

# Megger®



## VF6 EX

AC VOLTAGE DETECTOR WITH TORCH

USER GUIDE

The Megger VF6 EX Voltage Detector is intended to check for the presence of AC voltage, indicated by a bright red LED situated within the white nylon tip and an audible sounder plus vibration alert.

The product is EX rated for use on gas platforms and other petrochemical environments.

The detector has both low voltage (12 V - 1000 V) and medium voltage (100 V - 1000 V) ranges.

The VF6 EX has the added advantage of a bright-white LED torch for use in poor light.

The Megger VF6 EX is useful for identifying live conductors, finding a break in a wire, verifying a blown fuse while in circuit, and detecting AC voltage at:

- **Socket outlets**
- **Switches**
- **Circuit breakers**
- **Fuses**
- **Wires and cables**
- **Luminaires**
- **Hazardous areas, gas platforms and petrochemical installations**

## Features

- Non-contact detection of AC voltage
- 12 V ~ 1000 V AC and 100 V ~ 1000 V AC 50 Hz / 60 Hz CAT IV 1000 V
- EX rated for use in explosive atmospheres / petrochemical locations
- Visual, audible and vibration warning of low and medium voltages
- Durable rubber over-moulded body
- Built-in bright-white LED torch
- Low power consumption
- Convenient pocket-size

## Safety Warnings

Read, understand and follow Safety Warnings and Operating Instructions in the manual before using this product.

The detector'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 detector before use to ensure it is in working order.

Insulation type and thickness, distance from the voltage

source, shielded wires, and other factors may affect reliable operation.

The VF6 EX may help in the indication of live AC circuits only and must not be used as verification of a de-energised circuit. This is not a Safety Test Lamp.

Do not use if the detector appears damaged or if it is not operating properly. If in doubt replace the product.

Do not use on voltages that are higher than as marked on the VF6 EX.

Use caution with voltages above 30 V 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 detector if Low Battery warning occurs. Replace batteries immediately.

Use only GP AAA / LR03 batteries; do not replace batteries when an explosive atmosphere is present.

**NOTE:** The VF6 EX is unable to detect voltage on armoured or sheathed cable, cable in conduit, behind panels or in metallic enclosures.

## CATIV

Measurement category IV: Equipment connected between the origin of the low-voltage mains supply outside the building and the consumer unit.

## CATIII

Measurement category III: Equipment connected between the consumer unit and the electrical outlets.

## CATII

Measurement category II: Equipment connected between the electrical outlets and the user's equipment.

## International Safety Symbols



Potential danger. Indicates the user must refer to the manual for important safety information



Indicates hazardous voltages may be present



Equipment is protected by double or reinforced insulation



Equipment complies with current EU directives



End of life disposal



EX Rating

## Detector Description

### 1. Screw on battery cover

### 2. Torch

### 3. Torch button

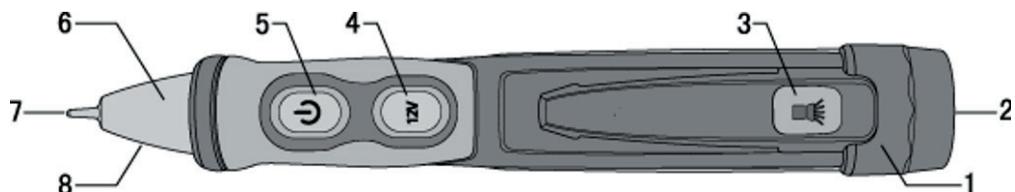
### 4. 12 V button

### 5. On/Off button

### 6. LED indicators

### 7. Detector tip

### 8. Work light



## Operation

- Turning the VF6 EX on:** Momentarily press the detector  On/Off button. The detector will beep once, vibrate once and the green LED will illuminate to indicate that the detector is on and ready for use.
- Turning the VF6 EX off:** Momentarily press the  On/Off button. The VF6 EX will beep twice and vibrate twice and the green LED will turn off.
- Turning the Sounder off and Vibrating motor off:** Turn the VF6 EX on as described above. The VF6 EX will now operate with both the sounder and the vibrating motor. To turn the sounder and vibrating motor off, press and hold the  On/Off button until the green LED flashes once. To turn the sounder and vibrating motor back on press and hold the  On/Off button until the green LED flashes, the sounder beeps and the unit vibrates.
- Verify Operation:** Before using VF6 EX, (1) Make sure the green LED is on, (2) Check VF6 EX on a known live AC voltage that is within the defined detection range of the VF6 EX.
- Low Voltage Mode (12 to 1000V AC):** Press and hold the 12 V button. The green LED will change to orange to indicate the VF6 EX is in the low voltage mode. While pressing the 12 V button place the tip of the VF6 EX near an AC voltage. When AC voltage is detected the LED will turn red and flash, the sounder will beep and the detector will vibrate. The flash, beeping and vibration rate will increase as the VF6 gets closer to the voltage source. If the VF6 EX detects a medium voltage (100 V – 1000 V) it will automatically change over to the medium voltage mode, the red LED will change to a steady glow, the sounder will beep rapidly and the detector will vibrate constantly.

