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TESMEN TCM-300D, TSM-192

TESMEN TCM-300D Smart Digital Clamp Meter and TSM-192 Digital Multimeter Bundle Instruction Manual

Models: TCM-300D, TSM-192

Brand: TESMEN

1. Introduction

This manual provides detailed instructions for the safe and effective operation of your TESMEN TCM-300D Smart Digital Clamp Meter and TSM-192 Digital Multimeter Bundle. Please read this manual thoroughly before use and retain it for future reference.

1.1 Safety Information

- Ensure tools are certified CAT III 600V and CAT II 600V for safety.
- Do not exceed the maximum input values for any function.
- Always inspect test leads for damage before use.
- Use caution when working with live circuits.
- Refer to local electrical safety codes and regulations.

For more detailed safety guidelines, please consult the full user manuals provided with each device.

2. Product Overview

The TESMEN TCM-300D Smart Digital Clamp Meter and TSM-192 Digital Multimeter are designed for comprehensive electrical measurements.

2.1 Key Features

- **Safe and Reliable:** CAT III 600V and CAT II 600V certifications, non-contact voltage measurement (TCM-300D), internal overload protection (TSM-192).
- **Versatile Application:** AC/DC current, inrush current (TCM-300D), smart automatic mode, voltage, resistance, capacitance, temperature (TCM-300D), essential measurement features (TSM-192).

- **Fast and Accurate Measurement:** Smart and manual modes for quick and precise readings, automatic range selection (TSM-192).
- **User-Friendly:** Data hold, auto power-off, low battery indicators, backlit displays.

2.2 Package Contents

- 1x TESMEN TSM-192 Smart Digital Multimeter
- 1x TESMEN TCM-300D Smart Digital Clamp Meter
- 2x Test Leads
- 2x Storage Bags
- 5x AAA Batteries
- User Manuals (for each device)



Image: The TESMEN TCM-300D Smart Digital Clamp Meter and TSM-192 Digital Multimeter, showing both devices included in the bundle.

3. Setup

3.1 Battery Installation

Both the TCM-300D and TSM-192 require AAA batteries for operation.

1. Locate the battery compartment on the back of the device.
2. Use a screwdriver (if necessary) to open the battery cover.
3. Insert the AAA batteries, ensuring correct polarity (+/-).
4. Securely close the battery cover.

Note: Ensure batteries are installed correctly to prevent damage to the device.

4. Operating Instructions: TESMEN TCM-300D Clamp Meter

4.1 General Operation

The TCM-300D features an intelligent auto mode that automatically detects the measurement type (voltage, resistance, continuity) when test leads are connected. For specific functions, use the `FUNC/AUTO` button.

