

EAGLOTEST

S692

**EARTH GROUND
CLAMP TESTER**



USER MANUAL

CATALOG

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Safety Warnings

- This symbol, adjacent to another symbol or terminal, indicates the user must refer to the manual for further information.
- This symbol, adjacent to a terminal, indicates that, under normal use, hazardous voltages may be present.
- Double insulation, Application around and removal from uninsulated hazardous live conductors is permitted.



WARNING : Indicates a condition and action that could pose a danger to the user.



CAUTION : Indicates conditions and operations that may cause damage to the product or the equipment under test.

- Please read all instructions carefully.
- Please read all safety instructions before using the product.
- Do not alter the product and use it only for the specified purpose, otherwise it may weaken the protective features provided by the product.
- Do not use this product around explosive gases and vapors or in humid atmospheres.
- Products should be inspected before each use, Inspect the clamp housing or output cable insulation for cracks or defects; Also check to see if there are components with loose connections or weak functionality; Carefully check the extremities around the jaws.
- Comply with local and national safety norms, wear personal protective equipment (Approved rubber gloves, masks, flame retardant clothing, etc.) to prevent injuries from electric shocks and arcs when dangerously charged conductors are exposed.
- When performing all measurements, use the approved measurement categories (CAT), voltage and current rating accessories (Probes, Test leads and Adapters) for this product.
- Do not use if product has been altered or damaged.
- If the product is damaged, disable it.

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- Do not use if the product does not work properly.
- Do not use if exceeding the rated frequency of the product.
- Please operate only according to the specified measurement category, rated voltage or current.
- Do not touch high voltages: Voltage >RMS 30V, AC Peak 42V or DC 60V.
- Hold the product in your hand and touch the back of the bezel.
- Make sure the battery cover is fastened and locked before operating this product.
- Replace the battery when the low battery indication is displayed in case the measurement is incorrect.
- When the product has not been used for a long time or is stored in an environment above 50°C, remove the battery, if the battery is not removed, the battery leak may damage the product.
- Do not operate the product while the lid is removed or the case is open, exposure to hazardous voltages may occur.
- If a battery leak occurs, repair this product before use.
- Please have the product serviced by an approved technician.
- Remove the input signal before cleaning this product.
- Do not clip any objects that do not meet the requirements.
- Do not operate with an external low-frequency magnetic field >30A/m.

Input Limit

Function	Maximum Input
AC A	40A AC rms
Resistance	1500Ω

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Introduction

Handheld S692 Earth Ground Clamp Tester is an ideal device to measure earth ground resistance and current with high accuracy and resolution.

Application:

- Earth ground resistance testing
- AC current measurement
- Leakage current measurement in single-phase and three-phase systems
- Non-contact contact resistance testing

Feature:

- High resolution: up to 1 μ A for current and 0.001 Ω for resistance
- True RMS measurement for AC current
- Low Pass Filter (LPF) mode to eliminate noise interference
- Wireless data transfer via Bluetooth to connecting APP for more functions
- TFT LCD display
- Data Hold function
- Recording and Memory capability for more than 8,000 measurements
- Alarm function with buzzer sound

SECTION 3

Specification

3.1 Technical Specifications

Function	Range	Resolution	Accuracy (45-60Hz)	Accuracy(>60Hz<1kHz)
AC True RMS Current	40.00A	10mA	$\pm(1.5\% + 8 \text{ digits})$	$\pm(2.0\% + 8 \text{ digits})$
	4.000A	1mA	$\pm(1.5\% + 5 \text{ digits})$	$\pm(2.0\% + 7 \text{ digits})$
	400.0mA	0.1mA		
	40.00mA	10 μ A		
	4.000mA	1 μ A	$\pm(1.0\% + 10 \text{ digits})$	$\pm(2.0\% \text{ 10 digits})$
Maximum input 40A; CF $\leq$ 3				

AC True RMS Current with Low Pass Filter	40.00A	10mA	±(1.5%+ 8 digits)	Non-Specified
	4.000A	1mA		
	400.0mA	0.1mA		
	40.00mA	10μA		
	4.000mA	1μA	±(1.5% + 15 digits)	
CF≤3				

