

# **Southwire 40116N Non-Contact AC Voltage Detector Operating Instructions**

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Southwire 40116N Non-Contact AC Voltage Detector



## southwiretools.com

1-855-SW-T00LS

Toll-Free Technical Help

Assistance technique gratuite

Contents Made in China

One Southwire Drive, Carrollton, GA 30119

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5/16 Rev. 0 40116N Insert

## Introduction

The Southwire 40116N detects AC voltage from 100 to 600 volts. A powerful built-in LED flashlight is included for added convenience. With proper use, this tester will provide many years of reliable service.

## **M**WARNINGS

- Read, understand, and follow the 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 affect reliable operation.
- Use other methods to verify live voltage, if there is any uncertainty.
- Do not use it if the tester appears damaged or if it is not operating properly. If in doubt, replace the tester.
- Do not use 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 local and national safety requirements particularly with regard to arc-flash potential.
- Do not operate the tester if a Low Battery warning occurs.
- Replace batteries immediately.
- Do not use a tester if there is evidence that batteries have leaked.
- The tester may be compromised. Replace the tester if this occurs.
- Use approved personal protective equipment when working on live circuits.
- The detector will not detect voltage if:
  - The voltage is DC
  - The wire is shielded or in a grounded metal box or conduit
- The user is not grounded or is isolated from earth ground
- · The detector may not detect voltage if:
  - The detector tip cannot be fully inserted into the electrical outlet
  - The electrical outlet is a Tamper Resistant (TR) design
  - The user is not holding the detector or the user's hand is insulated from the detector (i.e. with a glove)
  - The voltage source or wire is partially buried

## **Safety Category Ratings**

Category Rating	Brief Description	Typical Applications
CAT II	Single-phase receptacle s and connected loads	<ul> <li>Household appliances, power tools</li> <li>Outlets more than 30ft (10m) from a Cat III source</li> <li>Outlets more than 60ft (20m) from a Cat IV source</li> </ul>
CAT III	Three-phase circuits and single-phase lighting circ uits in commercial buildings	<ul> <li>Equipment in fixed installations such as 3-phase motors, switchgear, and distribution panels</li> <li>Lighting circuits in commercial buildings</li> <li>Feeder lines in industrial plants</li> <li>Any device or branch circuit that is close to a CAT III source</li> </ul>
CAT IV	Connection point to utilit y power and outdoor con ductors	<ul> <li>Primary distribution panels</li> <li>Overhead or underground lines to detached buildings</li> <li>Incoming service entrance from the utility</li> <li>Outdoor pumps</li> </ul>

## **FCC COMPLIANCE**

Users of this product are cautioned not to make modifications or changes that are not approved by Southwire Company, LLC. Doing so may void the compliance of this product with applicable FCC requirements and may result in the loss of the user's authority to operate the equipment. This device complies with Part 15 of the FCC rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that can cause undesired operation.

## **FCC Digital Emissions Compliance**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- · Reorient or relocate the radio or television receiving antenna.
- Increase the separation between the computer equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the radio or television receiver is connected.
- Consult the dealer or an experienced radio television technician for help.

Canadian Digital Apparatus Compliance CAN ICES-3 (B)/ NMB-3(B)

- The magnetic field created by the voltage source is being blocked or interfered with
- The frequency of the voltage being detected is distorted and thus not a perfect sine wave

## International Safety Symbols

$\triangle$	Potential danger. Indicates the user must refer to the manual for important safety inform ation
A	Indicates hazardous voltages may be present
	Equipment is protected by double or reinforced insulation

#### **Maintenance**

This tester is designed to provide years of dependable service if the following care instructions are performed:

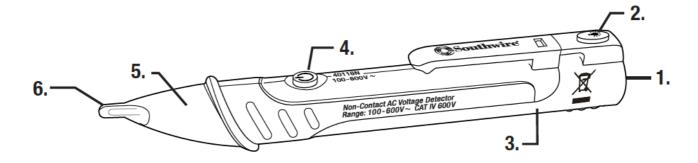
- 1. KEEP THE TESTER DRY. If it gets wet, wipe it off.
- 2. USE AND STORE THE TESTER IN NORMAL TEMPERATURES. Temperature extremes can shorten the life of the electronic parts and distort or melt plastic parts.
- 3. HANDLE THE TESTER GENTLY AND CAREFULLY. Dropping it can damage the electronic parts or the case.
- 4. KEEP THE TESTER CLEAN. Wipe the case occasionally with a damp cloth. DO NOT use chemicals, cleaning solvents, or detergents.
- 5. USE ONLY FRESH BATTERIES OF THE RECOMMENDED SIZE AND TYPE. Remove old or weak batteries so they do not leak and damage the unit.
- 6. IF THE TESTER IS TO BE STORED FOR A LONG PERIOD OF TIME, the batteries should be removed to

