.

Notes:

Only diamonds within the following range should be tested with this device: colorless to near-colorless, blue-to-green, and brown. With additional software, pink diamonds can also be tested.

The GIA iD100 Pink Diamond Software Upgrade tests for features present in natural pink diamonds. The software is programmed to display a “Pass” result for natural pink diamonds without color treatment*. Natural diamonds that have been treated to create the pink color, laboratory-grown pink diamonds, and simulants will cause the GIA iD100 to display a “Refer” result. When testing, the probe tip should be in contact with the table of the diamond.

*Treatments such as coatings and HPHT annealing, which are very rare in pink diamonds, are not detected by the GIA iD100.

For the purposes of this User Guide, “natural” is used for mined, not laboratory-grown diamonds and does not make any assumptions or provide any detection about subsequent treatments such as HPHT processing.

“How to Use the GIA iD100” Video

Reviewing the video showing how to use the GIA iD100 is recommended before operating the device. Visit store.gia.edu/products/gia-id100

Device Capabilities

The capabilities of the GIA iD100®:

- Identifies colorless to near-colorless, brown, and blue-to-green natural diamonds.
- With additional software, pink diamonds can also be tested.
- Refers potentially laboratory-grown diamonds and diamond simulants for further testing.
- Displays results in approximately two seconds.
- Provides audio notification of “PASS” or “REFER” to accompany text-displayed result.
- Tests both mounted and loose diamonds of 0.9mm or greater in diameter (approx. 0.005 carat size) in any cut.

Reading Test Results

Result	Description
PASS	The tested item has the characteristic luminescence pattern of a natural diamond.
REFER	The tested item does not have the characteristic luminescence pattern of a natural diamond, suggesting this could be a laboratory-grown diamond or a diamond simulant. Adjust testing position and test the item again to confirm.

Note: It is possible to receive both “PASS” and “REFER” results on the same stone. Anytime you receive a “PASS” result, the “PASS” result is the definitive result.

REFER Rate on Natural Diamonds

Among colorless to near-colorless natural diamonds, this device will refer a small percentage of stones for further testing. A high number of “REFER” results while testing may indicate an issue with the environment or testing method. Interfering factors may include bright room lights, improperly cleaned stones, or an unsatisfactory fiber probe-to-stone angle. If you obtain a “REFER” result, slightly alter the fiber probe-to-stone angle and test the item again to confirm the result. Some test items may get both “PASS” and “REFER” results if the stone exhibits weak characteristics of a natural diamond.

Colors That Can be Tested With Standard Software

Colorless to Near-Colorless



Blue-to-Green



Brown



Colors That Can be Tested With the GIA iD100 Pink Diamond Software Upgrade

Pink-to-Red



Colors That SHOULD NOT be Tested

Yellow



Other Colors



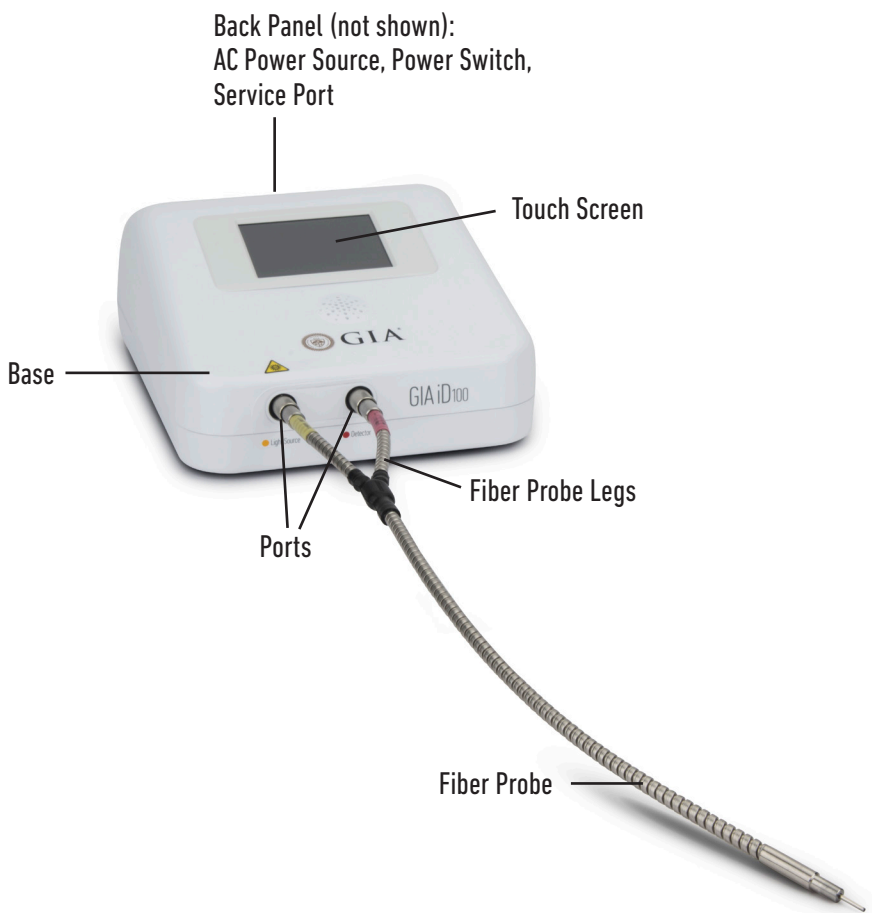
Things to Know Before Getting Started

Read this section thoroughly before you begin using the GIA iD100®.

The Light Source



WARNING! This device includes a light source that emits CLASS 1M long-wave, ultraviolet-A (UV-A) radiation during operation. Avoid looking directly at the light-emitting portion of the fiber probe or using any optical devices such as magnifiers or loupes at the light-emitting end of the fiber probe. Doing so may cause permanent eye damage.



