DIAMTECH RESEARCH CENTRE PRIVATE LIMITED

J-Mini Pro®

User Manual v 1.0.5





# Quick Start Guide and User Manual version 1.0.5

# Introduction

J-Mini <sup>Pro</sup> has been developed and designed for the efficient and productive identification of CVD and HTHP laboratory-grown diamonds, either as loose stones or in diamond-set jewelry. Laboratory-grown diamonds (LGD) are visually indistinguishable from natural diamonds and the supply pipeline is contaminated by the undisclosed intrusion of LGD into every part of the jewelry industry.

Because all concerned interests in the jewelry industry desire to represent their products fairly and honestly, it is necessary to have some type of device that detects laboratory-grown diamonds to prevent any possible confusion or misrepresentation. J-Mini <sup>Pro</sup> is the latest device designed to identify laboratory-grown diamonds. Consumers have a fundamental right to know about the origins of the products that they purchase. J-Mini <sup>Pro</sup> allows the Retailer, Wholesaler, and Manufacturer to verify the content of the merchandise that they sell.

J-Mini <sup>Pro</sup> is a machine that can facilitate the screening process for CVD and HTHP laboratory-grown diamonds to protect consumers from undisclosed LGD. This manual is a guide in the effective, efficient, and safe use of this instrument. Please review it carefully before the use of the instrument.



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About DRC	

J-Mini <sup>Pro</sup> its hardware and operating software are the exclusive property of DRC, Surat, India. The purchase of a J-Mini <sup>Pro</sup> includes only a license to operate the proprietary software that we have developed. Altering or copying the software is prohibited. It may result in the degradation of the software program and danger to the user. Tampering with the software or hardware may result in damage and inoperability of the instrument and also result in the injury of the operator. Tampering with J-Mini <sup>Pro</sup> also voids the warranty or the obligation of DRC to maintain or support the operation of J-Mini <sup>Pro</sup>.





# 1. Safety First

At DRC, the safety of everyone who uses our instruments is important. We recommend reading the safety information and operating instructions before operating J-Mini<sup>Pro</sup>. Failure to observe these instructions can lead to injury, damage to the device, and less-than-optimal operating results.

J-Mini <sup>Pro</sup> has been designed to be operated safely and effectively by conscientious operators who observe the safety and operational protocols explained in this document.

# **1.1 Symbol Notations and Definitions**

Please observe the written and graphic cautions and warnings explained in this manual

Symbol	Description
	This symbol indicates possible software damage or loss of data that may occur and result in a permanent loss of stored information. Attention is required by an authorized DRC technical specialist.
CAUTION LASER RADIATION DH NOT SDARE WID BEAN DH NOT SDARE WID BEA	This symbol indicates potential exposure to rays of invisible laser radiation. Avoid exposing eyes and skin to direct or scattered radiation. Proper eye and skin protection is required.
DANGER Electric shock risk	<ul> <li>To reduce the risk of electric shock or damage to the equipment:</li> <li>Do not disable the power cord grounding plug. It is an important safety feature.</li> <li>Plug the power cord into a grounded electrical outlet that is always easily accessible.</li> <li>Unplug the power cord from the power supply to disconnect power to the equipment.</li> </ul> Place the power cord where it is not damaged by or compressed by items placed near it.

# 1.2 Caution – Laser Radiation

Adhere to all written and graphics symbol warnings in this user manual. For safe and productive operations, this instrument should only be operated by authorized and trained users who have read the procedures and guidelines of this manual.

Do not stare at the internal light or view it through optical devices. This is a Class II-A laser product. Always avoid eye and skin exposure to direct or indirect radiation. Use proper, approved eye and skin protection.

Lasers are classified for safety purposes based on their potential for causing injury to humans eyes and skin.

Most products that incorporate lasers are required by law to have a label listing the Class.



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# Eye injury hazard



"Eye injury hazard descriptions above are valid for for exposures relatively close to the laser. Because the beam spreads, less light will enter the pupil at greater distances. The hazard decreases the farther a person is from the laser, and the shorter the exposure time (e.g., do not deliberately look or stare into the beam). For example, a 1mW Class 2 laser beam is eye safe for unintentional exposures after about 23 ft (7 m), a 5mW Class 3R beam is eye safe after about 52 ft (16 m), a 500 mW Class 3B beam is eye safe after about 520 ft (160 m), and a 1500 mW Class 4 beam is eye safe after about 900 ft (275 m), (Calculations are for visible light, a 1 milliradian beam, and a 1/4 second Maximum Permissible Exposure limit.)

# 2. Physical Specifications, Designed Functions, Capabilities, and Features

Physical Specifications for J-Mini<sup>Pro</sup>

- Dimensions: 219 x 125 x 116 mm. (8.6 x 4.9 x 4.6 inches)
- Weight: 2.6kg (approximately 6 pounds)

### Power Supply

- Input voltage range: 120 240 V
- Input Current: >=3A
- Typical Response Time: 5 s
- Temperature Range: 5 35 degrees C

The J-Mini Pro manufactured by DRC has been designed and developed for the identification of CVD and HPHT laboratory-grown diamonds. It has been created with the following functions.

- Detection of both CVD and HTHP laboratory-grown diamonds
  - o Diamonds of any shape, including rough or unfinished stones
  - Diamonds from 0.003 carat in weight and larger, approximately .80 .85 mm., (Sieve size +0000 000)
  - Loose stones (unmounted in jewelry) or stones mounted in jewelry
  - Diamonds in the color range of D through J-K color (GIA scale)
- Use the J-Mini and its integrated mobile phone software only for its intended use as described in this manual.
- Keep the device dry and away from liquids to avoid electrical shorts and shocks.
- The J-Mini is not heat-resistant: please keep it away from radiators and open flames.
- Repairs must be performed only by an authorized service engineer. Unauthorized tampering with the device will void the warranty
- Do not modify or alter the device.
- Never operate any electrical device if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged. Call DRC for technical support.

