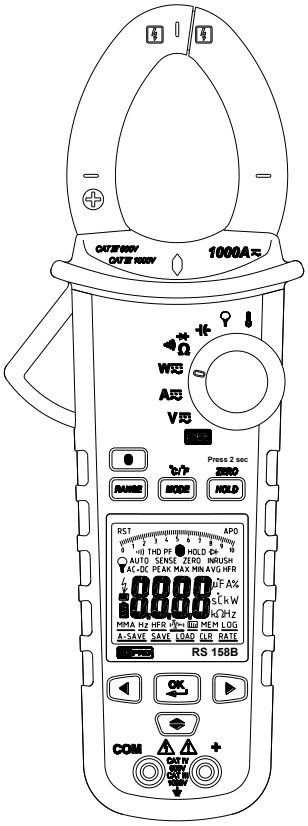
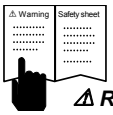
Instruction Manual
RS 155B (162-4455) / RS 156B (162-4456)
RS 157B (162-4457) / RS 158B (162-4458)
Clamp Meter

EN





⚠ Read First

⚠ Safety Information

Understand and follow operating instructions carefully.
Use the meter only as specified in this manual; otherwise, the protection provided by the meter may be impaired.

⚠ WARNING

Identifies hazardous conditions and actions that could cause **BODILY HARM** or **DEATH**

⚠ CAUTION

Identifies conditions and actions that could **DAMAGE** the meter or equipment under test

⚠ WARNING

- When using test leads or probes, keep your fingers behind the finger guards.
- Individual protective equipment should be used if HAZARDOUS LIVE parts in the installation where measurement is to be carried out could be ACCESSIBLE.
- Remove test lead from meter before opening the battery door or meter case.
- Use the meter only as specified in this manual or the protection by the meter might be impaired.
- Always use proper terminals, switch position, and range for measurements.
- Verify the meter's operation by measuring a known voltage. If in doubt, have the meter serviced.
- Do not apply more than the rated voltage, as marked on meter, between terminals or between any terminal and earth ground.
- Use caution with voltages above 30 V ac rms, 42 V ac peak, or 60 V dc. These voltages pose a shock hazard.
- To avoid false readings that can lead to electric shock and injury, replace battery as soon as low battery indicator blinks.
- Disconnect circuit power and discharge all high-voltage capacitors before testing resistance, continuity, diodes, or capacitance.
- Do not use meter around explosive gas or vapor.
- To reduce the risk of fire or electric shock do not expose this product to rain or moisture.
- Probe assemblies to be used for MAINS measurements shall be RATED as appropriate for MEASUREMENT CATEGORY III or IV according to EN 61010-031 and shall have a voltage RATING of at least the voltage of the circuit to be measured.

⚠ CAUTION

- Disconnect the test leads from the test points before changing the position of the function rotary switch.
- Never connect a source of voltage with the function rotary switch in Ω, ⊣⊢ ,and position.
- Do not expose meter to extremes in temperature or high humidity.
- Never set the meter in Ω, ⊣⊢ ,and function to measure the voltage of a power supply circuit in equipment that could result in damage the meter and the equipment under test.

Symbols as marked on the Meter and Instruction manual

⚠	Risk of electric shock
⚠	See instruction manual
⎓	DC measurement
⧈	Equipment protected by double or reinforced insulation
▭	Battery
⏚	Earth
~	AC measurement
CE	Conforms to EU directives
⚡	Application around and removal from hazardous live conductors is permitted
	Do not discard this product or throw away.

Unsafe Voltage

To alert you to the presence of a potentially hazardous voltage, when the Tester detects a voltage ≧30 V or a voltage overload (OL) in V . The symbol is displayed.

Maintenance

Do not attempt to repair this meter. It contains no user serviceable parts. Repair or servicing should only be performed by qualified personnel.

Cleaning

Periodically wipe the case with a dry cloth and detergent.
Do not use abrasives or solvents.

Feature

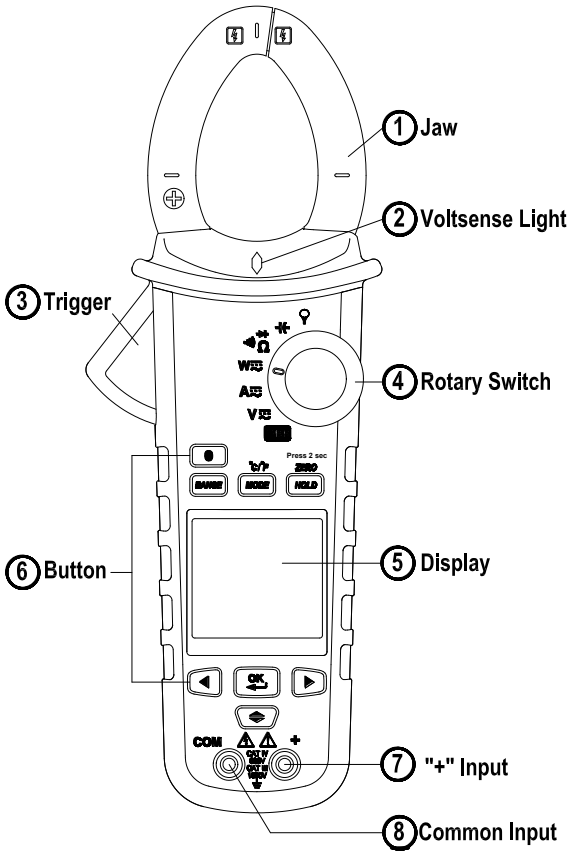
- 10000 Count digital display
- Active Backlit,Large scale display
- VoltSeek (None Contact Voltage)
- Analog Bar graph
- True RMS reading on AC and AC+DC mode
- Memory Save/Load (data amount up to 1000)
- Data logger (data amount up to 9999)
- Bluetooth wireless communication
- Torch lightening when clamping
- Auto AC/DC 1000 Amps capability and selection (For 158B)
- Auto AC/DC 600 Amps capability and selection (For 156B)
- Auto AC/DC 1000 Volts capability and selection
- 100K Resistance capability
- Continuity Beeper
- Frequency Counter
- Power and Power factor measurement
- Total Harmonics distortion and Harmonics 1 to 25
- Capacitance capability
- °C / °F Temperature Function (For 158B)
- Inrush Current
- DCA Auto-Zeroing Button (For 156B/158B)
- Peak Hold
- MIN/MAX HOLD
- Smart Data Hold
- Phase rotation indication
- Flex AC Current
- High frequency rejection
- Auto Powet Off
- CAT.Ⅳ 600V / CAT.Ⅲ 1000V Safety Standard

