Non-Contact Phase Rotation with NCV Meter

Model No.: 886(5B)NLC

Thanks for purchasing MEET's Phase Rotation with NCV Meter

1. Contents

- Phase Rotation Meter
- Operation manual

2. Introduction

MS-886(5B) NLC, a non-contact phase rotation with 'NCV' meter. It detect phase or Live wire without physically contact with exposed bare wires; cables; terminal or busbar.

Fully insulated sensor clips directly sense the Live voltage; phase sequence (3 phase) on the insulated or non-insulated wires and display the results on LCD. Non-contact phase meter detects quickly, easily and greatly improves the safety during on-live test or check, it effectively protects the personal safety of operators and save time.

3. Advance Features:

- Find phase sequence
- Locate missing phase
- Trace same phase wire
- Non-contact AC detection
- Self test L1/L2/L3 clips through known AC voltage source

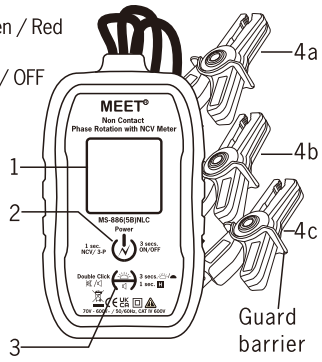
4. Specifications

- Operating voltage: 2 AAA (R03 / LR03) ; 3V
- Operating current: < 10mA
- Auto Power Off: 5 mins.
- Low battery indication: ⩽ 2.6V
- AC voltage detection: > 70V AC, non contact
- Operating frequency : 50Hz / 60Hz (45~66Hz)
- Hold / Freeze the results
- Back light: Selectable ON / OFF
- Back LED status indication: 1) Red, when NCV detected or Reverse phase
  2) Green, when Forward phase
- Audible sound (Mute selectable): 1) Continuous, when Forward phase
  2) Intermittently, when ACV detected or Reverse phase
- Operating / Storage condition: 0~50°C / 10~95%RH
- Dimensions: (LxWxD) mm (product only): 111 x 68 x 35
- Weight (approx.) grams., (without battery): 350

5. Descriptions

1) LCD with tri-colored back light, White / Green / Red
2) Power and mode button
   a) Press and hold for 3 secs. to Power ON / OFF
   b) Press once to switch 'NCV' to '3 - P' or '3 - P' to 'NCV' mode
3) Back light ON / OFF button
   a) Press and hold for 3 secs. to Power ON / OFF back light
   b) Press once to hold / freeze the screen
   c) Double click to switch 'Mute' to 'Audible' or 'Audible' to 'Mute'

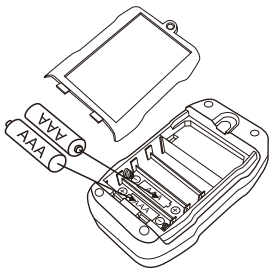
4a) Brown test clip (Phase L1) and NCV sensor
4b) Black test clip (Phase L2)
4c) Grey test clip (Phase L3)



6. Battery Replacement

Replace 2 pcs. AAA (R03 / LR03) ; 3V battery when low battery warning '🔋' flash on LCD. Remove the holster and unscrew the cover (on rear side), replace 2 pcs. fresh battery according to the correct polarity shown in the compartment.

To avoid the chemical leakage from the battery, remove the battery if you are intended not to use the meter in short time.



7. Please observe the following symbols for safety instructions

⚠ A triangle containing an exclamation mark indicates important informationin these operating instructions which is to be observed without fail.

⚠ The triangle containing a lightning symbol warns of danger of an electric shock or of the impairment of the electrical safety of the device.

☞ The ' hand ' symbol indicates special information and advice on operation of the device.

CE This product has been CE-tested and meets the necessary european guidelines.

UK CA UK Conformity of Assessed

⧈ Class 2 insulation (double or reinforced insulation).

CAT IV CAT IV meters are designed to protect against transients and fault currents from the primary supply level (overhead or underground utility service).

⏚ Ground potential.

Safety instructions

⚠ **Please read throughly the operating instructions completely before using the product for the first time; they include important information necessary for correct operation.**

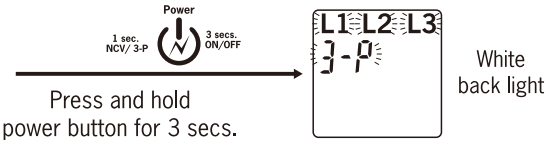
⚠ **The guarantee is rendered invalid when damage is incurred as a result of non-compliance with the operating instructions ! We do not assume any liability for any damage arising as a consequence ! We will also not assume any responsibility for damage to assets or for personal injury caused by improper handling or failure to observe the safety instructions.The warranty is voided in these cases.**

This device left the manufacture's factory in a safe and perfect condition. We kindly request the user to observe the safety instructions and warnings contained in this operating manual to preserve this condition and to ensure safe operation !

