

TESMEN

TN-213
NON-CONTACT
VOLTAGE
TESTER



TESMEN TN-213 Non-Contact Voltage Tester Operating Instructions

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TESMEN TN-213 Non-Contact Voltage Tester



INTRODUCTION

The TESMEN TN-213 Non-Contact Voltage Tester is an important tool that was made to make electrical testing safer and more efficient. This device from TESMEN, a well-known brand in electrical tools, came out in 2023 and costs a reasonable \$14.99. It uses cutting-edge technology to find electrical voltages. The tester can easily find AC voltages from 12V to 1000V and has two sensitivity ranges: 12V to 70V and 70V to 1000V. Its detection method doesn't require contact. It has a clear LCD screen that shows voltage levels as a percentage. This makes the readings accurate and simple to understand at a look. The TN-213 is also made to meet strict safety standards, such as CAT III 1000V, CAT IV 600V, and an IP66 grade, which means it can work in harsh conditions. This tester is great for both professional electricians and people who like to do their own projects because it is small and sturdy, and it works well and keeps users safe.

SPECIFICATIONS

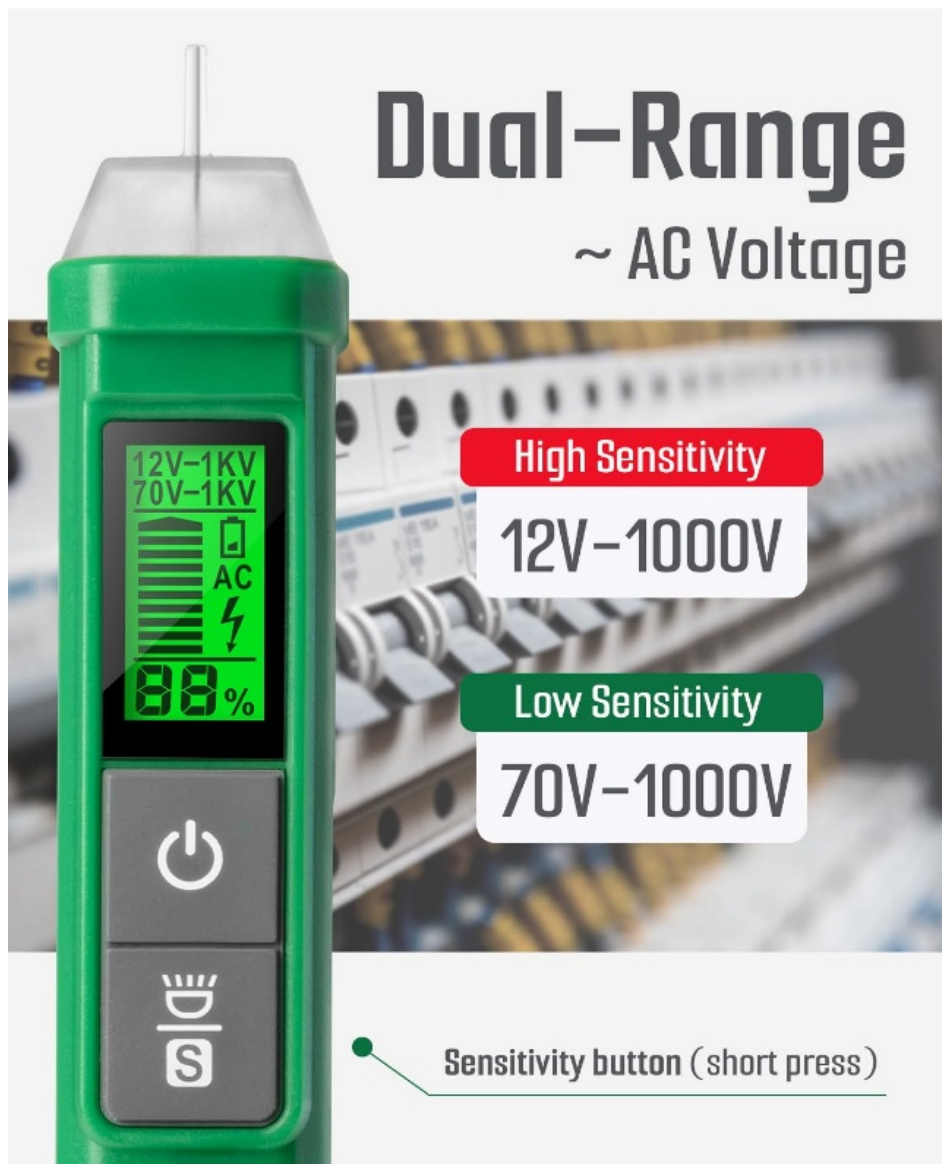
Brand	TESMEN
Model Number	TN-213
Voltage Range	12V to 1000V AC
Detection Method	Non-contact voltage detection
Sensitivity Levels	Dual-range sensitivity (12V-70V and 70V-1000V)
Display Type	LCD display showing voltage level in percentage
Alarm Function	Visual and audible alerts for voltage presence
Safety Ratings	CAT III 1000V, CAT IV 600V, IP66 rated
Power Source	2 AAA batteries (not included)
Operating Temperature	-10°C to 50°C (14°F to 122°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Product Dimensions	1.61 x 1.02 x 6.22 inches
Weight	2.82 ounces
Price	\$14.99
Manufacturer	TESMEN