Unpacking and Inspection

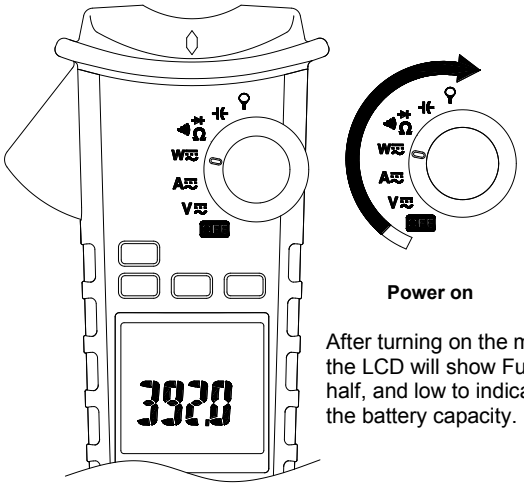
Upon removing your new Power Clamp Meter from its packing, you should have the following items:

1. Power Clamp Meter
2. Test leads. set (1 x Black, 1 x Red)
3. Temperature Probe (For 158B)
4. User Manual
5. Carrying case
6. Battery

The Meter Description



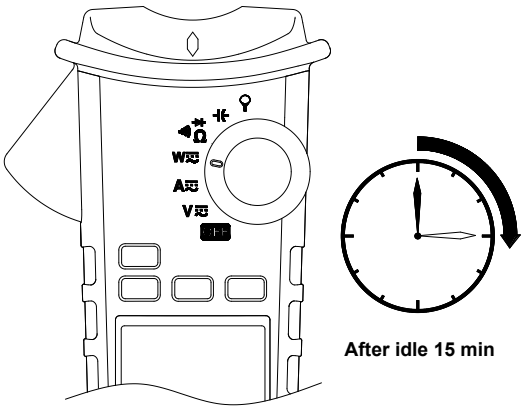
Power On / Off



Power on

After turning on the meter, the LCD will show Full, half, and low to indicate the battery capacity.

Auto Power Off



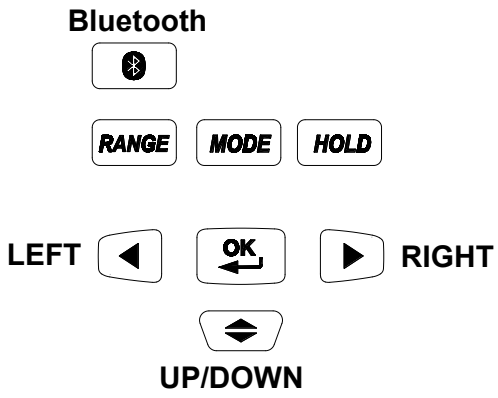
After idle 15 min

The meter can work again by turning it on from the OFF position.

Auto Power Off (APO) disable :

Press OK button while tuning meter on from OFF position.

Push Buttons



Menu Operation

Example

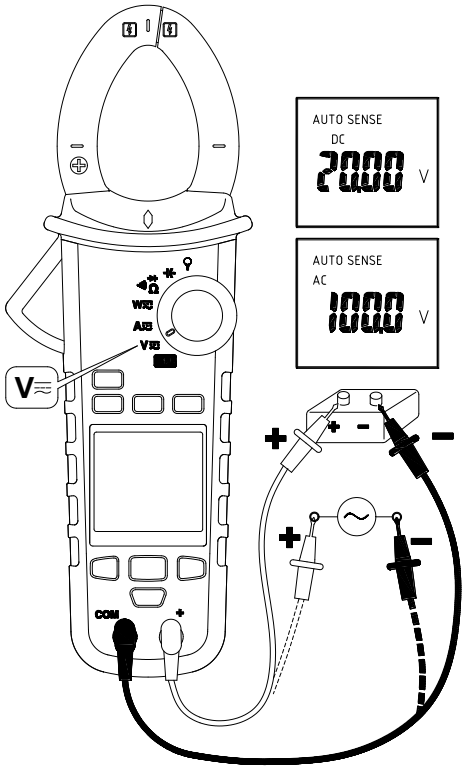
	Use arrow keys to move the blinking cursor to the target icon, and then press OK button
	Use arrow keys to move the blinking cursor to the target icon, and then press OK button for more than 2 seconds.
MMA	The icon **without** underline means the function is not executed.
MMA	The icon **with** underline means the function is executed.

Making Basic Measurements

Preparation and Caution Before Measurement
⚠ : **Observe the rules** of ⚠ Warnings and ⚠ Cautions
The figures on the following pages show how to make basic measurements.

When connecting the test leads to the **DUT** (Device Under Test), connect the common test lead before connecting the live lead. When removing the test leads, remove the test live lead before removing the common test lead.

Measuring Voltage

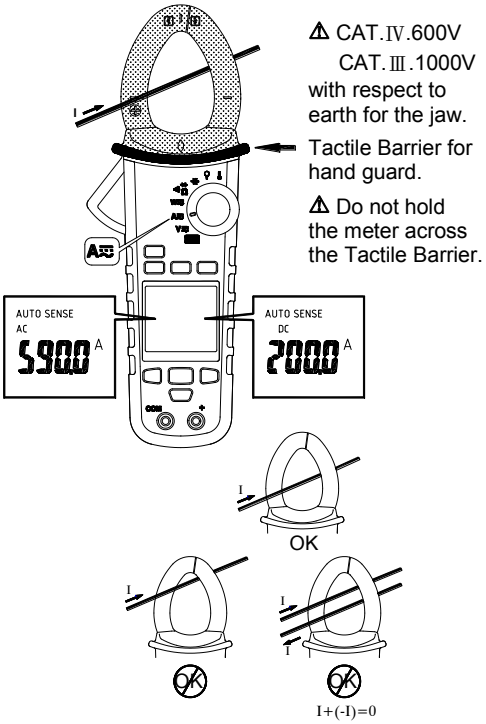


⚠ Warning

To avoid electrical shock, hazard or damage to meter, do not attempt to measurement that might exceed 1000 V dc or ac RMS. Do not apply more then 1000 V dc or ac RMS between the common input terminal and earth ground.