Earth-Return Circuit	0.025 to 0.249 Ω	0.001 Ω	1.5 +0.020 Ω
	0.250 to 1.999 Ω	0.001 Ω	1.5 +0.050 Ω
	2.000 to 9.999 Ω	0.001 Ω	1.5 +0.100 Ω
	10.00 to 29.99 Ω	0.01 Ω	1.5 +0.5 Ω
	30.00 to 99.99 Ω	0.01 Ω	1.5 +2.5 Ω
	100.0 to 299.9 Ω	0.1 Ω	5.0 +5.0 Ω
	300 to 599 Ω	1 Ω	10.0 +10 Ω
	600 to 1500 Ω	1 Ω	20.00

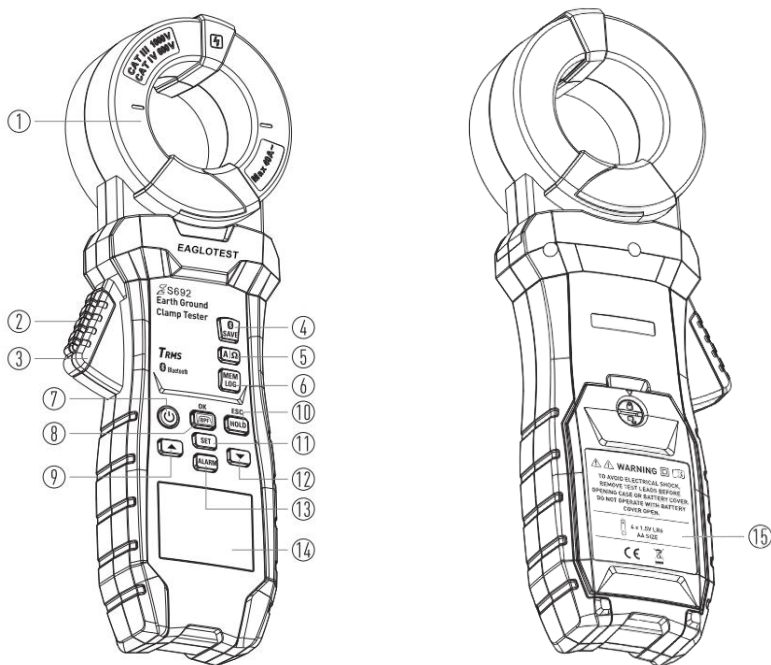
SECTION 3

3.2 General Specifications

Clamp Jaw Opening	1.77" (45mm) approx
Display	9999 counts backlit TFT LCD
Low Battery Indication	"  " is displayed
Over-range Indication	"OL" display
Measurement Rate	3 readings per second, nominal
AC Response	True rms
ACV Bandwidth	10kHz
Maximum Voltage to Earth Ground	1000V
Recording Capacitance	~2000
Temperature coefficient	0.15 % x reading / °C (<18 °C or >28 °C)
Operating Temperature	5 to 40°C (41 to 104°F)
Storage Temperature	-20 to 60°C (-4 to 140°F)
Operating Humidity	Max 80% up to 31°C (87°F) decreasing linearly to 50% at 40°C (104°F)
Storage Humidity	<80%
Operating Altitude	2000 meters (7000 ft.) maximum.
Battery	4x1.5V AA Alkaline Battery
Bluetooth	4.0
Auto Power OFF	5mins, 10mins, 15mins, 30mins
Dimensions	289x104x48mm
Weight	1000g
Safety	IEC61010-1 (2001): EN61010-2-030 EN61010-2-032 EN61010-2-033 Overvoltage Category III 1000V Category IV 600V, Pollution Degree 2

SECTION 4

Structure



- | | |
|----------------------------|---------------------|
| 1. Leakage Clamp | 9. Up Button |
| 2. Jaw Trigger Lock | 10. HOLD/ESC Button |
| 3. Clamp Trigger | 11. SET Button |
| 4. SAVE/Bluetooth Button | 12. Down Button |
| 5. Current/Resistor Button | 13. Alarm Button |
| 6. Recording/Memory Button | 14. TFT LCD Display |
| 7. Power ON/OFF Button | 15. Battery Cover |
| 8. LPF/OK Button | |

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Operation

5.1 Function

5.1.1 Power ON/OFF Button

Press the Power ON/OFF Button to open the meter.

