

Model No.: MS-W26N



Compatible with wireless connectivity



Scan the QR code to view demo video



Instructional Video



## 1. Contents

- Non-Contact Meter
- Drawstring bag
- Manual

Option, wireless Connectivity bluetooth module, MS-WMB1 (fitted inside of the meter)\*

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## 2. Specifications

Three Measurement / Function Mode	Non-Contact AC Current / Voltage detection ((NCCD / NCVD (NCCVD))	'Scan' Measurement mode	'Rtm' Real time measurement / monitor mode
AC voltage / current / frequency measurement		220V / 0~600A / 50Hz	
Identify current flow through Live or Neutral wire			*
Locate live and neutral wire	*		*
*Display electric power through wireless connectivity to Smartphone			*
*Display impedance / frequency through wireless connectivity to Smartphone			*
*Display AC Peak Voltage (VP) / Inrush Current (IR) through wireless connectivity to Smartphone			*
*Display BTU / hr, through wireless connectivity to Smartphone			*
*Display horsepower [HP(I) / (E)] through wireless connectivity to Smartphone			*
*Display calculation of CO <sub>2</sub> emission through wireless connectivity to Smartphone			*
Resolution		1V/0.1A	

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'APO' auto power off	Not activated within 5 minutes		
Mute function selectable / Rel.	*		
Blacklight ON/OFF selectable		*	
'Over rated current' alarm		*	With buzzer
Abnormal 'Current' alarm detection / monitoring			*
Fluctuating 'Voltage' alarm detection / monitoring			*
Measurable wires / cables type	7 types of wires / cables, total 29 types available		
Self-user calibration (Group C-1 ~4)		*	
Low battery indication	<7.0V, when below 5.6V, auto power off		
*Wireless Connectivity Compatible	Connect through external bluetooth module		
AC 'Current' comparison			*
Trace / Locate buried wire / cables inside walls	*		
Locate underground heavy current armoured cables	*		
Battery powered by	1 x 9V (6F22 / 6LR61 / 1604)		
Dimensions (approximately) (L x W x H)	185 x 60 x 50		
Weight (approximately) (Without battery) grams	145		

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## 3. Types / Size of Measurable Wires / Cables

PVC / Rubber / Others	Conductor area (Gauge metric (mm <sup>2</sup> )) / US (AWG)#				
1 core '1Ø' round cable	0.75/AWG#19	1.5/AWG#16	2.5/AWG#14	4.0/AWG#12	6.0/AWG#10
	10/AWG#8	16/AWG#6	25/AWG#4	35/AWG#2	
2 core '2Ø' round cable	0.5/AWG#21	0.75/AWG#19	1.0/AWG#18	1.5/AWG#16	2.5/AWG#14
2 core '2Ø' flat cable	0.5/AWG#21	0.75/AWG#19	1.0/AWG#18	1.5/AWG#16	2.5/AWG#14
2 core round 2E '2E' Mineral Insulated Copper-Clad Cable (MICC)		1.5/AWG#16			
2 core round 2F '2F' Steel Wire Armoured Cable (SWA)			2.5/AWG#14		
3 core '3Ø' round cable	0.5/AWG#21	0.75/AWG#19	1.0/AWG#18	1.5/AWG#16	2.5/AWG#14
3 core '3Ø' flat cable	1.0/AWG#18			1.5/AWG#16	2.5/AWG#14

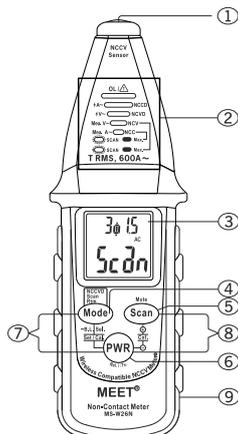
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## 4. Over Rated Current Alarm of Wires / Cables setted (for reference)