Note - If the measured voltage is greater than 30 V dc or ac RMS, the display will show the " ϟ " symbol.

Measuring Current



- **DO NOT** clamp on any conductor while the meter power on.
- **155B/157B** has only AC current measurement mode.
- Torch lightening when clamping.

AUTO SENSE mode :

Display measurement result at AC only with RMS value or DC value, it depends on whichever is greater.

AC mode : AC only with RMS value.

DC mode : DC value.

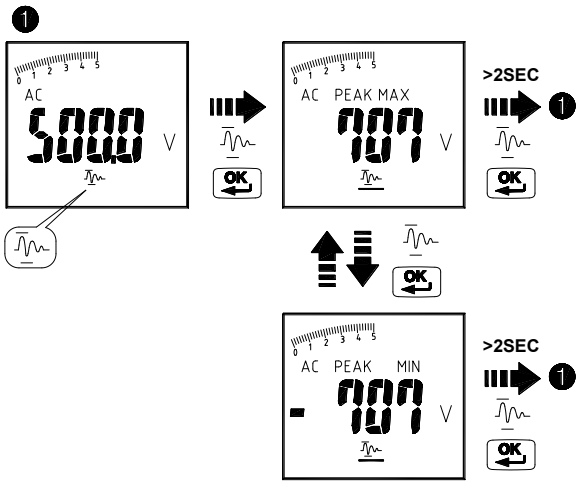
AC+DC mode : AC+DC RMS value.

Note

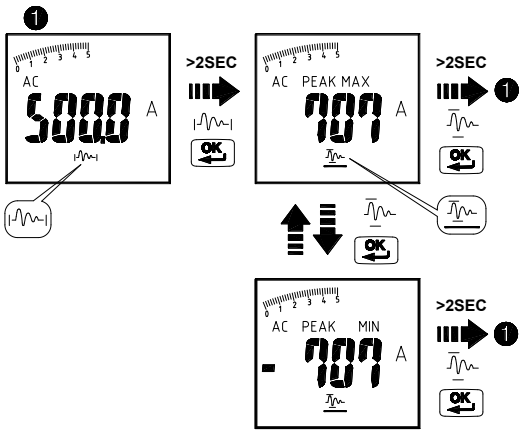
- Press MODE button to enter the AC/DC/AC+DC mode.
- Press MODE button for more than 2 seconds to return to the AUTO SENSE mode.

PEAK HOLD (AC mode only)

ACV mode



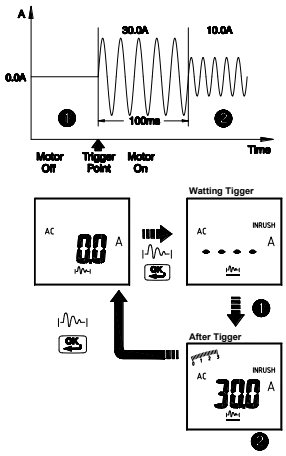
ACA mode



In PEAK HOLD mode, the meter is activated to save the positive peak value and negative peak value. Positive peak value is displayed in PEAK MAX mode. Negative peak value is displayed in PEAK MIN mode.

Inrush current : (AC mode only)

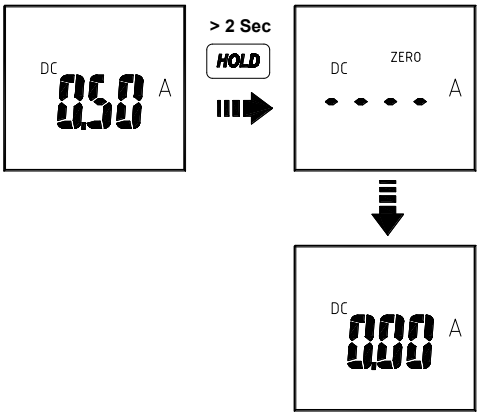
If the under testing Inrush current could be bigger than 100 A ac, please select the range to 600 A/1000 A in advance before activating inrush current.



DCA ZERO (For 156B/158B)

Remove the jaw out of the conductor.

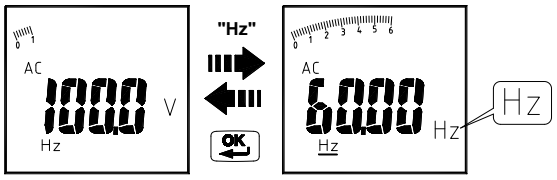
Press HOLD Key ＞ 2 Sec to compensate the residual magnetism.



- DCA Zero is only available in Auto Sense, DC and AC+DC mode.

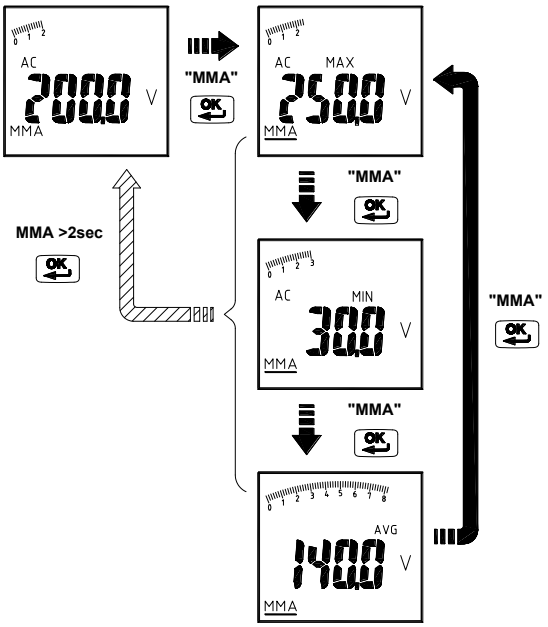
Measuring Frequency (AC mode only)

Select the "Hz" indicator then press the OK button to enter/exit the frequency measurement mode.



MAX/MIN/AVG

The MAX/MIN/AVG mode records the minimum and maximum input values. When the inputs go below the record minimum value or above the record maximum value, the meter records the new value. The MAX/MIN/AVG mode can also calculate the average of reading.

