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› [BST-58F Digital Multimeter User Manual](#)

## Unknown BST-58F

# BST-58F Digital Multimeter User Manual

Model: BST-58F

## INTRODUCTION

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This manual provides instructions for the safe and effective operation of the BST-58F Digital Multimeter. This auto-ranging multimeter is designed for measuring AC/DC voltage, AC/DC current, resistance, capacitance, and frequency, featuring 4000 counts for precise readings. It is suitable for maintenance testing of various electronic products.

## PRODUCT FEATURES

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## Automatic identification within 3 seconds



1: Long press the yellow button to start the device



2: Automatic measurement of gear position

**Image Description:** This image displays the BST-58F Digital Multimeter from the front and back, highlighting its general characteristics. The text on the image indicates 'Product Usage' and 'CHARACTERISTICS', stating that the product is used for maintenance testing of various electronic products, features a metal shielding plate, anti-magnetic and anti-interference performance, full protection, anti-high voltage ignition circuit design, and automatic gear position recognition for convenient operation.

- Automatic identification within 3 seconds for simplified operation.
- Data hold function to freeze readings on the display.
- Automatic power-off feature to conserve battery life.
- Low voltage display indicator.
- Anti-vibration design for durability.
- Streamlined design for comfortable handling.
- Large screen display for clear character visibility.
- Strong anti-interference capability.
- Full protection and anti-high voltage circuit design.
- Self-recovery fuse protection circuit.
- Non-Contact Voltage (NCV) detection.
- True RMS measurement for accurate readings on non-sinusoidal waveforms.

- Screen backlight for easy reading in low-light conditions.
- Flashlight lighting.

## SAFETY INFORMATION

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To ensure safe operation and service of the meter, follow these instructions:

- Read and understand all instructions and safety information in this manual before operating the meter.
- Do not exceed the maximum input values specified for each measurement range.
- Use caution when working with voltages above 30V AC RMS, 42V peak, or 60V DC. These voltages pose a shock hazard.
- Always disconnect the test leads from the circuit before changing functions or ranges.
- Inspect test leads for damaged insulation or exposed metal. Replace if damaged.
- Do not operate the meter if it appears damaged or if the case is open.
- Ensure the battery cover is securely closed before operation.
- Do not use the meter in wet environments or in the presence of explosive gas or dust.
- When measuring current, ensure the meter is connected in series with the load and the circuit is de-energized before connecting.

## PRODUCT OVERVIEW AND COMPONENTS

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Familiarize yourself with the components of your BST-58F Digital Multimeter.



## ▼ CHARACTERISTICS

This product is used for maintenance testing of various electronic products. It has metal shielding plate, anti-magnetic and anti-interference performance; full protection function, anti-high voltage ignition circuit design, automatic gear position recognition and more convenient operation.

**Image Description:** This image displays the BST-58F Digital Multimeter with various components labeled. Key labels include: LED light, Indicator light, Screen, Model, Case, Data Hold/Backlight button (H/\*), NCV/LED button (NCV/B), Power/Capacitance button (O/H), Current Terminal (10A UNFUSED), COM terminal, and Voltage, Resistance, Capacitance, Continuity terminal (VΩ-4-). The screen shows "APO" indicating Auto Power Off.

- **Screen:** Displays measurement readings and indicators.
- **LED Light:** For illumination.
- **Indicator Light:** Provides visual feedback.
- **NCV/LED Button:** Activates Non-Contact Voltage detection and LED light.
- **H/\* Button:** Activates Data Hold and Backlight functions.
- **O/H Button:** Power On/Off and function selection.
- **Current Terminal (10A UNFUSED):** Input for high current measurements.
- **COM Terminal:** Common (negative) input for all measurements.
- **VΩ-4- Terminal:** Input for voltage, resistance, capacitance, and continuity measurements.

## Battery Installation

The BST-58F multimeter requires 2 x 1.5V AAA batteries for operation. To install or replace batteries:

1. Ensure the multimeter is powered off and disconnect all test leads.
2. Locate the battery compartment cover on the back of the device.
3. Use a screwdriver to open the battery compartment.
4. Insert two 1.5V AAA batteries, observing the correct polarity (+ and -).
5. Replace the battery compartment cover and secure it with the screw.