WHAT’S IN THE BOX

- Voltage Tester
- Battery
- Operating Instructions

FEATURES

- This tester has two sensitivity sets, one that lets it find voltage between 12V and 1000V (high sensitivity) and 70V to 1000V (low sensitivity).



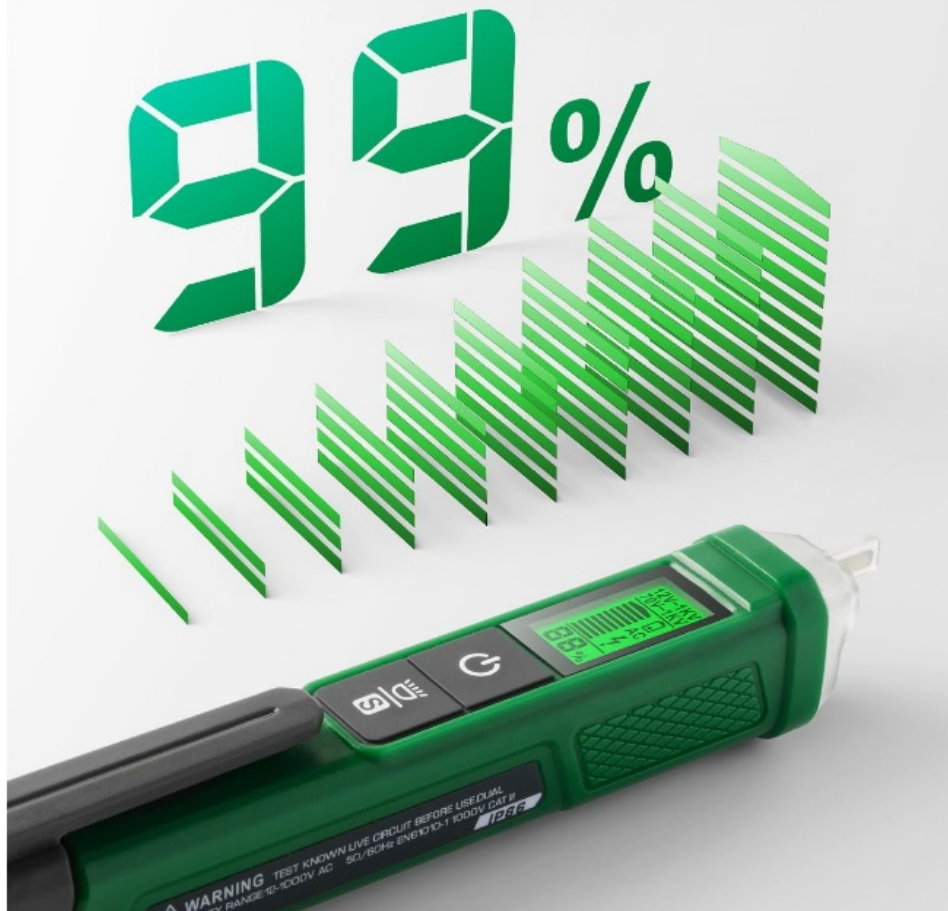
- **Automatic Shutdown:** After 5 minutes of inaction, the device turns off by itself. This saves battery life and makes the device last longer.
- **Low Battery sign:** When the battery voltage is low, the tester will always work because of a visual sign on the screen.
- The IP66 rating means that this tester is waterproof and dustproof, and the battery cap is sealed with an O-ring for extra safety.