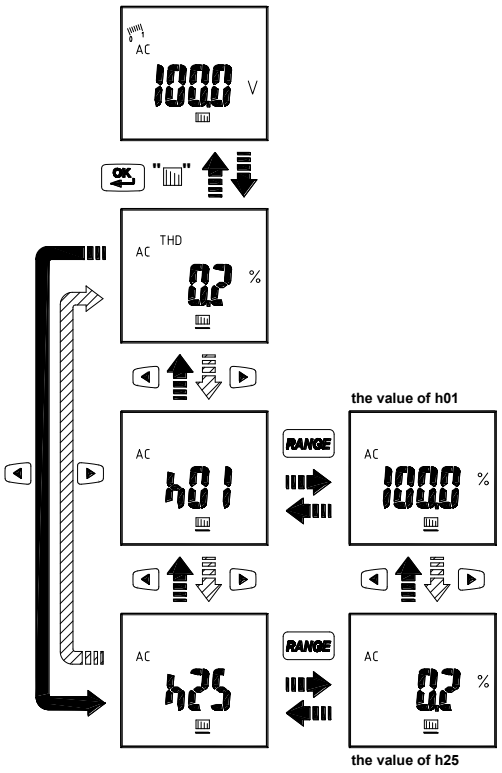


NOTE :

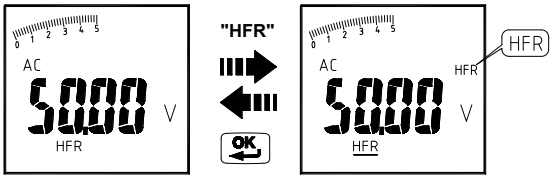
- Press HOLD key in MAX MIN mode to make the meter stop updating the maximum and minimum value. When the HOLD mode is rested in MAX MIN mode, the HOLD mode must be released before the MAX MIN mode.

Harmonic Measurement (AC mode only)

THD-F=RMS of Harmonics ÷ RMS of fundamental ×100%.
(harmonics up to the 25 th)
Hn=RMS of Individual Harmonic ÷ RMS of fundamental ×100%.
Press RANGE button to display harmonic order or the value of the harmonic(unit : %).



HFR (AC mode only)
Select the "HFR" indicator then press the OK button to eliminate high frequency noise.



NOTE :
Peak Hold, Inrush, HZ, Harmonic and HFR mode are only available in AC mode.

Measuring Active power(W)/Power factor(PF)

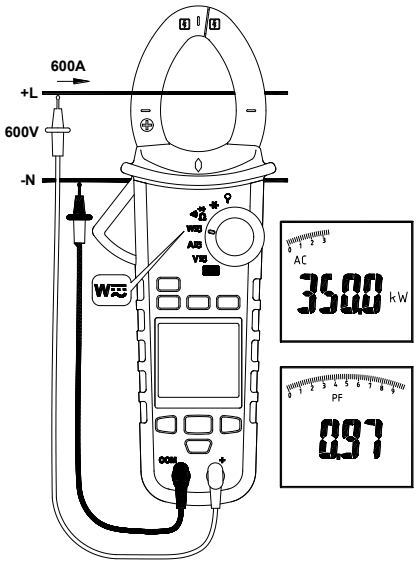
1.Single Phase Power Measurement

Step1. Set the rotary switch to the "W" position.

Step2. Connect the Red test lead to the L, and the Black test lead to the N.

Step3. Press the trigger to open the transformer jaws and clamp one conductor only, make sure that the jaw is firmly closed around the conductor.

Step4. Use the MODE button to select the "ACW/DCW/PF" mode.



NOTE :

- In AutoSense mode, the meter will displays ACW/DCW if the AC frequency been detected.
- 155B/157B offer AC power measurement mode only.

Active power sign :

(The current direction must the same as the figure.)

No sign : Indicates the power flows from the power source to the load.

"_" sign : Indicates the power flows from the load to the power source.

Power factor sign :

No sign : The phase of the current signal is lagging behind the voltage signal (inductive load).

"_" sign : The phase of the current signal is leading the voltage signal (capacitive load).

Overrange display :

OL.U : Voltage overload

OL.A : Current overload

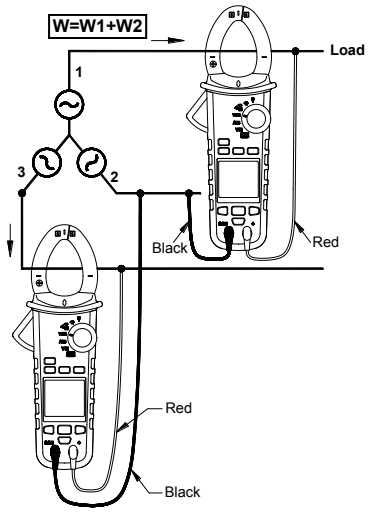
± OL kW : Active Power > 1050 kW or < -1050 kW.

2.Three Phase Power Measurement

a. 3-phase 3 wire balanced / unbalanced

Step1. Set the rotary switch to the "W" position

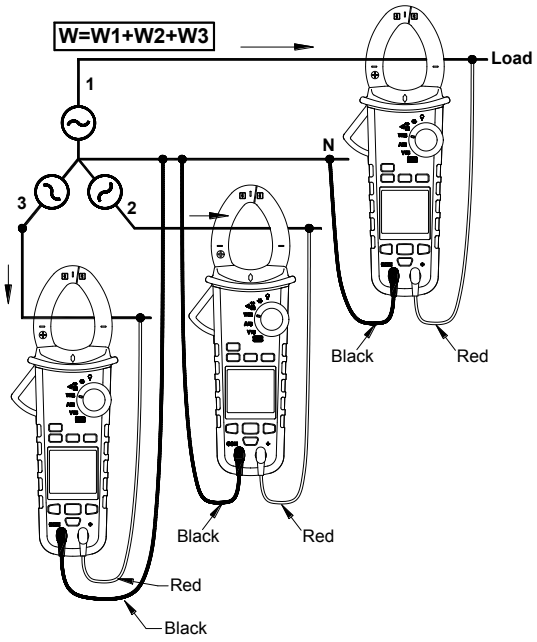
Step2. Using the MODE button to choose the ACW mode.



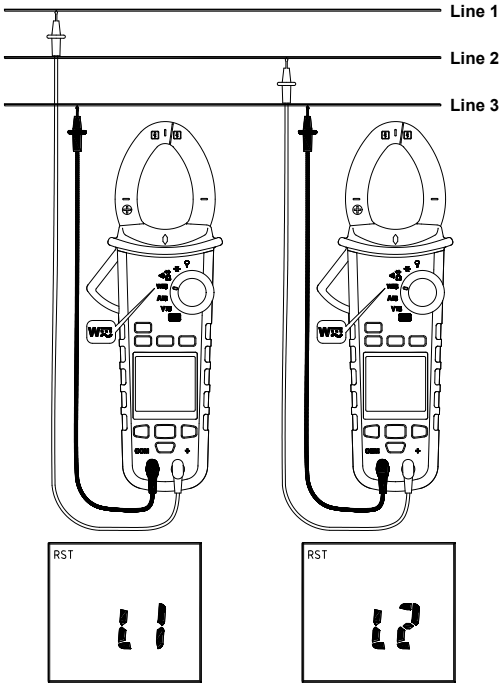
b. 3-phase 4 wire balanced / unbalanced

Step1. Set the rotary switch to the "W" position

Step2. Using the MODE button to choose the ACW mode .