## Connecting Test Leads

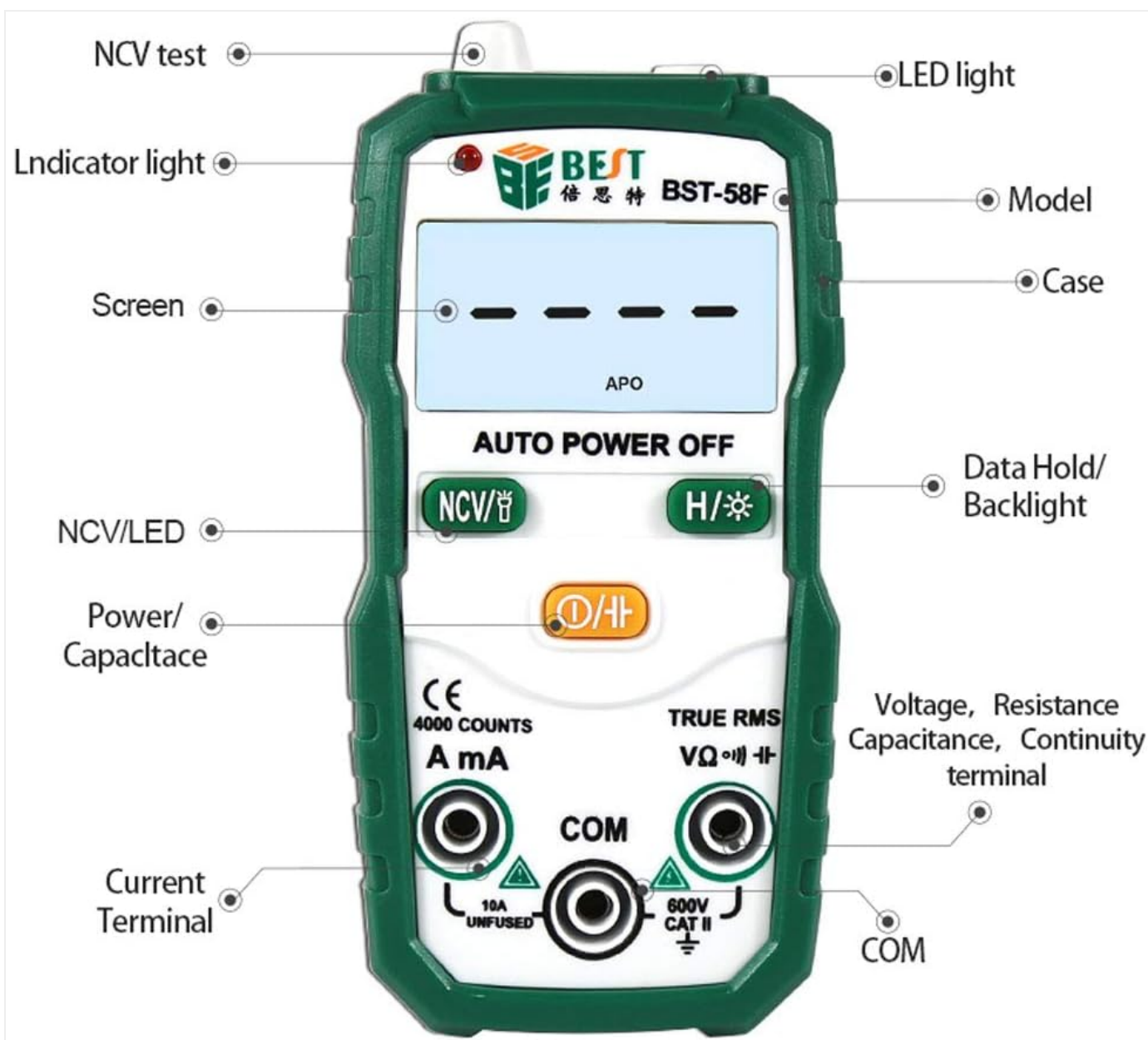
Always connect the black test lead to the COM terminal. Connect the red test lead to the appropriate input terminal based on the measurement type:

- For Voltage, Resistance, Capacitance, and Continuity: Connect the red lead to the **VΩ-4-** terminal.
- For Current (up to 10A): Connect the red lead to the **10A UNFUSED** terminal.

