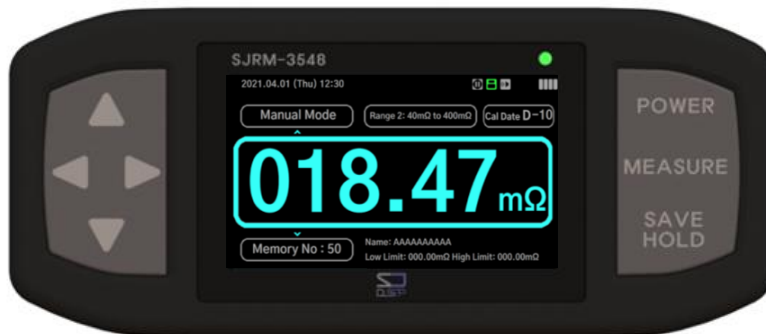


Resistance**METER**

SJRM-3548

User's Guide

V3.2



 **SungJin DSP**

- The content described in this User's Guide is to change the specifications of the product and enhance its functionality
It can be changed without prior notice due to the back.
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Product Descriptions

Thank you for purchasing this product.

This product is designed to measure the electrical precision resistance of devices and equipment.

The SJRM 3548 is an intelligent software-based, ultra-precise resistance meter (hereinafter referred to as the “Ultra-Precise Resistance Meter”). It is a high-precision electrical measurement device capable of measurement in a variety of environments.

To ensure optimal performance, please read this user manual thoroughly and operate the product only after fully understanding its usage instructions.

This product may be upgraded with additional features; therefore, it is recommended to always use the latest version of the firmware and user manual.

Ultra-Precise Ohmmeter: Overview and Features

Overview

The SJRM 3548 is a high-precision resistance measurement device that utilizes a four-terminal measurement method and is suitable for use in various environments.

In particular, when measuring aircraft bonding resistance, results are clearly displayed on the large screen of the main unit and the probe, enhancing user visibility. When using pre-set measurement ranges stored in memory, results are recorded and stored, allowing for visual confirmation.

An audible beep can be configured via alarm settings to indicate measurement status, enabling easy auditory verification.

Additionally, automatic temperature correction is performed within the operating temperature range, eliminating the need for manual temperature compensation.

Features

- Displays 5-digit measurement values with precision up to 0.1 mΩ.
- Supports up to 50 customizable memory settings for various user-defined measurement configurations.
- Compact and lightweight design ensures excellent portability and usability.
- Designed with user convenience in mind for both stationary and portable applications.
- Equipped with a 3-meter probe cable, tailored to the specific needs of aviation maintenance.
- Large LCD screen enhances visibility and user recognition.
- Includes beep alarm function to improve usability and real-time status awareness.

Product Components

After purchasing this Ultra-Precise Ohmmeter, please verify the following items to ensure proper configuration and optimal operating conditions.

If any component is missing or damaged, contact your place of purchase or our Customer Support Center.

Components

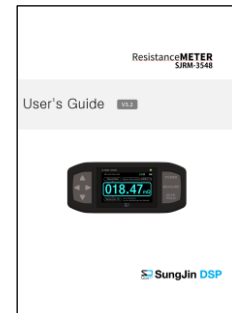
Ultra-precise resistance meter(SJRM-3548)



Calibration report



User's manual



Probe rod(SJRMST-2101)



Probe cable(SJYCB-2101)



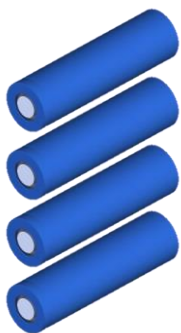
Pouch(SJP-2101)



Strap(SJST-2101)



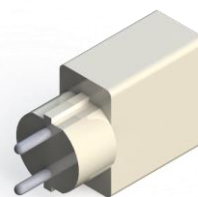
Rechargeable battery(SJB-2101)



Charging cable(SJBC-2101)



Charging adapter(SJBA-2101)



Storage box(SJRMB21-01)



L-shaped probe(SJRMRA-2101)



Calibration cable(SJCB-2101)

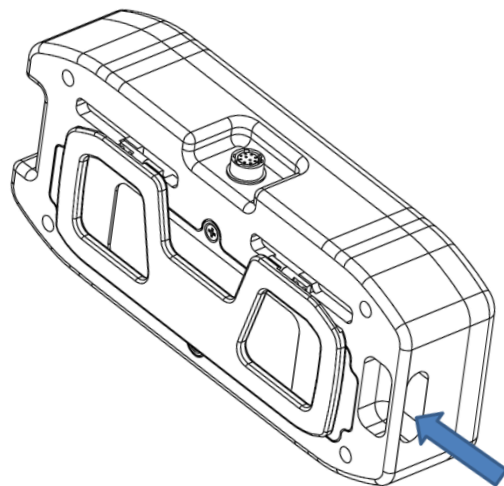


Calibration resistor(SJSRM-2101)

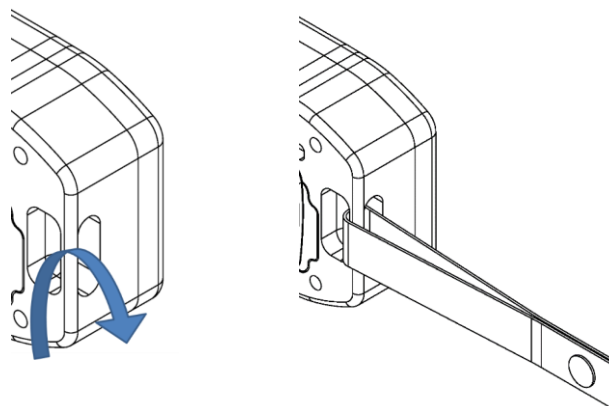


Strap connection

Position the Ultra-Precise Ohmmeter in front of you and thread the strap through the left ring.



Secure the Velcro firmly to ensure a tight fit.



Precautions when using the product

Product Status

| Caution

Before using the equipment, inspect the measuring instrument and probe for any physical damage.

If any damage is found, it may pose a risk to user safety and affect the performance of the product. In such cases, please contact your place of purchase.

In particular, if any abnormalities such as bending, burrs, or short circuits are found on the metal part of the probe—which comes into direct contact during measurement—the probe must be replaced before use.

Product Operational Environment

| Caution

Operating Temperature and Humidity: 0°C to +45°C, relative humidity up to 95% (non-condensing)

Storage Temperature and Humidity: -10°C to +70°C, relative humidity up to 95% (non-condensing)

Do not use the product in the following environments, as they may cause malfunction or pose safety risks:

- Environments exposed to direct sunlight or high temperatures
- Areas with a high concentration of potentially explosive oil vapors
- Locations containing water, oil, chemicals, or volatile organic solvents
- High-humidity environments where condensation may occur
- Areas subjected to strong electromagnetic fields
- Dusty environments with high particle density
- Near high-temperature heat sources or in environments with strong high-frequency or harmonic interference
- Environments with significant vibration

Product handling

| Caution

- Check that the connector between the measuring instrument and the probe is properly engaged.
- Ensure that the connection between the probe and the instrument is securely tightened.
- Bending or pulling the cable can damage the joint and degrade the contact condition, potentially causing operational issues.
- Always turn off the power before moving the product. Disconnect all connectors before transport.
- The measuring instrument must be carried directly during movement and operation. Pulling on connected cables during transport or use may strain the connectors and cables, leading to damage or malfunction.
- Poor contact between connectors or cables can result in measurement errors or operational failures, particularly due to current-induced heating.
- The probe tip is sharp and may be hazardous. Handle it with caution to avoid injury.

| Notice

- Use of the product in environments that may cause contamination or damage to the probes and cables can severely affect performance; therefore, careful inspection is required.
- Additionally, measuring objects with an applied power source can cause serious damage to the product's current source and sensors, so such conditions must be verified before measurement.

Battery Handling

| Caution

- Ensure the measuring instrument's battery is fully charged before use.
- Battery leakage or seepage can damage the product and degrade its performance.
- Do not mix old and new batteries.
- Do not use batteries of different types together.
- Do not mix batteries with different capacities.
- Do not use secondhand batteries or batteries past their expiration date.
- This product uses rechargeable lithium-ion batteries of the 18650 series.
- The battery capacity should be 1000mAh or higher. Do not use batteries with excessively high capacity.

| Notice

- Using the product in environments that may cause contamination or damage to the probes and cables can severely impact the product's performance; therefore, careful inspection is necessary.
- Additionally, measuring objects with applied power can cause serious damage to the product's current source and sensors, so it is essential to verify this before measurement.

| Danger

- When the battery capacity indicator shows 25% or less (), charge the battery as soon as possible.
- If the battery indicator shows 10% or less (), the product may power off unexpectedly.

Precautions for Measurement

| Warning

- Even if the object to be measured is not powered, damage may occur if it remains connected to an external power source. Always disconnect it from the power outlet before measurement.
- Exercise caution when measuring coils with resistance below 1Ω . Damage may occur due to reactance caused by current during measurement. In particular, measure driven motors separately.
- Be cautious when handling the device with wet hands or in environments where there is a risk of electric shock.
- Unauthorized disassembly or assembly may result in fire, electric shock, or other hazards.

| Notice

- In environments near strong electromagnetic fields, harmonic or high-frequency sources, and radio receivers, radiated currents may affect the accuracy of resistance measurements. Therefore, exercise caution when using the equipment in such conditions.