# 3. J-Mini Pro and Included Accessories





Loose Diamond Tray



Silver Sample Pendant with three diamonds, each 0.003 carat



Jewelry or Ring Tray



Allen Key Set





USB C-C Cable



Fluorescent UV Pen

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# 4. Set Up (no tools are required for assembly)

# 4.1 Unboxing

- 1. Cut any exterior strapping, and any cellophane wrapping and discard (responsibly).
- 2. Open the package carefully.
- 3. Separate the contents from the foam packaging.
- 4. We suggest that you keep the box, if possible, for at least 60 days.

# 4.2 Inventory the Contents

- 1. Lay out all the components.
- 2. Check them against the above itemization of components and trays.
- 3. Make note of any items that are missing or damaged.
- 4. Contact the DRC Support Team as noted on the laminated worksheet to arrange for replacements to be sent and possibly a claim request from the carrier. Report any shortage or damage to <a href="https://www.shortage.or">Support@drcindia.in</a>.

### 4.2.1. Set Up the Machine

- 1. Set the J-mini Pro on a sturdy table, countertop, or desk.
- 2. The surface should be flat and level

### 4.2.2. Limitations

- 1. J-mini Pro does not identify CZ (Cubic Zirconia) or Moissanite.
- 2. It is made only to detect Laboratory-grown diamonds. Nevertheless, both stones can be easily identified using a hand loupe as both are noticeably doubly refractive.





# **Initial Start-Up**

# 4.3 Mobile Device

- 4.3.1. Note that the default mobile device used in the J-Mini is the Nokia XR20. User instructions for this mobile phone can be found here: https://www.nokia.com/phones/en\_us/support/nokia-xr20-user-guide
  - a. The integrated mobile phone is not intended to be used as a personal communication device. DO NOT remove it and try to use it for this purpose.
  - b. The Nokia mobile device is shipped with a proprietary DRC software application pre-installed.
  - c. Do not remove the phone from its housing unless instructed to do so by the Support Team at DRC.
  - d. This phone is shipped with a minimal charge. We suggest that once you plug in the J-Mini, the device is allowed to charge for 2 to 3 hours.
  - e. If the battery is completely discharged, it may take several minutes before the charging indicator is displayed.
- 4.3.2. Insert the proper end of the USB cord into the outlet at the base of the instrument.
- 4.3.3. Insert the other end of the USB cord into the power plug and plug the unit into a grounded power source.





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- 1. Fingerprint Sensor
- 2. Camera
- 3. Microphone
- 4. Flash
- 5. SIM and Memory Card Slot
- 6. The Google Assistant /Google Search key1
- 7. Front Camera
- 8. Earpiece
- 9. Headset Connector
- 10. Volume keys
- 11. Power/Lock key
- 12. USB connector
- 13. Microphone
- 14. Loudspeaker

# 4.4 System Setup

To switch on your phone, press and hold the power key until the phone vibrates.

- When the phone is on for the first time, choose your language and time. Select Settings/Menu >> Time & language > Date and time The DRC default language is English.
- Follow the instructions shown on your phone.
- Turn on Wi-Fi. This phone does not use a mobile data connection. It requires a Wi-Fi network.
  - Tap Settings/Menu > Network & Internet > Wi-Fi.
  - Switch Wi-Fi to ON.
  - Select the connection/network that you want to use.
  - Enter your network's Wi-Fi password.
  - Your Wi-Fi connection is active when network Wi-Fi icon is shown on the status bar at the top of the screen.
- Install Available updates. This mobile device is shipped with the most current software; however, it is helpful to check for the latest Android software updates.
  - Tap Settings > System > Advanced > System update > Check for Update to check if updates are available.



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- If your phone notifies you that an update is available, follow the instructions shown on your phone.
- For everyday operation, power up the unit by pushing the Power Button on the side of the mobile device.
- Select either the Loose Diamond Tray or the Jewelry tray, seat it on the Slide-In Tray, and push the tray into the machine.
- The device will turn on and the home screen will display an icon labeled DRC. Tap this button and wait for the scanning program to load and display the DRC J-Mini Pro home screen.

# 5. J-Mini Pro Program Desktop

The opening desktop for the DRC software program is arranged for easy operation. Tap the J-Mini Pro icon and the introductory splash screen at the right will appear on the screen before the operating desktop for the J-Mini program will appear.





# 5.1 Navigating the J-mini Pro Home Page

The screen will appear like the graphic below. In this view, the loose diamond tray has been set onto the Scanning Platform.



# **5.2 Preparing for Merchandise Scanning**

# Step 1

The J-mini Pro machine must be set to the right merchandise category so that the camera can accurately capture and diagnose the image of each item that it scans.

Every scan is automatically archived. If you want to customize the details of the merchandise that you scan, follow these directions.

Click on the Form button from the bottom menu to customize the label for your scan and add detailed information for either loose diamonds or diamond jewellery.

Enter this information before scanning.

