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## Instruction Manual

### JD

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Thank you for buying a diamond tester of SAUTER. We hope you are pleased with your high quality product and with its functional range. If you have any queries, wishes or helpful suggestions, do not hesitate to call our service number.

The diamond tester utilises the feature that diamonds have a very high thermal conductivity. So it can effectively and quickly distinguish natural diamonds from all kinds of diamond simulations and metals, except synthetic moissanites, which have a thermal conductivity similar to diamonds.

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#### 1. Features

This diamond tester is equipped with ultraviolet light to test the fluorescent reaction of stones.

It is easy to calibrate with the calibration ring and it has got a Level Meter Volume to match different sizes of stones. It can distinguish stones as small as 2pt (note: 72pt= 1inch= 2.54cm). The diamond tester can be connected with an A/C adapter for a long time indoor use. It has got a 2 years manufacturer's warranty.

#### 2. Specifications

Working voltage: 9V monobloc battery, 6F22 battery or AC adapter, 110V-240V, DC 9V, optional

Sensor's warm-up time: about 25 seconds

Working time: about 5 hours of continuous use

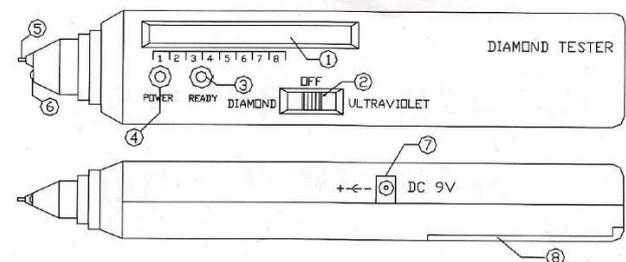
Working temperature: 15°C to 30°C

Dimensions: 166mm x 30mm x 21mm (L x W x D)

Net weight: 55g (without battery), 100g (including battery)

#### 3. Indication of parts

1. Level Meter
2. Slide Switch
3. Ready Lamp
4. Power Lamp
5. Sensor
6. Ultraviolet Lamp
7. DC 9V socket for AC adapter
8. Battery Cover
9. Electricity Conductive Panel
10. Level Meter Volume
11. Sensor Protective Cover
12. Test Base for loose Stones



#### 4. Preparation

The 9V monobloc battery has to be inserted into the tester, then switch (2) has to be slid to diamond, the Power red lamp (4) will light up and the Ready green lamp (3) will be blinking. It has to be waited for about 25 seconds because the sensor has to be warmed up.

When the green lamp (3) lights up, the buzzer will beep a very short time to signalise that the tester is ready for use. At this time it has to be assured that the LED level meter bar (1) is lighted at the first column. If not, the Level Meter Volume has to be adjusted to set the bar lighted at the first column. Now the tester can be used.

#### 5. Testing

- A gem cloth has to be used to do normal clean work on the stones to be tested.
- If the jewellery is mounted on any part, it has to be held with one hand.
- For loose stones, it is essential to place the stone on the testing base (12) and hold the testing base with one hand. The other hand holds the tester. With one of the fingers the metal plate (9) of the tester has to be contacted permanently.
- Now the sensor of the tester has to be applied gently onto the tested stone perpendicularly.
- If the LED lights up to red zone with three periodic beep sounds, the tested stone is a diamond.
- If all LED bars don't light up or only go to green or yellow zone (it varies from different simulations), then the stone is a simulation.
- When testing metal objective, for example, to test a stone which is set in a ring or an earring etc., the tester will have

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a continuous beep sound as soon as the sensor tip contacts the metal part.

- The recommended ambient testing temperature is from 15°C to 30°C. The temperature of the stone should be the same as the ambient temperature. Exceeding the ambient temperature of 30°C, the test result may be incorrect.

- In case if the red light becomes dimmer, the battery has to be replaced.

- When testing small stones (10pt or below), it is recommended to take off the diamonds from the body, let them cool down to room temperature (15°C to 30°C) and then conduct testing. Otherwise the test result might also be incorrect.

- When the switch is slid to ultraviolet, the ultraviolet LED will light up. Then the diamond tester will test the fluorescent reaction of stones under ultraviolet light.

- For a long time indoor use, an AC adapter (110V-240V, DC 9V) is recommended (optional available)

- After using the tester, the ON/OFF switch always has to be slid to OFF.

- There is no need to calibrate when the testing stones are with sizes over 5pt.

- If the testing stones are with sizes less than 5pt, the Level Meter Volume has to be adjusted to add the lighted columns in LED level meter bars to meet special needs.

### 6. Maintenance

- If the diamond tester isn't used for a longer period, the 9V monobloc battery should be removed.

- The protective cover of the testing sensor should be clipped on, if the tester is out of use.

- No other parts except the battery cover (to replace battery) may be opened. This would void warranty.

- After a long time use, battery should be replaced, when it has got a low power.

### 7. Caution

- The tester cannot distinguish synthetic Moissanites.

- Don't look directly into the ultraviolet light; it may harm your eyes!

### 8. Limited Quality Warranty

SAUTER GmbH provides a limited quality warranty of 24 months dated from the date of purchase, provided that the tester has been used in normal environment and that its use conformed to the operation provisions as mentioned above. If there are defects in parts or technology under normal using conditions, we will repair or replace the tester free of cost. The quality warranty can only be applied to the original purchaser of the tester. The invoice should be kept as a proof.

We won't be responsible for the consequences caused by wrong operation or unsuitable use.

### 9. Declaration of Conformity



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#### Konformitätserklärung

Declaration of conformity for apparatus with CE mark  
Konformitätserklärung für Geräte mit CE-Zeichen  
Déclaration de conformité pour appareils portant la marque CE  
Declaración de conformidad para aparatos con marca CE  
Dichiarazione di conformità per apparecchi contrassegnati con la marcatura CE

**English:** We hereby declare that the product to which this declaration refers conforms to the following standards.  
**Deutsch:** Wir erklären hiermit, dass das Produkt, auf das sich diese Erklärung bezieht, mit den nachstehenden Normen übereinstimmt.  
**Français:** Nous déclarons avec cela responsabilité que le produit, auquel se rapporte la présente déclaration, est conforme aux normes citées ci-après.  
**Español:** Manifestamos en la presente que el producto al que se refiere esta declaración está de acuerdo con las normas siguientes.  
**Italiano:** Dichiariamo con ciò che il prodotto al quale la presente dichiarazione si riferisce è conforme alle norme di seguito citate.

#### DIAMOND TESTER: SAUTER JD

Mark applied	EU Directive	Standards
CE	EMC 2004/108/EC	EN 55015: 2006+A1:2007+A2:2009 EN 61000-3-2:2006+A1:2009+A2:2009; EN 61000-3-3:2006; EN 61547:2009 IEC 61000-4-3:2009; IEC 61000-4-3:2006, IEC 61000-4-4:2004+A1:2010, IEC 61000-4-6:2006; IEC 61000-4-6:2009, IEC 61000-4-8:2006; IEC 61000-4-11:2004

Date: 15.08.2011

Signature:

SAUTER GmbH  
Management

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