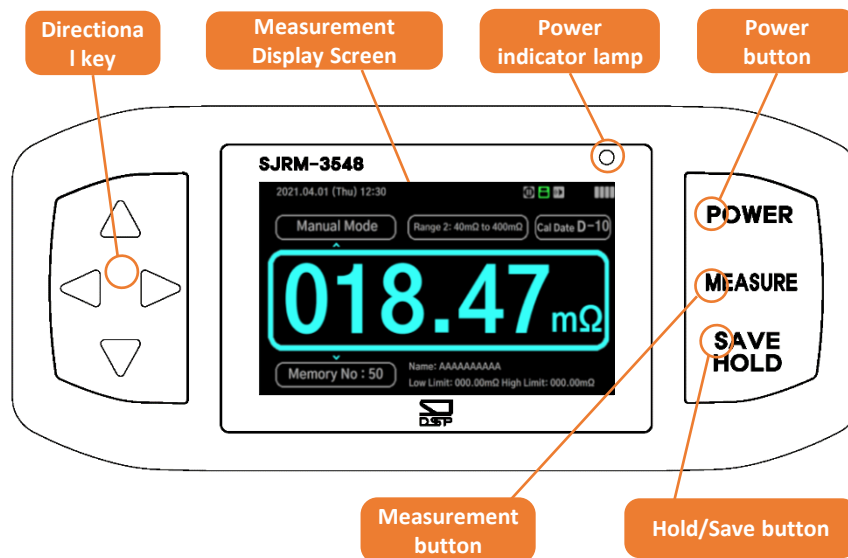
| Danger

- Verify that no power is applied to the object before contacting it with the probe.
- These pre-checks help prevent accidents such as electric shock or short circuits.
- Prevent electrical short circuits by ensuring that the probe is not connected to or causing a short circuit on a powered object.

Name of each part of the product

Ultra-precision ohmmeter

Front part

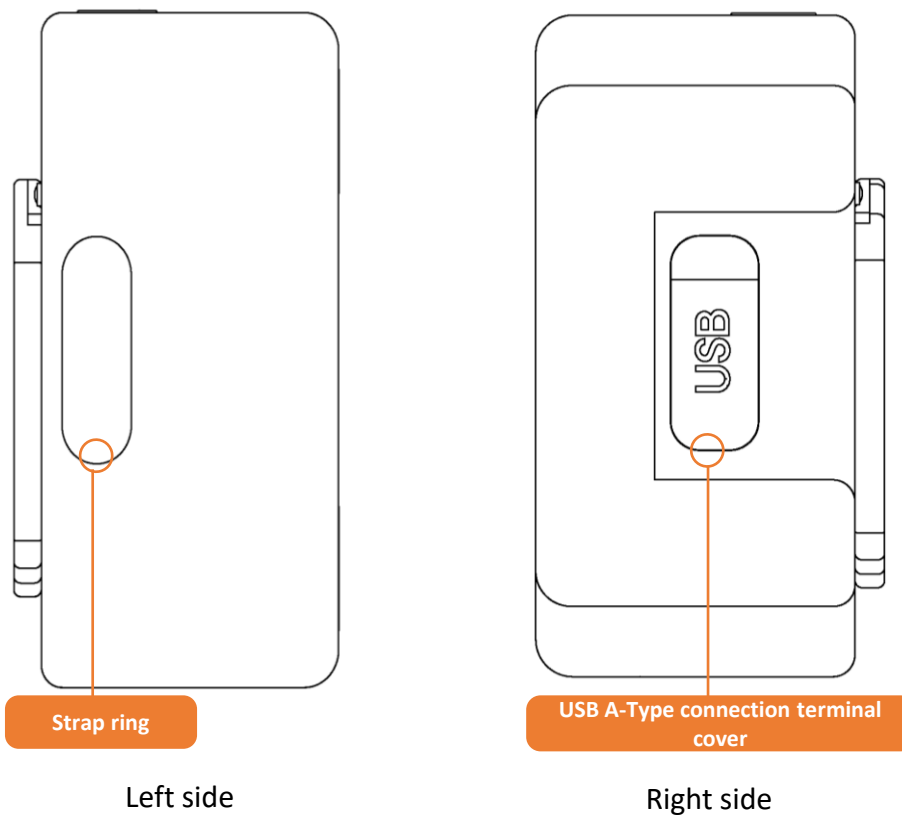


Button/Terminal Features

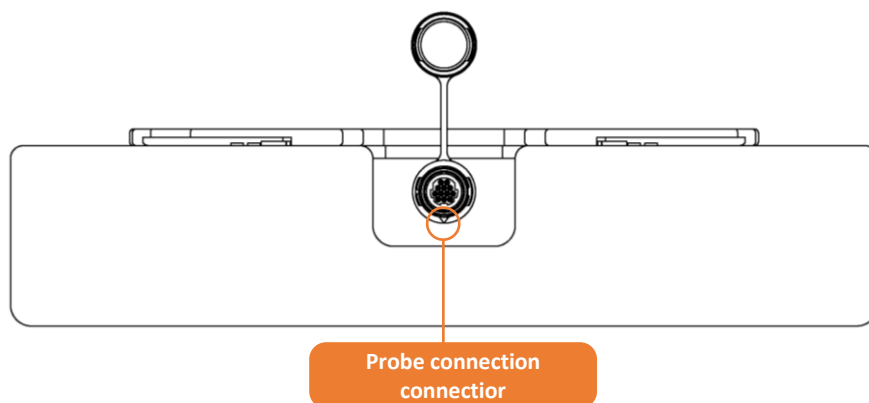
Button/Terminal	Features
POWER	Instrument power on/off button
MEAS.	Re-measure button for Hold or Hold/Save function
HOLD/SAVE	Continuous Measurement > Fixed State after Measurement > Fixed State after Measurement and Storage > Circulation to Continuous Measurement Hold : If the probe is pressed once after the measurement, the last measurement value will continue on the display without measuring the probe Hold/Save: Press 2 times after measurement to save the last measurement and value
   	Move up, down, left and right from each menu on the screen

Ultra-precision ohmmeter

Lateral section

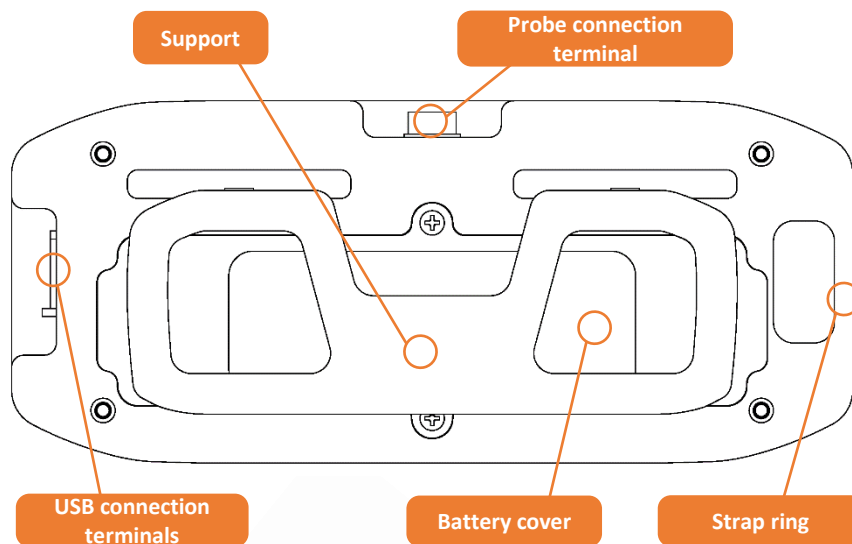


Upper part

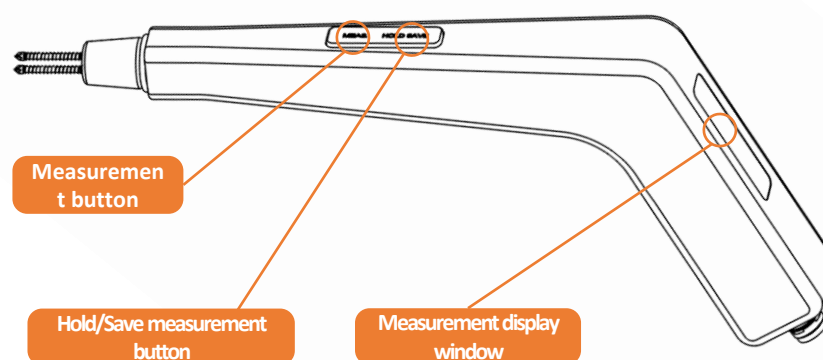


Ultra-precision ohmmeter

Rear part



Probe



Use Product

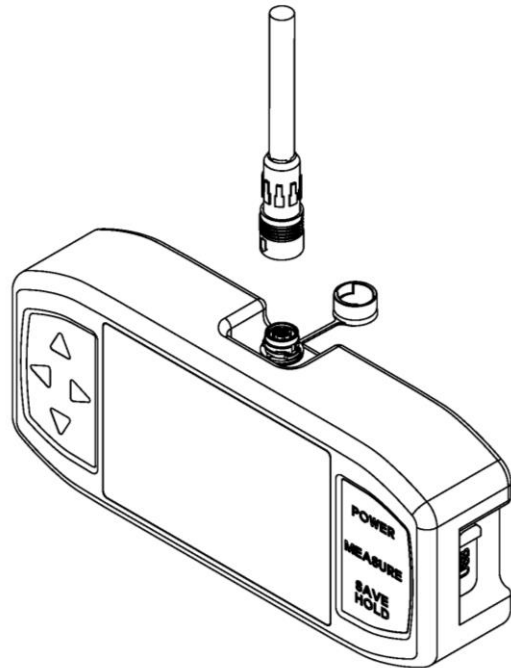
Ready to use

Probe Connection

This section describes the basic preparation and connection procedures before measuring resistance.