8. Phase Sequence Measurement

☞ **Before measurement, check the meter is working properly by measuring to a known voltage source.**

A) Press and hold power button for 3 secs. to turn on the meter, then press once after 'nCv' mode to enter phase sequence measurement mode. 'L1', 'L2', 'L3' and '3-P' will flash with a short 'bi' sound.



Press and hold power button for 3 secs. then, press once after 'nCv'mode to enter phase measurement mode

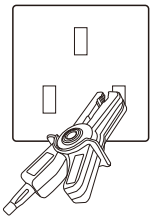
White back light

Phase sequence measurement mode

Self-Test

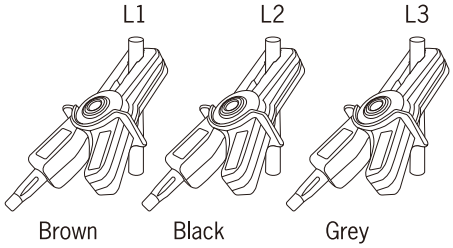
☞ **Perform self-test the meter before measurement !**

Place the clips L1/ L2 / L3 one at a time on any known power source L1/L2/L3 stops blinking indicates the meter works properly.

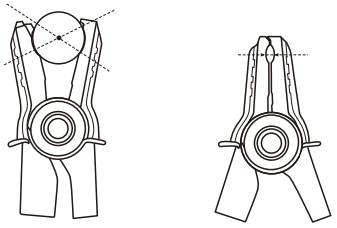


⚠ **Always keep your fingers behind the guard barrier of the clips !**

B) Connect the corresponding conductor as shown below:
Brown = L1, Black= L2 , Grey =L3



Clip on the conductor properly as shown below



☞ 'L1', 'L2' , 'L3' stop blinking when the conductor exceed 70V AC

C) Test results display on LCD

☞ **All segments flash simultaneously** The meter has entered phase sequence measurement mode	L1 L2 L3 3-P	White back light with a short 'bi' sound
☞ **Three phase in sequence** All three phase available, phase rotation direction 'R' turns to right	L1 L2 L3 3-P R	Green back light with a continuous buzzer sound
☞ **Three phase unsequenced** All three phase available, rotation direction 'L' turns to left. To maintain the rotation direction to right 'R', you have to cross connect either two clips	L1 L2 L3 3-P L	Red back light with intermittent buzzer sound

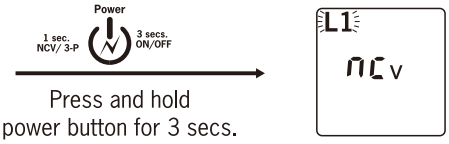
☞ Missing phase display

Phase L2 and L3 presence, phase L1 is missing	L1 L2 L3 3-P	White back light
Phase L1and L3 presence, phase L2 is missing	L1 L2 L3 3-P	White back light
Phase L1 and L2 presence, phase L3 is missing	L1 L2 L3 3-P	White back light
Only phase L1 presence, phase L2 and L3 is missing	L1 L2 L3 3-P	White back light
Only phase L2 presence, phase L1 and L3 is missing	L1 L2 L3 3-P	White back light
Only phase L3 presence, phase L1 and L2 is missing	L1 L2 L3 3-P	White back light

9. NCV, Non-Contact Voltage Detection

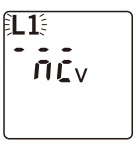
☞ **Hold the meter with the attached clips away from any AC source before turning ON the meter.**

A) Press and hold power button for 3 secs. to Power ON, an 'On' will display for 1 second with a short 'bi' , then, the meter entered to 'NCV' mode, blinking 'L1' means the brown clip being as 'NCV' sensor to detect AC voltage.



Press and hold power button for 3 secs.

Hold the meter and move the brown clip (NCV sensor) near to the live power source. Once AC voltage detected, the red back light will illuminates with short audible buzzer 'bi' and the bar graph on LC display indicates signal strength.
Stronger the AC signal detected, more rapidly the sound and more bars graph appears on display.



10. Typical application examples of 'NCV' function


Identify 'Live / Neutral' of wires

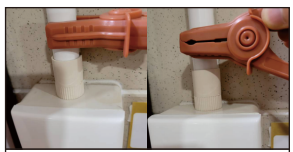

Check proper connection of two plug appliances


Check 'Earth / Ground' connection of electrical appliances


Identify 'Live / Neutral' connection of socket


Check condition of 'Fuse' blown.


Instantaneously find AC power on plug; socket; switch etc.


Detect presence of AC wires inside the PVC conduits