	Conductor area (Gauge metric (mm <sup>2</sup> )) / US (AWG)#				
Diameter (mm <sup>2</sup> )	0.5/AWG#21	0.75/AWG#19	1.0/AWG#18	1.5/AWG#16	2.5/AWG#14
Rated current (A)	2.5	3.8	5.0	7.5	12.5
Diameter (mm <sup>2</sup> )	4.0/AWG#12	6.0/AWG#10	10/AWG#8	16/AWG#6	25/AWG#4
Rated current (A)	20.0	30.0	50.0	64.0	100.0
Diameter (mm <sup>2</sup> )	35/AWG#2				
Rated current (A)	105				

## 5. Descriptions

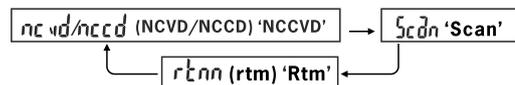
- NCCV sensor**  
Sense voltage / current / multi-information
- Red and Green LED indications**
  - Red LED at the top 'OL/Δ' indicates Over rated current / Abnormal current / Fluctuating Voltage alarm
  - Green 'A~' / Red 'V~' LED indicates 'Current' / 'Voltage' detected when at NCCD / NCVD (NCCVD) detection mode
  - Steady Red 'Mea. V~' / Green 'Mea. A~' LED lights up when voltage / current is measured at 'Scan' / 'rtm' mode
- LCD Display with backlight**



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### ④ 'Mode' Select button

a) At measurement 'Sel' mode, press once to switch:



b) Press and hold for 3 secs to On / Off backlight.

c) During 'Scan' or 'rtm' mode

- Press once to skip next setting interface at 'Setting' mode

### ⑤ 'Scan' Scan button

a) At 'Scan' mode, press once to start measuring

b) At 'rtm' mode, press once to activate / deactivate monitoring alarm feature.

c) When at 'Setting' mode, press once to shift forward (➔).

### ⑥ 'PWR' Power button

a) Press and hold for 3 secs. to Power ON / OFF the meter.

b) When at 'NCCVD' / 'NCVD' (NCCVD) mode, press once to adjust the reading to zero 'Rel'.

c) Press twice to activate or deactivate the wireless connectivity 'Tx'

d) When at 'Setting' mode, press once to shift reversely (➔).

### ⑦ 'Mode' + 'PWR' button

Simultaneously press and hold 'Mode' (④) + 'PWR' (⑥) button for 3 secs. to enter 'Setting' mode; after finish the 'Setting', repeat it to enter 'measurement' mode.

### ⑧ 'Scan' + 'PWR' button

Simultaneously press and hold 'Scan' (⑤) + 'PWR' (⑥) button for 3 secs. to confirm 'CNF' the setting and enter automatically the next setting option.

### ⑨ Battery cover on the rear side

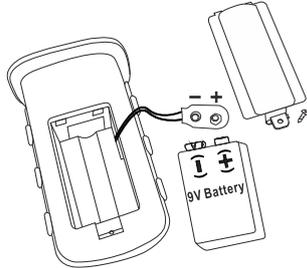
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## 6. Explain of LCD symbol

	Non-Contact voltage detection with numerical digital display of AC voltage signal strength	<b>AC</b>	Alternating voltage / current
	Non-Contact current detection with numerical digital display of AC current signal strength	<b>APO</b>	Auto Power OFF
	'Scan' Measurement mode is activated	<b>REL</b>	Adjust reading to zero
	'Real' time measurement mode is activated		Low battery display
		<b>Tx.</b>	Wireless Connectivity function is activated, transmittable and receivable data