		15:06 1 01	
An au data	itomatic lot number is assigned if you do not enter your own	< Die	amond Details
mi ·		C LOING	
The top section is designed for loose stones		136	
The	e Upper section is for jewelry.	Sample Required	(CTS)
a)	Lot Number: You can assign your own lot, SKU, or	1000000000	
	Tracking Number.	Details	
b)	Carat Weight of the Diamonds you have Scanned.	<u>L</u>	J.
c)	Sample Required (Notes).		
d)	Details (Notes).	Lot#/Po#	
The	e lower section is for jewelry.	SKV No Size	
a)	Lot or Purchase Order Number	Kt	Ct
b)	SKU Number		
c)	Size (Finger Size for Rings)	Gross Wt	Net Wt
d)	Carat	Diamond (pcs)	Diamond (wt)
e)	Carat Weight of Gemstones		
f)	Gross Weight	-	
g)	Net Weight		SUBMIT
h)	Diamond (Quantity)		
i)	Diamond (Weight)		



# 5.3 Trays and their attachments

Before You Scan: To ensure accurate diamond detection, it is important to choose the right attachment for the J-Mini <sup>Pro</sup> Machine.

	<b>Mounted Jewelry Tray: -</b> The Mounted Jewelry Tray contains slots for up to twenty-four (5) rings. Pendants, earrings and other Jewelry can be positioned on this tray for scanning.
A1: A2: A3: A4: PA5: A5: A5: A7: A         B1: B2: B3: B4: B5: 56: B7: Bi         C1: C2: C3: C4: C5: C6: C7: C1         D1: D2: D3: D4: D5: D6: D7: D1         E1: E2: E3: E4: E5: E6: E7: E1         F1: F2: F3: E4: F5: F6: F7: F1         G1: G2: G3: G4: C5: G6: G7: G1         F1: F2: F3: F4: F5: F6: F7: F1         G1: G2: G3: G4: C5: G6: G7: G1         F1: F2: F3: F4: F5: F6: F7: F1         G1: G2: G3: G4: C5: G6: G7: G1	Loose Stone Tray: - The Loose Stone Tray has an inscribed alpha-numeric grid so that you can identify the location of specific diamonds when you view multiple stones. J-miniPro can scan and detect either rough or finished stones.



# 5.4 Scanning

Scanning is done by means of an overhead optical system. It is not required that the diamond tables be strictly horizontal (parallel to the platform), but diamonds set into surfaces (sides or into gallery work) that are not visible when looking straight down will not be scanned.

For optimal results during the scanning process, it is imperative to place jewelry at a consistent height. Uneven heights may lead to the capture of blurry images, which can negatively impact the overall quality of the scanning results. Therefore, it is recommended to take care in ensuring that the jewelry is placed at the same height whenever possible, in order to produce clear and accurate images.

The home scanning screen is set for loose diamonds as it is indicated with the diamond icon in the Probe selection.

From the bottom menu bar, select the scanning probe appropriate for your needs. There are two modes available: one for loose diamonds and one for diamonds set into mounted jewelry. By default, the home scanning screen is set for loose diamonds, indicated by the diamond icon in the Probe selection



To switch to the mode for mounted jewelry, simply tap on the diamond icon. This will allow you to access the jewelry mode setting.

High Gain: To improve visibility in low-light environments, select the "Extra Gain" option and then click on the "None" setting, which is represented by a bulb icon.

Scanning Mode: The J-mini Pro machine offers two scanning modes: Manual and Automatic. We recommend using the automatic scanning mode for the automatic detection of LGD (Lab-Grown Diamonds). In manual scanning mode, the system will display the results without marking the diamonds, allowing for manual review. Manual mode has a faster scanning time, taking only around 20 to 25 seconds compared to the automatic mode.

Load the merchandise that you want to test on your selected tray and push the Slide in Tray into the J-Mini Pro. Ensure the scanning drive is closed properly before initiating the scanning process.

Tap the Camera Lens Icon on the bottom menu bar. This will begin the scanning process.

The scanning process, regardless of the quantity of pieces on the Scanning Platform, will take less than one minute.

Note that the most accurate scanning results are achieved with merchandise that is clean.

CAUTION. When scanning jewelry, it is best to conceal any tags that are attached. J-Mini <sup>Pro</sup> uses light to perform its analysis. Jewelry tags are highly fluorescent which disrupts and slows the scanning process.

Do your best to conceal these tags or turn them on edge so that are not scan-able by the instrument.

Any use of other displays or jewelry box inserts to scan diamond-set jewelry will generally be unsuccessful. Most of these inserts are made of highly fluorescent materials which will disrupt the scanning process.

When there are large tags or display boxes showing on the tray the length of the scan time will increase as the machine tries to scan them because of their fluorescence.





# 6. Observing and Interpreting Scanned Results

# **6.1 Understanding Scan Results**

- After Jewelry or Loose Stones are scanned, J-mini Pro software automatically identifies laboratorygrown diamonds or stones that may be LGD but require further investigation with alternate viewing screens.
- These stones are identified by means of flashing boxes and circles that surround the diamond.
- The flashing shapes are a means to easily identify diamonds that require the operator's attention.
- They may indicate identified laboratory-grown diamonds or stones which require further review using supplemental screens.
- A key to these geometric identifiers is illustrated below.

LAB-GROWN DIAMOND	CHECK-IN Fluorescent	<b>RECHECK/REFER</b>	Check in photoluminescent- Extra Gain
Green Box Blue Circle	Green Box Red Circle	Blue Box Red Circle	No Marked
These stones are certainly laboratory grown	Review under external or internal UV light:	Clean the diamond, arrange separately and scan again.	Check extra gain image & fluorescent
Further Action:	Further Action:	Further Action:	Further Action:
Not required,	If the fluorescent color is anything except red, pink, orange, or radium, it should be considered natural or not visible on the fluorescent screen and labeled as "refer".	If same mark appear, check these stones using phosphorescent and photoluminescent views.	If any color other than "Blue" and not visible in phosphorescent examine it on a fluorescent screen. If the diamond show fluorescence, but not in red, pink, orange or radium, then it is likely a natural diamond

These boxes will surround each diamond that is detected as laboratory-grown so that identification is accomplished more easily and rapidly. When scanning small stones that are closely grouped, it is possible that a single box may surround more than one stone.