Phase Rotation



NOTE :

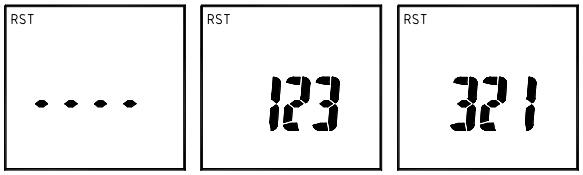
- Connect the supposed three phase of power source as shown above.
- The test is only available while the system frequency is stable.

Step 1. Set the rotary switch to the "W" position.
Step 2. Using the MODE button to choose the "RST" mode
Step 3. Connect the Red test lead to the supposed phase Line 1, and the Black test lead to the supposed phase Line 3.

a. If volt > 1050V, it will display “OLU” and flash. If volt <30 V, it will display “LoU”
b. If the frequency > 65 Hz or < 45 Hz, it will display “outF” and flash.
c. If it is normal, then it will display “L1” and flash for about 3 secconds.

Step 4. If it displays “L2”, then BUZZER will be sound for twice. Please switch the Red test lead to connect to the supposed phase Line 2 immediately before the “ L2 ” is disappeared.

Step 5. When “L2” is disappears, it will display the testing result.



a. If it displays “ 1 2 3 “, then the phase sequence is forward sequence, which means the supposed phase Line 1 is ahead of the supposed phase Line 2.

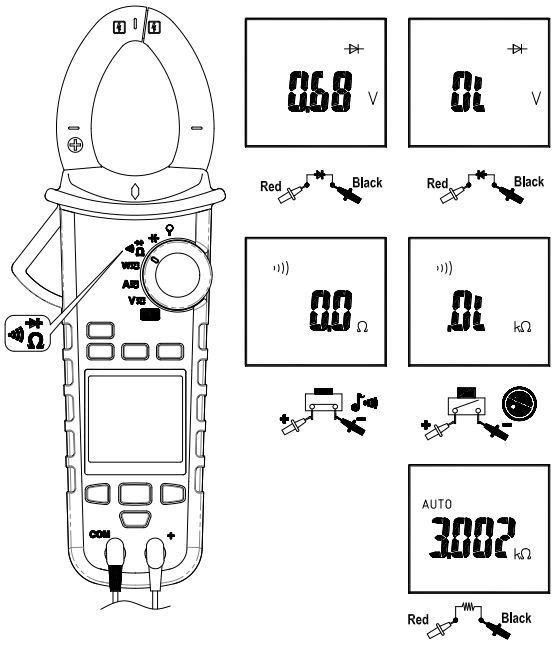
b. If it displays “ 3 2 1 ”, then the phase sequence is reversed sequence, which means the supposed phase Line 2 is ahead of the supposed phase Line 1.

c. ”----” means that the meter is unable to determine the results.

d. If it displays “LoU”, it is possible that you remove the test leads before completing the whole testing procedures.

Step 6 : To repeat the test, press the OK button again.

OHM Measurment



⚠ CAUTION

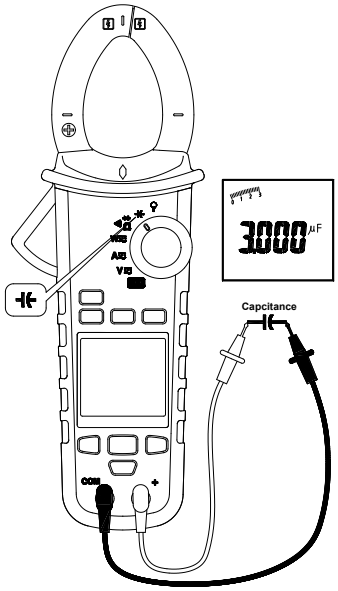
To avoid possible damage to the Meter or to the equipment under test, disconnect circuit power and discharge all high - voltage capacitors before measuring resistance and diode.

Note :

- Press MODE button to select the "Ω", "))) " or "⊣ " mode.
- The red LED will turn on, if the resistance of DUT is < 30Ω.

Measuring Capacitance

Set the rotary switch to the " ⊣⊢ " position.



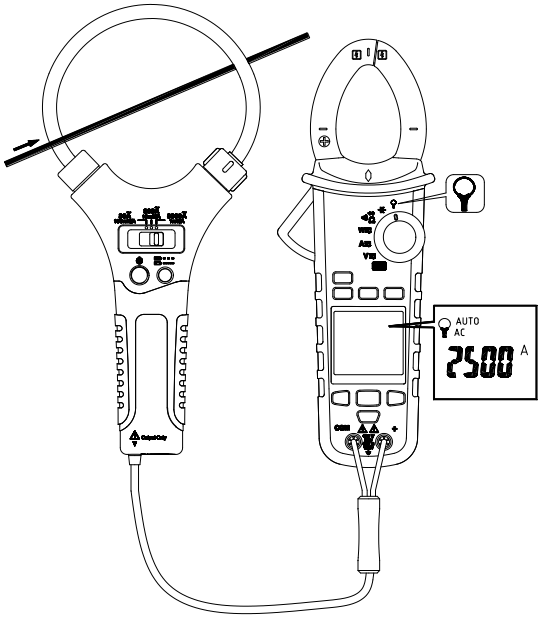
⚠ CAUTION

To avoid possible damage to the meter or to the equipment under test, disconnect circuit power and discharge all high-voltage capacitors before measuring capacitance. Use the DC voltage function to confirm that the capacitor discharged.

Note - The meter will display “diSC” while discharging the capacitor.