- **Backlit Screen:** Because the LCD screen is backlit, it is easier to see and read in low light.
- **Built-in Flashlight:** The built-in flashlight makes it easy to test circuits in dark places, which makes it more useful.
- **Design that fits in your pocket:** It's small and light (2.82 ounces), so it's easy to carry and use.
- **Pen Hook:** It comes with a pen hook that makes it easy to connect to a shirt pocket or tool belt. This makes it portable and easy to get to.
- **Alerts that can be seen and heard:** When voltage is found, the tip lights up red, the screen turns red, and an alarm goes off, giving you instant feedback.
- **Percentage Display:** The LCD shows the voltage level it finds as a percentage, along with a bar graph that makes it easy to understand.
- **NCV Capability:** It safely tells the difference between live and neutral lines because it comes with a Non-Contact Voltage (NCV) probe.
- **Wide Operating Temperature:** It works well in temperatures between -10°C and 50°C (14°F and 122°F).
- **Includes a high-quality battery:** Comes with two AAA batteries to get going right away (note: some packages don't come with batteries).
- **Ideal for Many Uses:** It can check AC voltage in cables, lines, circuit breakers, light fixtures, switches, and sockets that can't be opened.
- **Ratings for Safety:** Rated CAT III 1000V and CAT IV 600V, making sure it meets safety standards for voltage sensors.