# • Basic Scanning Diamond Identification



This mark indicates the diamond is not a natural one. It is a lab-grown diamond and does not need any further examination. These stones are definitely grown in a laboratory.

**False/Positive Case: Natural Type IIa diamonds** are also marked under this marking. Colorless and near-colorless CVD synthetic diamonds are usually type IIa, while only 2% of natural diamonds are type IIa.

In the instance of the Natural Type IIa diamond, UV-based detection instruments initially indicate lab-grown diamonds. Certainly, additional tests would be required to determine whether the diamond is lab grown or natural.

In certain cases, if have proper gemology knowledge can make a decision on natural IIa. If the diamond glows a "Blue" color on a photoluminescent screen and the same blue color is visible on a phosphorescent screen. These stones are certainly natural type IIa diamonds.

Original	Photoluminescent	Phosphorescent





This mark identifies a diamond that requires review under an internal or external fluorescent lamp. If the diamond show fluorescence, but not in red, pink, or radium, then it is likely a natural diamond.



### Common Natural Diamond Fluorescence



More than 30% of all natural diamonds exhibit some degree of fluorescence. In D to K color range, mostly seen Blue or Green color fluorescence, while nearly all Laboratory-grown diamonds are inert or display only extremely faint fluorescence in Green, Pink, Yellow, Red, and many other colors.

**Important Note:** Following fluorescent color is also seen in natural diamonds but consider as "Refer" and send for further lab tests as it might be natural or lab grown diamonds.



This mark indicates that the machine cannot automatically identify this stone. First, clean the diamond, arrange separately and scan again and if same marking appear, use the advance screening method (quad-screen view – Describe in next section)



No marked diamond certainly not laboratory-grown diamond but advisable to use advance screening method To verify no low light diamonds left behind.





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- Note stones with Green-Box-Blue-Circle. These are certainly Laboratorygrown Consider as Lab-grown diamonds.
- Note the stones with Green-Box-Red-Circles. These stones require examination under fluorescent light.
  - If the fluorescent color is anything except red, pink, orange, or radium, it should be considered natural.
  - If they do not show fluorescence, they are likely laboratory-grown diamonds.
  - Examine them further under photoluminescent and phosphorescent light.
- Images in this view can be enlarged by expanding the view with two fingers on the touch screen.
- These are the marked diamond count only for your reference.
- Click here to check reference color charts for natural diamonds, lab-grown diamonds, simulants, and natural diamond fluorescent





# 6.2 Sample Pendant

• We have provided a sample pendant with the machine that contains three stones two of them are Lab Grown Diamond, and one Natural Diamond.



### 2. photoluminescence

### 3. Phosphorescence

- The Top and Bottom Stone which is marked with **"Green Box and Blue Circle"** is a **Lab-Grown Diamond**. In advance Screen it shows **Lab-Grown Diamond** on photoluminescence (Screen 2) and phosphorescence (Screen 3) view.
- The Middle Stone which **does not have any box or mark** and it's also **have Blue Lumination** on photoluminescence Screen it shows Natural Diamond.



# **6.3 Advanced Analysis**

Check "No Marked & **Re-Check** marked" Diamond in the photoluminescent and phosphorescent view.

• Diamonds that glow like the samples below in the Photoluminescent view and do not glow in the Phosphorescent screen, should be considered as a Natural diamond.



Samples of Natural Diamonds

- If it emits any color other than blue on a photoluminescence screen, examine it on a fluorescent screen. If the diamond show fluorescence, but not in red, pink, or radium, then it is likely a natural diamond.
- Review **"Extra Gain"** Image to check low light stones if any and follow the above steps.



Samples of Refer Diamonds (Screen-2: Photoluminescent View)



# 7. Retesting

Laboratory-grown diamonds, particularly, CVD-grown stones are continuing to evolve at a rapid rate of development. The formulae for these stones literally change on a daily basis as manufacturers strive to improve or obscure the origin of their laboratory-grown diamonds. Therefore, we encourage users to go beyond automatic testing if there is any question about the origin of a particular diamond.

It can be helpful to remove a loose diamond or jewelry with an identified diamond from the original scanning tray and to scan it by itself or with other suspect items. Look for differences in the results and observe these stones in different views.

DRC updates the software for J-mini Pro as we continually work to provide the most accurate analysis of diamonds.

Additionally, our Support Team and our Research and Development Team are available to assist users in the testing and analysis process. Contact our Support Team for further assistance.



# 8. Additional Features and Viewing Options

If the user is experiencing problems with scanning, they are welcome to contact DRC Support for assistance. See section 10.





# 8.1 Split-Screen Analysis





# **8.2 Additional Features**



### Manual Focus -

J-Mini Pro software will automatically focus merchandise; however, the user can further refine the focus for better clarity by using the manual focus slider that is made visible by tapping on the Focus icon.'

### **Screen Rotation**

The viewing screen can be rotated for viewing by a customer or other person opposite you by tapping this icon.

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# 8.3 Archived Scans and Reports







# 8.4 Reports: Search & Download







# 9. Maintenance and Support

J-Mini Pro requires little maintenance or upkeep. It is best, whenever possible, to keep the machine clean and dust free. The lenses and filters used in the machine are sensitive to dust and debris contamination. If you experience a problem, contact DRC's 24-hour-a-day Support Team for their assistance.