Press and hold the Power ON/OFF Button to close the meter.

5.1.2 Auto Power OFF

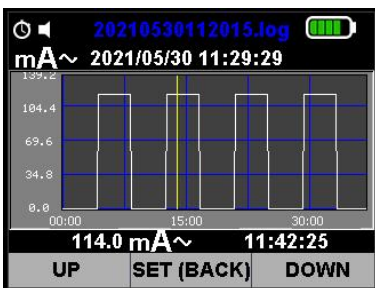
In order to conserve battery life, the meter will automatically turn off after approximately 15 minutes.

To turn the meter on again, press the **Power ON/OFF** Button to open the meter.

5.1.3 Up and Down Button

Press the **Up** or **Down** Button to increase, turn up or decrease and turn down.

5.1.4 Recording/Memory Button



5.1.5 LPF/OK Button

Press and hold the **LPF/OK** Button to turn LPF TEST, the LCD will display “LPF”.

Press the **LPF/OK** Button to set confirmation

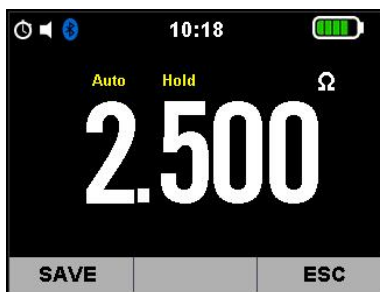


5.1.6 HOLD Button

To freeze the LCD reading, press the **HOLD** Button.

While data hold is active, the HOLD icon appears on the LCD.

Press the **HOLD** Button again to return to normal operation.



5.1.7 Alarm

In alarm mode, when the measured value exceeds the set alarm threshold, the display displays alarm and the buzzer emits a sound.

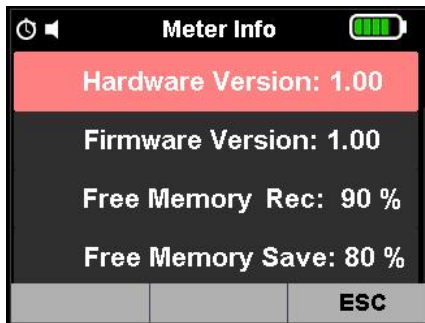
The clamp table compares the reading to the upper and lower limits, if the reading is greater than the upper limit, the clamp meter will beep and display “HI - -” on the display.

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If the reading is less than the lower limit, the clamp meter will beep and display “LO --” on the display.



5.1.8 SAVE/Bluetooth



5.2 Operation

Notes: Read and understand all **WARNING** and **CAUTION** statements in this operation manual prior to using this meter. Close the meter when the meter is not in use.

5.2.1 AC Current Measurement

WARNING: Check that the jaw are well closed before making current clamp measurements.

1. Press the trigger to open jaw.
2. Press the Current/Resistor Button to select the Current function.

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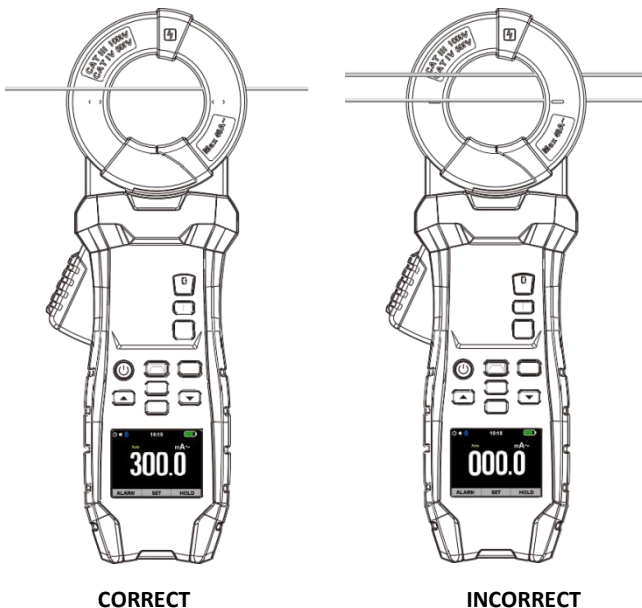
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3. Take the measurement according to the measurement method indicated in the picture.
4. The clamp meter LCD will display the reading.