## 7. Battery replacement

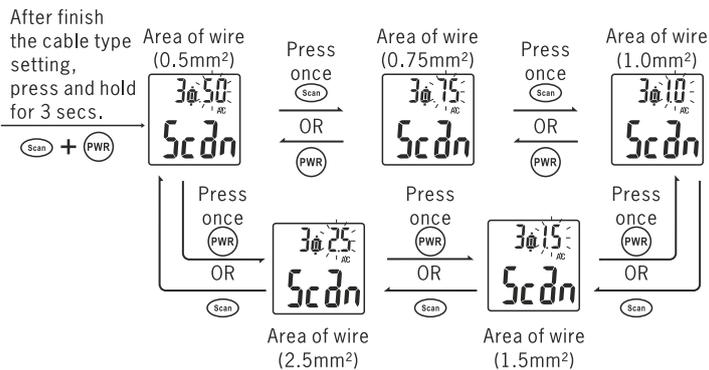
- When the low battery warn icon appears on the LCD, loosen the screw and open the battery cover, replace a fresh 9V alkaline battery with the proper polarity as shown on right side.
- To avoid chemical leakage from the battery, please remove the battery if you are intend not to use in short time.



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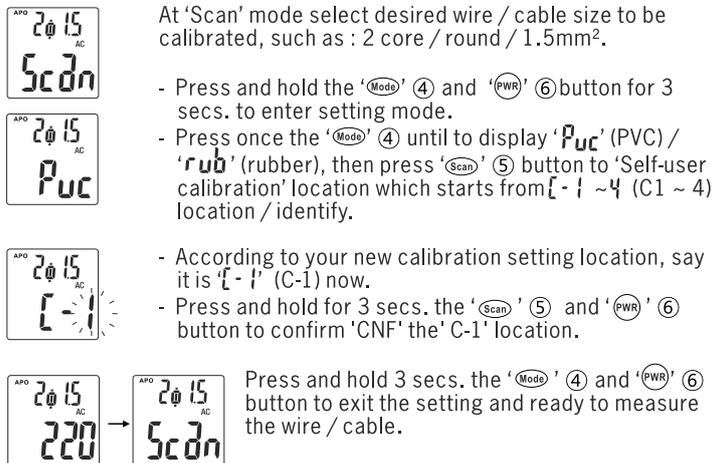
### c) Set the conductor area

After finish the type of wire / cable setting, simultaneously press and hold the 'Scan' (5) and 'PWR' (6) button 'CNF' for 3 secs. to confirm until the meter automatically enter the next setting interface to set the conductor area.  
When the number of conductor area e.g. '10' (1.0mm<sup>2</sup>) flashes, press the 'Scan' (5) + or 'PWR' (6) - button to select the corresponding conductor to be under test.



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### \*How to set 'Self-user Calibration', if necessary



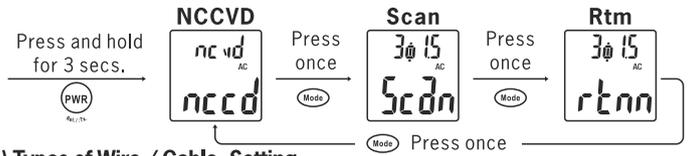
#### Example:

- After measured the existing or new 'known readings', it shows '215' V and '5.0' A.
- Press and hold the button 'Mode' (4) and 'PWR' (6) for 3 secs. to enter 'Self-user calibration' mode

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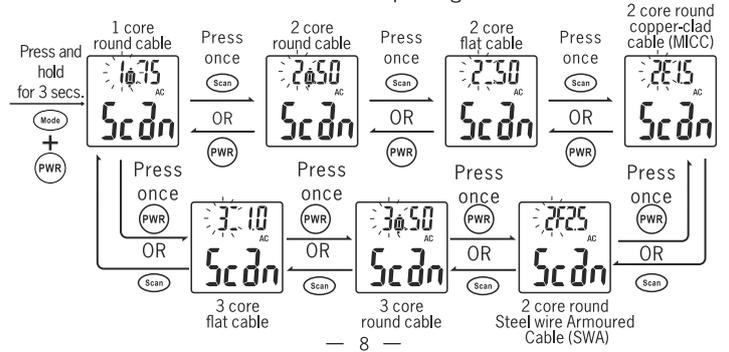
## 8. Setting Before Using

