



[www.gemlogis.com](http://www.gemlogis.com)



## **USER HANDBOOK** **LEO**

Natural Diamond Segregator  
*For Mounted & Loose Stone*

## Gemlogis LEO Tester

### WARNING :

- a) Protection impairment if used in a manner not specified by the manufacturer.
- b) Please only use the charger (8.5V max) delivered with LEO, the battery could be damaged if use other charger.





## OPERATING TIPS



Gemstone should be absolutely clean and dust free



Gemstone should be absolutely clean and dust free



Gemstone should sit perpendicular to the table



For best result, each gemstone should be examined mutiple times



For mount rings, the back opening must be over 1.5mm in diameter





## GROUPS OF DIAMONDS

Group	Diamond Type	Color	HPHT Enhanced?	Synthetic?
A	IaA, IaAB, Ib	Colorless (D-M)	No	No
B	IaB, IIa, IIb	Colorless (D-M)	Potentially	Potentially

### Group A – Earth Mined

### Group B – HPHT/CVD

*Suggest to send for further lab testing.*



## **Disclaimers, Exclusions and Limitations of Liability**

- For Mounted Open Back Ring: Only colorless to near-colorless (D-M) can be tested
- For Loose Gemstone: Both colorless and colored gemstone can be tested
- The Gemlogis Leo Tester operates with SWUV radiation which is hazardous if exposed to human eyes and skin. Do not attempt to dismantle the unit at all times.
- This device must be used with the charger provided. The battery and device could be damaged if it is charged with other chargers.
- This device is not designed to specifically confirm whether a natural diamond has been enhanced by HPHT treatment. Further lab testing will be required.
- For best results, the claw/prong of the mounted gemstone should be higher than the gemstone's table.  
(As Illustration A)



**Illustration A**



## TEST REQUIREMENTS

- Make sure that the test platform is free of dusts and particles so that the table of the gemstone sits flatly onto the platform during testing. Recommend to use a blower.
- Use a non-woven fabric cloth to clean the surface of the test sample (gemstone) before performing a test.
- Place the test sample on (or as close as possible) the centre of the test platform. Results may differ if the gemstone is not placed properly and align in the center of the Test Platform.
- When turning the Knurled Knob (B), do not exert too much force...

## OPERATING PROCEDURE

- 1) To power on the device, press and hold the POWER/TEST button (I) for 2-3 seconds until the 'Gemlogis' appears on the LCD panel (H).

*Note: Lid Cover (A) must be fully closed and no gemstone must be placed on the Test Platform*

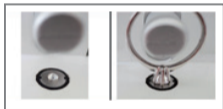
### 2) MODE SELECTION

- Press & Hold the MODE button (H)
- Switch between the desired mode by lightly pressing the MODE button
- Confirm selection by Press & Holding the MODE button (H)

— LOOSE: 0.04 - 12ct  
MOUNT: Open Back



- 3) Open the Lid Cover (A) by pressing down the latch (E) and lifting up the cover.
- 5) Rotate the Knurled Knob (B) forward slowly to move up the Detection Rod (F) **until it reaches the maximum at the top.**
- 6) For loose gemstone and single mounted ring with setting as illustration A (Pg 4),  
Place a colorless gemstone (D-M color) with the table facing down and align to the center of the Test Platform.  
*(As Illustration B)*



**Illustration B**

- 7) For mounted gemstone with multiple setting,
- Place the ring with the colorless gemstone (D-M Color) with table facing down and align to the center of the Test Platform.
  - Lower the Detection Rod by turning the Knurled Knob **(B)** backwards slowly until the Detection Rod secures the back of the gemstone at its tip.  
*(As Illustration C)*



**Illustration C**



*(Note: For mounted gemstone, the ring must have a back opening. As shown above.)*

- Close the Lid Cover **(A)**.
- When the LCD is displaying '**Ready**' at the selected test mode, press the POWER/TEST button **(I)** to perform the test. The LCD Display Panel **(J)** will indicate the test result.