Measuring Current with Flex Clamp Meter

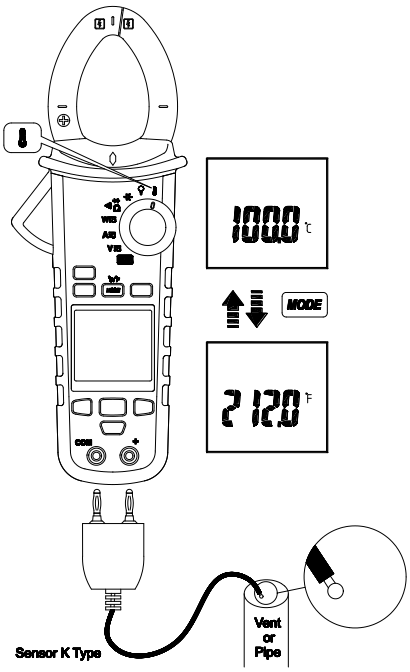
Set the rotary switch to the " ⚲ " position.
Keep the range of Flex Clamp meter which has 3000A/3V output ratio.



Note : Please follow the above illustrated instruction and measure a known current to make sure that the connection between two meters is correct.

Measuring Temperature °C / °F (For 158B)

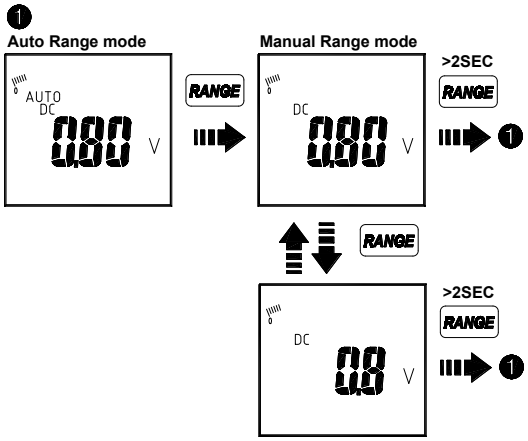
Set the rotary switch to the " 🌡 " position.



Don't take any high voltage measurement prior to accurate °C/°F measurements.

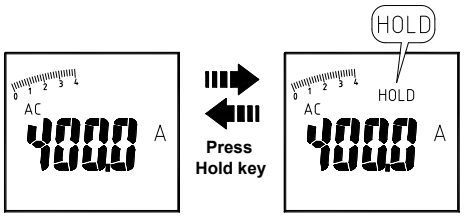
Other Function :

AUTO/MANUAL RANGE



HOLD Key

Press HOLD key to freeze display value.



SMART HOLD ： The meter will beep continuously and the display will flash if the measured signal is larger than the display reading. (for V, A, W, and Flex AC current function)

MEM mode

When measuring, you can save the reading to memory and load it from memory. The meter can store maximum 1000 data in memory.

To enter MEM mode, use arrow keys to select MEM icon, and press OK button.
In this mode, you can operate the following options:

Use Arrow keys to select the following icons.	
A-SAVE (Auto-Save)	You can operate the A-SAVE mode to automatically save new reading. When you use the probes to measure a new reading, the meter will automatically save it. In some case, the A-SAVE mode will not work. For example, the reading is smaller than the A-SAVE limit or the reading is OL. Press OK button to enter/exit A-Save mode. Press RANGE button to display the recorded data amount /currently measured value.
SAVE	Press OK button to enter SAVE mode. Press OK button to save a new reading to memory. Press RANGE button to display the recorded data amount /currently measured value. Press OK button for more than 2seconds to exit the mode.
LOAD	Press OK button to enter/exit LOAD mode. Press LEFT or RIGHT button to select data. Press RANGE button to select data index/ recorded value.
CLR	Press OK button to enter CLR mode. Press OK button to delete all data in memory. Press OK button for more than 2seconds to exit this mode.
MMA (MAX/MIN)	MMA mode is only valid when A-Save mode has executed and finished. Press OK button to enter MMA mode. Press OK button to display the maximum/ minimum value . Press OK button for more than 2seconds to exit this mode.

To exit MEM mode, use arrow keys to select MEM icon and press OK button.

A-Save limit.

Function	Limit
V, A, W, Flex A, Cap	5% of range
Hz	10% of 100Hz range 5% of 1k/10k Hz range

LOG mode

You can record a lot of reading to memory in a long time, then analyze and plot graph.
The meter can store a maximum 9999 data in memory.
The record rate can be set from 1 sec to 600 sec. The error of timer is less than 3 seconds per hour.
To enter LOG mode, use Arrow keys to select LOG icon, and press OK button to enter.
In this mode, you can operate the following options :

Use Arrow keys to select the following icons.	
SAVE	Press OK button to start data logger. The logger automatically records at regular intervals. To stop data logger, press OK button to return.
LOAD	Press OK button to review data from memory. Press LEFT or RIGHT button to select data. Press RANGE button to select data index/recorded value. Press OK button to return.
RATE	Press OK button to setup the record rate of logger. Press LEFT or RIGHT button to select rate. Press OK button to return.

To exit LOG mode, select LOG icon, and press OK button.

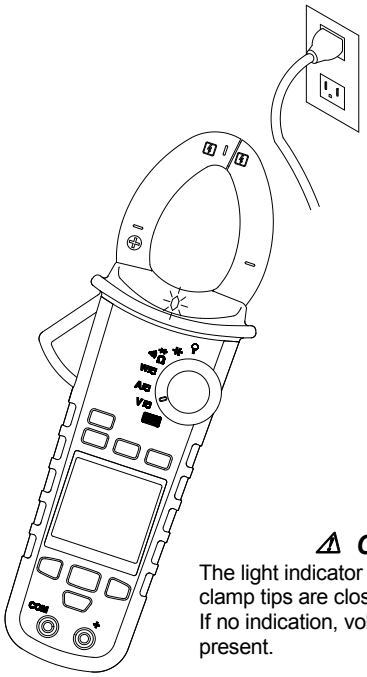
Bluetooth

The meter uses low-power Bluetooth v4.0 wireless technology to transfer the real-time data. You can use the RF communication to link to android or apple devices.
The RF communication range : Open air up to 10 m.
This function is invalid for INRUSH / Phase Rotation.

VoltSeek :

The red diamond shape of LED will Illuminate, if an electric field been detected form the jaw.

Note - This function is invaild for OHM, Capacitance, INRUSH, and Phase Rotation.



⚠ Caution

The light indicator turns on while the clamp tips are close to an electric field. If no indication, voltage could still be present.

Buzzer

The meter beeps once for every valid key-press, and beeps twice for every invalid key-press.

Power-up options:

Press one of the following buttons while tuning meter on from OFF position.