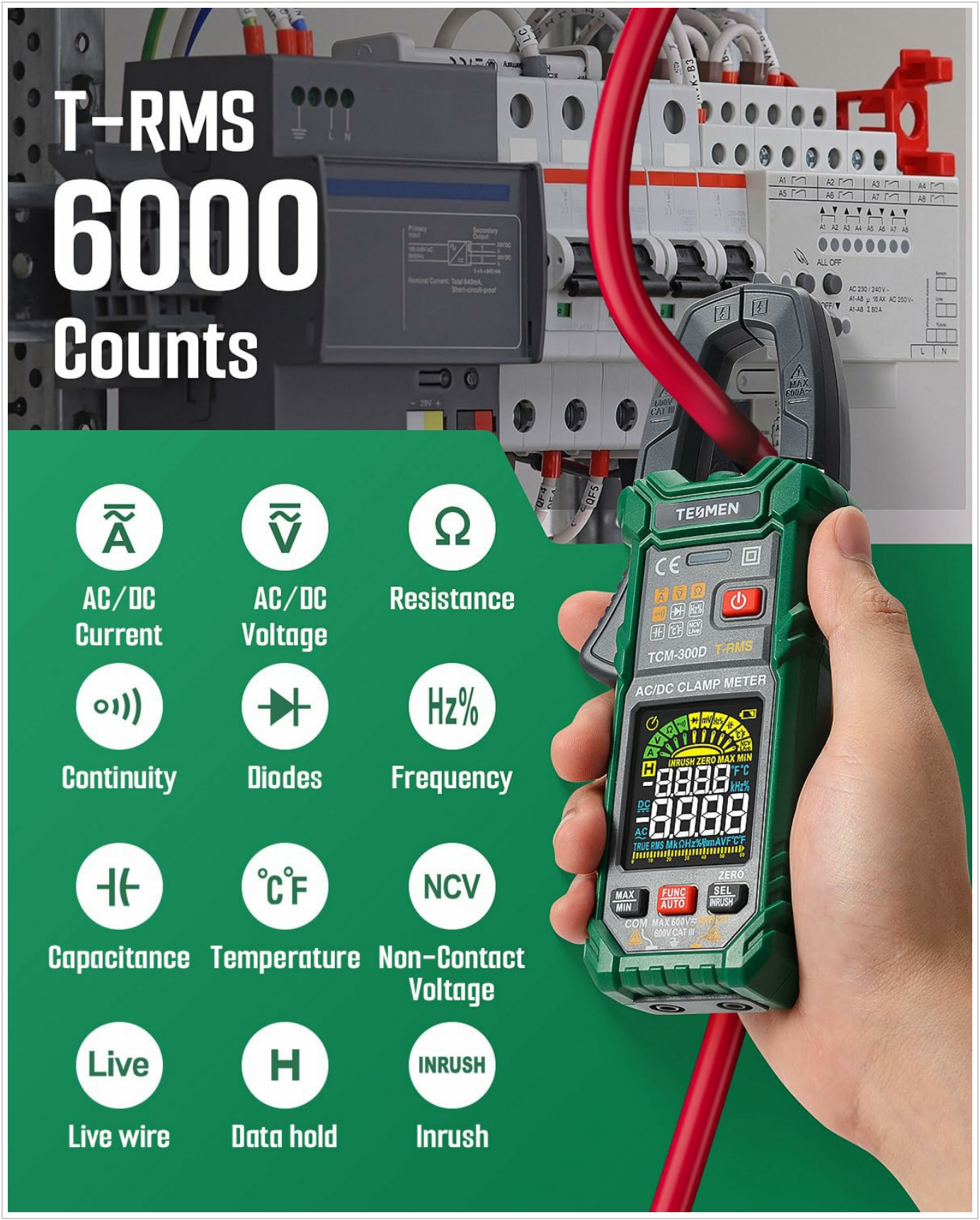


Image: The TCM-300D clamp meter displaying "Auto" mode on its screen, indicating automatic function detection.

4.2 AC/DC Current Measurement (Clamp Function)

1. Power on the TCM-300D.
2. Ensure the device is in AC/DC current mode (or Auto mode will detect it).
3. Open the clamp jaws by pressing the trigger.
4. Enclose a single conductor (not a power cord with multiple wires) within the clamp jaws.
5. Read the current value on the display.

