

## FS899L

# Generic FS899L Digital Multimeter User Manual

Model: FS899L

## 1. PRODUCT OVERVIEW

---

The Generic FS899L Digital Multimeter is a versatile and reliable tool designed for accurate electrical measurements in various applications, including home, industrial, and automotive diagnostics. This device features True RMS measurement, a 6000-count display, and auto-ranging functionality for ease of use. It is equipped with a clear color screen, backlight, and a built-in torch for visibility in diverse lighting conditions. The FS899L is USB rechargeable, offering extended operation after a short charging period, and incorporates advanced safety features for user protection.



Figure 1: FS899L Digital Multimeter with test leads.

## 2. SAFETY INFORMATION

Always adhere to safety precautions when using any electrical testing equipment. Failure to do so may result in electric shock, injury, or damage to the device or equipment under test.

- **Do Not Exceed Ratings:** Never apply voltage or current that exceeds the maximum specified limits for the multimeter. Refer to the specifications section for detailed ratings.
- **Inspect Test Leads:** Before each use, inspect test leads for any damage, cracks, or exposed wiring. Replace damaged leads immediately.
- **Proper Personal Protective Equipment (PPE):** Always wear appropriate PPE, such as safety glasses and insulated gloves, when working with electrical circuits.
- **De-energize Circuits:** Whenever possible, de-energize circuits before making connections or disconnections.
- **Avoid Wet Conditions:** Do not use the multimeter in wet or damp environments.
- **Double-Fuse Protection:** The FS899L is equipped with double-fuse protection and overload safeguards. However, proper usage is still essential to prevent damage.

- **Impact-Resistant Housing:** The device features an impact-resistant housing for durability, but avoid dropping or subjecting it to severe mechanical shock.



Figure 2: The FS899L features a durable, impact-resistant shell.

### 3. PRODUCT COMPONENTS

---

The FS899L Digital Multimeter package typically includes:

- FS899L Digital Multimeter unit
- Test Leads (Red and Black)
- USB Charging Cable
- User Manual

#### Multimeter Features:

- **Large Color Display:** A 4.8-inch color screen with backlight for clear readings.
- **Function Buttons:** For selecting modes, data hold, and other functions.

- **Input Jacks:** For connecting test leads.
- **USB Port:** For recharging the internal battery.
- **Kickstand:** Integrated kickstand for hands-free operation.

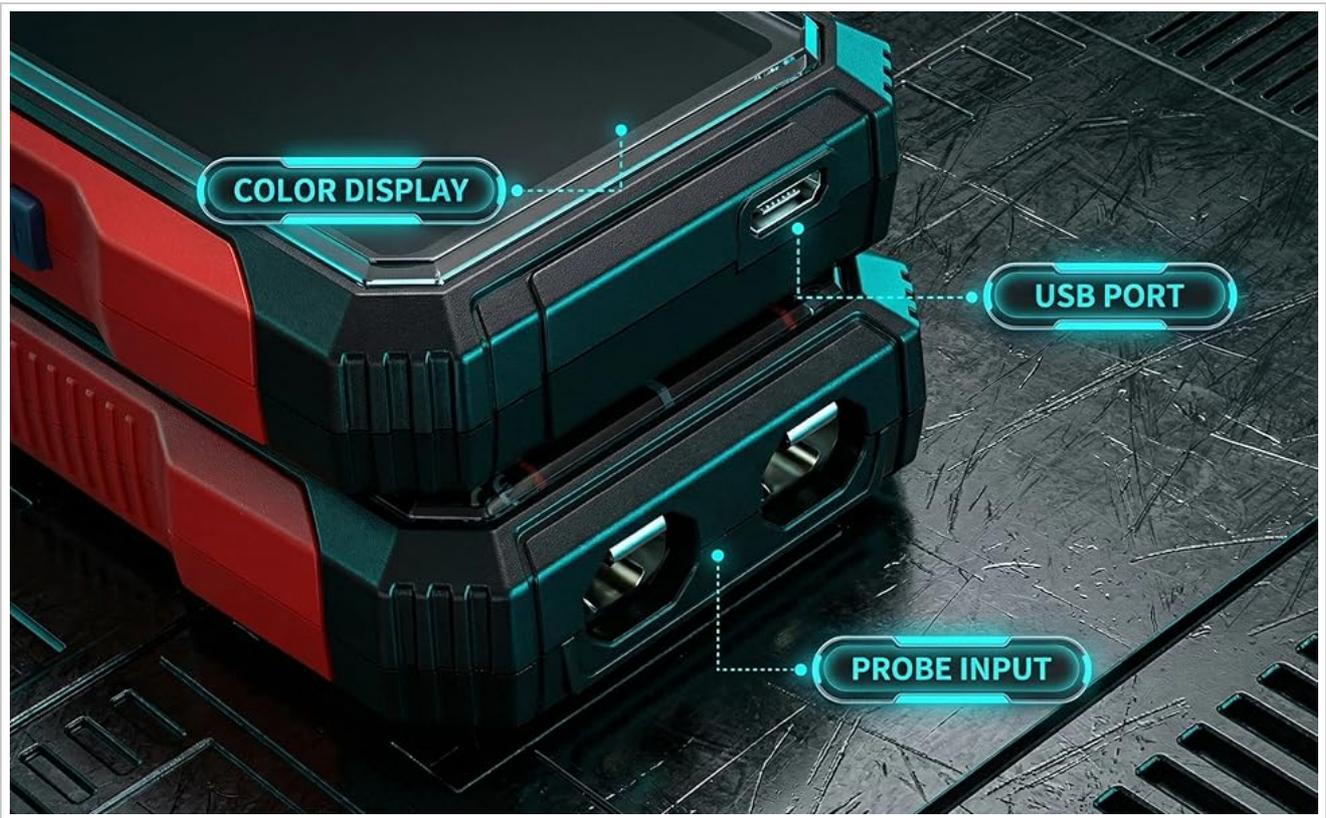


Figure 3: USB charging port and test probe inputs.