- 10) The Gemlogis Leo Tester provides a light compensation feature. When necessary, press the White Light button (E) to switch on the light compensation.
- 11) Open the Lid Cover (A) and remove the gemstone.
- 12) Press and hold the POWER/TEST button (I) for 2-3 seconds until the LCD displays 'OFF' to turn off the device.
- 13) The Gemlogis Leo tester is capable of performing a self-diagnostic test. If the LCD displays 'Error' after power is switch on, it shows that internally there faulty electronic components in the device.
- 14) Battery indicator: After the power is switch on, the battery symbol is displayed on the upper right corner of the LCD. If the battery voltage is running low, please use the battery charger provided with the Gemlogis Leo to charge the battery.





## READING THE TEST RESULT

- a) LCD Display Panel = “ **CZ** ”  
(The gemstone is a cubic zirconia.)
- b) LCD Display Panel = “ **Simulant** ”  
(The gemstone is neither a cubic zirconia, a moissanite nor a diamond.)
- c) LCD Display Panel = “ **Moissanite** ”  
(The gemstone is a moissanite.)
- d) LCD Display Panel = “ **EARTH MINED** ”  
(The gemstone is a natural diamond and has not been color enhanced by HPHT treatment.)
- e) LCD Display Panel = “ **HPHTCVD** ”  
(The gemstone is a diamond and may be synthetic or color enhanced by HPHT treatment. Recommend to send the gemstone to a gem laboratory for further examination.)





## BATTERY & POWER

Charge device for 1 hour **BEFORE** using it for the first time.

Exhausted battery will require approximately 1 hour to charge **fully**.

Only recharge the device with the adaptor provided in the package.

### Battery Indicator

- Battery Symbol Blinking = Low Battery

### Adaptor Light

- Green Constant = *Fully Charged*
- Red Constant = *Charging*

### Automatic Shut down

- The device will automatically shut down after 10 minutes of inactivity.
- Insufficient battery power will cause the device to automatically shut down.





## SPECIFICATIONS OF PRODUCT

Product	LEO UV+IR Diamond Segregator
Model	GEM-0007-01
Adaptor	ASC-0666-01
Battery	YT751448 (Lithium – Polymer Battery)
Weight	250g
Operating Temperature	20°C ~ 45°C
Storage Temperature	0°C ~ 45°C





## SPECIFICATIONS OF BATTERY

Mode	YT751448
Typical Capacity	450mAh
Minimum Capacity	410mAh
Charge Voltage	8.4V/set
Nominal Voltage	7.4V/set
Max Discharge Current	200mA
Max Charge Current	500mA
Weight	20±2g
Operating Temperature	Charge: 20°C ~ 45°C; Discharge: 0°C ~ 45°C
Storage Temperature	0°C ~ 45°C

## SPECIFICATIONS OF ADAPTOR

Mode	ASC-0666-01
Input Voltage	90 - 240Vac
Input Frequency	50 / 60HZ
Power Output	4.2W
No Load Voltage Output	8.3~8.5VdC
Charging Current Range	500mA
Fuse Type	T0.63AL 250V (0.63A 250V Fast Acting Fuse)
Operating Temperature	0°C ~ 40°C
Storage Temperature	-20°C ~ 45°C



## INTERNATIONAL WARRANTY

- This product is covered by a 12-month Factory Warranty.
- Defects in material and workmanship are covered under this warranty.
- Warranty will be void by unauthorized repair, misuse, modification, alteration, tempering, accident damage, negligence or improper use.
- Warranty is effective from the date of original purchase.
- Purchaser must fill out and keep the enclosed warranty registration form, along with a copy of the original invoice.
- If the above criteria is not met, the device will be automatically covered by a **90 DAY LIMITED WARRANTY** from the date of your purchase.

In the event that this model is no longer available or has been discontinued but warranty coverage is applicable, at the sole discretion of the manufacturer, an equivalent device may be substituted in place of the defective model.

- The purchaser shall incur the cost for postage insurance and handling for all warranty covered and non-warranty covered repairs.

### *Note:*

*Under no circumstances shall Jubilee Diamond Instrument Ltd, the manufacturer or any of its subsidiaries, distributors or third parties be liable for any direct or indirect damages, resulting from the use of this instrument.*





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