### a) Select between three Measurement Modes



### b) Types of Wire / Cable Setting

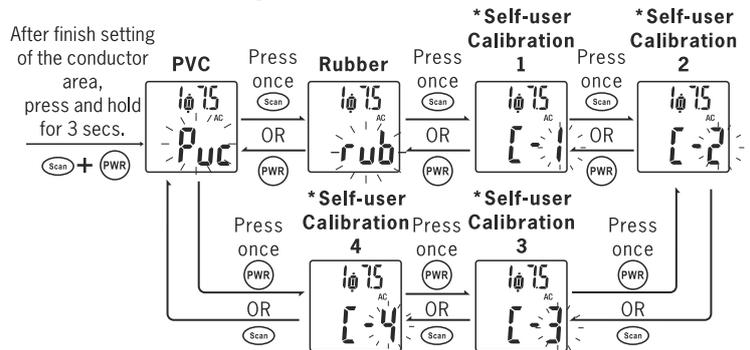
After enter 'Scan' or 'rtm' measurement mode, simultaneously press and hold 'Mode' (4) and 'PWR' (6) button to enter 'setting' mode until the number ('1'/'2'/'3') of the cable core flashes, press once the 'Scan' (5) + / 'PWR' (6) - button to select the number of core corresponding to the cable under test.



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### d) Cable Materials / \*'Self-user Calibration' Mode Setting

After finish setting of the conductor area, simultaneously press and hold the 'Scan' (5) and 'PWR' (6) button 'CNF' for 3 secs. to confirm until the meter automatically enter the next setting interface to select the cable material / \*'Self-user calibration' mode. When the setup option e.g. 'Puc' (PVC) flashes, press the 'Scan' (5) or 'PWR' (6) button to select the item corresponding to the material of cable under test. i.e. 'Puc' (PVC) or 'rub' (rubber). After finish setting of cable materials and or if necessary \*'Self-user' (C1 - C4) calibration, simultaneously press and hold the 'Scan' (5) and 'PWR' (6) button 'CNF' 3 secs. to confirm.



**Note:** [- 1 ~ -4 (C1 ~ C4) are 'Self-user calibration' location / identify.

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- Press once the button 'Scan' (5) + until to change the reading 5.0 according to your real measured value from different instruments, say '8.0'.
- After, press once simultaneously both 'Scan' (5) and 'PWR' (6) to confirm 'CNF' the new reading '8.0'.



- Now, you may change the voltage '215' value accordingly, say '220', if necessary.
- After, press and hold simultaneously 'Mode' (4) and 'PWR' (6) button for 3 secs. to exit from setting.



- Now, the new 'Self-user calibration' value display '220' V and '8.0' and the location is 'C-1'

### NOTES:

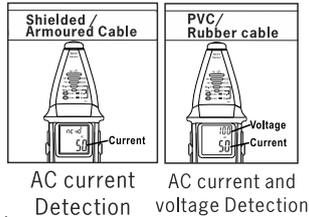
- 1) Press and hold 'Mode' (4) and 'PWR' (6) button for 3 secs. to enter or exit the setting mode.
- 2) Press once the 'Mode' (4) button skip to next setting interface.
- 3) Press and hold 'Scan' (5) and 'PWR' (6) button for 3 secs. to confirm 'CNF' the new setting.

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## 9. Measurement

### A) 'NCCVD' Non-Contact AC Voltage / Current Detection

- Hold the meter away from any AC voltage sources, press and hold 'PWR' ⑥ button for 3 secs. to power on the meter and automatically enter to 'NCCVD' 'nc vd / nccd' mode.
- Move the 'NCCVD' sensor close to the cable loaded with AC voltage / current.