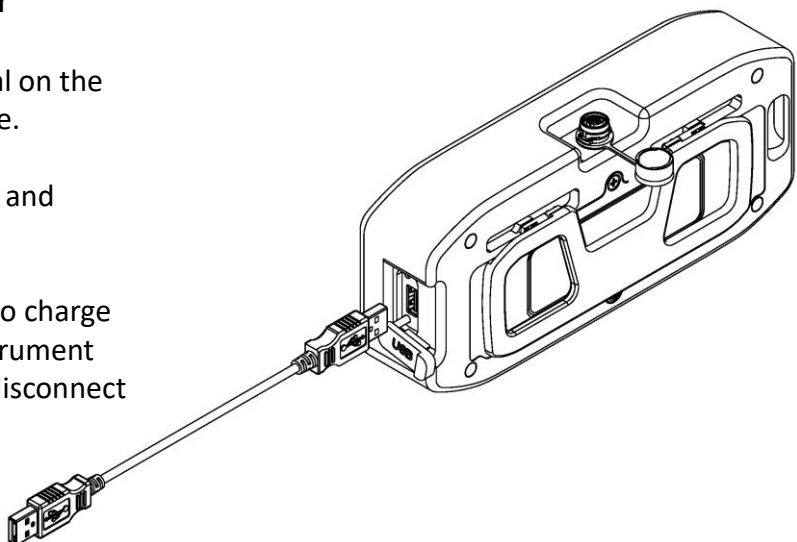
No additional temperature correction is required, as temperature-dependent errors are automatically compensated.

- When connecting the probe to the measuring instrument, insert the connector securely.
- The connector locks in place with a snap-fit mechanism when pressed and inserted.
- To disconnect, pull the outer shell of the connector on the probe side upwards and remove the connector.



Connecting the Power Adapter

- Connect the power input terminal on the main unit to the USB A-Type cable.
- This resistance meter is designed and manufactured for portable use.
- For mobility, it is recommended to charge the battery of the measuring instrument using the USB A-Type cable and disconnect the cable after charging.



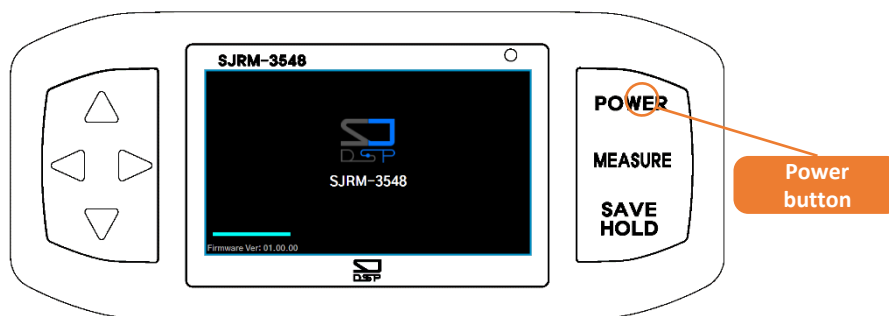
Power On

Press and hold the power button for more than one second.

The device will emit three beep sounds and begin self-diagnosis.

When self-diagnosis is complete, a single beep will sound (if the alarm is enabled), and the initial screen will be displayed.

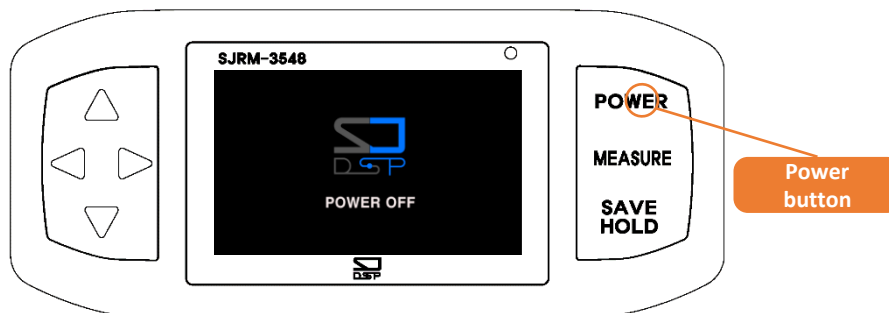
During boot, the alarm will activate if it is set to ON, and the icon will appear after the SD card status has been checked.



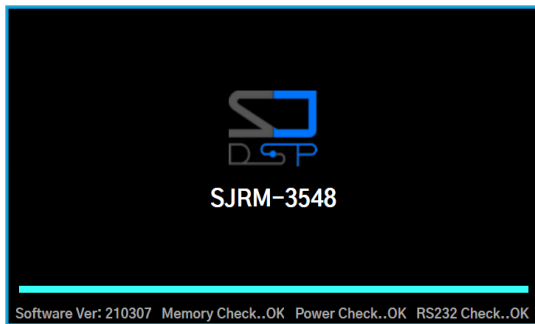
Power Off

Press and hold the power button for more than 4 seconds to enter the shutdown screen.

The device will power off completely after 1 second.



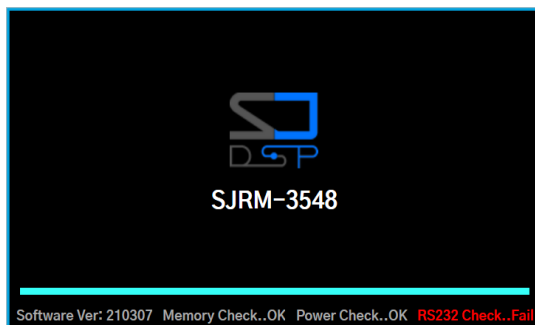
Product Boot Screen



Self-diagnosis and normal startup screen



Self-diagnosis and normal startup failure screen

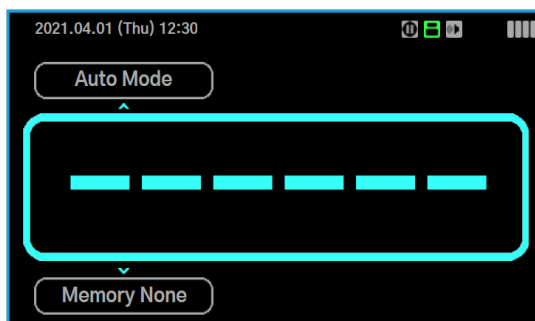


Normal startup failure screen after self-diagnosis

If the Product Fails to Start

The device will attempt to perform a normal boot, but any issues will be recorded in the self-diagnosis history.

※ If boot errors persist, please contact your place of purchase to request repair service.