To Maintain the Sensitivity and Longevity of the Device

Any signal other than the fluorescence coming from the single test item may interfere with the results and reduce the sensitivity of the device. To maximize the sensitivity of the device, keep materials that could generate an interfering signal away from the fiber probe while performing the test. Such materials include white paper, human skin, gloves, dust, and oil. Avoid strong room light exposure to the test item. Dim the room light if necessary as the fiber probe could collect these and other optical signals from the environment. Use this device under a stable room light condition. To extend the lifetime of the light source, it is recommended that you press "STOP" after completing the test session.

Proper Use of the Fiber Probe



WARNING! Do not bend the fiber probe. The minimum recommended bending diameter is 24cm; below this diameter may reduce the sensitivity of the device. Bending the fiber probe below 8cm in diameter may cause irreversible damage to the fiber probe and stop the device from functioning.



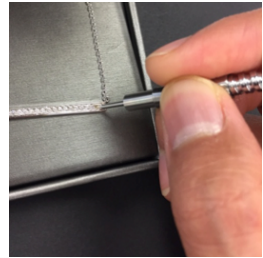
Preparing Your Items for Testing

Ensure that the stone or item of jewelry being tested has been thoroughly cleaned before using the device.

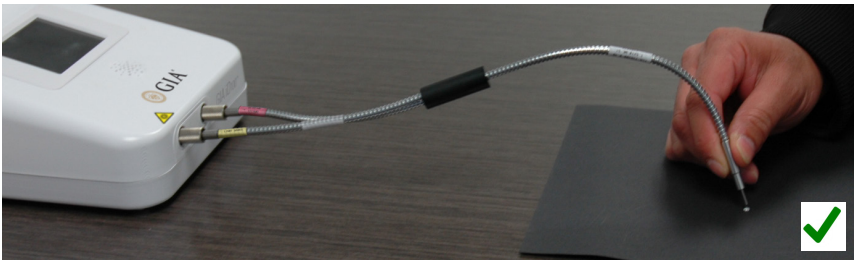
Handling the Fiber Probe

Hold the fiber probe with your fingers at the free end close to the tip.

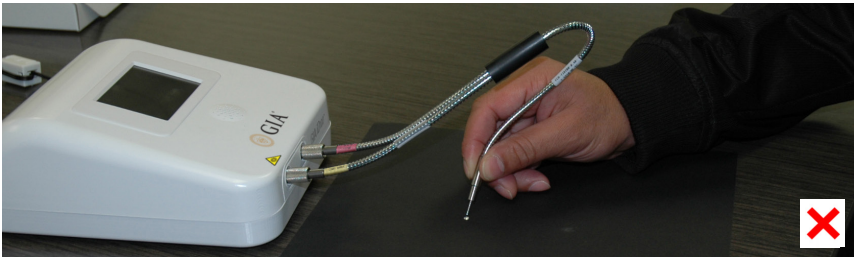
Do not hold by the tip.



Keep the fiber probe in its natural position.



Do not bend the fiber probe. Avoid creating loops or half circles when using the fiber probe. This can cause irreversible damage to the fiber. Avoid hanging the fiber probe off the edge of a table.



Extend the fiber probe when not in use.

Do not pull the device by the fiber probe.



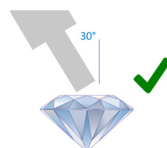
WARNING! The device uses a UV-A light source—do not look directly at the fiber probe or point the fiber probe at your skin. Additionally, skin oils on fingertips can fluoresce and interfere with the measurement.

Fiber Probe Position

For loose or mounted items, keep the distance from the fiber probe to the test item less than 2mm. The fiber probe may gently touch the table of the test item. Only measure one item at a time.



Before beginning, ensure an incident angle of less than 30 degrees between the fiber probe and the perpendicular angle to the flat surface.



It is OK to test from the pavilion; however, it is recommended to test from the table when possible.

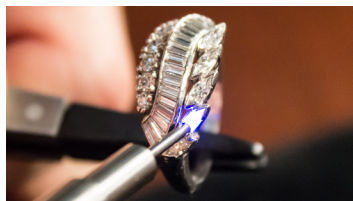


Avoid pointing the fiber probe at or directly touching it to the culet.



Testing Mounted Stones

- Only test stones that are at least 0.9mm in diameter.
- For best results, test from the stone's table to achieve highest sensitivity. Making contact with the stone's table ensures the most accurate results.
- Avoid testing multiple stones at the same time. Look to see that only a single stone is fluorescing to confirm that only one stone is being tested.
- For invisibly-set stones, the individual needs to hold the fiber probe on the table of the stone and not at the junction between two stones.
- When testing mounted stones or jewelry, pointing the fiber probe at a non-diamond material, such as the metal setting, will cause a "REFER" result.



Testing Loose Stones

- Only test stones that are at least 0.9mm in diameter.
- For best results, test from the stone’s table to achieve highest sensitivity.
- Do not touch the fiber probe to the culet as it may damage the fiber probe head; this may also produce inaccurate results.

Room Light Calibration

The room light calibration is a function which evaluates the existing light in the environment and uses the information to improve the sensitivity of the device. Once the room light calibration button appears on the touch screen, move the fiber probe to a test item and press the “Calibrate” button.

Room light calibration required.
Place the probe near the diamond to be tested and press Calibrate.

Calibrate

If the process takes more than 10 seconds, a screen will appear indicating the room light level is too high to maintain the sensitivity of the GIA iD100®. If you choose to ignore and select “Proceed to Test” the “PASS” rate of the GIA iD100 may be impaired. Consider dimming the room light or move the device to a location with a lower room light level and select “Back to re-calibrate”. Typical office lighting environment may be too bright for this device and may not pass calibration.

Room light is too bright.

Current conditions may affect refer rate.
Refer to the user guide for lighting requirements.