## **General Specifications**

Detection voltage range	100 to 600V AC
Frequency range	50/60Hz
Batteries	Two AAA 1.5V batteries
Operating temperature	32°F to 104°F (0°C to 40°C)
Storage temperature	14°F to 140°F (-10°C to 60°C)
Humidity	80% max.
Altitude	2000 meters
Pollution Degree	2
Safety Compliance	CAT IV- 600V

## **Detector Description**

- 1. Flashlight
- 2. Flashlight power button
- 3. Battery cover
- 4. Tester On/Off Ubutton
- 5. "Tester On" GREEN LED and "Detector Alert" RED LED
- 6. Detector tip



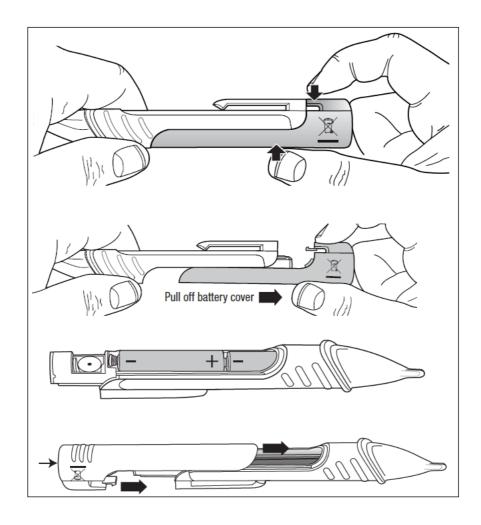
## Operation

- 1. **Turning the Tester On** Momentarily press the tester **U**On/Off button. The beeper will beep once and the green LED will illuminate to indicate that the tester is on and ready for use.
- 2. **Verify Operation:** Before using a 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.
- 3. **To Operate:** Place the tip of the tester near an AC voltage from 100V to 600V. When the tester detects AC voltage, the green LED will turn off, the red LED will turn on, and the beeper will beep rapidly.
- 4. **Turning the Tester Off:** Momentarily press the tester On/Off button. The tester will beep twice and the green LED will turn off.
- 5. **Auto Power Off:** To conserve battery life, the tester will automatically turn off after approximately 5 minutes of inactivity. When powering down, the beeper will beep twice and the green LED will turn off.
- 6. **Flashlight:** Press and hold the flashlight power button to turn the flashlight on. Release the button to turn the flashlight off.
- 7. **Low Battery Indication:** When the batteries are too low for reliable operation, the beeper will beep three times and the green LED will turn off indicating the tester is inoperative. Replace the batteries immediately when this occurs. Also replace the batteries if the flashlight or indicator LEDs are dimmer than normal.

## **Battery Replacement**

## Steps 1. and 2.

- 1. Press HERE (A.)
- 2. Pull down here (B.), applying a gentle bending force until you hear a click, then pull off the battery cover **NOTE:** When batteries are loaded for the first time, please remove the white, rectangular security strip before installing batteries.
- 3. Replace the batteries (observe polarity). Use two AAA 1.5V batteries.
- 4. Carefully slide the battery cover onto the tester making sure the cover is aligned with the slots on the tester body. Make sure the battery cover is completely closed.
- 5. Verify operation by using the tester on a known live AC voltage.



## **REGISTER YOUR PRODUCT**

Register your product purchase at <a href="www.southwiretools.com">www.southwiretools.com</a>. At Southwire, we are dedicated to providing you with the best customer experience. By following a few quick steps to register, you can experience quicker service, and more efficient support, and receive information on our future products. Simply provide your model number, serial number, and just a few pieces of information about yourself – it is that quick and easy.