Your J-Mini Pro machine comes with a one-year comprehensive warranty. All hardware, software, and labor are covered. Also included are unlimited updates from DRC. As the development in the manufacturing of laboratory-grown diamonds changes, it is important to keep the software current and up to date.

Shown below is contact information and procedures for speaking with someone on our Support Team. We will assist you, at no charge, in learning how to operate your J-Mini Pro and in answering your questions about laboratory-grown diamond identification.

If you experience a particular operational or identification problem, just advise Support. They will do their best to be of assistance.

# 9.1 Warranty Claim Process

If the original purchaser of the J-mini <sup>Pro</sup> believes that the J-mini <sup>Pro</sup> is defective, then the original purchaser will promptly contact DRC Warranty or Customer Service at +91 9909990867 or <u>Support@drcindia.in</u>.

The original purchaser will provide to the DRC customer service representative the product model and serial number, the date of purchase, and details of the alleged defect. In addition, if requested by the DRC customer service representative, the original purchaser will also provide to DRC customer service representative additional information regarding the alleged defect and the use of the J-mini <sup>Pro</sup>.

DRC will review the information provided by the original purchaser to confirm that the Warranty Period has not yet expired, and (c) DRC's belief that the J-mini <sup>Pro</sup> is likely defective, DRC will guide the further steps to the original purchaser.

# 9.2 Software License

DRC hereby grants to the original purchaser of the J-mini <sup>Pro</sup> a non-exclusive, non-transferable license, without the right to sublicense, to use the software embedded in the J-mini <sup>Pro</sup> (the "Software") solely with the J-mini <sup>Pro</sup> and solely for the purpose for which it was designed, and not for any other purpose. This license terminates when the owner of the J-mini <sup>Pro</sup> ceases to possess the J-mini <sup>Pro</sup> (including without limitation upon the transfer or sale of the J-mini <sup>Pro</sup> 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 J-mini <sup>Pro</sup>. No owner of the J-mini <sup>Pro</sup> may disassemble, decompile or reverse engineer, copy, modify, enhance, or otherwise change or supplement the Software and the intellectual property rights in the Software and the J-mini <sup>Pro</sup>, whether such intellectual property rights are registered or unregistered, and wherever in the world

those rights may exist.



# **10. Troubleshoot**

# **10.1** If the machine is not working.

- Plug in the right power supply as specified in the operation manual. Switch on the "Device" and "Mobile".
- Inspect the diamond/ jewellery tray to see if it is properly inserted into the machine.
- Switch on the software and wait for the device to get started.
- Wear gloves while mounting the jewellery so as to keep it free from masking, coating, greasy or dusty surfaces.
- Make sure that diamonds are properly boiled at 250 degrees Celsius for 30 minutes with a solution mix H2So4 30% and HNO3 70% for testing the diamonds appropriately.
- Slide the tray inside the device until it gets locked.
- Initiate the scanning process.
- This device has been invented to detect laboratory-grown diamonds only.
- The machine should be switched off for 15 minutes in every four hours for better performance.

# 10.2 I have laboratory-grown diamonds, but some of the stones are not detected by J-miniPro.

- Ensure you have followed all the operation instructions correctly.
- It is common to face such a scenario; we have gone through them too. After a deep analysis we have found that these diamonds are not Lab-Grown but Natural diamonds.
- There are chances that they were accidentally replaced during the manufacturing process or the grading process.
- There might be a possibility of them being colored diamonds.
- There might be a chance of them not being properly cleaned or masked.
- Scan it again, if the results achieved are the same, click on the "Help" button on the software to approach our technical team. They will provide you with the necessary assistance.

# 10.3 My diamonds are natural but J-mini Pro detects few of them as Lab-Grown.

- Ensure you have followed all the operation instructions correctly.
- It is common to face such a scenario; we have gone through them too. After a deep analysis we have found that these diamonds are not Natural but Lab-Grown diamonds.
- There are chances that they were accidentally replaced during the manufacturing process or the grading process.
- They may be a possibility of them being colored diamonds.
- They might be a chance of them not being properly cleaned or masked.
- Scan it again, if the result remains the same, click on the "Help" button in the software and our technical team will provide you with the necessary assistance.



# 11. FAQ

### • What does J-mini<sup>Pro</sup> do?

The sole purpose of the J-mini <sup>Pro</sup> is to uphold consumer confidence in the natural diamond industry. Most of the diamonds or diamond jewelry purchased today are for emotional occasions like weddings, engagements, anniversaries, birthdays, and so on and so forth. The consumers should know what they are buying. A Lab-Grown diamond may have a place in the jewelry segment but mixing or unethically selling Lab-Grown diamonds with the tag of it being a Natural diamond is playing with the customer's emotions, resulting to a lack of consumer confidence in the industry. This concern was shared with us by many players of the fraternity. Thereafter as a part of this industry, we have taken this situation as a challenge and invented J-mini Pro as a result.

### • Why J-mini Pro?

Most of the detection tools or devices available in the market are either very costly or are limited to specific sizes, shapes, speed, accuracy or the device is being made for specific clientele alone. Most devices can only detect TYPE- IIA which requires further testing and analysis to be done in the Lab.

It requires a lot of time and energy to make sure that all purchases are Natural Diamonds. After years of research on the perennial issues, we have consolidated the solution in one single device i.e. J-mini Pro. J-mini Pro was developed to detect Lab-Grown Diamonds.