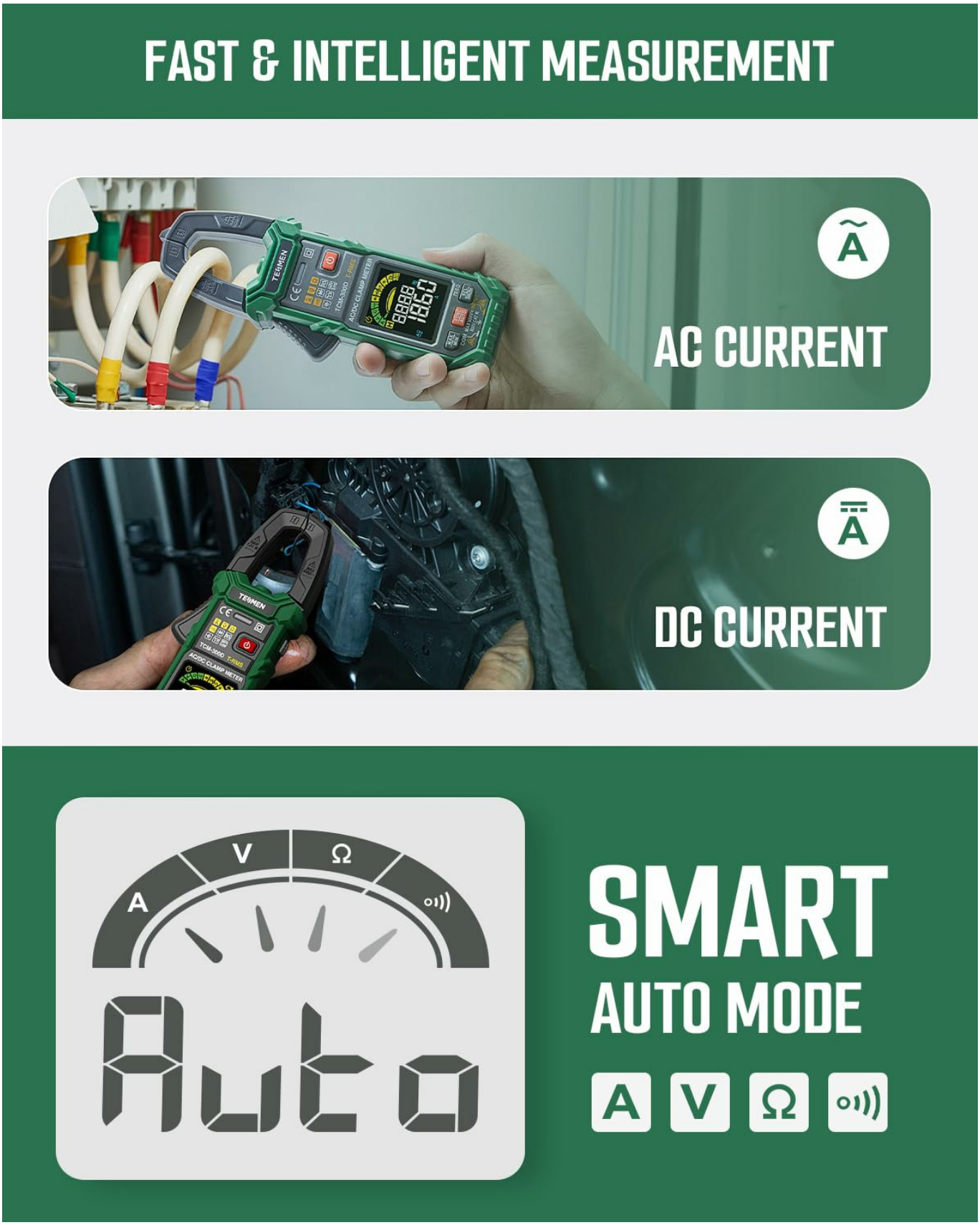


Image: The TCM-300D clamp meter measuring AC current on a multi-wire cable, demonstrating its non-contact current measurement capability.