AC current Detection AC current and voltage Detection

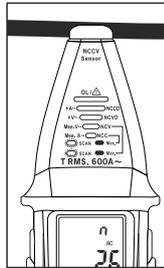
- Once the presence of voltage / current is detected, LED flashes accompanying with beeps. Meanwhile the numerical AC signal strength NCV / NCCD value will appear on the LCD display.
- Heaver the current and or voltage flowing through the cable or closer, higher the numerical reading will display on the LCD and more rapid beeps with LED flashes.

- Notes:**
- If the reading on the LCD is too 'high' during measurement or floating signal, press once the 'PWR' ⑥ 'Rel.' button to adjust the reading to zero.
  - When the meter enters 'NCCVD' mode, it will automatically adjust the reading to 'zero' according to that environment. Therefore, hold the meter far away from any AC voltage sources when you power on the meter to obtain highest sensitivity level.

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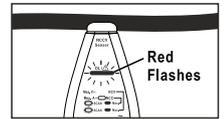
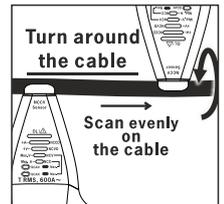
### C) Use 'Rtm' Real Time Mode to Measure AC Current and or Voltage on Cable

- Press and hold 'PWR' ⑥ button to power on the meter which automatically enter to 'NCCVD' 'nc vd / nccd' mode.
- Press twice 'Mode' ④ button to enter 'Rtm' 'rtm' mode.
- According to the cable size under test, observe the right specification or set accordingly.
- Make the 'NCCVD' sensor to tightly **sufficient contact** with the cable.
- The measured value display on the LCD in real time. In the meanwhile, red NCV or green NCC LED flashes.
- Move the meter on the cable until the maximum 'NCV' / 'NCC' value is detected and, the LED turns to steady on.



### B) Use 'Scan' Mode to Measure AC Current and or Voltage on Cable

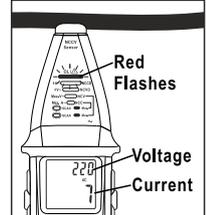
- Press and hold 'PWR' ⑥ button to power on the meter which automatically enter to 'NCCVD' 'nc vd / nccd' mode.
- Press once 'Mode' ④ button to enter 'Scan' 'scn' mode.
- According to the cable size under test, observe the right specification and or set accordingly.
- Make the 'NCCVD' sensor to **tightly and sufficient contact** with cable, press once 'Scan' ⑤ button, 'scn' starts blinking then slowly and evenly move back and forth.
- Or the other measurement way is to **sufficient contact** with the cable, press once 'Scan' ⑤ button, then turn around the cable. During turning around, the sensor must **tightly and sufficient contact** with the cable to get highest accuracy.
- Until the beeps emit and LEDs stop flashing, measured reading will display on the LCD.
- When the flowing current is over the rated current of the measured cable, the red overload alarm LED 'OL/Δ' will flash.



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### D) Use 'Rtm' Real Time Mode to Monitor Abnormal Current or Fluctuating Voltage

- Under 'Rtm' 'rtm' mode, make the 'NCCVD' sensor to **tightly sufficient contact** with the cable.
- Move the 'NCCVD' sensor to find AC voltage and or AC current with higher reading and then stop.
- Press once the 'Scan' ⑤ button to activate the monitoring feature (another press to deactivate).
- Observe the LCD screen with Red 'OL/Δ' LED flashes and buzzer sounds when fluctuating / abnormal reading of voltage or current is detected.



**NOTE:**

Results measured on shielded / armoured cable display the AC current only.