# • What size of diamonds it detects?

J-mini Pro is a device that detects lab-grown diamonds of all sizes from 0.003Cts (+0000 Sieve size) and larger, whether colorless or near to colorless Lab-Grown diamonds.

# • What diamond shapes does it detect?

Any shape is detectable, but for small (below +11) fancy shapes it needs a replaceable attachment.

# • Is it type II-Identification, does further identification required?

J-mini Pro directly detects lab grown Lab-Grown diamonds (Diamond grown in laboratory by HPHT as well as CVD techniques) within all colorless or near colorless diamonds. It does not require further testing as the results are shown on the spot.

# • Is it good for rough diamonds also?

Yes.



#### What is the speed? •

Currently, it scans one tray (2.4-inch x 2.4-inch) filled with diamonds in about 45-90 seconds.

#### How to operate? •

Operating this device is very simple and easily understandable. The operator needs to go through the operation manual before operating J-mini Pro. For the test, ensure that the right size tools are chosen, colorless diamonds must be properly cleaned/boiled and they should not overlap one another.

#### How about after-sales service? •

While designing the machine, we have taken care of using limited parts that require service in the machine. If anything happens to the machine within the warranty period or even after the warranty period, the customer is advised to contact our India support center.



# Warranty & Service Contact Information



DRC is a manufacturer of highly technical instruments. They come with a one year, all-inclusive Warranty. After one-year optional service and warranty programs are available on a subscription basis.

# **DRC Support Contact Options**

Email DRC Support Team	support@drcindia.in
Telephone in Surat, India (charges may apply)	+91-990 999 0867 or
Or call us on WhatsApp (free)	+91 990 999 0867
SKYPE	Support DrcIndia

Although your instrument does not require a continual internet connection, most problems and any updates can be handled online in cooperation with our Support Team. We encourage our customers to communicate directly with our support engineers who are generally available 24 hours a day.

Our online service engineers have extensive training on both the hardware and software parts of our instruments, they occasionally require the additional support of hardware engineers, programmers, database software engineers, or someone from our research and gemology teams.



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### Follow these steps so that we can help you in the resolution of any question or problem.

- 1. Make sure that you have a proper internet connection. If you elect not to have a constant connection, please have someone from your technical service team establish a stable connection.
- 2. To connect to your local Wi-Fi network, follow these instructions:

Swipe up on the mobile phone and tap on the settings icon.

- 2. Tap on the Network and Internet icons.
- 3. Tap on the Wi-Fi icon
- 4. Select your local Wi-Fi network from the list

Swipe from the bottom and tap on the Team Viewer icon

4. Tap the **OPEN QUICKSUPPORT** bar

1.

3.

5. Send the 10-digit number to DRC Support



Be prepared to provide a full description of the problem or issue to the service engineer. Stay available if they require your hands-on intervention.

- a) Contacting our Support Team directly is the best way to resolve your issue.
  - i. We log in only for the duration of the session.
  - ii. The Support Team only resolves an issue or performs an update. We do not access your archive of scanned images without your request and permission.

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Control Remote Device

Allow Remote Control

B

# 12. Warranty

# **12.1 Limited Warranty**

Subject to the exclusions, limitations, and conditions set forth below, DRC warrants to the original purchaser of the J-mini Pro will be free from defects in material and workmanship, 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 J-mini Pro to the original purchaser (the "Warranty Period".)

DRC shall not have any liability if the J-mini Pro (a) is unable to determine, distinguish or detect whether an item being analyzed by the J-mini Pro 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.

For any defective J-mini Pro that is returned to DRC by the original purchaser during the Warranty Period in compliance with the process specified below, DRC will, at DRC's option, repair or replace the defective J-mini Pro, or refund the price paid to DRC for the defective J-mini Pro. A replacement may be a new or refurbished J-mini Pro in DRC'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 J-mini Pro initially purchased.

# **12.2 Exclusion**

J-mini Pro will not be deemed defective and DRC will not have any obligation to repair or replace a Jmini Pro, or refund the price paid for the J-mini Pro 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 J-mini Pro in a manner for which it was not designed, (v) causes external to the J-mini Pro such as, but not limited to, power failure, electrical power surges, exposure to fire, water, other liquids, excessive humidity or temperature, virus software attacks (vi) improper storage or handling of the J-mini Pro, or (vii) use of the J-mini Pro in combination with equipment or software not supplied by J-mini Pro.

Using the mobile phone for any other purpose, opening or tampering with the J-mini Pro without the supervision of the DRC engineer or written approval of DRC shall immediately void and cancel all warranties.



# **12.3 Terms and Conditions**

### 12.3.1 Definition

In this document the following words shall have the following meanings:

- "Buyer" means the organization or person who buys Goods.
- "Goods" means the articles to be supplied to the Buyer by the Seller.
- "Intellectual Property Rights" means all patents, registered and unregistered designs, copyright, trademarks, know-how, and all other forms of intellectual property wherever in the world enforceable.
- "Seller" means an individual or entity that exchanges any type of good or service in return for the payment.

### 12.3.2 General

These Terms and Conditions shall apply to sales of Goods by the Seller to the Buyer to the exclusion of all other terms and conditions referred to, offered, or relied on by the Buyer whether in negotiation or at any stage in the dealings between the parties, including any standard or printed terms tendered by the Buyer, unless the Buyer specifically states in writing, separately from such terms, that it wishes such terms to apply and this has been acknowledged by the Seller in writing. Any variation to these Terms and Conditions (including any special terms and the conditions agreed between the parties) shall be inapplicable unless agreed in writing by the Seller.