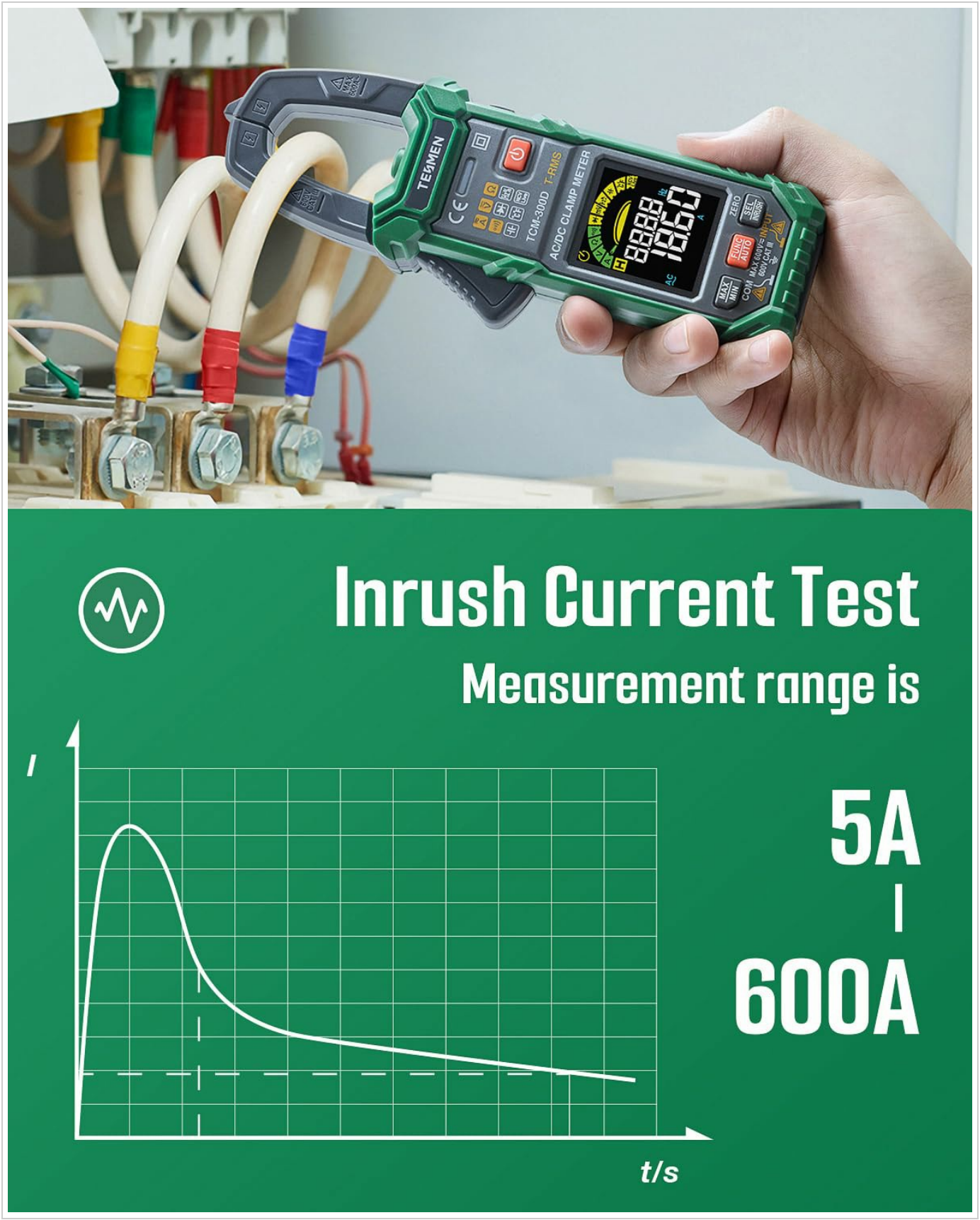


Image: The TCM-300D clamp meter measuring DC current on a car battery cable, showing its application for direct current measurements.

4.3 Inrush Current Measurement

1. Select the Inrush function using the `SEL/INRUSH` button.
2. Clamp the meter around the conductor of the device to be tested.
3. Activate the device. The meter will capture the peak inrush current.



Image: The TCM-300D clamp meter performing an inrush current test, illustrating the measurement of initial current draw.

4.4 Voltage, Resistance, Continuity, Diode, Capacitance, Frequency, Temperature (using Test Leads)

1. Insert the red test lead into the `VΩHz` input jack and the black test lead into the `COM` input jack.
2. Power on the TCM-300D.
3. Use the `FUNC/AUTO` button to cycle through the desired measurement mode (Voltage, Resistance, Continuity, Diode, Capacitance, Frequency, Temperature).