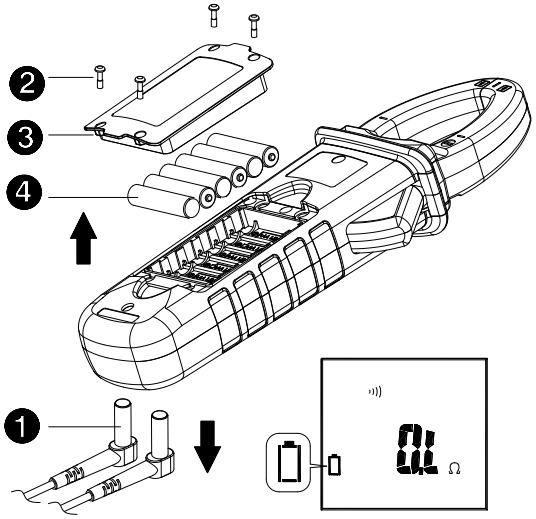
UP/DOWN button : Display of the software version.
OK button : Disable auto power off. The display shows “AoFF”.
LEFT button : Disable active backlight. The display shows “LoFF”.
HOLD BUTTON : Display all LCD symbols approx 10 seconds.

Battery State display

User can know the battery state from the battery indicator.

Batter State	Description
	The battery is full charged
	The battery is remained 2/3 power
	The battery is remained 1/3 power
	Replace the battery as soon as the low battery indicator blinks to avoid inaccurate reading

Battery Replacement



⚠ Caution

Remove test leads from meter before opening the battery cover or meter case.

Specifications

General Specifications

Overload protection : 1000 V_{rms}
600 A_{rms} For 155B/156B
1000 A_{rms} For 157B/158B
Display count : 10000 or 4000
Measuring rate : 3 times / sec.
Overrange display : "OL" or "-OL" .
Auto Power Off : Approx 15 minutes.
Power requirement : 6×1.5 V AAA alkaline batteries.
Battery life : 50 hours (without backlight).
Dimensions :
103 mm(W) x 243 mm(L) x 55 mm(D) for 155B/156B
103 mm(W) x 258 mm(L) x 55 mm(D) for 157B/158B
Weight : approx. 540g (with battery) for 155B/156B
approx. 600g (with battery) for 157B/158B

Environmental Conditions

Indoor Use.
Calibration : One year calibration cycle.
Operating temperature :
0°C ~ 10°C
10°C ~ 30°C (≦80% RH)
30°C ~ 40°C (≦75% RH)
40°C ~ 50°C (≦45%RH)
Storage temperature : -10 to 50°C
0 to 80% RH (batteries not fitted).
Temperature coefficient :
0.2 x (Specified accuracy) / °C, < 18°C, > 28°C .
Over voltage category :
IEC 61010-1 CAT.Ⅳ. 600V, CAT.Ⅲ. 1000V
IEC 61010-2-032, IEC 61010-2-033

CAT	Application field
Ⅱ	The circuits directly connected to Low-voltage installation.
Ⅲ	The building installation.
Ⅳ	The source of the Low-voltage installation.

Operating altitude : 2000m (6562 ft)
Conductor Size : 33 mm diameter (for 155B/156B)
40 mm diameter (for 157B/158B)
Pollution degree : 2

EMC : EN 61326-1
Shock Vibration: Per MIL-PRF-28800F for a Class 2 instrument.
Drop Protection : 4 ft. drop to hardwood on concrete floor.

Electrical Specifications

Accuracy is ±(% reading + number of digits) at 23°C ± 5°C < 80%RH. Accuracy is specified for a period of one year after calibration.

(1) Voltage

Function	Range	Accuracy*
DCV	99.99 V	± (0.7% + 2 dgt)
	999.9 V	
ACV	99.99 V	± (1.0% + 5 dgt) 50 – 500 Hz
	999.9 V	
HFR ACV	99.99 V	50 – 60 Hz ± (1% + 5 dgt) >60 – 400 Hz ± (5% + 5 dgt)
	999.9 V	

* DCV <1000 dgt, add 6 dgt to the accuracy.
ACV <1000 dgt, add 3 dgt to the accuracy.

Input Impedance : 3.5MΩ // <100pF

AC Conversion Type : AC Conversions are ac-coupled, true RMS responding, calibrated to the RMS value of a sine wave input. Accuracies are given for sine wave at full scale and non-sine wave below half scale. For non-sine wave (50/60Hz) add the following Crest Factor corrections:
For Crest Factor of 1.4 to 2.0, add 1.0% to accuracy.
For Crest Factor of 2.0 to 2.5, add 2.5% to accuracy.
For Crest Factor of 2.5 to 3.0, add 4.0% to accuracy.
CF 3 @ 460 V, 460 A (for 157B/158B),280 A(for 155B/156B)
2 @ 690 V, 690 A (for 157B/158B),420 A(for 155B/156B)

AC+DC Vrms Accuracy : same as ACV spec. +DCV spec.

(2) Current

155B/157B		
Function	**Range**	**Accuracy**
ACA	99.99A	50 – 60Hz ± (1.5% + 5dgt) **
	599.9A/999.9A*	>60 – 400Hz ± (2% + 5dgt) **
HFR ACA	0.10A – 99.99A	50 – 60Hz ± (1.5% + 5dgt) **
	599.9A/999.9A*	>60 – 400Hz ± (5% + 5dgt) **

* 155B : 599.9A ; 157B : 999.9A

** The measured value <1000dgt, add 5 dgt to the accuracy.

156B/158B		
Function	**Range**	**Accuracy**
DCA	99.99 A	± (1.5% + 0.2 A)
	599.9 A/999.9 A*	± (1.5% + 5 dgt) **
ACA	0.10 A – 99.99 A	50 – 60 Hz ± (1.5% + 5 dgt) **
	599.9 A/999.9 A*	>60 – 400 Hz ± (2% + 5 dgt) **
HFR ACA	0.10 A – 99.99 A	50 – 60 Hz ± (1.5% + 5 dgt) **
	599.9 A/999.9 A*	>60 – 400 Hz ± (5% + 5 dgt) **

* 156B : 599.9 A ; 158B : 999.9 A

** The measured value <1000 dgt, add 5 dgt to the accuracy.

Position Error : ±1% of reading.

AC Conversion Type and additional accuracy is same as AC Voltage.

AC+DC Arms Accuracy : Same as ACA spec + DCA spec.