### 12.3.3 Service and AMC

- In the event that a DRC support engineer must travel to physical service/physical health checkup of an instrument, the cost of their travel will be borne by the customer. These costs may include air or ground transportation, overnight accommodations, and food. We endeavour to keep these costs as low as possible.
- Payment Must be released within 1 week of Service completion, Delay in payment will affect the Credit score of the organization resulting in the Advance payment of Future service.
- Physical check-ups of DRC instruments on customer demand will be scheduled as required or requested in accordance with the engineers' schedules.
- Local taxes may of necessity be added in compliance with regional requirements and regulations. (2 % TDS for Indian clients)
- If the machine is under Expired/ online AMC, Upgradation of comprehensive warranty will be allowed only after the company checks the machine's condition by DRC Engineers Depending on the report DRC has the right to Denial the request.
- DRC machine extended warranty does not cover damage to the machine at the time of the accident, disaster, or natural calamities.



### J-MINI PRO MANUAL

- Separately manufactured components by third parties such as touch screen LCD PC, laptop, notebook computers, D-Imaging cameras, or mobile phones are not covered under AMC.
- At remote locations where DRC Engineers are unavailable we might need help from customers, necessary training and troubleshooting videos will be provided by DRC Online.
- If there are changes in billing name, address, or any other details, it should be rectified when Performa Invoice is issued, not after the final Tax Invoice is issued.
- Client Needs to verify your company name, address, and contact details via multiple departments of your organization to generate Performa Invoice.
- As per Govt. Norms it is mandatory to generate Tax Invoices Will Generate Via Electronic Medium.
- Once the Invoice will generate It cannot change any details.
- As per Indian Government Rule 89 in respect of supplies to a Special Economic Zone evidence regarding the reception of service/goods for authorized operation is Mandatory with the official's sign & stamp.
- For Delivery in Overseas countries respected country custom charges will be bear by the customer only as per their country's norms
- During machine servicing, if any other parts are found to be damaged then our service team will inform you for further charges.
- In case the Machine need to be sent to DRC Head Office or Authorized service centres traveling and Freight charges will be bear by the customer only.

### 12.3.4 DRC product Service will be void if,

- a) Any item or component damaged due to external power supply or environmental conditions beyond the limits specified by the company.
- b) Repair carried out by Non-authorized DRC personnel. Other than DRC Engineers.
- c) Natural disasters such as floods, explosions, fire, earthquakes, acts of public enemy, wars, insurrections, riots, labour disturbances, strikes, lack-outs, sabotage, accident to equipment, etc., shall also be excluded from the warranty.
- d) If the product serial number or warranty seal is illegible or has been removed, erased, defaced, altered, and tampered with.
- e) If the consumable parts used by the customer do not meet the standards specified by the company.
- f) In the above Cases DRC Has all the rights to deny any repair or service.



### 12.3.5 Order

Order is only valid once a 30% deposit is received. Once the buyer fills out the complete order form, a Performa Invoice will be generated through which the buyer needs to pay 100% of the price of the goods.

### 12.3.6 Price & Payment

- The price shall be the Recommended Retail Price less the agreed discount unless otherwise agreed in writing between the parties. The price is exclusive of VAT or any other applicable taxes.
- Credit terms may be offered subject to satisfactory credit vetting of the Buyer by the Seller. The offer of credit will be at the sole discretion of the Seller.
- Where credit is offered payment of the price and VAT and any other applicable taxes shall be due within 15 days of the date of the invoice supplied by the Seller, unless otherwise agreed in writing. In cases where credit is not offered payment will be required before the release of goods by the Seller.
- The Seller shall be entitled to charge interest on overdue invoices from the date when payment becomes due from day to day until the date of payment at a rate of 12 percent per annum.
- If payment of the price or any part thereof is not made by the due date, the Seller shall be entitled to:
  - Require payment in advance of delivery in relation to any Goods not previously delivered.
  - Refuse to make delivery of any undelivered Goods without incurring any liability whatever to the Buyer for non-delivery or any delay in delivery.

### 12.3.7 Description

Any description given or applied to the Goods is given by way of identification only and these of such description shall not constitute a sale by description. For the avoidance of doubt, the Buyer hereby affirms that it does not in any way rely on any description.

### 12.3.8 Delivery

- Unless otherwise agreed in writing, delivery of the Goods shall take place at the address specified by the Buyer on, or as close as possible to the date required by the Buyer. The Buyer shall make all arrangements necessary to take delivery of the Goods whenever they are tendered for delivery.
- If the Seller is unable to deliver the Goods because of actions or circumstances under the control of the Buyer, then the Seller shall be entitled to place the Goods in storage until such times as delivery may be affected and the Buyer shall be liable for any expense associated with such storage.





- Any damages, shortages, over deliveries, and duplicated orders should be reported to the Seller within 14 days of signed receipt to enable replacement or refund.
- Delivery is strictly based on First come First Serve bases and sole discretions of DRC.

### 12.3.9 Risk

Risk in the Goods shall pass to the Buyer upon receipt of the goods. Where the Buyer chooses to collect the Goods itself, risk will pass when the Goods are entrusted to it or set aside for its collection, whichever happens first.

# 12.4 Title

Title in the Goods shall not pass to the Buyer until the Seller has been paid in full for the Goods.

### 12.4.1 Return of Unused Goods

- All goods are sold on a firm sale basis, i.e. the Seller will not take back any goods not required or sold by the Buyer unless otherwise agreed, in which case the following terms apply.
- Any returns must be authorized by a representative of the Seller before any credit will be given.
- Credit of the amount due or paid-in will only be given for goods that are in saleable condition.

### 12.4.2 Limitations of Liability and Warranty

Warranty is void if the device is tampered / physically damaged/dispersed or dissipated by other than the authorized technician; will full damage is offensive under IP law.