4. Connect the test leads to the circuit or component under test.
5. Read the measurement on the display.

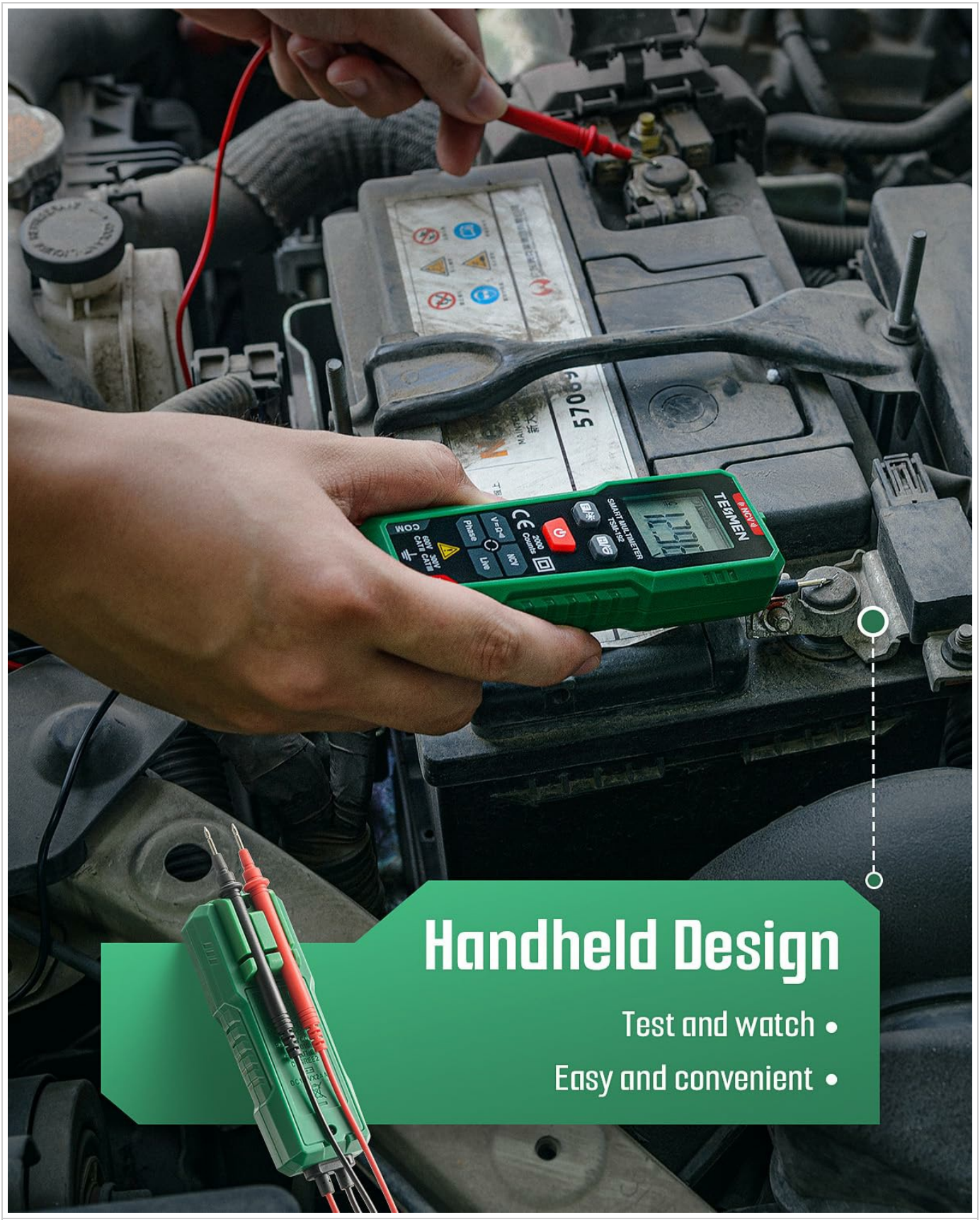


Image: The TCM-300D clamp meter displaying various measurement icons, including AC/DC Current, Voltage, Resistance, Continuity, Diodes, Frequency, Capacitance, Temperature, NCV, Live, Data Hold, and Inrush.

4.5 Non-Contact Voltage (NCV)

1. Select NCV mode.

2. Bring the NCV sensor (top of the clamp meter) close to the conductor.
3. The meter will indicate the presence of AC voltage with an audible beep and visual indicator.



Image: The TCM-300D clamp meter detecting non-contact AC voltage, showing the NCV indicator on the display.

5. Operating Instructions: TESMEN TSM-192 Digital Multimeter

5.1 General Operation (Smart Auto Mode)

The TSM-192 features a smart automatic mode that simplifies measurements by automatically identifying the input signal (AC/DC voltage, resistance, continuity).

1. Insert the red test lead into the `INPUT` jack and the black test lead into the `COM` jack.
2. Power on the TSM-192. The device will enter smart auto mode.
3. Connect the test leads to the circuit or component. The meter will automatically display the relevant measurement.