**Back
to re-calibrate**

**Proceed
to Test**

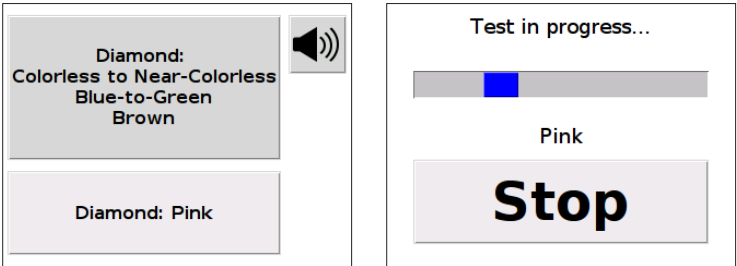
Note: A light source too close to the device, or unstable room light, or strong room light may cause “REFER” results.

Testing Pink Diamonds (Mounted and Loose)

The GIA iD100 Pink Diamond Software Upgrade tests for features present in natural pink diamonds. The software is programmed to display a “PASS” result for natural pink diamonds without color treatment*. Natural diamonds that have been treated to create the pink color, laboratory-grown pink diamonds, and simulants will cause the GIA iD100 to display a “REFER” result. When testing, the probe tip should be in contact with the table of the diamond.

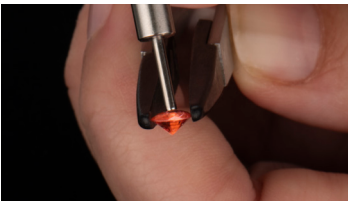
*Treatments such as coatings and HPHT annealing, which are very rare in pink diamonds, are not detected by the GIA iD100.

For GIA iD100 devices with the pink diamond software installed, the user will be provided with a screen that allows a choice between “Diamond: Colorless to Near-Colorless, Blue-to-Green, Brown” (standard mode) and “Diamond: Pink” (pink diamond mode). During operation, the user can easily exit out of each mode by pressing the “Stop” button.



Only diamonds in the pink color range should be tested in the pink diamond mode. These include all color saturations from Faint pink to Fancy red and all those that include pink or red as a modifier such as Fancy pinkish purple or Fancy reddish brown. If a variety of colors are to be tested, each diamond should be tested using the appropriate setting. For example, all pinks would be tested within the pink diamond mode and then the user would switch to standard mode when testing colorless to near-colorless, brown, and blue-to-green diamonds.

When testing diamonds with the GIA iD100, it is best to have the probe touching the table facet. However, in standard mode, it is possible to also test the diamonds on the pavilion. For pink diamonds, they should be tested only with the probe in contact with table facet.



All other operational guidelines for diamonds tested in standard mode apply for pink diamonds as well. For example:

- It is possible to obtain both “PASS” and “REFER” results when testing these diamonds and the “PASS” is the definitive result.
- When testing each diamond, the user needs to wait to hear the result before moving to the next stone.
- The user needs to test one diamond at a time.
- A high number of “REFER” results could indicate an issue with room light levels, unclean stones, etc.

Room Light and Testing Surface Requirements

Use the GIA iD100® with standard and stable room lights or at lower light levels. If area light changes dramatically during testing, restart the device for a more accurate calibration. Although the device calibrates for room light levels upon start, do not use the device in direct sunlight or outdoors.

Conduct the test on non-fluorescing surfaces such as a dark countertop, a dark surface or dark paper; do not conduct the test around fluorescent surfaces including white paper or stone papers.

Automatic Power Saving

To extend its lifetime and accuracy, after 2 to 5 minutes of idling, the GIA iD100 may automatically turn off the UV light and switch to the standby screen. However, this function only works under stable room light environments.

Parts List

GIA iD100 includes the following items:

AC/DC External
Power Supply



Base



Universal
Plug Adapter

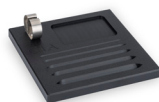


Port Covers



Fiber Probe

Fiber Probe Holder



- Base – 1 piece
 - Includes two metal port covers which should be removed before use, but retained for when device is not in use to protect ports.
- AC/DC external power supply 5V 4A – 2 pieces
 - Includes 3 foot cord with 100v-120v North American plug.
 - Includes universal plug adapter.
- Fiber probe – 1 piece
 - Fiber probe includes two black plastic cap covers and one black rubber tip cap cover which should be removed before use, but retained for when device is not in use to protect fiber probe.
- Fiber Probe Holder - 1 Piece
 - Secure the GIA iD100 fiber probe when the device is not in use. Placing the holder directly in front of the GIA iD100 and locking the fiber probe into the silver clip prevents the fiber probe from bending or falling.
 - The smooth surface and grooves in the tray are designed to help test and sort various sized stones.

Replaceable Parts

- Power supply
- Fiber probe

Dimensions

Approximate. Measurements may change.

- Length of the GIA iD100® device: 165mm (6.50 inches)
- Depth of the GIA iD100 device: 200mm (7.87 inches)
- Height of the GIA iD100 device: 80mm (3.15 inches)
- Fiber probe length: 400mm (15.74 inches)
- Weight of the GIA iD100 device and the fiber probe: 1020g (2.25 pounds)

External Power Supply




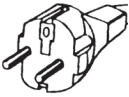


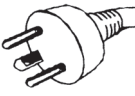
Power Source: Voltage conversion from 100 – 240 volt AC is accomplished automatically with an integrated circuit. Use a properly grounded wall outlet.

Supply Voltage: 100V – 240V

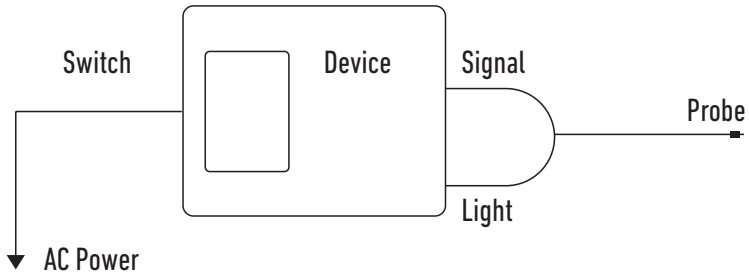
Frequency: 50 Hz – 60 Hz



CAUTION! When connecting an AC Power Cord, make sure it has the proper rating and meets each country's safety requirements.