Figure 4: Multimeter with its integrated kickstand for convenient viewing.

## 4. SETUP

### 4.1 Initial Charging

The FS899L Digital Multimeter is USB rechargeable. Before first use, or if the battery is low, connect the provided USB charging cable to the multimeter's USB port and to a standard USB power adapter (not included). A full charge typically takes approximately 2 hours and provides up to 8 hours of continuous use.

# Precision Anytime



Figure 5: The multimeter is USB rechargeable for convenience.

## 4.2 Connecting Test Leads

1. Insert the black test lead into the 'COM' (Common) input jack.
2. Insert the red test lead into the appropriate input jack for your measurement:
  - For voltage, resistance, capacitance, frequency, diode, and continuity measurements, insert the red lead into the 'VΩHz' jack.
  - For current measurements (mA/A), insert the red lead into the 'mA/A' jack.

## 4.3 Powering On/Off

Press and hold the power button to turn the multimeter on or off. The device may also feature an auto-power-off function to conserve battery life.

## 5. OPERATING INSTRUCTIONS

The FS899L features auto-ranging, simplifying operation by automatically selecting the correct measurement range.

Use the function buttons to select the desired measurement mode.



Figure 6: The multimeter is suitable for detailed circuit diagnostics.

## 5.1 Measurement Modes

- **Voltage Measurement (AC/DC):** Select the voltage mode. Connect the test leads in parallel to the circuit or component to measure voltage.
- **Current Measurement (AC/DC):** Select the current mode. Connect the multimeter in series with the circuit to measure current. Ensure the correct input jack is used for current.
- **Resistance Measurement:** Select the resistance mode. Ensure the circuit is de-energized before measuring resistance. Connect the leads across the component.
- **Capacitance Measurement:** Select the capacitance mode. Ensure capacitors are discharged before testing.
- **Frequency Measurement:** Select the frequency mode to measure the frequency of an AC signal.
- **Temperature Measurement:** The multimeter can measure ambient temperature.
- **NCV (Non-Contact Voltage) Detection:** Use this feature to detect the presence of AC voltage without direct contact.
- **Diode Measurement:** Test diodes for proper function.

- **Continuity Test:** The on/off buzzer indicates continuity (low resistance).
- **Live Line Identification:** For identifying live wires.

# MULTI-FUNCTION TESTING



Figure 7: Examples of multi-function testing capabilities.

## 5.2 Data Hold Function

Press the 'HOLD' button to freeze the current reading on the display. This is useful for capturing readings in difficult-to-access areas or for later review. Press 'HOLD' again to release the reading.

## 5.3 Backlight and Torch

The 4.8-inch color screen includes a backlight for improved visibility in low-light conditions. A built-in torch provides additional illumination for the work area. Activate these features using the dedicated buttons.

# Clear in the Dark

## Backlit Display for Night Use



Figure 8: Clear backlit display for use in the dark.

## 6. MAINTENANCE

### 6.1 Cleaning

Wipe the multimeter's casing with a damp cloth. Do not use abrasive cleaners or solvents. Ensure the device is powered off and disconnected from any circuits before cleaning.

### 6.2 Battery Care

To maintain battery health, charge the multimeter regularly, especially if it will not be used for an extended period. Avoid fully discharging the battery frequently.

### 6.3 Fuse Replacement

The FS899L is designed with double-fuse protection. If the multimeter fails to measure current or shows incorrect current readings, the fuse may need replacement. Refer to a qualified technician for fuse replacement to ensure proper fuse type and rating are used.

## 6.4 Storage

Store the multimeter in a cool, dry place, away from direct sunlight and extreme temperatures. Disconnect test leads when storing.

## 7. TROUBLESHOOTING

---

- **No Display/Device Not Powering On:**

- Ensure the battery is charged. Connect the multimeter to a USB charger for at least 30 minutes.
- Press and hold the power button firmly.

- **Incorrect Readings:**

- Verify test leads are correctly inserted into the appropriate input jacks for the selected measurement mode.
- Check that the test leads are not damaged.
- Ensure the circuit is properly connected and de-energized for resistance/capacitance measurements.
- For current measurements, check the fuse.

- **Display is Dim:**

- Activate the backlight feature.
- Charge the battery, as low battery can affect display brightness.

## 8. SPECIFICATIONS

---

Feature	Specification
Brand	Generic
Model Number	TE-56524958
Display	6000 Counts, 4.8-inch Color Screen with Backlight
Measurement Type	True RMS
Power Source	USB Rechargeable (Corded Electric for charging)
Battery Life	Approx. 8 hours after 2-hour charge
Minimum Operating Voltage	60 Microvolts
Maximum Operating Voltage	600 Volts
Item Dimensions (L x W x H)	2.8 x 1.2 x 5.5 inches
Item Weight	12.3 ounces
Safety Rating	Meets IEC safety ratings, double-fuse protection, overload safeguards
Features	Auto-Ranging, NCV Detection, Data Hold, Torch

## 9. WARRANTY AND SUPPORT

---

For warranty information or technical support, please refer to the documentation provided with your purchase or contact the seller directly. Keep your purchase receipt as proof of purchase.