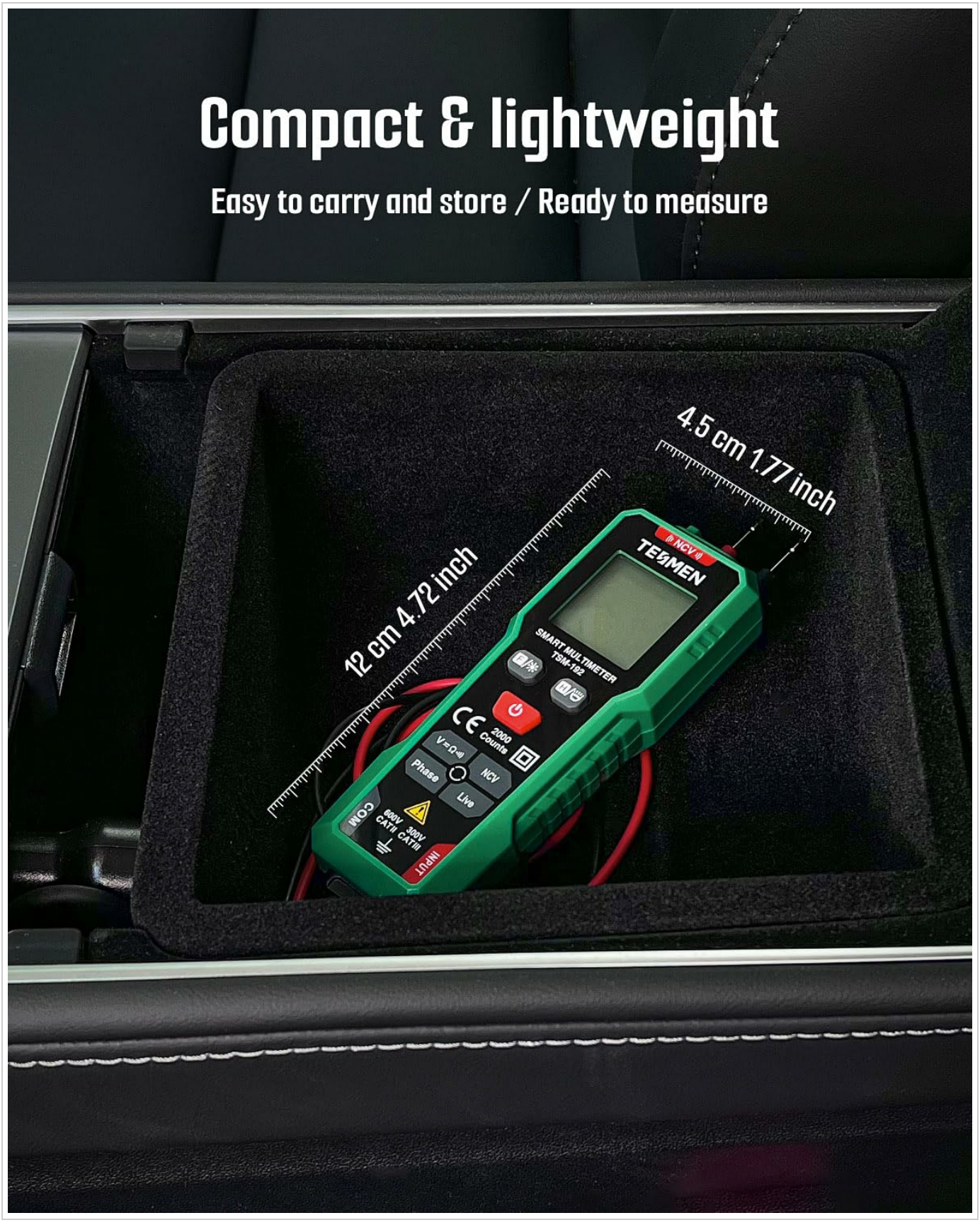


Image: The TSM-192 smart multimeter displaying "Auto" mode, highlighting its fast, simple, and effective automatic measurement

capability.

5.2 Multi-Functional Measurement

In addition to auto mode, the TSM-192 can measure AC/DC Voltage, Resistance, Continuity, Live Wire, Phase, and NCV. Use the `FUNC` button to cycle through these specific modes if needed.

