MarMonix®

MVD 145
Voltage Detector

Instruction Manual

Part Number: 7603301
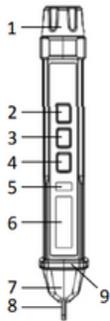**GTIN**: 6298043998055

Introduction

This product is powered by two AAA batteries and operates as a non-contact AC voltage detector with two sensitivity levels. It features audible and visual alarms, a flashlight, and additional utility functions.

Warning

To prevent electrical shock or personal injury:
- Operate this detector strictly as instructed in this manual; improper use may compromise its protective functions.
- Do not use if the power indicator is off.
- Verify proper operation by testing on a known live power source before use.
- Absence of sound or light alarm does not guarantee no voltage; Detection occurs only when the AC voltage produces a sufficiently strong electric field (via capacitive coupling).
- Low electric field intensity may prevent detection. Performance may also be influenced by factors including shielded wires or cables, insulation type and thickness, distance from the source, complete insulation layers, and socket design variations.
- Do not use if the detector is damaged or malfunctioning.
- Do not apply voltage exceeding the rated specification.
- Exercise extreme caution when testing voltages above AC 30V to avoid shock hazards.
- Follow all local and national safety codes and use protective equipment as required by regulatory standards.

Panel Description

1. Battery cover
2. Sensitivity reduction / temperature switch button
3. Sensitivity increase / flashlight button — when high sensitivity is active, the signal-intensity indicator will be enabled.
4. Power on/off button
5. Power / low battery indicator
6. LED display
7. Flashlight
8. NCV sensing head (Non-contact voltage sensor)
9. Signal indicator

Operation Instructions

Power On/Off
Press and hold the power button for two seconds. The buzzer sounds and all indicators (flashlight, signal bars, sensitivity button, and battery light) flash to confirm startup. When no AC voltage is detected, the power indicator enters a slow pulsing (breathing) standby state.. Press the power button again to turn the detector off.

Low/High Sensitivity
The detector defaults to Low Sensitivity mode, with a detection range of 48–1000 VAC. The High Sensitivity mode provides a wider detection range of 12–1000 VAC.
The illuminated button indicates the currently active mode. Press the button again to switch between Low and High Sensitivity as needed for the application.

Flashlight Control
When powered on, press the flashlight button to enable or disable the built-in light. This feature enhances visibility in dark or confined environments, improving measurement accuracy and safety.

Automatic Power Off
The detector automatically powers down when idle or when no AC voltage signal is detected. This prevents unnecessary battery drain and extends operating life.

AC Voltage Detection
Bring the NCV sensor close to the socket opening or conductor — do **not** touch the live parts. The LCD displays signal strength as bars, while the buzzer and signal light vary in frequency with intensity. At maximum detection, the bar is full, the LCD changes from green to red, and audible/visual alerts reach peak intensity for clear indication.

Neutral/Live Wire Identification
Separate wires as much as possible, then place the probe near each conductor or insert it into a socket. A strong induced signal identifies the live wire; a weak or absent signal indicates the neutral line. This function provides quick and reliable line identification.

Battery Low Voltage Warning
When battery voltage is low, the power/low battery indicator remains solid red. Replace the batteries promptly to maintain accurate and safe operation.

Temperature Display
If no AC voltage is detected after startup, the LCD automatically displays ambient temperature in Celsius. To switch to Fahrenheit, press and hold button Sensitivity/Temperature button for 2 seconds. This feature adds convenience by integrating temperature monitoring into the device.

Specification

AV voltage range :	High sensitivity: about 12-1000V(The detection range indicator is on)
Frequency	50 Hz /60Hz
Alert	Sound and light double alarm
Flashlight	White LED
Automatic power off	√
Low battery alert	√
Use temperature	0~40°C
Storage temperature	-10~50°C
Altitude	<2000m
Safety level	CE CAT.II 1000V
Power supply	2 x 1.5V AAA
Dimension	23*28*156mm
Weight	33g (without battery)

Limited warranty and liability scope

This product carries a two-year warranty from the date of purchase. The warranty excludes disposable batteries and damage resulting from accident, negligence, misuse, modification, contamination, or operation in abnormal environments.

This manual may be updated without notice. All information is considered accurate at the time of publication. Users discovering errors or omissions should contact the manufacturer. The company is not liable for accidents or hazards caused by improper use. Functions described in this manual do not authorize use of the product for purposes beyond its intended design.

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