Input Rating	Plug Configuration	Reference Standards	Cord and Connector
100V-120V	 North American	(1) IEC 83	 IEC-60320-C13 Rating 100V-240V AC, 10 A (voltage rating depending on plug type) Three-wire Power Cord with a two-pole three terminal grounding type connector. 1. IEC-International Electrotechnical Commission 2. CEE-International Commission on rules for the Approval of Electrical Equipment 3. BS-British Standards Institution 4. AS-Standards Association of Australia
200V-240V	 North American	(1) IEC 83	
	 Universal Euro	(1) IEC 83 2) CEE (7) II, IV, VII	
	 UK	(1) IEC 83 (3) BS 1363	
	 Australia	(4) AS 3112	
	 Denmark	(1) DS IEC 60884-2-D1 Dansk Standard AFSNIT 107-2-D1	

Connections



1. Rear panel connections: Connect the power cable to the Power 5V, 4A port on the device. Attach the appropriate plug configuration to the AC/DC External Power Supply and connect to an AC power source. The Service port is used for software upgrades, updates, or device maintenance.



Connections (cont.)

2. **Connect the Light Source (yellow) and Detector (red) fiber probe legs to the fiber ports with the matching color and label.** Push both ends into the color coded port and twist to tighten both connectors at the same time. Connecting the wrong fiber probe leg to the wrong port may produce "REFER" results.

Note: Be sure to connect both fiber probe legs to the device at the same time to avoid bending or twisting the fiber probe.



Quick Start Guide

Setting Up the Device



WARNING! Do not bend the fiber probe. Doing so could significantly reduce the sensitivity of the device and cause permanent damage to the fiber probe. Do not look directly at the light as this may cause permanent eye damage.

Step 1: Front and Rear Panel Connections

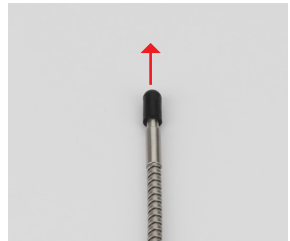
- 1.1 Connect the power cable to the back of the device.



- 1.2 Remove brass port covers from the GIA iD100® by twisting.



- 1.3 Remove covers from fiber probe by pulling.



- 1.4 Connect both the Light Source (yellow) and Detector (red) fiber probe legs to the fiber probe ports with the matching color and label. Tighten after both are inserted.



Quick Start Guide (cont.)

Handling the Fiber Probe

Hold the fiber probe with your fingers at the free end close to the tip.

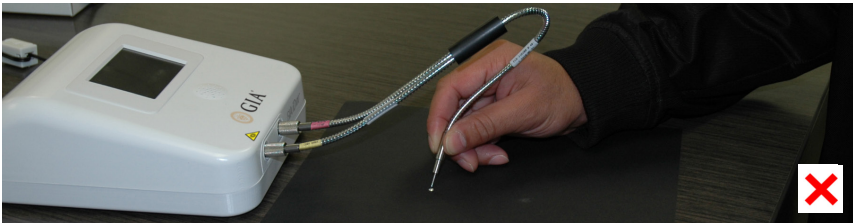
Do not hold by the tip.



Keep the fiber probe in its natural position.



Avoid bending the fiber probe. Bending below 24cm in diameter could reduce the sensitivity of the GIA iD100. Bending below 8cm in diameter may damage the fiber probe and reduce the functionality of the device.



Step 2: Power On the Device

- 2.1 Press the power switch on the back to the "On" position (–) to power on the device. It will take approximately 25 seconds to power on the device and the touch screen.



Quick Start Guide (cont.)

Step 3: Room Light Calibration

3.1 Have a piece of jewelry or a diamond available as a test item.



3.2 Point the probe at the test item and hold it within 2mm of the test item to collect the room light.



3.3 Before beginning any testing, you will need to acknowledge the GIA iD100's capabilities as described in the user guide by pressing the "Accept" button.

I acknowledge the GIA iD100's capabilities as described in the user guide.

Accept

3.4 Press the "Calibrate" button on the touch screen to start the calibration. Under proper room light, it takes the device approximately 5 seconds to finish the calibration process.

Room light calibration required.
Place the probe near the diamond to be tested and press Calibrate.

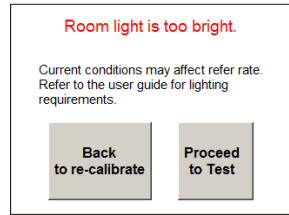
Calibrate

3.12.4.0

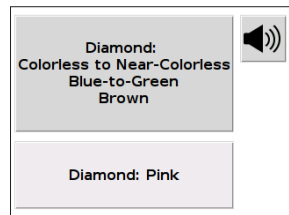
Quick Start Guide (cont.)

- 3.5 If the process takes more than 10 seconds, a screen will appear indicating the room light level is too high to maintain the sensitivity of the GIA iD100®. If you choose to ignore and select "Proceed to Test" the pass rate of the GIA iD100 may be impaired. Consider dimming the room light or move the device to a location with a lower room light level and select "Back to re-calibrate."

Note: Do not cover the probe to force calibration.



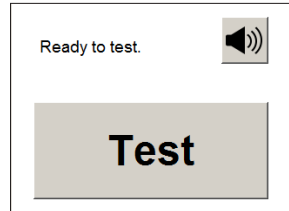
- 3.6 If your device has the GIA iD100 Pink Diamond Software Upgrade, calibration is complete when the following two modes appear on screen.



If your device does not have the GIA iD100 Pink Diamond Software Upgrade, calibration is complete when "Test" appears on screen.

For instructions on testing pink diamonds, skip to Step 7.

For instructions on testing colorless to near-colorless, blue-to-green, and brown diamonds, continue to Step 4.



Quick Start Guide (cont.)

Step 4: Start the Diamond Screening

IMPORTANT!