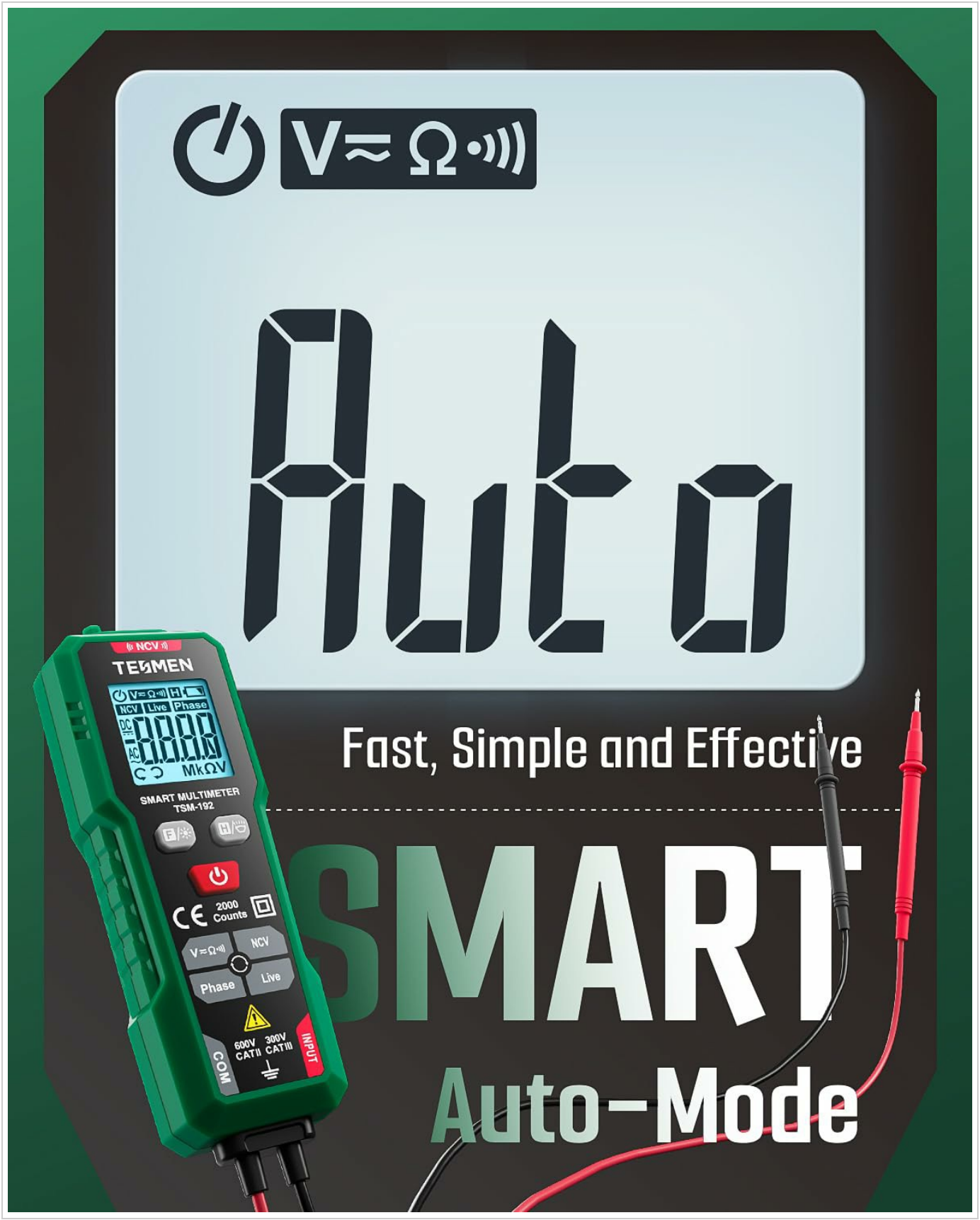


Image: The TSM-192 smart multimeter performing multi-functional measurements, including AC/DC Voltage, Resistance, Continuity, Live Wire, Phase, and NCV, with test leads inserted into a power outlet.

6. Maintenance

6.1 Cleaning

- Disconnect the devices from all circuits and power sources before cleaning.
- Wipe the casing with a damp cloth and mild detergent. Do not use abrasives or solvents.
- Ensure the devices are completely dry before storage or next use.

6.2 Storage

- If the devices will not be used for an extended period, remove the batteries to prevent leakage.
- Store the devices and accessories in their provided storage bags in a cool, dry place, away from direct sunlight and extreme temperatures.