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# Wireless Connectivity

## 1. Operating the Smartphone / Tablet and the meter

- Need external wireless bluetooth module  
MS-WMB1 (external wireless module)

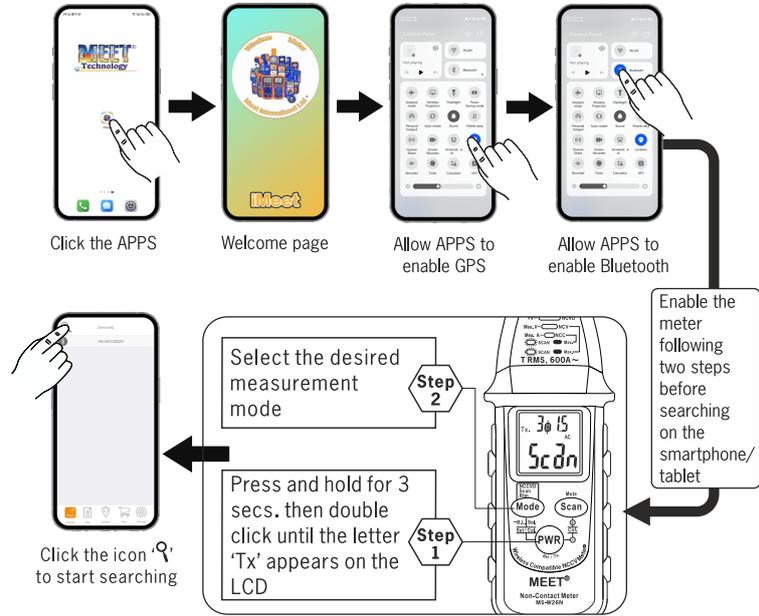
- Download free 'iMEET' iOS APPS from App Store or scan below QR code (The Smart phone / Tablet must be with iOS 11 version or above).

- Download free 'iMEET' Android APPS from Google Play Store or scan below QR code (The Smart phone / Tablet must be with Android 9.0 or above).



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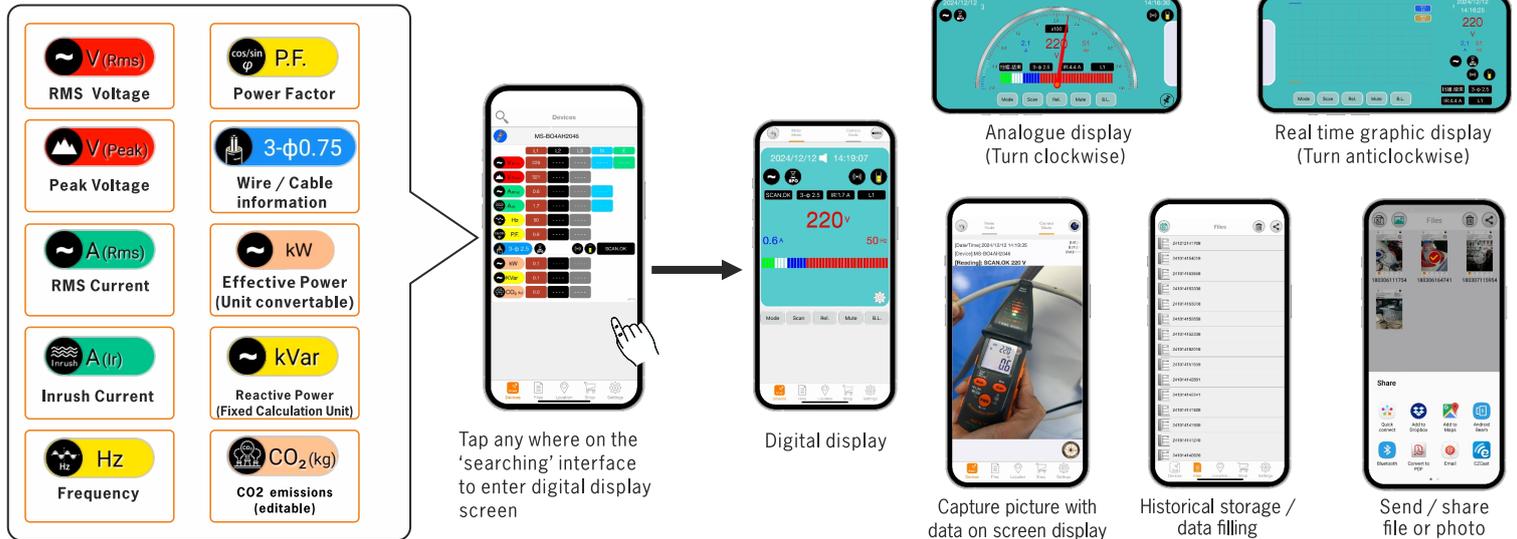
- Click the APPS icon to start connectivity.