Be sure the stones to be tested are thoroughly cleaned before screening.

- 4.1 Point the fiber probe at the item to be tested. The probe can gently touch the item or be less than 2mm from the stone. Avoid pointing or touching the probe at the culet.

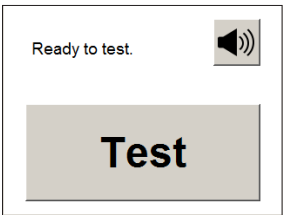
Take care to point the fiber probe at one item at a time only. Making contact with the stone's table ensures the most accurate results.



- 4.2a If your GIA iD100® has the pink diamond software and you are testing colorless to near-colorless, brown, and blue-to-green diamonds, press the “Diamond: Colorless to Near-Colorless, Blue-to-Green, Brown” button on the screen. The fiber probe will emit light.



- 4.2b If your GIA iD100 does not have the pink diamond software, press the “Test” button to begin testing. The fiber probe will emit light.



WARNING! When in operation, do not look directly into the end of the fiber probe as this may cause permanent eye damage.

- 4.3 To adjust the volume press the speaker button and move the dial to the left and right (if desired)



Quick Start Guide (cont.)

4.4 The identification result will be shown on screen in text and heard via audio (if not muted). The device runs continuously until the user presses “Stop.”

Test in progress...

Stop

4.5 When a natural diamond is identified, the device will display “PASS.”

PASS

Stop

4.6 When a potential laboratory-grown diamond or diamond simulant is detected, the device will display “REFER.”

REFER

Stop

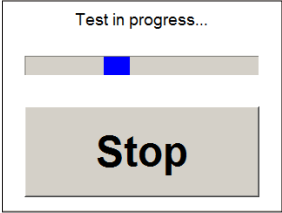
Result	Description
PASS	The tested item has the characteristic luminescence pattern of a natural diamond.
REFER	The tested item does not have the characteristic luminescence pattern of a natural diamond, suggesting this could be a laboratory-grown diamond or a diamond simulant. Adjust testing position and test the item again to confirm.

Note: It is possible to receive both “PASS” and “REFER” results on the same stone. Anytime you receive a “PASS” result, the “PASS” result is the definitive result.

Quick Start Guide (cont.)

Step 5: When Finished Testing

5.1 Click "Stop" to return to stand-by mode.



Step 6: Turn Off the Device

6.1 Press the power switch to the "Off" position (0) to power off the device after testing is complete.



Quick Start Guide (cont.)

Step 7: Diamond Screening Pink Stones

IMPORTANT!

Be sure the stones to be tested are thoroughly cleaned before screening.

- 7.1 Point the fiber probe at the item to be tested. Touch the fiber probe tip perpendicular to the table facet of the diamond.

Making contact with the stone's table ensures the most accurate results.



- 7.2 Press the "Diamond: Pink" button to test pink diamonds.

The fiber probe will emit light.



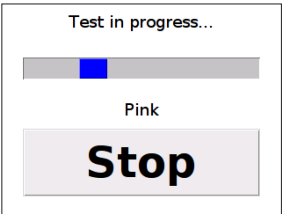
WARNING! When in operation, do not look directly into the end of the fiber probe as this may cause permanent eye damage.



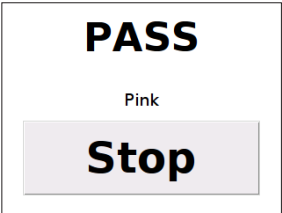
- 7.3 To adjust the volume press the speaker button and move the dial to the left and right (if desired).



- 7.4 The identification result will be shown on screen in text and heard via audio (if not muted). The device runs continuously until the user presses "Stop."



- 7.5 When a natural diamond is identified, the device will display "PASS."



Quick Start Guide (cont.)

7.6 When a potential laboratory-grown diamond, treated diamond, or diamond simulant is detected, the device will display "REFER."

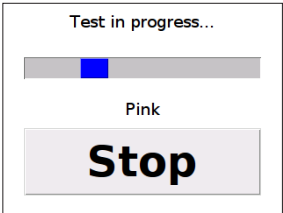


Result	Description
PASS	The tested item has the characteristic luminescence pattern of a natural diamond.
REFER	The tested item does not have the characteristic luminescence pattern of a natural diamond, suggesting this could be a laboratory-grown diamond, diamond simulant, or treated for pink color. Adjust testing position and test the item again to confirm.

NOTE: It is possible to receive both "PASS" and "REFER" results on the same stone. If this happens, the "PASS" result is the definitive result.

Step 8: When Finished Testing Pink Diamonds

8.1 Click "Stop" to return to option mode



Step 9: Turn Off the Device

9.1 Press the power switch to the "Off" position (0) to power off the device after testing is complete.



Notes

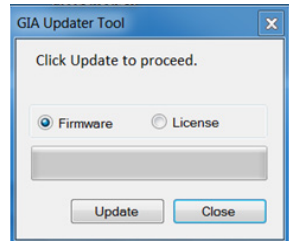
How to Download the Pink Diamond Software

1. Ensure you are using a computer with Windows 7 or higher.
2. Ensure the power is not removed from the device during the update.
3. Copy the zip file "iD100_v3.12.4.zip" and the license file (.lic) to your local computer.
 - Note: Exact version number of software may change.
4. Unzip/Extract the files to the computer.

5. Connect the GIA iD100® to your computer using an Ethernet cable (not included) and switch on the device. The Ethernet cable connects to the Service port located next to the power switch on the far right at the back of the device.



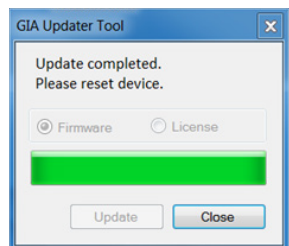
6. Wait until the "Calibrate" button appears on the device. The device could take up to 3 minutes to connect.
7. Double click the "BStrapper" program file from the folder extracted from the zip file. Select "Firmware" and click "Update."