screen when battery is discharged

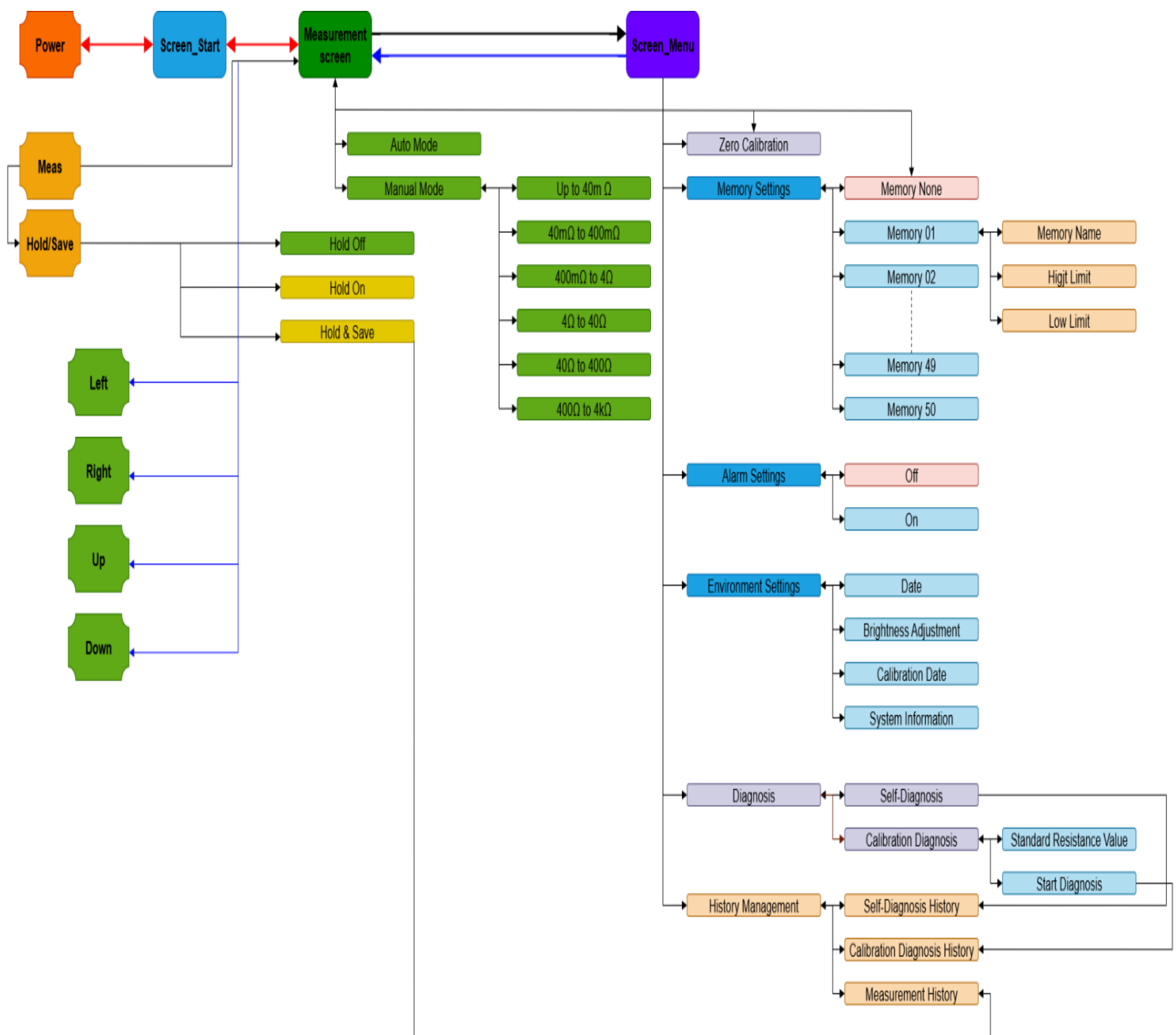


screen when battery is charged

Full Menu Flow Chart

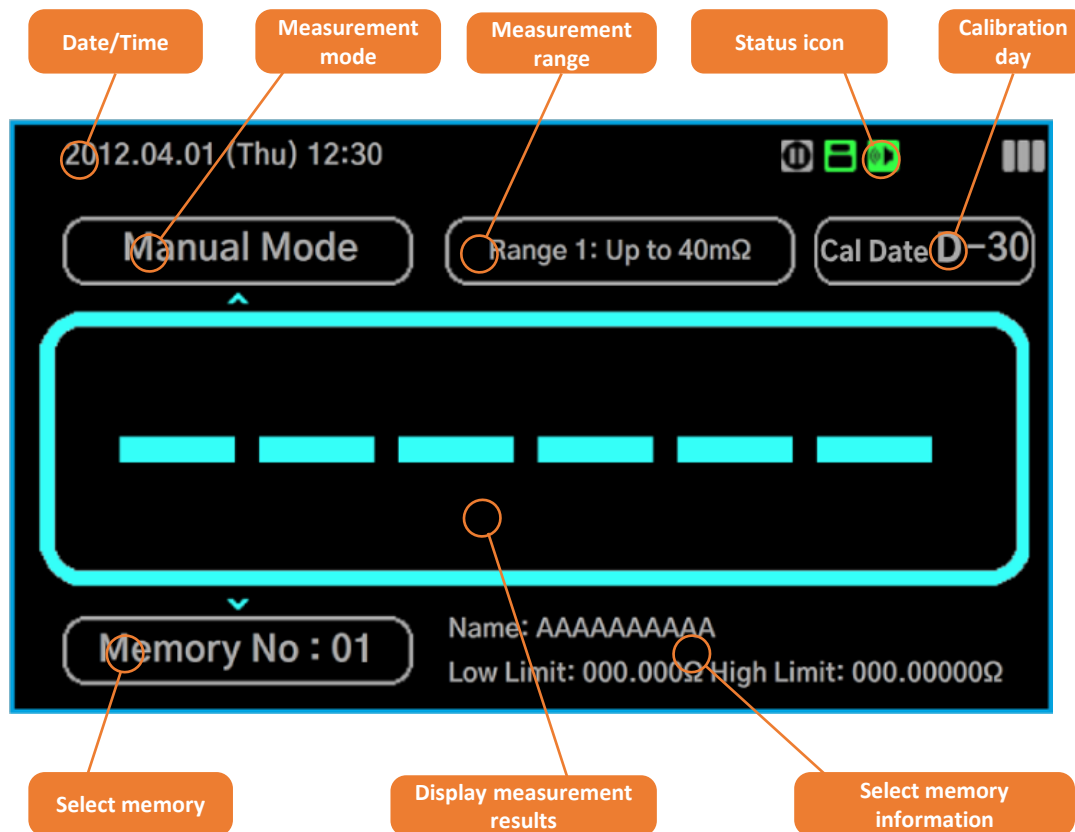
This section describes the settings of each measurement menu, button operations, and measurement descriptions.

※ Please refer to the full menu flow chart before proceeding with setup and operation of each menu.



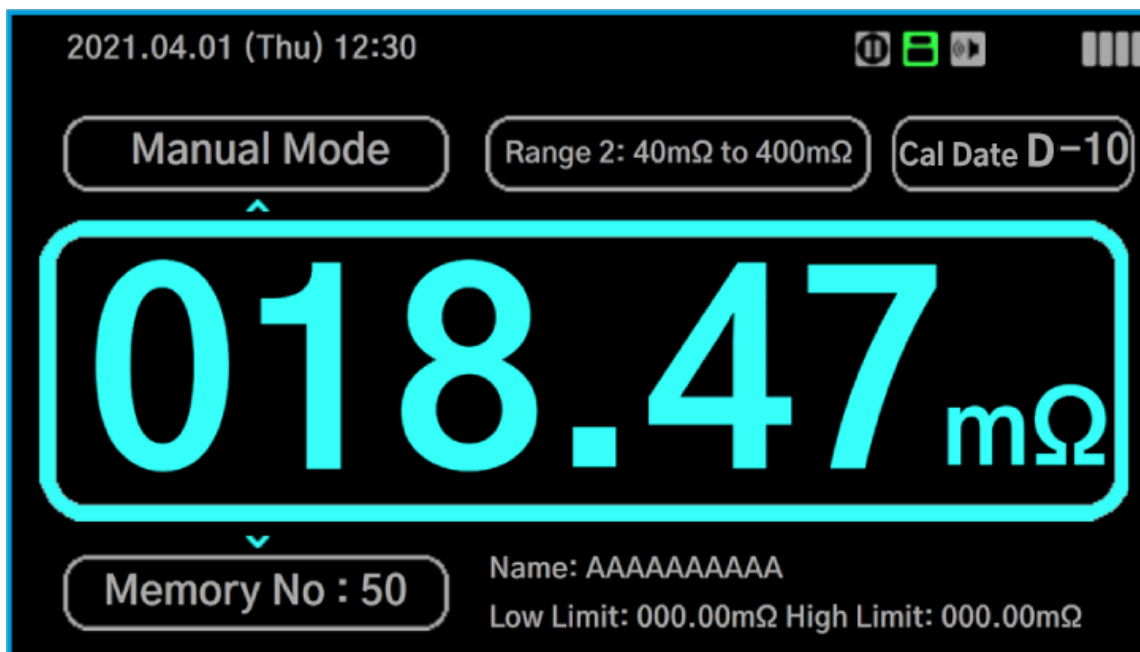
Measurement Screen

Configuring the Main Measurement Screen



- The date and time are displayed in the upper left corner.
- The Hold/Save icon is shown according to the current Hold/Save mode.
- When the SD card is recognized, the SD card icon is activated.
- The alarm icon reflects the alarm activation status.
- The remaining battery level is displayed as an icon.
- Measurement modes can be selected between Auto Mode and Manual Mode.
- Measurement ranges are selectable from Range 1 to Range 6.
- The calibration date is displayed when 30 days remain until the next calibration.
- Measurement results appear in the center; if no measurement is active, "----" is shown.
- Memory slots from 01 to 50 can be selected.
- Based on the selected memory slot, the corresponding name, upper limit, and lower limit are displayed.

Measurement Results Screen



Display screen icon description

Icon Description	Icon	
Hold / Save		Continuous Measurement Mode
		Retention Mode
		Maintenance/Save Mode
SD Card status	deactivation	activation
	deactivation	activation
Battery discharging	25% 50% 75% 100%	
Charging the battery		

To measure

Preparation for Measurement

After booting, complete the necessary configurations and settings. Then, proceed to the measurement screen to prepare for measurement.

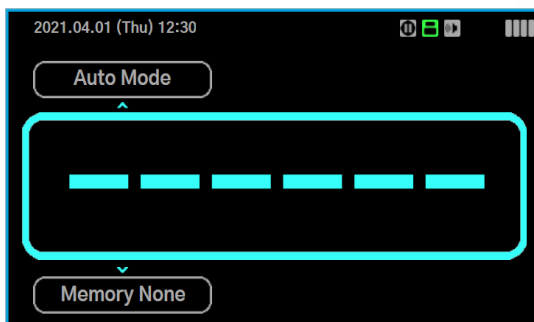
This resistance meter performs continuous measurement by default, and measurement results are not saved automatically. To retain values, use the Hold/Save button to either “hold the measured value on the screen after a single measurement” or “hold and save the measured value after a single measurement.”