5.2.2 .Leakage Current Test

1. The Leakage Current is measured directly by a direct method in a single-phase system.

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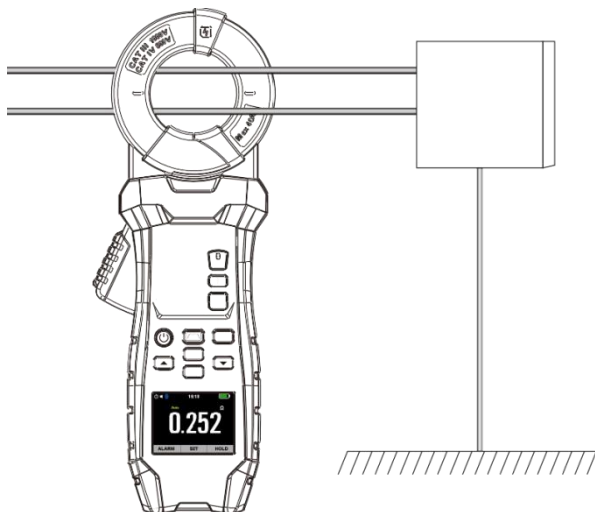
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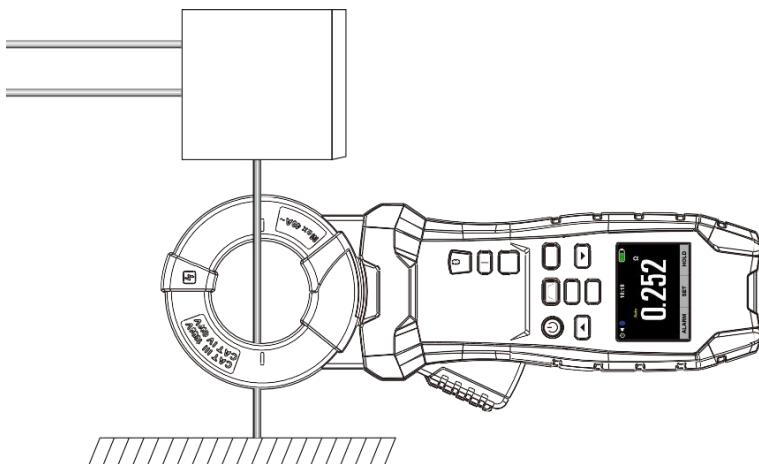
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2. The Leakage Current is measured indirectly in a single-phase system.



3. The direct method of Leakage Current Measurement in a three-phase system.

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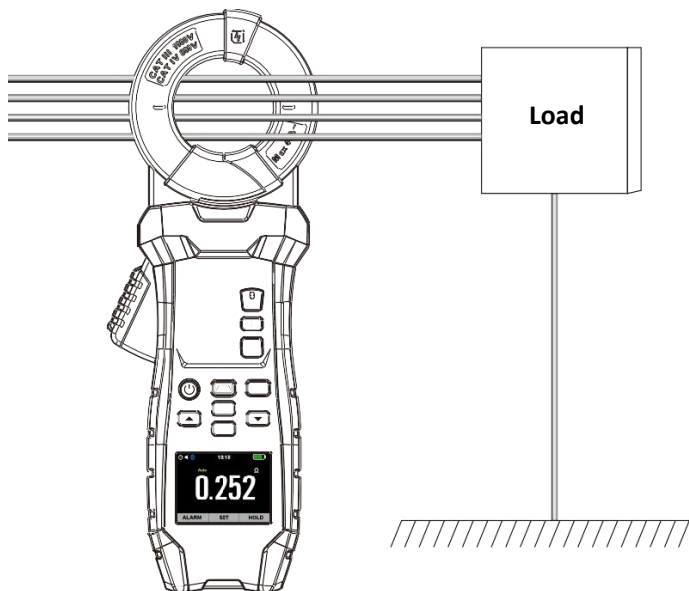
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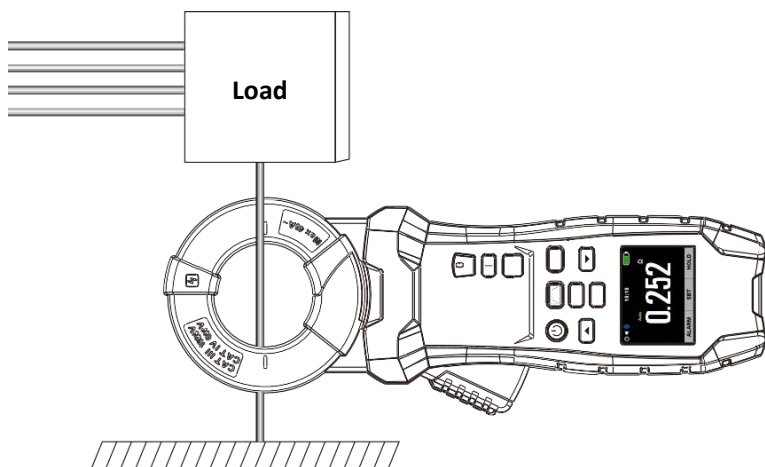
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4. The indirect method of Leakage Current Measurement in a three-phase system.