8. A message may appear to update .NET framework. If the device requires an update to .NET framework, please use the link below to download:

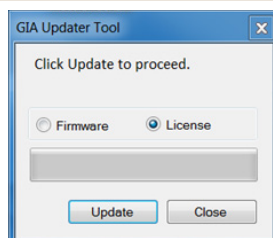
<https://www.microsoft.com/en-us/download/details.aspx?id=42642>

9. Once the update is complete, restart the device and close the software.

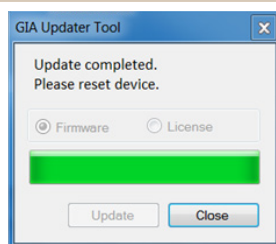


How to Download the License Update (to be completed only after successful update of Firmware)

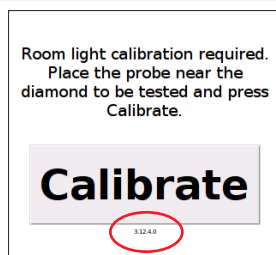
1. Connect the GIA iD100 to your computer using an Ethernet cable and switch on the device.
2. Wait until the "Calibrate" button appears on the device. The device could take up to 3 minutes to connect.
3. Double click the "BStrapper" program file from the folder extracted from the zip file.
4. Select "License" and select the license file "<SerialNumber>Pink.lic" and click "Update."
 - Note: The name of the license file will be customized to the serial number of the GIA iD100.



5. The license enables the new function. The license may take 1-2 minutes to update. Please wait for the update to complete.
6. Once update is completed, please restart the device.



7. If the new firmware has been enabled correctly, the version number will be visible at the bottom of the "Calibrate" screen.



Maintenance

The GIA iD100® should be handled with care. Following the recommendations here, your GIA iD100 should remain in excellent condition.



CAUTION! When cleaning, power off the GIA iD100 and disconnect the device.

Solvents can damage the surface of GIA iD100. DO NOT use liquid or aerosol cleaners to clean the surface of GIA iD100.

Unless specified, there are no user serviceable parts.

- Keep the caps on the fiber connector when fiber probe is not connected to the device. This helps keep dust off the fiber probe connector.
- Prevent dust or grease from accumulating on the tip of the fiber probe or on the ends of the fiber probe legs.
- The ends of fiber probe tip and legs should be gently wiped clean with low lint sheets or optical cleaning tissue with isopropyl alcohol (IPA) weekly. There is no need to clean the body of the fiber probe.
- If the touch screen becomes covered with fingerprints or dust, blow the loose material off before you wipe the surface with a dry, soft cloth. Never use any compressed air to dust off or liquid to clean the touch screen. Never use an optical cleaning tissue to wipe the touch screen as it will scratch the screen.

Troubleshooting

Checklist Steps if Calibration Fails:

1. Verify that the device turns on. If not, check that the power cable is connected to the instrument and the power outlet.
2. Ensure that the process takes less than 10 seconds. A screen will appear indicating that the room light level is too high. It is recommended that the ambient light be dimmed and remain at a constant level to allow proper calibration of the device.
3. Verify that tests are conducted on appropriate surfaces that are non-fluorescent and have minimal reflection.
4. Check the proper condition of the fiber probe and its attachment to the device.
5. If the above steps have been verified and the calibration procedure still fails, please contact Technical Support.

Please contact GIA technical support for any issue not listed in this manual at +1 760 603 4200 or instrumentsupport@gia.edu

Note: Strong room light may reduce the sensitivity of GIA iD100.

Technical Support

For technical support please contact:

GIA (Gemological Institute of America)

The Robert Mouawad Campus

5345 Armada Drive

Carlsbad, California 92008

USA

Tel: +1 760 603 4200

Email: instrumentsupport@gia.edu

Before sending the device or an accessory for repair, please contact GIA Instruments to obtain a Return Material Authorization (RMA) number and any other instructions.

Ordering Parts

Please visit the GIA store website at **[store.GIA.edu](https://store.gia.edu)** to see parts available for purchase.

Return Information

Packing

Packing materials are specifically designed to provide maximum protection for your GIA iD100® during transport. It is important that you save packing materials to use when returning your GIA iD100 for repairs and service.

The foam inserts are designed to accommodate the base, AC/DC external power supply, universal plug adapter and fiber probe.

Before returning any product, please contact GIA at +1 760 603 4200 or email instrumentsupport@gia.edu for a return authorization number.

Warranty and Terms

LIMITED WARRANTY

Subject to the exclusions, limitations, and conditions set forth below, GIA warrants to the original purchaser of the GIA iD100 that the GIA iD100 will be free from defects in material and workmanship (each a “defect” and a GIA iD100 with a defect is said to be “defective”), when subjected to normal, proper, and intended usage by properly trained and informed users, for twelve (12) months from the date of shipment of the GIA iD100 to the original purchaser (the “Warranty Period”).

IMPORTANT: The ways in which a diamond might be synthetically produced, treated or processed are changing and dynamic. As a result, it will not be possible in all cases for the GIA iD100 to determine whether an item being analyzed by the GIA iD100 is a natural diamond, potentially laboratory-grown, processed or treated, or potentially a diamond simulant.

GIA MAKES NO REPRESENTATIONS, WARRANTIES, OR GUARANTEES THAT THE GIA iD100 WILL BE ABLE TO DETERMINE, DETECT, OR DISTINGUISH WHETHER AN ITEM BEING ANALYZED BY THE GIA iD100 IS A NATURAL DIAMOND, POTENTIALLY LABORATORY-GROWN, PROCESSED OR TREATED, OR IS POTENTIALLY A DIAMOND SIMULANT.