### WARRANTY

## LIMITED WARRANTY AND LIMITATION OF LIABILITY ON SOUTHWIRE METERS & TESTERS

Southwire Company, LLC. warrants this product to be free from defects in material and workmanship for two years from the date of purchase. This warranty does not cover fuses, disposable batteries, or damage arising from an accident, neglect, misapplication, contamination, modification, improper maintenance or repair, operation outside of specifications, or abnormal handling of the product. Southwire's sole liability, and the purchaser's exclusive remedy, for any breach of this warranty, is expressly limited to Southwire's repair or replacement of the product. Whether Southwire repairs or replaces the product will be a determination that Southwire makes at its sole discretion.

SOUTHWIRE MAKES NO WARRANTY THAT THE PRODUCT WILL BE MERCHANTABLE OR FIT FOR ANY PARTICULAR PURPOSE. SOUTHWIRE MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, OTHER THAN THE WARRANTY SPECIFICALLY SET FORTH HEREIN. SOUTHWIRE WILL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES FOR ANY BREACH OF THIS WARRANTY.

This warranty is void if this product is used for rental purposes. No product reseller is authorized to extend any other warranty on Southwire's behalf relating to this product, and no such reseller warranty will be binding on Southwire. If you have a warranty claim, or if the product needs to be serviced during or after the warranty period

set forth above, please contact the Customer Service Department at 855-SWTOOLS (855-798-6657).

The sender is responsible for all shipping, freight, insurance, and packaging costs associated with sending a product to Southwire. Southwire will not be responsible for lost or damaged products returned pursuant to this warranty.

All products returned to Southwire under this warranty should be mailed to Southwire Company, LLC.

Attention: Tool Warranty Return 840 Old Bremen Road Carrollton, GA 30117

## FREQUENTLY ASKED QUESTIONS

What is the brand and model of this non-contact AC voltage detector?

The brand is Southwire, and the model is 40116N.

What is the price of the Southwire 40116N Non-Contact AC Voltage Detector?

The Southwire 40116N is priced at \$14.53.

What type of power source does the Southwire 40116N use?

The Southwire 40116N is battery powered.

What is the weight of the Southwire 40116N Non-Contact AC Voltage Detector?

The item weight of the Southwire 40116N is 0.16 pounds.

Who is the manufacturer of the Southwire 40116N Non-Contact AC Voltage Detector?

The manufacturer of the Southwire 40116N is Southwire.

What measurement type does the Southwire 40116N use?

The Southwire 40116N functions as a voltmeter.

What is the minimum operating voltage for the Southwire 40116N?

The minimum operating voltage for the Southwire 40116N is 100 volts (AC).

What are the item dimensions of the Southwire 40116N Non-Contact AC Voltage Detector?

The item dimensions are 0.83 x 0.99 x 6.23 inches.

Is the Southwire 40116N suitable for measuring low AC voltages?

Southwire 40116N can detect AC voltages starting from 100 volts.

What safety features does the Southwire 40116N offer?

The Southwire 40116N typically includes visual and audible alerts for voltage detection, ensuring user safety.

Why won't the Southwire 40116N Non-Contact AC Voltage Detector turn on?

Ensure that the battery is installed correctly and has sufficient charge. If the device still does not power on, try replacing the battery with a new one.

What should I do if the Southwire 40116N Non-Contact AC Voltage Detector is giving inconsistent readings?

Inconsistent readings may occur due to poor contact with the testing point. Ensure that the detector is held close to the electrical source and is being used as directed.

How can I troubleshoot if the Southwire 40116N Non-Contact AC Voltage Detector is not detecting voltage?

First, check that the detector is set to the correct sensitivity mode. Verify the battery is working and test it on a known live circuit to confirm functionality.

What does it mean if the LED indicator on the Southwire 40116N Non-Contact AC Voltage Detector is not lighting up?

If the LED indicator does not light up, it may indicate no voltage detection or a low battery. Replace the battery and retest it on a known live circuit.

Why is the Southwire 40116N Non-Contact AC Voltage Detector giving false positives when testing for voltage?

False positives can happen if the detector is too close to a high-voltage source or if there's interference from nearby electrical devices. Move away from other electrical sources and test again.

DOWNLOAD THE PDF LINK: Southwire 40116N Non-Contact AC Voltage Detector Operating Instructions

REFERENCE: Southwire 40116N Non-Contact AC Voltage Detector Operating Instructions-Device.Report

## References

User Manual

Manuals+, Privacy Policy

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