Pressing the measurement button while Hold or Save mode is active will perform the corresponding function based on the selected mode:

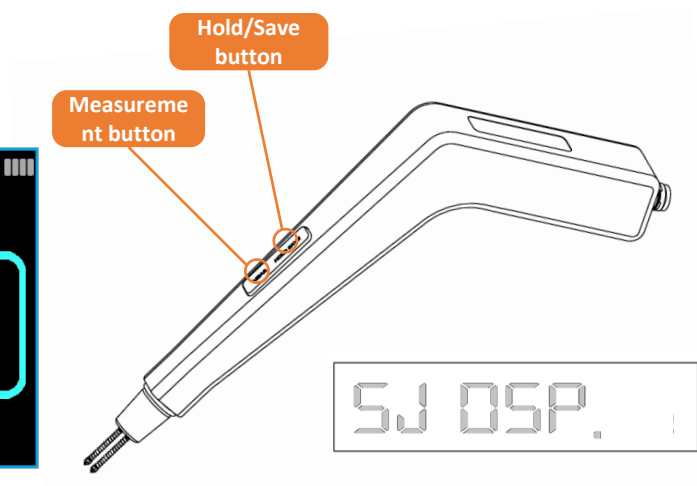
- In Hold mode, the measured value is held on the screen after one measurement.
- In Save mode, the measured value is held and saved after one measurement.

※ This button function applies equally to the buttons on both the measuring instrument and the probe.

Main Measurement Screen



Measurement screen with user settings



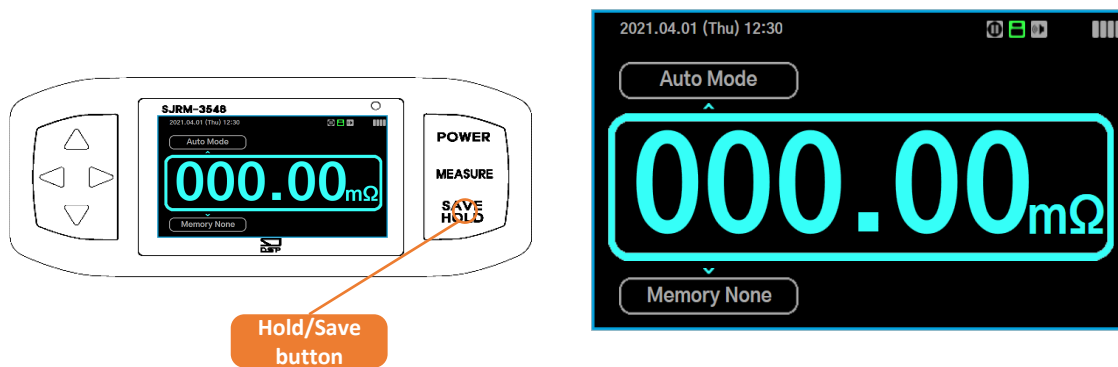
Probe screen with user settings

Hold/Save Button Function

This function is activated by pressing the Hold/Save button on either the measuring instrument or the probe.

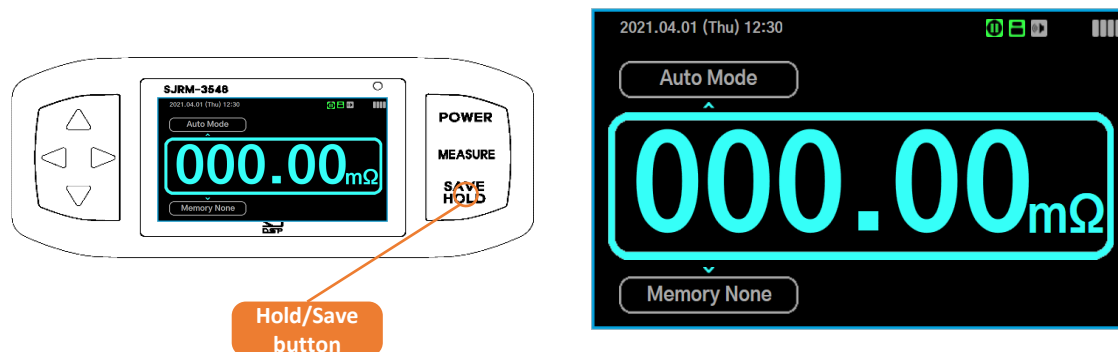
Each press cycles through the modes in the following sequence:

※ All inactive → Hold active → Hold/Save active → All inactive → ... and so on.



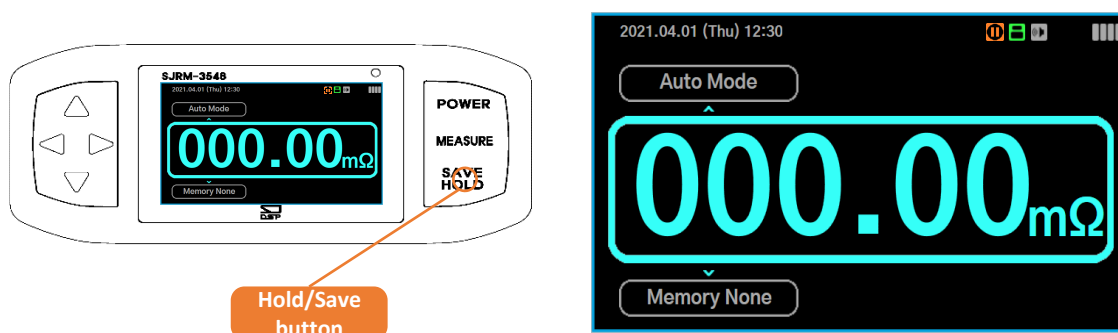
Measurement Screen in Continuous Measurement Mode

The Hold icon  in the upper right corner of the measurement screen will be active.



Measurement Screen in Hold Mode

The Hold icon  in the upper right corner of the measurement screen is active.



Measurement Screen in Hold/Save Mode

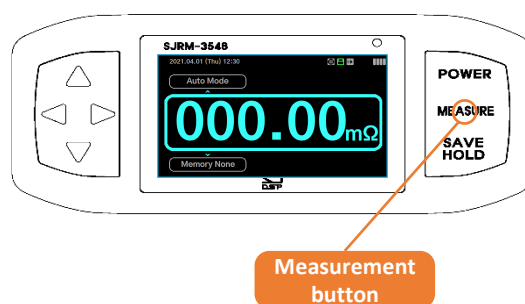
The Hold icon  in the upper right corner of the measurement screen is active.

Measure Button Function

When the Hold/Save function is deactivated, the measurement button is non-operational because this resistance meter performs continuous measurement by default.

However, when the Hold or Hold/Save function is activated, the measurement mode switches from continuous to single measurement, and the measured value is retained afterward.

In this case, the measurement button serves as a re-measurement trigger.
Note that re-measurement is performed without any additional icon or on-screen indication.



Mode	Icon	Measure button behavior
continuous measurement		It doesn't work.
Hold		The value will be updated.
Hold/ Save		The value is updated and stored in the measurement history.

Measurement Additional Features

Select Measurement Mode

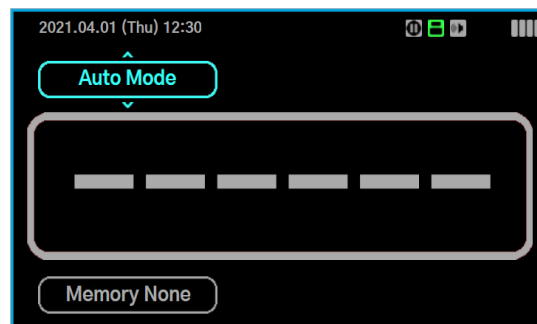
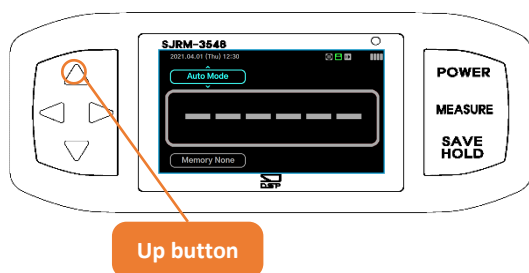
Measurement mode can be selected between two types: Automatic and Manual.

Automatic Measurement Mode (Default Setting)

In Automatic Mode, the device automatically switches and measures across Ranges 1 to 6 without user input.

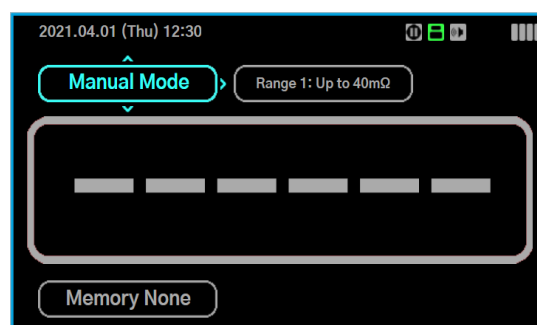
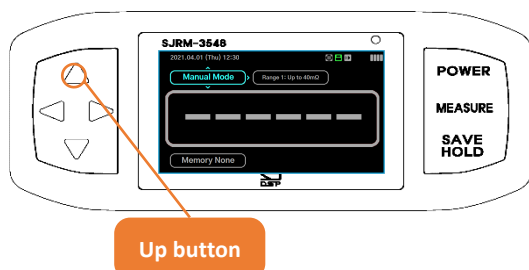
When measuring, a single beep sounds initially (depending on the alarm setting), and if the resistance value is determined to be stable, two consecutive beeps are emitted.

Measurement ranges cannot be manually selected in Automatic Mode, as the device adjusts them automatically during the measurement process.