GIA SHALL NOT HAVE ANY LIABILITY IF THE GIA iD100 (A) IS UNABLE TO DETERMINE, DISTINGUISH OR DETECT WHETHER AN ITEM BEING ANALYZED BY THE GIA iD100 IS A NATURAL DIAMOND, POTENTIAL LABORATORY-GROWN, PROCESSED OR TREATED, OR POTENTIALLY A DIAMOND SIMULANT OR (B) MAKES AN INACCURATE DETERMINATION OR GIVES AN INACCURATE READING AS TO WHETHER THE ITEM IS A NATURAL DIAMOND, POTENTIALLY LABORATORY-GROWN, TREATED, OR PROCESSED, OR IS POTENTIALLY A DIAMOND SIMULANT.

SOLE AND EXCLUSIVE REMEDY

For any defective GIA iD100 that is returned to GIA by the original purchaser during the Warranty Period in compliance with the process specified below, GIA will, at GIA's option, repair or replace the defective GIA iD100, or refund the price paid to GIA for the defective GIA iD100. A replacement may be a new or refurbished GIA iD100 in GIA's sole discretion and any such replacement will continue to be subject to the warranty set forth above for the balance of the Warranty Period for the GIA iD100 initially purchased.

THE FORGOING REMEDY SHALL BE THE SOLE AND EXCLUSIVE REMEDY IN THE EVENT OF A DEFECTIVE GIA ID100.

EXCLUSIONS FROM THE LIMITED WARRANTY

A GIA iD100 will not be deemed defective and GIA will not have any obligation to repair or replace a GIA iD100, or refund the price paid for the GIA iD100 as a result of any one or more of the following: (i) normal wear and tear, (ii) accident, disaster, or event of force majeure, (iii) misuse, fault, or negligence of or by any user or other person, (iv) use of the GIA iD100 in a manner for which it was not designed, (v) causes external to the GIA iD100 such as, but not limited to, power failure, electrical power surges, exposure to fire, water, other liquids, excessive humidity or temperature, (vi) improper storage or handling of the GIA iD100, or (vii) use of the GIA iD100 in combination with equipment or software not supplied by GIA.

ANY MAINTENANCE, REPAIR, OTHER SERVICE, MODIFICATION, ALTERATION, OR OTHER TAMPERING WITH THE GIA ID100 (INCLUDING BUT NOT LIMITED TO OPENING OR ATTEMPTING TO OPEN THE GIA ID100 OR ANY PART OF THE GIA ID100) THAT IS PERFORMED BY ANY PERSON OR ENTITY OTHER THAN GIA WITHOUT GIA'S PRIOR WRITTEN APPROVAL, OR THE USE OF ANY REPLACEMENT PARTS NOT SUPPLIED BY GIA, SHALL IMMEDIATELY VOID AND CANCEL ALL WARRANTIES WITH RESPECT TO THE AFFECTED GIA ID100.

GIA iD100 WARRANTY CLAIM PROCESS

If the original purchaser of the GIA iD100 believes that the GIA iD100 is defective, then the original purchaser will promptly contact GIA technical service at +1 760 603 4200 or instrumentsupport@gia.edu. The original purchaser will provide to the GIA customer service representative the product model and serial number (if applicable), the date of purchase, and details of the alleged defect. In addition, if requested by the GIA customer service representative, the original purchaser will also provide to the GIA customer service representative additional information regarding the alleged defect and the use of the GIA iD100. After (a) GIA's review of the information provided by the original purchaser, (b) GIA confirming that the Warranty Period has not yet expired, and (c) GIA's belief that the GIA iD100 is likely defective, GIA will provide the original purchaser a Return Material Authorization (an "RMA"). An RMA may include specific handling and labeling instructions and the original purchaser will comply with such instructions. If the GIA iD100® is returned to GIA without an RMA or without the proper handling

and labeling, the delivery of the GIA iD100® may be refused by GIA.

After receipt of an RMA from GIA, the original purchaser may return the allegedly defective GIA iD100 to GIA to the address specified by the GIA customer service representative with all shipment and insurance costs prepaid by the original purchaser. If the GIA iD100 is being returned within the 30-day period after the original shipment of the GIA iD100 to the original purchaser and the GIA iD100 is in fact defective, then GIA will reimburse the original purchaser the reasonable shipment and insurance costs. If the GIA iD100 is being returned more than 30 days after shipment of the GIA iD100 to the original purchaser and the GIA iD100 is in fact defective, then GIA may, in its discretion, reimburse the original purchaser the reasonable shipment and insurance costs.

Any returned GIA iD100 must be packaged in the original packaging or in packaging that is described in the RMA or is otherwise approved in advance by GIA and which adequately protects the GIA iD100 during shipment to GIA. Any loss or damage to the GIA iD100 that occurs during shipment to GIA will be at the original purchaser's sole risk.

If the returned GIA iD100 is defective, then GIA will provide one of the remedies set forth above. Replacement parts included by GIA in a repaired GIA iD100 may be new or refurbished, at the sole discretion of GIA. All parts that are replaced shall become the property of GIA.

Shipment to the original purchaser of the repaired or replacement GIA iD100 shall be at GIA's cost and expense. Any loss or damage to the GIA iD100 that occurs during return shipment by GIA to the original purchaser will be at GIA's sole risk.

If GIA determines that a GIA iD100 returned to GIA is not defective or is not covered by the limited warranty set forth above, the original purchaser shall pay or reimburse GIA for all costs of investigating and responding to such request at GIA's then prevailing time and materials rates, including but not limited to the cost of shipping the GIA iD100 back to the original purchaser.

If GIA provides repair services or replacement parts that are not covered by the limited warranty, the original purchaser shall pay GIA for such services and parts at GIA's then current rates and prices.