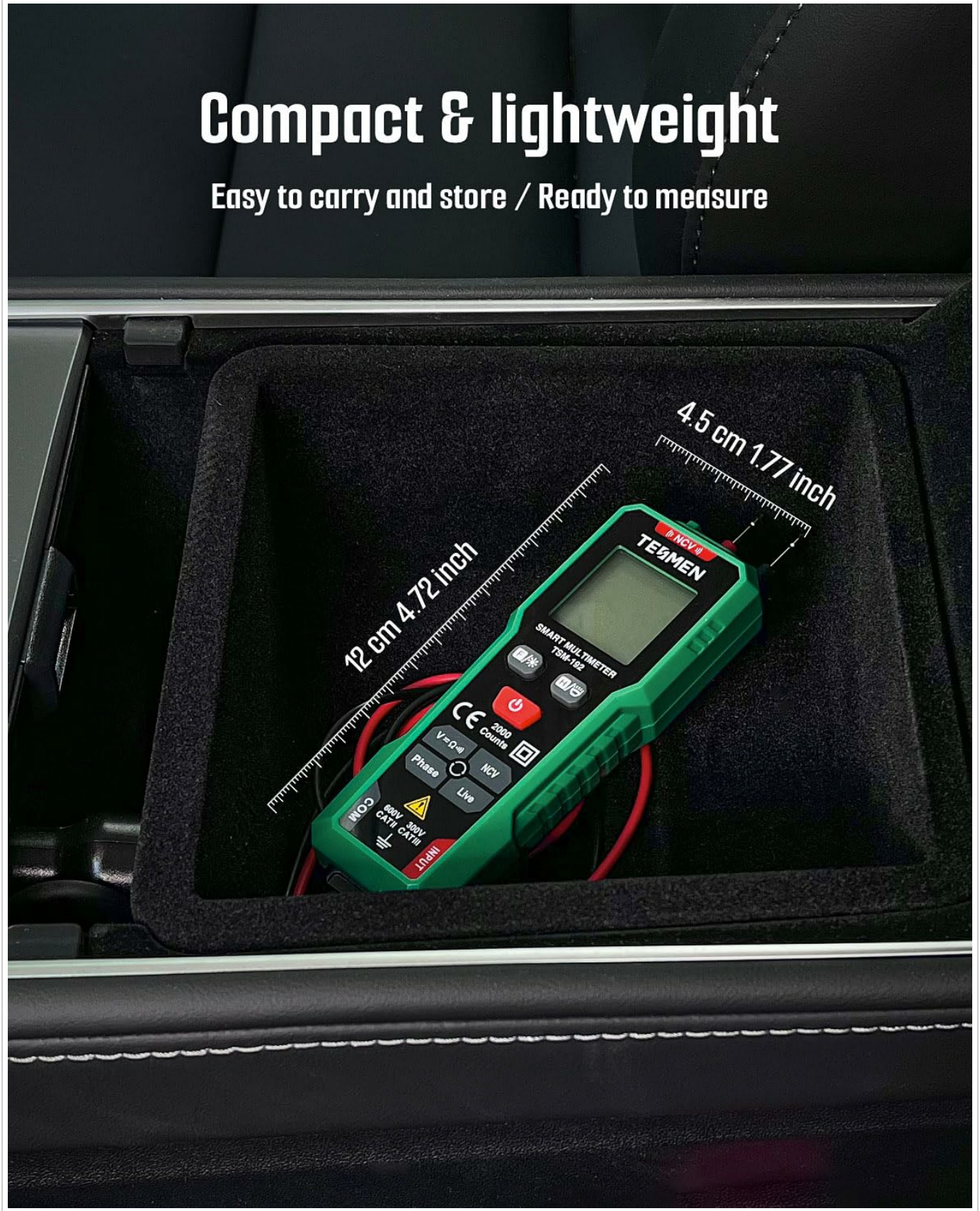


Image: The TSM-192 smart multimeter shown in a compact storage compartment, highlighting its portable and lightweight design.

7. Troubleshooting

7.1 Common Issues and Solutions

- **No Display/Power On:** Check battery installation and ensure batteries are not depleted. Replace if necessary.
- **Inaccurate Readings:** Ensure test leads are properly connected and not damaged. Verify the correct measurement function is selected. Clean contact points.
- **"OL" or "OVERLOAD" on Display:** The measured value exceeds the device's range for the selected function. Select a higher range or a different measurement method if available.
- **No NCV Detection:** Ensure NCV mode is active and the sensor is close enough to the AC voltage source.

If issues persist, contact TESMEN customer support.

8. Specifications

Feature	Value
Brand	TESMEN
Models	TCM-300D, TSM-192
Power Source	Battery Powered (AAA)
Safety Rating	CAT III 600V, CAT II 600V
Display	Backlit LCD
Auto Power Off	Yes
Data Hold	Yes

9. Warranty and Support

For warranty information and customer support, please refer to the specific warranty card included with your product or visit the official TESMEN website.

Visit the TESMEN Store on Amazon

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