### 12.4.3 Intellectual Property Rights

All Intellectual Property Rights produced from or arising as a result of the performance of this Agreement shall, so far as not already vested, become the absolute property of the Seller, and the Buyer shall do all that is reasonably necessary to ensure that such rights vest in the Seller by the execution of appropriate instruments or the making of agreements with the third parties.

### 12.4.4 Force Majeure

The Seller shall not be liable for any delay or failure to perform any of its obligations if the delay or failure results from events or circumstances outside its reasonable control, including but not limited to acts of God, strikes, lockouts, accidents, war, fire, breakdown of plant or machinery or shortage or unavailability of raw materials from a natural source of supply, and the Seller shall be entitled to a reasonable extension of its obligations. If the delay persists for such time as the Seller considers unreasonable, it may, without liability on its part, terminate the contract.



### 12.4.5 Relationship between Parties

Nothing contained in these Terms and Conditions shall be construed as establishing or implying any partnership or joint venture between the parties and nothing in these Terms and Conditions shall be deemed to construe either of the parties as the agent of the other.

### 12.4.6 Assignment and Sub-Contracting

The contract between the Buyer and Seller for the sale of Goods shall not be assigned or transferred, nor the performance of any obligation sub-contracted, in either case by the Buyer, without the prior written consent of the Seller.

### 12.4.7 Waiver

The failure by either party to enforce at any time or for any period any one or more of the Terms and Conditions herein shall not be a waiver of them or the right at any time subsequently to enforce all Terms and Conditions of this Agreement.

### 12.4.8 Severability

If any term or provision of these Terms and Conditions is held invalid, illegal, or unenforceable for any reason by any court of competent jurisdiction such provision shall be severed and the remainder of the provisions hereof shall continue in full force and effect as if these Terms and Conditions had been agreed with the invalid, illegal or unenforceable provision eliminated.

### 12.4.9 Governing Law and Jurisdiction

This Agreement shall be governed by and construed in accordance with the laws of India and the parties hereby submit to the exclusive jurisdiction of Surat district court.

# **12.5 Privacy**

- Supplementary Mobile can only be used with J-mini Pro and not for any other purpose. DRC enjoys the right to access the supplementary Mobile if/when required. Access data may be used for improvement opportunities; such data will be kept confidential by DRC.
- Buyers/Users of this device must keep the supplementary Mobile connected to the internet to receive regular over-the-air software updates.
- Buyers/Users are not allowed to resale or purchase on Behalf without prior permission, J-mini Pro is running on an online validation Process, System will stop working if owner details mismatch.
- Buyers of the device must register themselves with a UID provided & listed with each device. The purpose of UID is to maintain the chain of custody system. UID and scanning data may also be used as evidence in the protection of users from fraudulent claims.

### **12.5.1** Machine Maintenance policy

### Following is the significance of the maintenance policy:

- It ensures that the equipment is always ready and in reliable condition.
- It ensures that the equipment is always maintained and calibrated to provide good results ensuring that your operators should be aware of the machine software and its operations.
- It ensures maintenance of proper earthing, power supply, and spacing (for ventilation) as per the machine standard.

# If any organization does not implement an effective maintenance policy, then it can result in the following results:

- It reduces production time.
- It reduces the machine's efficiency.
- It requires daily maintenance/service.
- Parts can be damaged before their expected life.
- It affects the overall machine accuracy.

### 12.5.2 Machine Service policy

### A. Online Troubleshooting

- Client must have a High-Speed internet facility for service support.
- Online service support will help you to troubleshoot based on virtual analysis.
- Online service support will help you to find out the cause of the problem.
- Online Service support will try to resolve the problems online but in rare cases it needs the engineer visit for further troubleshooting.

### B. Physical Troubleshoot

### a) Customer Premises (Engineer visit)

- Our engineer will inform the client of critical/non-critical damaged parts in the machine.
- Our engineer will inform/alert the client which parts would get expired in the future.
- Our engineer will guide you on how to maintain external accessories and standards to be maintained.
- During the Machine health check-up visit, our engineer will provide you with a detailed report.

### b) Company Premises (DRC Office)

• During in-house service if additional parts are found to be damaged in the machine, then it will be replaced after getting the confirmation from the client.

### c) Machine Transfer Policy

• If any client will sell or transfer the product, then the client must have provided the supportive legal documents to the DRC for continuing service support.

### 12.5.3 Using Third-Party Apps and Service Policy

- At the time of troubleshooting, the client must have enabled all the permissions and removed security restrictions from the machine.
- DRC will not take responsibility of the accidental data loss, due to a third-party product that has stopped or malfunctioned. (i.e. Corrupted MS Windows and HDD and accidental data loss.) We always recommend you back up your data for safety and security.
- Third-Party app requires permission and continuous attention for smooth operation.
- MS Windows security could stop the third-party apps and its services so, that it requires updating your Windows software as well the third-party app from time to time.



# About DRC

DRC is a privately held, not-for-profit company based in Surat, India. The company's principal focus is on technological advancements for use in the diamond industry. In addition to a variety of instruments designed for the detection of laboratory-grown diamonds, DRC has created a variety of instruments to photograph gemstones or jewelry, uniquely identify diamonds, and assist in the evaluation of their qualities for the trade.

Also, DRC is an industry leader in machinery for the manufacture and finishing of diamonds for factories around the world.

### <u>SUPPORT</u>

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### <u>WARRANTY</u>

Mobile Number:+91 99099 92585Email Id: warranty@drcindia.inSkype Name: Warranty DrcIndia

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