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## 2. Wireless connectivity function illustration

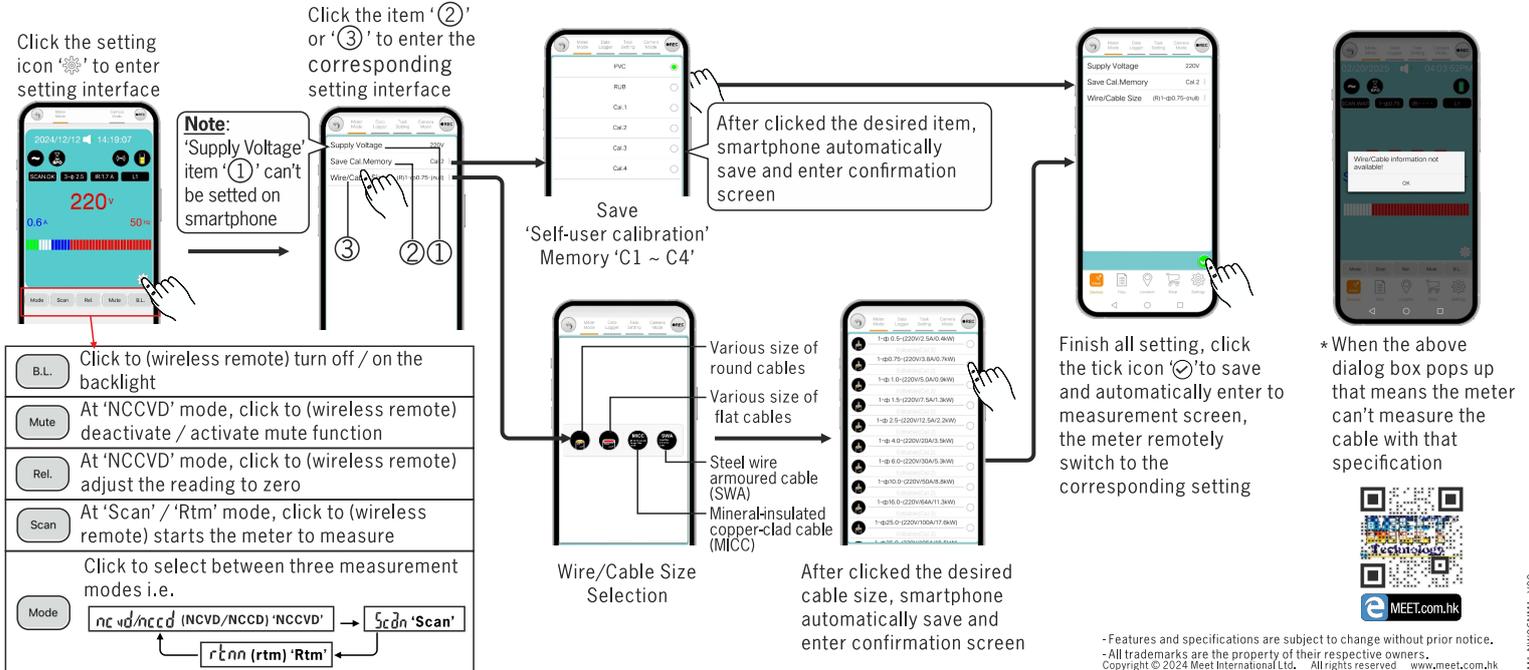
a) After connected with the Smartphone / tablet, you can view the measured data and lots of multi information.



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b) Switch to the digital display page, which allows you to select more functions for wireless remote operation of the NCCVMeter.



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