Voltage Strength Visualized

Tester with Percentage & Analog Bar



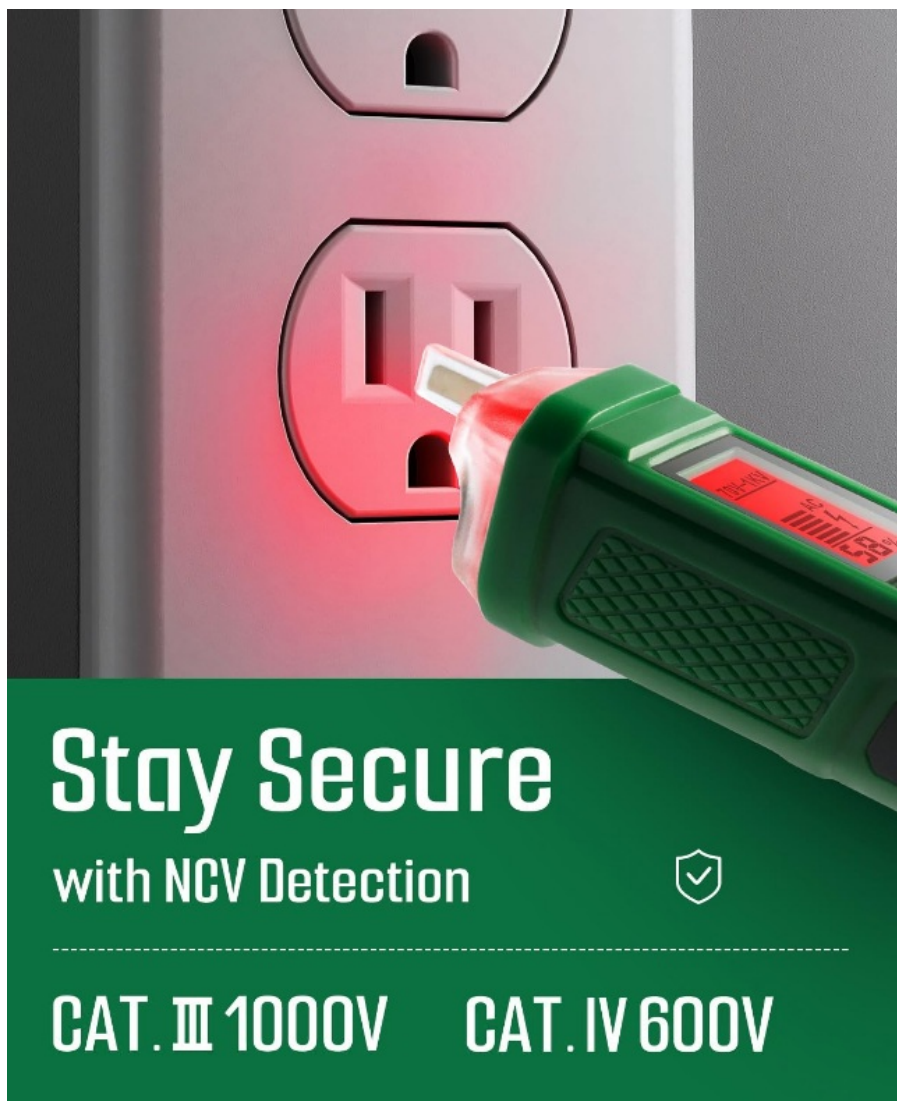
SETUP GUIDE

- **Opening the box:** Carefully take the voltage tester out of the box while checking for any damage that happened during shipping.
- **Check the Contents:** Make sure the voltage tester, user guide, and any batteries that come with the package are all inside.
- **Installing Batteries:** Open the battery box and put in two AAA batteries, making sure they are in the right way around (+/-).
- **Power On:** To turn on the tester, press the power button.
- **Choose Sensitivity:** Press the "S" button to choose between high and low sensitivity modes for your tests.
- **Test Environment:** Make sure you're somewhere dry and safe before you do voltage measurement.
- To use the NCV feature, bring the tester close to the plug or wire you want to check so that it can pick up voltage without touching it directly.
- Keep an eye on the visual indicators. When voltage is found, listen for the warning and look for the red light.
- **Reading the Display:** Look at the voltage numbers on the LCD as a percentage and make sure they are within the acceptable range.
- **Use the Flashlight:** Turn on the flashlight to see better when trying in dark places.
- The pen hook lets you connect the tester to your clothes or toolbox so it's easy to get to.
- Testing should be done regularly. To get used to the tester, try using it on known live circuits.

- **Routine Functionality Checks:** Make sure the gadget works right and shows correct readings by testing it often.
- **Teach Others:** If you want other people to use the tester, give them a short lesson on how to do it safely.
- When not in use, put the tester away in a safe, dry place to keep it from getting broken.

CARE & MAINTENANCE

- **Regular Cleaning:** Use a soft cloth to wipe the tester's outside to get rid of dust and other dirt.
- **Avoid Moisture:** To keep the tester working, keep it away from water and other wet places.
- **Look for Damage:** Check for wear often, especially near the probe and the battery area.
- **power Maintenance:** To keep the device running, replace the batteries as soon as the low power indicator shows up.
- **Correct Storage:** To make the tester last longer, keep it in a cool, dry place when not in use.
- **Handle Carefully:** The tester can lose its accuracy if you drop it or handle it incorrectly.
- **Check Performance:** Make sure the voltage tester gets accurate readings by testing it every so often.
- **Avoid Extreme Temperatures:** To keep the electrical parts from breaking, do not put the tester in very hot or very cold temperatures.
- **Close the battery compartment securely:** Make sure the cover is tight on the battery to keep dust and water out.
- **Follow the Usage directions:** For best results, always use the tester according to the directions provided by the manufacturer.
- **Harsh Cleaners:** When you clean, only use light detergents. Harsh cleaners can scratch the surface, so stay away from them.
- **Take Out the Batteries for Long-Term Storage:** If you're not going to use the tester for a while, take out the batteries to keep them from leaking or corroding.
- **Regular Calibration:** If you find that the readings aren't correct, you might want to re-calibrate the device according to the instructions that came with it.
- **Educate on Correct Use:** To make the tester last longer, teach others how to take care of it and use it properly.



TROUBLESHOOTING

Issue	Solution
No power to the device	Ensure the batteries are properly installed and have charge.
No voltage detection	Adjust the sensitivity settings for appropriate voltage range detection.
Display not functioning	Check battery power or look for damage to the display unit.
Inaccurate readings	Recalibrate the device or test on a known voltage source for accuracy.
Audible alarm not sounding	Verify the volume settings or replace batteries for better performance.
Device not responding	Reset the device or contact technical support for guidance.
LCD display glitches	Replace batteries or consult the warranty for a potential replacement.
Sensitivity too high/low	Fine-tune the sensitivity settings according to the manual.
Waterproof issues	Check the device for any signs of water damage and ensure the seals are intact.
Interference from other devices	Use the tester away from high electronic interference environments.
Temperature affecting operation	Avoid using the device outside the specified operating temperature range.
Cannot switch between ranges	Ensure that the mode switch is functioning and not jammed.
Battery cover loose	Secure the battery cover; replace if damaged.
Device falls off easily	Attach a securing lanyard or hold firmly during use.