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5.3 Earth Ground Resistance Test

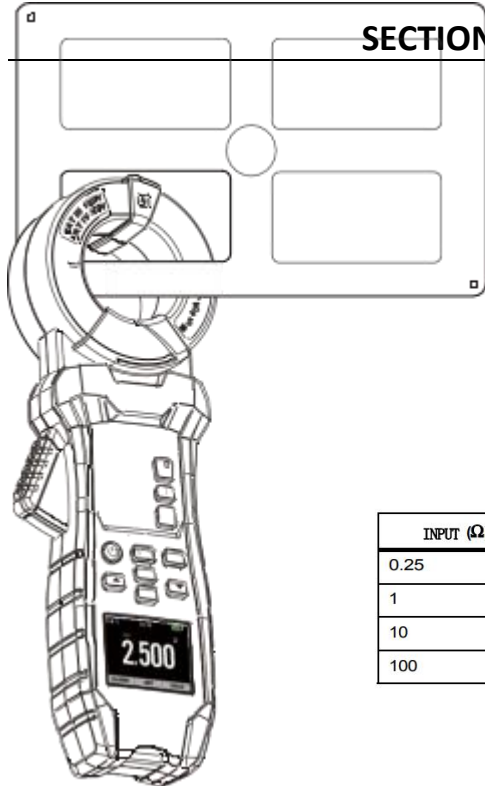
5.3.1 Check the Clamp Gauge Before Measuring the Resistance To Ground

1. Place the jaws on the standard loop resistor, confirm that the jaw loop is working properly.
2. If the displayed value is within the following table, it indicates normal, and the standard resistor is removed to measure the ground resistance; If the reading is not within the specification range, clean the jaw head and test again; If the displayed value is much more accurate, please repair it.

5.3.2 Used to Measure the Resistance to Ground

1. Open the jaws to make sure the jaws are free of dust, dirt or any foreign matter.
2. Open clamp current.
3. Press the Current/Resistor Button Select Ω Features.
4. Clamp the clamp gauge to the electrode to be measured or the grounding rod.
5. Read the value of Rg (Ground Resistance) on the display, figure illustrates the principle of measuring the resistance to ground in a schematic equation.

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INPUT (Ω)	MIN	MAX
0.25	0.217	0.282
1	0.880	1.121
10	9.45	10.55
100	96.0	104.0

Note:

If a current value greater than 3A is found in the ground bar, “Noi” is displayed on the display and the clamp meter beeps, when there is noise, the reading of the clamp meter is invalid.



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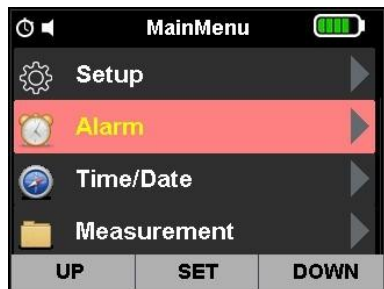
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If the jaw assembly is turned on during the measurement, it “” will be displayed on the screen.