## OPERATING INSTRUCTIONS

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### Powering On/Off and Automatic Identification



**Image Description:** This image illustrates the power-on process and automatic measurement function. The left panel shows the multimeter off, with text "1: Long press the yellow button to start the device". The right panel shows the multimeter with test leads connected, indicating "2: Automatic measurement of gear position". The screen displays "APO" and "HOLD" indicators.

1. To power on the device, **long press the yellow O/H button**. The multimeter will automatically identify the measurement type (voltage, resistance, continuity) within 3 seconds when test leads are connected to a circuit.
2. The multimeter features an automatic power-off function to save battery.

### Non-Contact Voltage (NCV) Test

SCREEN BACKLIGHT  
EASY TO READ



## NCV Non-contact Test

Long press NCV to enter induction mode NCV sensing area



**Image Description:** This image shows the multimeter's NCV (Non-Contact Voltage) test feature. The text "NCV Non-contact Test" is prominent, with an arrow pointing to the NCV sensing area at the top of the device. The screen shows "APO" and the NCV/B button is visible.

To perform a Non-Contact Voltage test:

1. **Long press the NCV/B button** to enter induction mode.
2. Move the NCV sensing area (located at the top of the multimeter) close to the conductor being tested.
3. The multimeter will indicate the presence of AC voltage through an audible beep and/or visual indicator.

### Data Hold and Backlight

Press the **H/\* button** briefly to activate the Data Hold function, which freezes the current reading on the display. Press it again to release. Long press the **H/\* button** to turn the screen backlight on or off for improved visibility in dark environments.

## General Measurement Principles

The BST-58F automatically identifies the measurement type. Ensure test leads are correctly connected for the desired measurement.

- **Voltage Measurement (AC/DC):** Connect leads in parallel with the circuit.
- **Current Measurement (AC/DC):** Connect leads in series with the circuit. Ensure the circuit is de-energized before connecting.
- **Resistance Measurement:** Ensure the circuit is de-energized before measuring resistance. Connect leads across the component.
- **Capacitance Measurement:** Ensure the capacitor is discharged before measuring.
- **Frequency Measurement:** Connect leads to the signal source.
- **Continuity Test:** For checking circuit continuity. An audible beep indicates continuity.

### PRODUCT INFORMATION



1KHz true RMS  
NCV induced voltage  
AC and DC current  
AC and DC voltage  
Zero fire line identification  
Resistance on and off

Specifically for the following problems

		
Can't read the symbol	Complex range	Don't know how to operate

**Image Description:** This image displays the multimeter and lists its key measurement capabilities: 1KHz True RMS, NCV induced voltage, AC and DC current, AC and DC voltage, Zero fire line identification, and Resistance on and off. It also shows icons for various measurement types like voltage, current, frequency, and diode test, indicating the multimeter's versatility.

## MAINTENANCE

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### Cleaning

Wipe the meter with a damp cloth and mild detergent. Do not use abrasives or solvents. Keep the terminals free of dirt and moisture.

### Battery Replacement

When the low battery indicator appears on the display, replace the batteries as described in the "Battery Installation" section under Setup. Remove batteries if the meter is not used for an extended period.

### Storage

Store the multimeter in a cool, dry place, away from direct sunlight and extreme temperatures. The recommended storage environment is -20°C to 60°C with humidity less than 80%.

## TROUBLESHOOTING

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Problem	Possible Cause	Solution
Meter does not power on.	Dead or incorrectly installed batteries.	Check battery polarity, replace batteries.
No reading or "OL" displayed.	Open circuit, out of range, or incorrect function/lead connection.	Check circuit, ensure correct function selected, verify lead connections.
Inaccurate readings.	Low battery, dirty test leads/terminals, external interference.	Replace batteries, clean leads/terminals, move away from strong electromagnetic fields.
Auto power-off too quickly.	Normal operation (default setting).	Engage in a measurement or press a button to reset the timer.

## SPECIFICATIONS

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The following tables detail the technical specifications and measurement ranges of the BST-58F Digital Multimeter.