Switching from Automatic to Manual Measurement Mode

While in Automatic Mode, pressing the up arrow button will switch the device to Manual Mode. Upon switching, the measurement range selection screen will appear.



Manual Measurement Mode

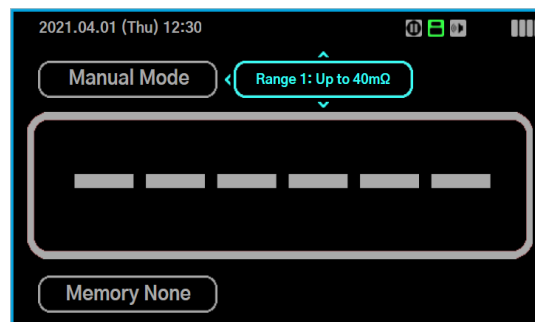
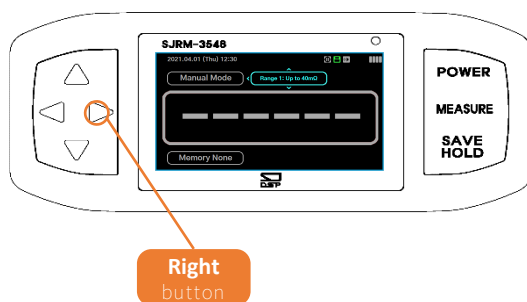
Manual Mode allows the user to manually switch the device mode and select a desired measurement range. If the measured value falls outside the selected range, a notification will appear on the screen prompting the user to adjust the measurement range.



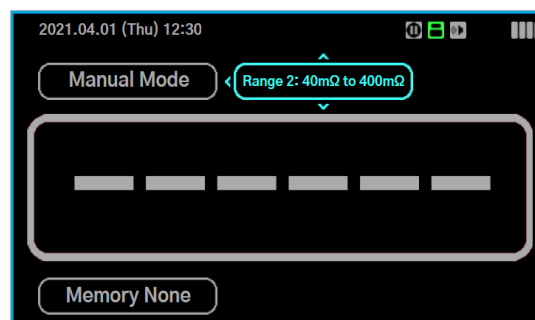
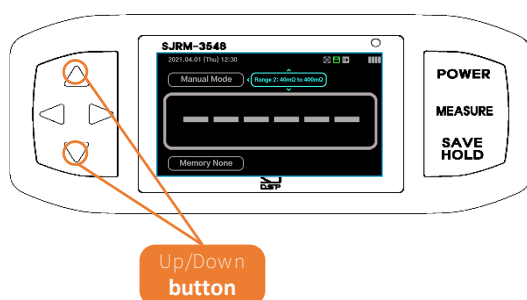
Sortation	Range
RANGE1	Up to 40mΩ
RANGE2	40mΩ - 400mΩ
RANGE3	400mΩ - 40Ω
RANGE4	40Ω - 400Ω
RANGE5	400Ω - 4000Ω
RANGE6	4000Ω - 4kΩ

Manual Measurement Mode > Changing the Measurement Range

Press the right arrow key to access the Measurement Range Settings.



Press the up and down arrow keys to select the desired measurement range. The currently selected range is indicated in blue text.

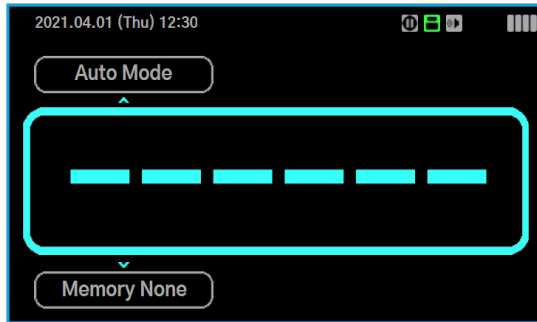


Menu screen

Navigating the Menu Screen

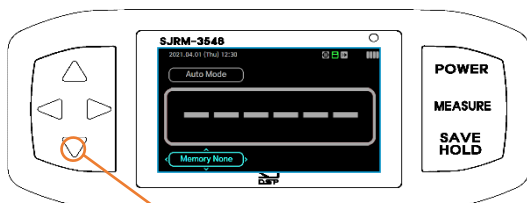
The menu screen consists of six items: Zero Calibration, Memory Settings, Alarm Settings, Environment Settings, Diagnostics, and History Management.

To access the menu screen from the measurement screen, use the direction buttons.

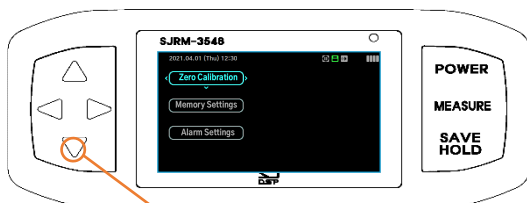
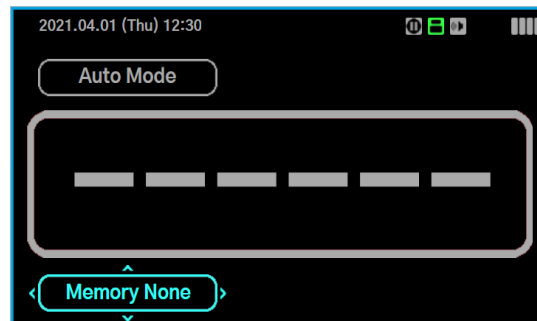


On the main screen, pressing the button located below the arrow will select the Memory Settings option.

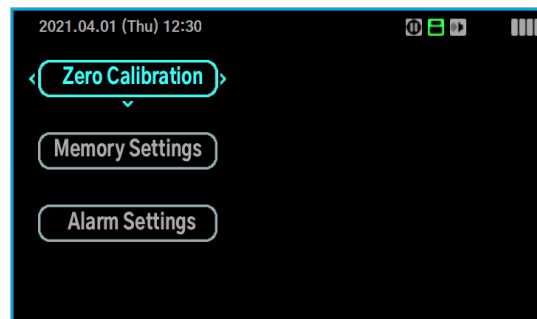
Pressing the same button again will enter the Memory Settings menu screen.



Down
button



Down
button

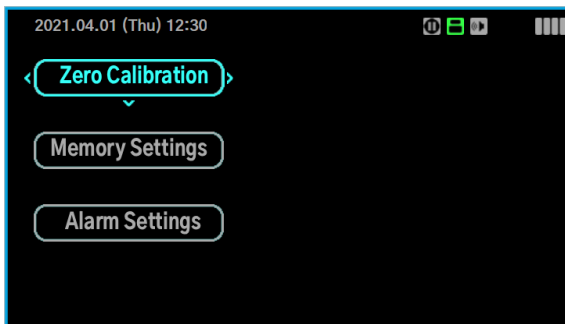


Selecting a Menu Screen

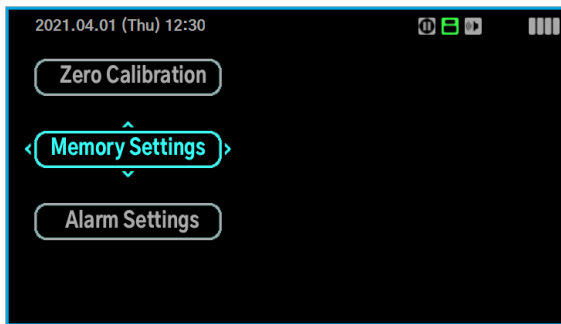
The menu screen includes six items: Zero Calibration, Memory Settings, Alarm Settings, Environment Settings, Diagnostics, and History Management.

Use the up and down arrow buttons to navigate through the menu items.

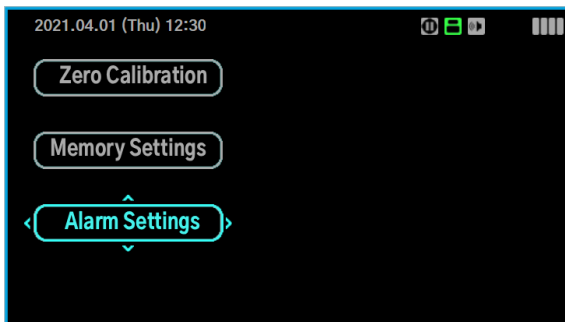
Press the right arrow button to select an item.