DISCLAIMER OF ALL OTHER WARRANTIES

EXCEPT FOR THE LIMITED EXPRESS WARRANTY SET FORTH ABOVE, GIA, ITS SUPPLIERS AND ITS LICENSORS MAKE NO OTHER REPRESENTATIONS, WARRANTIES, GUARANTEES OR CONDITIONS, WHETHER EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, WRITTEN OR ORAL, WITH RESPECT TO THE GIA iD100 OR WITH RESPECT TO THE RESULTS THAT WILL OR WILL NOT BE ACHIEVED USING THE GIA iD100, INCLUDING WITHOUT LIMITATION ANY REPRESENTATIONS,

WARRANTIES, GUARANTEES, OR CONDITIONS THAT THE GIA ID100 WILL CORRECTLY IDENTIFY AN ARTICLE AS A NATURAL DIAMOND OR IDENTIFY FOR REFERRAL ALL LABORATORY-GROWN, TREATED, OR PROCESSED DIAMONDS OR ALL DIAMOND SIMULANTS.

EXCEPT FOR THE LIMITED EXPRESS WARRANTY SET FORTH ABOVE, THE GIA ID100 IS PROVIDED "AS IS". ALL IMPLIED WARRANTIES ARE HEREBY DISCLAIMED, INCLUDING WITHOUT LIMITATION ALL IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING, USAGE, TRADE OR ANY OTHER MANNER.

GIA DOES NOT WARRANT THAT THE GIA ID100 IS ERROR-FREE OR WILL ACCOMPLISH ANY PARTICULAR RESULT.

LIMITATION OF LIABILITY

TO THE FULL EXTENT PERMITTED BY APPLICABLE LAW, NEITHER GIA NOR ANY OF ITS SUPPLIERS OR LICENSORS SHALL BE LIABLE TO THE ORIGINAL PURCHASER OR ANY OTHER PERSON OR ENTITY FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, EXEMPLARY, INCIDENTAL, RELIANCE, PUNITIVE, OR EXEMPLARY DAMAGES, LOST REVENUES, PROFITS OR BUSINESS, OR THE COST OF PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES ARISING FROM OR RELATED TO THE GIA ID100, THE USE OF THE GIA ID100, OR THE RESULTS OR OUTPUT FROM THE GIA ID100, EVEN IF AN AUTHORIZED REPRESENTATIVE OF GIA IS AWARE OF OR IS ADVISED OF THE POSSIBILITY OR LIKELIHOOD OF ANY SUCH DAMAGES OR AMOUNTS.

TO THE FULL EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL GIA'S TOTAL CUMULATIVE LIABILITY TO THE ORIGINAL PURCHASER OR ANY OTHER PERSON OR ENTITY ARISING FROM OR RELATED TO THE GIA ID100, THE USE OF THE GIA ID100, OR THE RESULTS OR OUTPUT FROM THE GIA ID100 EXCEED THE PRICE PAID TO GIA FOR THE GIA ID100 OR IF NO PURCHASE PRICE WAS PAID TO GIA, THEN THE SUM OF ONE HUNDRED U.S. DOLLARS (US\$100).

THE TERMS IN THIS SECTION (LIMITATION OF LIABILITY) AND IN THE SECTIONS RELATED TO THE WARRANTY MADE BY GIA (INCLUDING BUT NOT LIMITED TO REMEDIES, WARRANTY EXCLUSIONS AND WARRANTY DISCLAIMERS) SHALL APPLY (A) TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, (B) REGARDLESS OF THE NATURE OF THE CLAIM OR THEORY OF LIABILITY, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING, WITHOUT LIMITATION, STRICT LIABILITY AND NEGLIGENCE), BREACH OF WARRANTY, OR ANY OTHER THEORY OF LIABILITY, AND (C) EVEN IF A LIMITED REMEDY FAILS OF ITS ESSENTIAL PURPOSE. SOME STATES DO NOT PERMIT THE LIMITATION/EXCLUSION OF DAMAGES IN CERTAIN CIRCUMSTANCES AND SO PORTIONS OF THE FOREGOING LIMITATION/ EXCLUSION OF DAMAGES MAY NOT APPLY IN ALL CIRCUMSTANCES. THE TERMS IN THIS SECTION (LIMITATION OF LIABILITY) AND IN THE SECTION ENTITLED "SOLE

AND EXCLUSIVE REMEDY” ARE AN ESSENTIAL BASIS OF THE BARGAIN BETWEEN THE PARTIES.

SOFTWARE LICENSE

GIA hereby grants to the original purchaser of the GIA iD100® a non-exclusive, non-transferable license, without the right to sublicense, to use the software embedded by GIA in the GIA iD100 (the “**Software**”) solely with the GIA iD100 and solely for the purpose for which it was designed, and not for any other purpose. This license terminates when the owner of the GIA iD100 ceases to possess the GIA iD100 (including without limitation upon the transfer or sale of the GIA iD100 to a third party). No license is granted and no person or entity has the right to sell, transfer, license, loan or otherwise make available in any form to third parties the Software other than the transfer of the Software to the purchaser or transferee of the applicable GIA iD100. No owner of the GIA iD100 may disassemble, decompile or reverse engineer, copy, modify, enhance, or otherwise change or supplement the Software without GIA's prior written consent.

GIA and GIA's licensors retain all right, title, and interest in and to the Software and the intellectual property rights in the Software and the GIA iD100, whether such intellectual property rights are registered or unregistered, and wherever in the world those rights may exist.

LIMITATION OF USE

The result provided by the GIA iD100 should not be considered analogous to or a substitute for information provided by GIA on a GIA Report and should not be represented or interpreted as the opinion of GIA.

The GIA iD100 is not intended to identify the presence or absence of a coating or other treatment on an otherwise natural diamond or on any gemstone or simulant.

If you have any questions concerning use and care of your product, available accessories, or service, please call +1 760 603 4200, or toll free +1 800 421 8161 (U.S. only). You may also fax to +1 760 603 4262, or toll free fax to +1 888 421 7728 (U.S. only). Or please write to GIA, World Headquarters, The Robert Mouawad Campus, 5345 Armada Drive, Carlsbad, CA 92008 USA. Don't forget to visit our website at GIA.edu for customer support service and our catalog online for the latest available products and accessories.



The World's Foremost Authority in Gemology™