- For better measurement accuracy of high current and the constraint of temperature increasing of maximum range 600A/1000A AC, do not measurement more than 10 mins. and have rest time with 30 mins. at least in between every measurement (for 155B/157B).
- DCA affected by the temperature and the residual magnetism. Press HOLD key > 2 seconds to compensate it.

(3) Peak Hold : Peak MAX / Peak MIN

155B/156B		
Function	**Range**	**Accuracy**
ACV	140.0 V	± (3.0% + 15 dgt)
	1400 V	
ACA	140.0 A	± (3.0% + 15 dgt)
	850 A	

157B/158B		
Function	**Range**	**Accuracy**
ACV	140.0 V	± (3.0% + 15 dgt)
	1400 V	
ACA	140.0 A	± (3.0% + 15 dgt)
	1400 A	

Accuracy defined for :
Sine wave, ACV>5 V rms / ACA≧5 A rms, Freq.50 – 400 Hz.

- For square wave, the accuracy is unspecified.
- Only suitable for the repetitive events.

(4) Frequency

Function	Range	Accuracy
Frequency	20.00 – 99.99 Hz	± (0.5% + 3 dgt)
	20.0 – 999.9 Hz	
	0.020 – 9.999 KHz	

Sensitivity :
10 – 100 Vrms for AC 100 V range
10 – 100 Arms for AC 100 A range (>400Hz Unspecified)
100 – 1000 Vrms for AC 1000 V range
100 – 600/1000 Arms for AC 600 A/1000 A range
(>400Hz Unspecified)
- Reading will be 0.0 for signals below 10.0 Hz.

(5) Total Harmonic Distortion :

Function	Range	Accuracy
ACA /ACV	99.9%	± (3.0% + 10 dgt)

Harmonic distortion measurement :

Harmonic order	Range	Accuracy
H01 ~ H12	99.9%	± (5% + 10 dgt)
H13 ~ H25		± (10% + 10 dgt)

- If ACV<10 V rms or ACA <10 A rms, it will display “rdy”.
- If the fundamental frequency out of range 45 – 65 Hz, it will display “out.F”.

(6) Inrush Current :

Function	Range	Accuracy
ACA	99.99 A	± (2.5% + 0.2 A)
	599.9 A /999.9 A *	± (2.5% + 5 dgt)

* 155B/156B : 599.9 A ; 157B/158B : 999.9 A

Accuracy defined for :
Sine wave, Freq. 50/60 Hz
- Integration time about 100m sec

Trigger level of INRUSH : 1 A rms for 100 A range
10 A rms for 600 A/1000 A range

(7)Active Power : Watt (DC/AC)

Function	Range	Accuracy
ACW / DCW	9.999 kW**	A,error×V,reading + V,error×A,reading
	99.99 kW	
	599.9 kW/999.9 kW*	

* 155B/156B : 599.9 kW ; 157B/158B : 999.9 kW

** The measured value<1.000 kW，add 10 dgt to the accuracy.

Accuracy defined for :
ACW :
Sine wave , ACV≧ 10 V rms, ACA≧ 5 A rms
Freq. 50 – 60 Hz, PF=1.00
DCW (For 156B/158B only) :
DCV ≧ 10 V , DCA ≧ 5 A

(8) Power Factor

Function	Range	Accuracy*
PF	1.00	± 5 dgt

* ACA<100 A, add ± 3 dgt to the accuracy (For 155B/157B)

(9) Resistance & Continuity & Diode :

Function	Range	Accuracy
Resistance	999.9 Ω	± (1.0% + 5 dgt)
	9.999 kΩ	
	99.99 kΩ	
Continuity	999.9 Ω	± (1.0% + 5 dgt)
Diode	0.40~ 0.80 V	± 0.1 V

Max. Test Current : Approx. 0.5 mA.
Maximum Open Circuit Voltage for Ω,))) : Approximate 3 V
Maximum Open Circuit Voltage for diode : Approximate 1.8 V
Continuity Threshold : ＜30Ω Beep On.
＞100Ω Beep OFF.
Continuity Indicator : 2 kHz Tone Buzzer
Continuity response time : < 100 ms.

(10) Capacitance :

Function	Range	Accuracy
Capacitance	3.999 µF	± (1.9% + 8 dgt)
	39.99 µF	
	399.9 µF	
	3999 µF	

(11) Flex AC Current (voltage input):

Function	Range(1mV/1A)	Accuracy*
ACA	300 A/3000 A	±(1%+5 dgt) (50–500 Hz)**
HFR ACA	300 A/3000 A	±(1%+5 dgt) (50–60 Hz)** ±(5%+5 dgt) (61–400 Hz)**
Peak	420 A/4200 A	±(3%+80 dgt) (50–500 Hz)
INRUSH	300 A/3000 A	±(2%+10 dgt) (50/60 Hz)
Frequency	99.99 Hz/999.9 Hz	± (0.5%+3 dgt) (<500 Hz)
THD	99.9%	±(5%+10 dgt)
Harm H01-H12	99.9%	±(5%+10 dgt)

*The accuracy of sFlex-T is not included.
**ACA <300 dgt, add 3 dgt to the accuracy.

— If ACA <30 A rms, it will display “rdy” in Harmonic mode.
Trigger level of INRUSH : 1% of current range.

(12) Temperature

158B		
Function	**Range**	**Accuracy**
°C	-50°C – 399.9°C	± (1% + 3°C)
	400°C – 1000°C	
°F	-58°F – 751.9°F	± (1% + 6°F)
	752°F – 1832°F	

— The above specification is assumed at the ambient temperature stability within ±1°C. In addition, the temperature probe has to be connected to meter for more than 1 hour in advance. The meter needs 2 hour for stability for ambient temperature change more than ± 5°C.

Limited Warranty

This meter is warranted to the original purchaser against defects in material and workmanship for 3 years from the date of purchase. During this warranty period, RS Components will, at its option, replace or repair the defective unit, subject to verification of the defect or malfunction.
This warranty does not cover fuses, disposable batteries, or damage from abuse, neglect, accident, unauthorized repair, alteration, contamination, or abnormal conditions of operation or handling.
Any implied warranties arising out of the sale of this product, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the above. RS Components shall not be liable for loss of use of the instrument or other incidental or consequential damages, expenses, economic loss, or for any claim or claims for such damage.
Some states or countries laws vary, so the above limitations or exclusions may not apply to you.
For full terms and conditions, refer to the RS website.

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