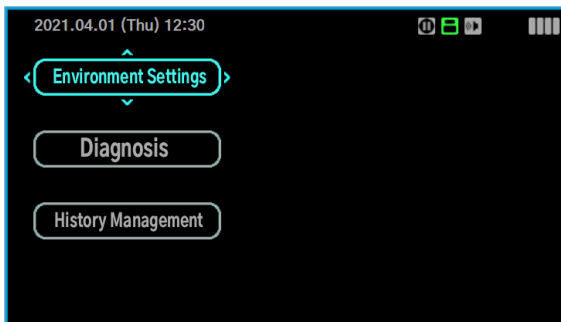
Select Zero Calibration Screen



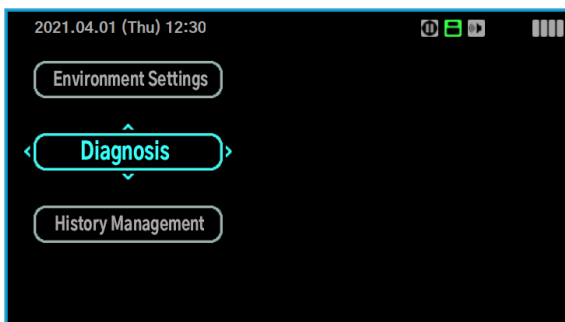
Select Memory Settings Screen



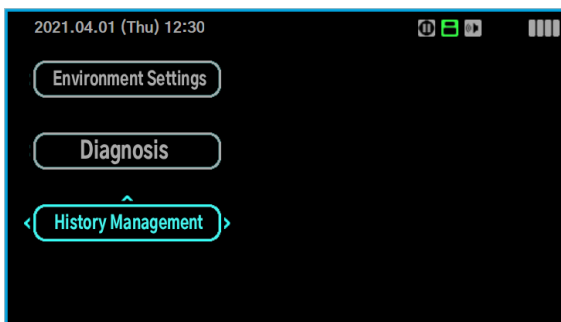
Select alarm settings screen



Select environment settings screen



Diagnostic selection screen

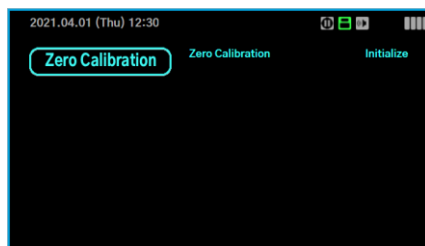


Historical management selection screen

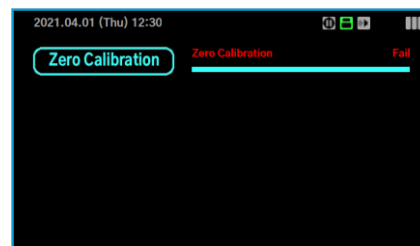
Zero Correction

Zero correction is performed to compensate for the resistance of components such as the measuring instrument and probe before measuring the resistance of the test object. This correction adjusts the baseline by accounting for and reconfiguring the connected components.

Ongoing



Zero-correction entry screen



Failure screen

Pressing the right arrow button in the Zero Calibration menu initiates zero calibration. Within 60 seconds of entering the menu, perform zero calibration by contacting the Zero Cal section of the calibration resistor with the probe.

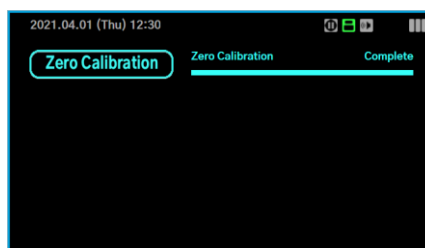
If no contact is detected within 60 seconds, the calibration will be considered a failure.

If zero calibration fails after probe contact, a failure screen will be displayed, and two beep sounds will be emitted according to the alarm settings.

In case of failure, disconnect the probe at both ends and perform zero calibration twice from the beginning.

If zero calibration continues to fail, please contact the manufacturer.

Completion



Complete screen



Go screen after completing

When zero calibration is complete, the measurement screen will appear.

After briefly displaying the message "Zero Calibration Completed," the measurement display will show a value of 000.00 mΩ.

If no abnormalities are detected, disconnect both ends of the cross-contact probe. You may then begin measuring the test object.

Memory Settings

This resistance meter provides 50 user-configurable memory slots.

Memory slots include one non-configurable slot (None) and 50 configurable slots (1 to 50). Each configurable slot allows entry of a memory name, an upper limit, and a lower limit value.

- The memory name supports up to 8 characters, which can include uppercase letters, digits (0–9), and periods (.).
- Upper and lower limit values can be set with 5-digit precision (e.g., 000.00) to two decimal places, with selectable units of m Ω , Ω , or k Ω .

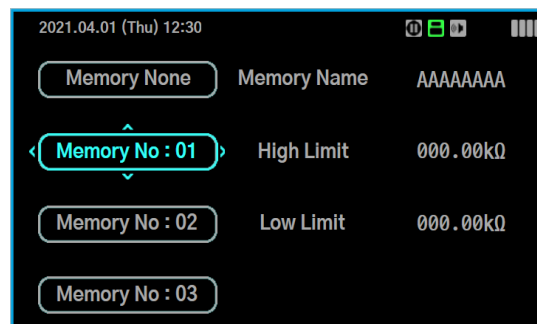
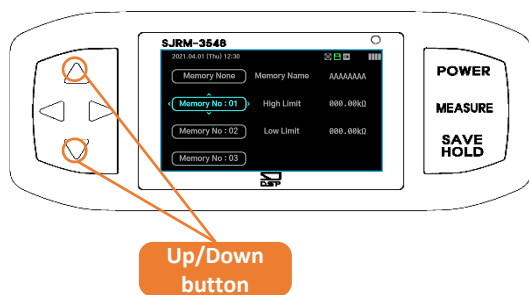
Memory settings allow users to pre-store and apply measurement ranges, facilitating result storage and efficient operation tailored to specific measurement environments.

Up to 50 user memory settings can be saved.

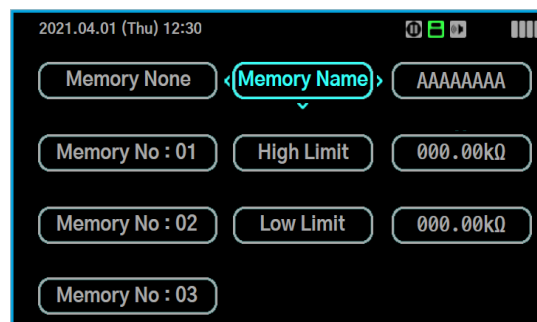
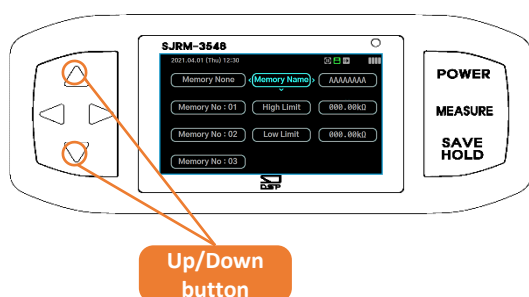
For instructions on how to save memory settings, please refer to the following section.

Modifying Memory

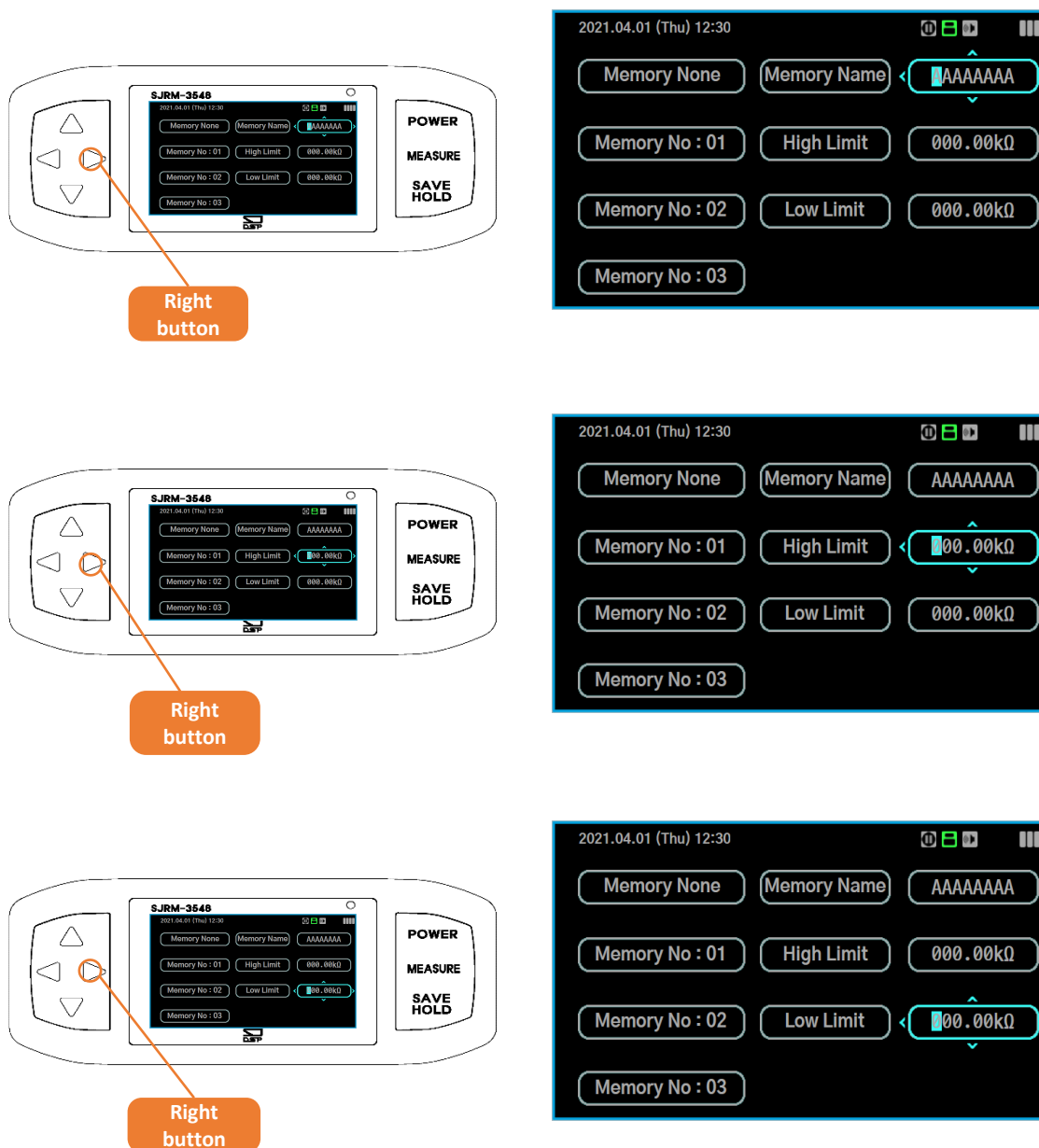
In the Memory Settings menu, use the up and down arrow keys to navigate to the memory slot (01–50) you wish to modify.