PROS & CONS

PROS:

- Enhanced Safety:** Non-contact detection feature minimizes the risk of electrical shocks.
- Dual Sensitivity Levels:** Allows for more precise detection across a wide range of voltages.
- Robust Safety Ratings:** High CAT ratings and an IP66 waterproof rating ensure safe and reliable operation.
- Portable Design:** Lightweight and compact, making it easy to carry and use anywhere.
- Informative Display:** LCD display provides clear and immediate feedback on voltage presence.

CONS:

- Battery Dependent:** Requires 2 AAA batteries, which are not included, adding to the overall cost.
- Limited to AC Detection:** Only detects AC voltages, not suitable for DC applications.
- Weather Sensitivity:** Operating temperatures are limited, which may affect performance in extreme conditions.
- Sound Alerts:** Audible alerts may not be loud enough in noisy industrial environments.
- Initial Setup:** Sensitivity adjustment may require some trial and error to optimize.

WARRANTY

The TESMEN TN-213 comes with a standard 1-year warranty that covers defects in materials and workmanship.

This warranty provides peace of mind by ensuring that any issues with the device during normal use will be addressed by the manufacturer, ensuring long-term reliability and performance.

FREQUENTLY ASKED QUESTIONS

What is the TESMEN TN-213 Non-Contact Voltage Tester?

The TESMEN TN-213 is a non-contact voltage tester designed to detect AC voltage ranging from 12V to 1000V without making direct contact with electrical circuits.

What is the price of the TESMEN TN-213?

The TESMEN TN-213 is priced at \$14.99, offering an affordable solution for safely testing voltage.

What is the voltage range of the TESMEN TN-213?

The TESMEN TN-213 can detect voltage from 12V to 1000V AC.

What detection method does the TESMEN TN-213 use?

The TESMEN TN-213 utilizes non-contact voltage detection, allowing users to safely identify the presence of voltage without direct contact.

What sensitivity levels are available on the TESMEN TN-213?

The TESMEN TN-213 features dual-range sensitivity levels: one for 12V-70V and another for 70V-1000V, accommodating a variety of testing scenarios.

What type of display does the TESMEN TN-213 have?

The TESMEN TN-213 is equipped with an LCD display that shows the voltage level in percentage, providing clear and easy-to-read measurements.

What safety ratings does the TESMEN TN-213 comply with?

The TESMEN TN-213 is rated for CAT III 1000V, CAT IV 600V, and is IP66 rated, ensuring it meets safety standards for electrical testing.

What power source does the TESMEN TN-213 require?

The TESMEN TN-213 is powered by 2 AAA batteries, which are not included with the product.

What is the operating temperature range for the TESMEN TN-213?

The TESMEN TN-213 operates effectively within a temperature range of -10°C to 50°C (14°F to 122°F).

What is the storage temperature range for the TESMEN TN-213?

The TESMEN TN-213 can be stored at temperatures between -20°C and 60°C (-4°F to 140°F).

What are the dimensions of the TESMEN TN-213?

The dimensions of the TESMEN TN-213 are 1.61 x 1.02 x 6.22 inches, making it compact and easy to handle.

How much does the TESMEN TN-213 weigh?

The TESMEN TN-213 weighs 2.82 ounces, contributing to its portability and convenience for users.

What features enhance the safety of the TESMEN TN-213?

The TESMEN TN-213 features non-contact detection, alarm functions, and safety ratings that help prevent electrical shock and ensure safe usage.

Why is my TESMEN TN-213 Non-Contact Voltage Tester not turning on?

Ensure that the batteries are correctly inserted and fully charged. Replace the batteries if necessary, and check that the power button is pressed properly to activate the device.

Why is my TESMEN TN-213 Non-Contact Voltage Tester not detecting any voltage?

Make sure you are testing within the correct voltage range (12V to 1000V AC). Also, check the sensitivity settings and ensure the tester is positioned close enough to the live wire for detection.

VIDEO – PRODUCT OVERVIEW



[References.plus/wp-content/uploads/2024/10/TESMEN-TN-213-Non-Contact-Voltage-Tester-Operating-Instructions.mp4](https://www.references.plus/wp-content/uploads/2024/10/TESMEN-TN-213-Non-Contact-Voltage-Tester-Operating-Instructions.mp4)

- [User Manual](#)

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