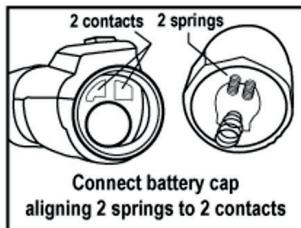
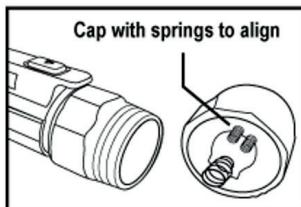
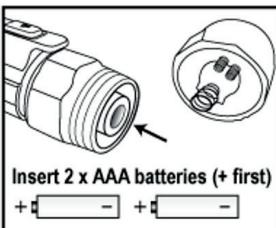
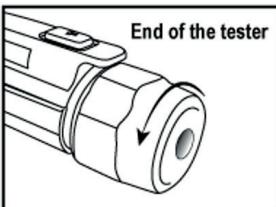
- Medium Voltage Mode (100 to 1000V AC):** Place the tip of the VF6 EX near an AC voltage. If the VF6 EX detects voltage within the defined detection range the green LED will turn off, the red LED will turn on, the sounder will beep rapidly and the detector will vibrate constantly.

**NOTE:** The detector cannot determine the actual voltage. The voltage level where the detector switches from the low to medium voltage mode is affected by insulation type and thickness, distance from the voltage source, and other factors.

- Low Battery Indication:** Replace the batteries if the green LED does not turn on. When the detector is on and the batteries are too low for reliable operation, the sounder will beep three times and the green LED will turn off indicating the detector is not operational. Replace the batteries to restore operation.
- Auto Power Off:** To conserve battery life the detector will automatically turn off after approximately 5 minutes of inactivity. When powering down the detector will beep twice, vibrate twice and the green LED will turn off.
- Torch:** **Momentarily press the torch** button to turn the torch on or off. To conserve battery life, the torch will automatically turn off after approximately 5 minutes.

**NOTE:** If the battery voltage is too low to operate the torch, the detector will indicate this condition by beeping three times and the torch will turn off. The voltage detector has its own low battery threshold and may remain operational. Refer to Verify Operation (Step 4) in this guide before using detector.

## Battery replacement



1. Carefully unscrew battery cap at the rear (torch end) of the detector.
2. Replace batteries with 2 x AAA 1.5V batteries. Observe polarity.
3. Carefully align cap with detector as shown below.
4. Screw cover onto the detector until it feels tight; do not use excessive force.
5. Verify operation by using the detector on a known live AC voltage within the defined detection range of the detector.



**Note:** When batteries are loaded for the first time, please remove the white, rectangular security strip before installing.

When replacing the batteries, be sure to secure the cap firmly to maintain IP67 water and dust protection. A loose or over tightened battery cap may compromise water and dust protection.

## Specifications

Detection voltage range	12 V AC to 1000 V AC, 100 V to 1000 V AC
Frequency range	50/60 Hz
Batteries	2 x AAA / LR03 1.5 V
Ambient Operating temperature	0 °C to 50 °C (32 °F to 122 °F)
Storage temperature	-10 °C to 60 °C (14 °F to 140 °F)
Humidity	80 % max.
Altitude	2000 metres
Pollution Degree	2
Safety Compliance	CAT IV 1000 V
Auto Power Off	5 minutes
Ingress Protection Rating	IP67
Conforms To	II 2 G Ex ib op is IIB T4 Gb
Certificate Number	Presafe 17 ATEX 9668X

Product manufactured in China

**Note:** For full details see the full VF6 EX User Guide at

## Maintenance

Do not attempt to repair this detector. 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.

## **WEEE Directive**

The crossed out wheeled bin symbol on the instrument and on the batteries is a reminder not to dispose of them with general waste at the end of their life.

Megger is registered in the UK as a Producer of Electrical and Electronic equipment. The registration No is; WEE/DJ2235XR.

Users of Megger products in the UK may dispose of them at the end of their useful life by contacting B2B Compliance at [www.b2bcompliance.org.uk](http://www.b2bcompliance.org.uk) or by telephone on 01691 676124.

Users of Megger products in other parts of the EU should contact their local Megger company or distributor.

## **Battery Disposal**

The batteries in this product is classified as Portable Batteries under the Batteries Directive. Please contact Megger Ltd for instructions on the safe disposal of

these batteries.

For disposal of batteries in other parts of the EU contact your local distributor.

Megger is registered in the UK as a producer of batteries.

The registration number is BPRN01235.

## **Warranty (3 years)**

This meter is warranted to the original purchaser against defects in material and workmanship for 3 year from the date of purchase.

During this warranty period, manufacturer 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, unauthorised 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. The manufacturer shall not be liable for loss of

use of the instrument or other incidental or consequential damages, expenses, or economic loss, or for any claim or claims for such damage, expense or economic loss. Some states or countries laws vary, so the above limitations or exclusions may not apply to you.

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