Product number	BST-58F
LCD	4000word
Range	automatic
Material	ABS-PCV
Sampling rate	3 times / sec
True RMS	✓
Data retention	✓
Screen backlight	✓
Flashlight lighting	✓
Low battery prompt	✓
Automatic shut-down	✓
parameter	
product weight	133g
Product Size	126*61*28mm
power supply	1.5V AAA battery*2
working environment	Temperature 0~40°C Humidity <75%
Storage environment	Temperature -20~60°C Humidity <80%

**Image Description:** This image shows a table of general product parameters for the BST-58F multimeter. It lists: Product number (BST-58F), LCD (4000word), Range (automatic), Material (ABS-PCV), Sampling rate (3 times/sec), True RMS (✓), Data retention (✓), Screen backlight (✓), Flashlight lighting (✓), Low battery prompt (✓), Automatic shut-down (✓). Under "parameter", it lists: product weight (133g), Product Size (126\*61\*28mm), power supply (1.5V AAA battery\*2), working environment (Temperature 0~40°C, Humidity <75%), Storage environment (Temperature -20~60°C, Humidity <80%).

Parameter	Value
Product Number	BST-58F
Display	4000 Counts LCD
Ranging	Automatic
Material	ABS-PCV
Sampling Rate	3 times/sec
True RMS	Yes
Data Retention	Yes
Screen Backlight	Yes
Flashlight	Yes

Parameter	Value
Low Battery Prompt	Yes
Automatic Shut-down	Yes
Product Weight	133g
Product Size	126 x 61 x 28mm
Power Supply	2 x 1.5V AAA battery
Working Environment	0~40°C, Humidity <75%
Storage Environment	-20~60°C, Humidity <80%

### Measurement Ranges and Accuracy:

Function	Range	Accuracy
DC voltage	4V/40V/400V/500V	± (0.5%+3)
AC voltage	4V/40V/400V/500V	± (1.0%+3)
DC	999.9mA/9.999A	± (2.0%+4)
AC	999.9mA/9.999A	± (1.0%+3)
Resistance	4Ω	± (1.5%+3)
	40Ω/400Ω	± (0.5%+3)
	4kΩ/40kΩ	± (1.5%+3)
Capacitance	20nF/200nF	± (10%+40)
	2uF/20uF/200uF	± (2.5%+20)
	2000uF	± (5%+10)
On and off	✓	
NCV detection	✓	
Frequency response in AC mode: 40Hz~1kHz		

**Image Description:** This image presents a table outlining the functions, ranges, and accuracy of the BST-58F multimeter. It includes specifications for DC voltage (4V/40V/400V/500V, ±(0.5%+3)), AC voltage (4V/40V/400V/500V, ±(1.0%+3)), DC current (999.9mA/9.999A, ±(2.0%+4)), AC current (999.9mA/9.999A, ±(1.0%+3)), Resistance (4Ω/40Ω/400Ω, ±(1.5%+3); 4kΩ/40kΩ/400kΩ, ±(0.5%+3); 4MΩ/40MΩ, ±(1.5%+3)), Capacitance (20nF/200nF, ±(10%+40); 2uF/20uF/200uF, ±(2.5%+20); 2000uF, ±(5%+10)). It also indicates "On and off" and "NCV detection" with checkmarks. The frequency response in AC mode is 40Hz~1kHz.

Function	Range	Accuracy
DC Voltage	4V/40V/400V/500V	± (0.5%+3)
AC Voltage	4V/40V/400V/500V	± (1.0%+3)
DC Current	999.9mA/9.999A	± (2.0%+4)

Function	Range	Accuracy
AC Current	999.9mA/9.999A	± (1.0%+3)
Resistance	4Ω/40Ω/400Ω	± (1.5%+3)
	4kΩ/40kΩ/400kΩ	± (0.5%+3)
	4MΩ/40MΩ	± (1.5%+3)
Capacitance	20nF/200nF	± (10%+40)
	2uF/20uF/200uF	± (2.5%+20)
	2000uF	± (5%+10)
On and off (Continuity)	Yes	—
NCV Detection	Yes	—
Frequency response in AC mode: 40Hz~1kHz		

## WARRANTY AND SUPPORT

Specific warranty information for this product is not provided in the available documentation. For warranty claims or technical support, please refer to the retailer or manufacturer's contact information provided at the point of purchase.

