METREL MD 126 Voltage and Phase Sequence Detector User Manual

Contents

METREL

METREL MD 126 Voltage and Phase Sequence Detector

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Introduction

MD 126 is an essential tool for work in three-phase systems. Before any other work is done, the presence or absence of voltage must be determined, and the phase sequence confirmed. The operation is fast and intuitive.

- Key features:
- Non-contact voltage detection.
- Range 100 1000 V.
- Phase sequence detection.
- Colour LED indication.
- Sound indication.
- LED Flashlight at the back.
- Work flashlight at the front.

Safety

- Respect the safety rules indicated in the user manual.
- Read understand and follow safety rules and operating instructions in the manual before using this tester.
- The tester's safety features may not protect the user if not used in accordance with the manufacturer's instructions.
- Check on a known live source within the rated AC voltage range of the tester before use to ensure it is in working order.
- Insulation type and thickness, distance from the voltage source, shielded wires, and other factors may effect reliable operation. Use other methods to verify live voltage, if there is any uncertainty.
- Do not use if the tester appears damaged or if it is not operating properly. If in doubt, replace the tester.
- Do not use on voltages that are higher than as marked on the tester.
- Use caution with voltages above 30 volts AC as a shock hazard may exist.
- Comply with all applicable safety codes. Use approved personal protective equipment when working near live electrical circuits particularly with regard to arc-flash potential.
- Do not operate tester if Low Battery warning occurs. Replace batteries immediately.

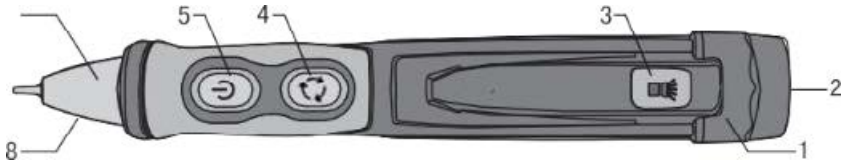
Safety symbols

Potential danger. The user should refer to the manual for important safety information.

Dangerous voltages may be present.

The equipment is protected by double or reinforced insulation

Product Description



1. Battery cover
2. Flashlight
3. Flashlight button
4. Phase rotation button
5. On/Off button
6. LED indicators
7. Detector tip
8. Work flashlight

Operation

Turning the Tester On
Press the ON/OFF button. The tester will beep once. The green LED and the work flashlight will turn on to indicate that the tester is working in high voltage mode and is ready for use.

Turning the Tester Off
Press the ON/OFF button while on. The tester will beep twice and the LEDs will turn off.

Mode Selection

When the tester is on and in non-contact voltage detection (NCV) function, short press the once. The green and yellow LEDs will slowly alternately flash to indicate that the tester is in the phase sequence mode. Short press the button again. The yellow LED will turn off and the green LED will turn on. The tester will return to the NCV mode.The tester will beep once every time the is pressed. button The button operation is valid only when the NCV function is turned on.

Verify Operation

Before using the tester:

1. Make sure the green LED is glowing.
2. Check tester on a known live AC voltage that is within the defined detection range of the tester.

High Voltage Mode (100 to 1000V AC)
Place the tip of the tester near AC voltage.

If the tester detects voltage within the defined detection range, the green LED will turn off, the red LED will turn on, the beeper will beep rapidly.

Phase Sequence Test Mode
Place the tip of the tester close to the L1 phase wire. The tester will beep once. The green and yellow LED will rapidly alternately flash to indicate the measurement of the first phase in sequence is complete.

Move the tip of the tester close to the L2 phase wire. When the measurement is complete there will be two possible results:

1. The tester beeps and green LED turns on for about 5 seconds to indicate a correct phase sequence (L2 is ahead of L1 by 120 degrees).
2. The tester beeps and the yellow LED turns on about for 5 seconds to indicate an incorrect phase sequence (L2 is lagging after L1 by 120 degrees).
   Test L1 and L3, L2 and L3 in the same way.
   Note: To improve test accuracy, do not place the tester tip in the middle between two phase lines.
   Note: If the phase sequence test is not completed within 1 minute, the red LED will turn on, the green and yellow LED will flash alternately, and the tester will beep 5 times to indicate that phase sequence test is invalid. The test will reset to the phase sequence test mode. L1 must be measured again.

Low Battery Indication

- Replace the batteries if the mode indication LED does not turn on.
- When the tester is on and the battery become too low for reliable operation, the tester will beep three times and the mode indication LED will turn off, indicating the tester is not operational.
- Replace the batteries to restore operation.

Auto Power Off

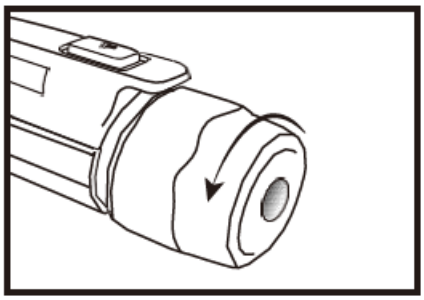
- To conserve battery life, the tester will automatically turn off after approximately 5 minutes of inactivity.
- When powering down, the tester will beep twice and the mode indication LED will turn off.

Flashlight

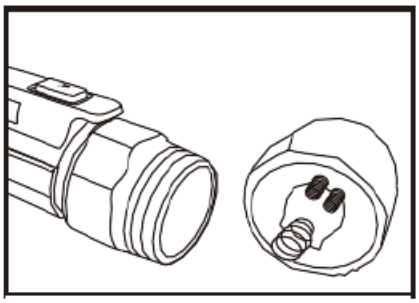
- Momentarily press the Flashlight button to turn the flashlight on or off.
- To conserve battery life, the flashlight will automatically turn off after approximately 5 minutes when the NCV function is on.
- The tester will beep twice as the flashlight auto power off.

Maintenance

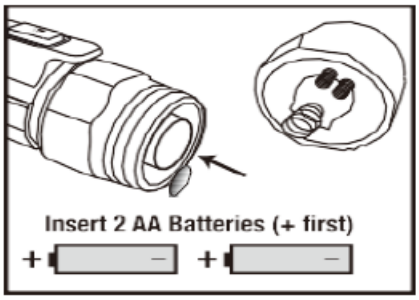
Changing the batteries
Carefully unscrew battery cap at the rear(flashlight end) of the tester.
Replace batteries with two AAA 1.5V batteries. Observe polarity.
Carefully align cover with tester as shown below. Screw cover onto tester until it feels tight. Do not use excessive force. Verify operation by using the tester on a known live
AC voltage within the defined detection range of the tester.



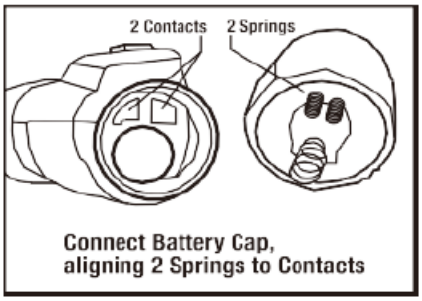
Rotate the end of the tester.



Cap with springs to align with the batteries.



Observe correct polarity when installing batteries.



Push and rotate cap back onto tester body.

Documents / Resources

	METREL MD 126 Voltage and Phase Sequence Detector [pdf] User Manual MD 126 Voltage and Phase Sequence Detector, Voltage and Phase Sequence Detector, Phase Sequence Detector, Sequence Detector

References

- Metrel UK
- Metrel UK
- Metrel d.o.o.