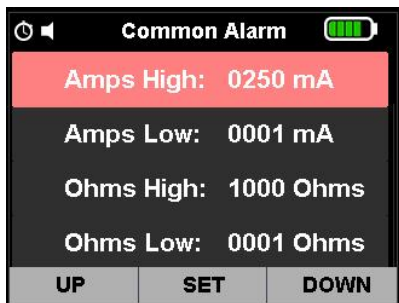
5.4 Set Up

Press the SET Button to change the following settings.



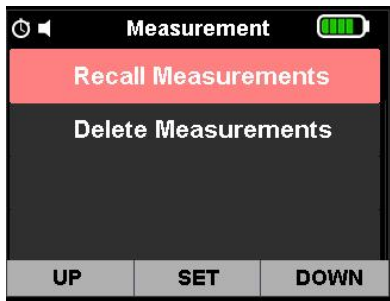
5.4.1 Alarm

In Alarm mode, when the measured value exceeds the set alarm threshold, the display displays alarm and the buzzer emits a sound.



5.4.2 Measurement

Storage and Reading of the measurement interface.

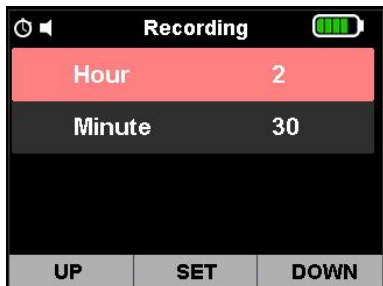
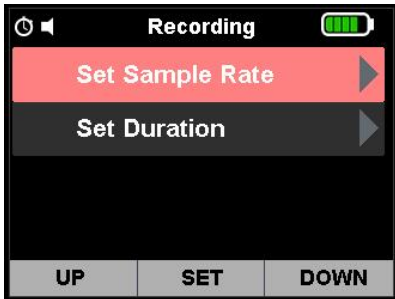
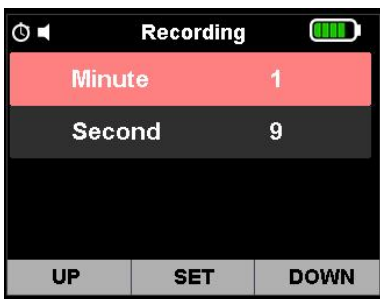


5.4.3 Recording (Time and Sample Rate Set)

The clamp meter records data at a set recording interval and can hold more than 8,000 measurements in memory.

The record mode parameters and reading function of the clamp table can be set through the following interface.

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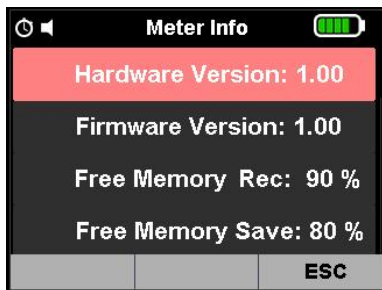
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5.4.4 Meter Info (Hardware , Firmware Version Memory Space)

Read the Hardware and Software version of the clamp meter and the Storage Space ratio.



5.4.5 Common Setup (Key Sound, APO Time and Bluetooth)

Button sounds for operable clamp tables; Automatic shutdown time; Time format; Bluetooth is turned on and off Automatic shutdown time setting.



5.5 Maintenance

WARNING: To avoid electrical shock, disconnect the meter from any circuit, turn OFF the meter before opening the case. Do not operate the meter with an open case.

5.5.1 Battery Replacement

1. Contrarotate Battery Door Lock 180 degrees to open the battery door.
2. Replace the 4x1.5V AA battery.
3. Secure the battery compartment

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5.5.2 Cleaning and Storage

Periodically wipe the case with a damp cloth and mild detergent; do not use abrasives or solvents.

If the meter is not to be used for 60 days or more, remove the battery and store it separately.

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SECTION 6

Packing List

Instrument	1
Tool Box	1
Self Test Resistor	1
AA Batteries	4
Instruction manual, warranty card, certificate of conformity	1

Note:

- We are not responsible for other damages caused by the use of this product.
- The contents of this user manual do not justify the use of the product for special purposes.
- The Company reserves the right to modify the contents of the user manual. In case of modification, no further notice will be given.

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