Within the selected memory slot, use the up and down arrow keys to navigate to the setting you wish to modify: Name, Upper Limit, or Lower Limit.

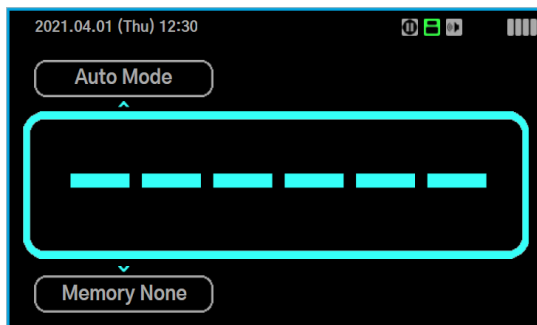


Go to the settings with the right button key.



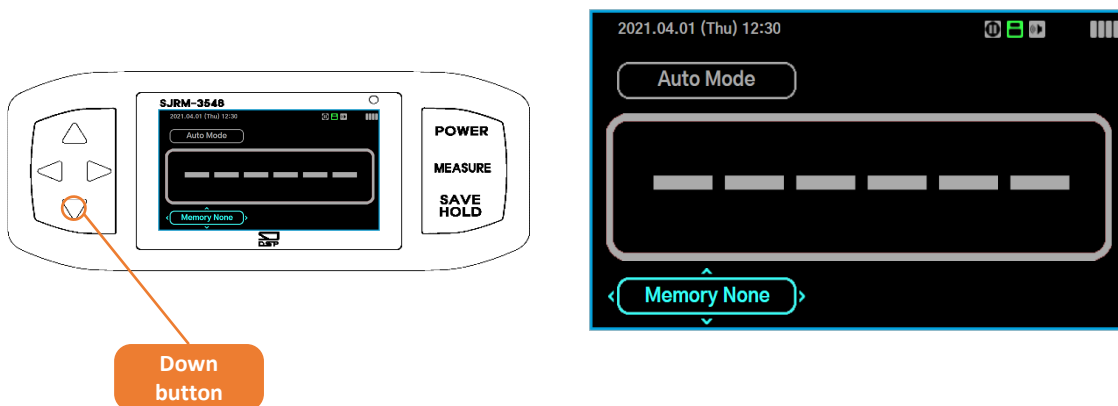
Use the left and right arrow keys to move the cursor to the position you want to set. Select characters (A to Z, 0 to 9, period, or unit symbols) using the up and down arrow keys. Settings are saved when you exit using the left arrow key.

Select Memory Settings



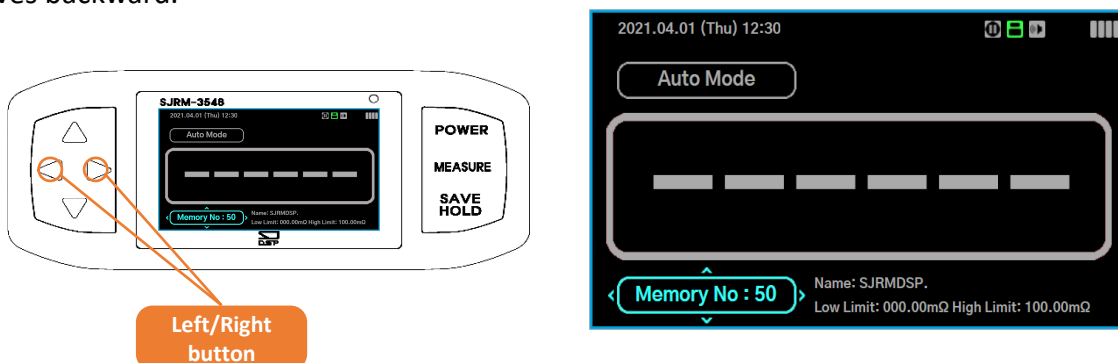
Select Setup Memory

Pressing the button below the arrow activates the **Memory None** area on the screen.



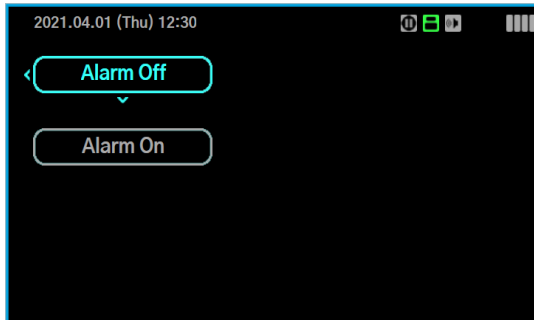
Use the left and right arrow buttons to select the memory slot for saving settings and measurement.

Pressing the left button moves forward in memory order, while pressing the right button moves backward.

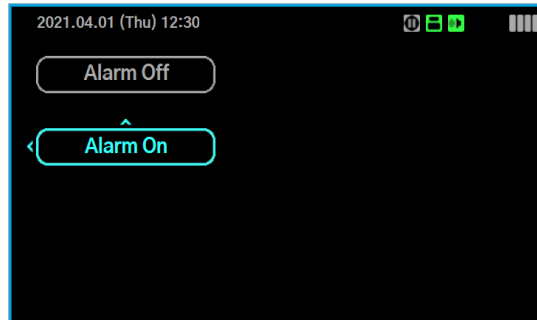


Alarm Setting

Alarm settings control all beep sounds, including those for zero correction, calibration diagnosis, measurement, and during boot-up.



When selecting Alarm Off
Right speaker  icon disabled



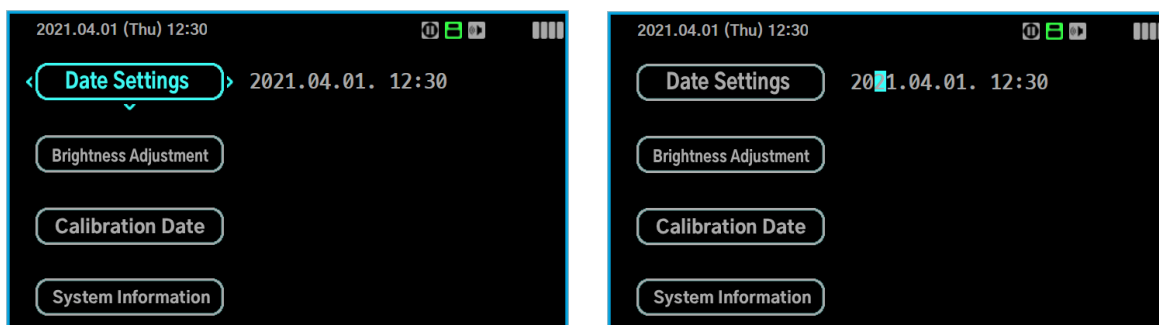
Select Alarm On
Right speaker  icon active

Configuration Settings

In the Configuration menu, you can set the current date and time. Additionally, you can adjust the display brightness, check the last calibration date, and view system information such as firmware and software versions.

Date Settings

You can set the current date and time, including the year.



- The year can be adjusted from 2000 to 2100 in yearly increments.
- The month can be adjusted from January to December.
- The day can be adjusted from 1 to 31.
- The hour can be adjusted from 00:00 to 23:00 in hourly increments.
- The minutes can be adjusted from 00 to 59 in one-minute increments.

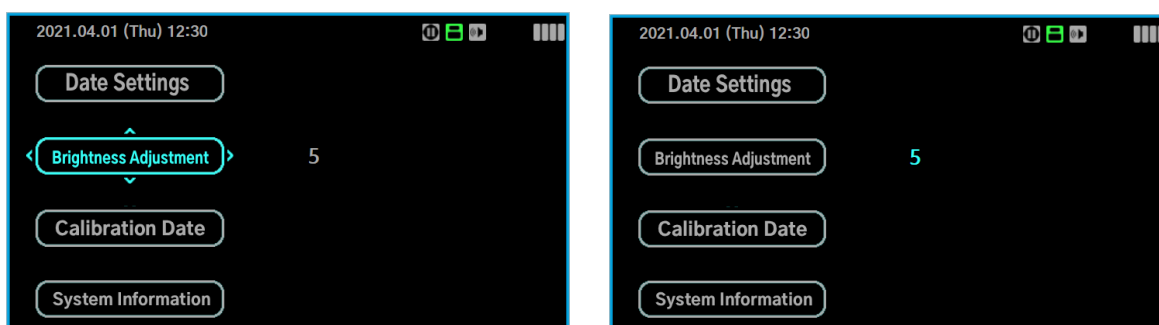
Use the left and right arrow keys to move the cursor to the field you want to set.

Adjust the value using the up and down arrow keys.

After completing the settings, navigate to the Date Settings tab to save and apply the changes to the status bar.

Brightness Settings

Brightness can be adjusted in 5 levels, from 1 to 5.



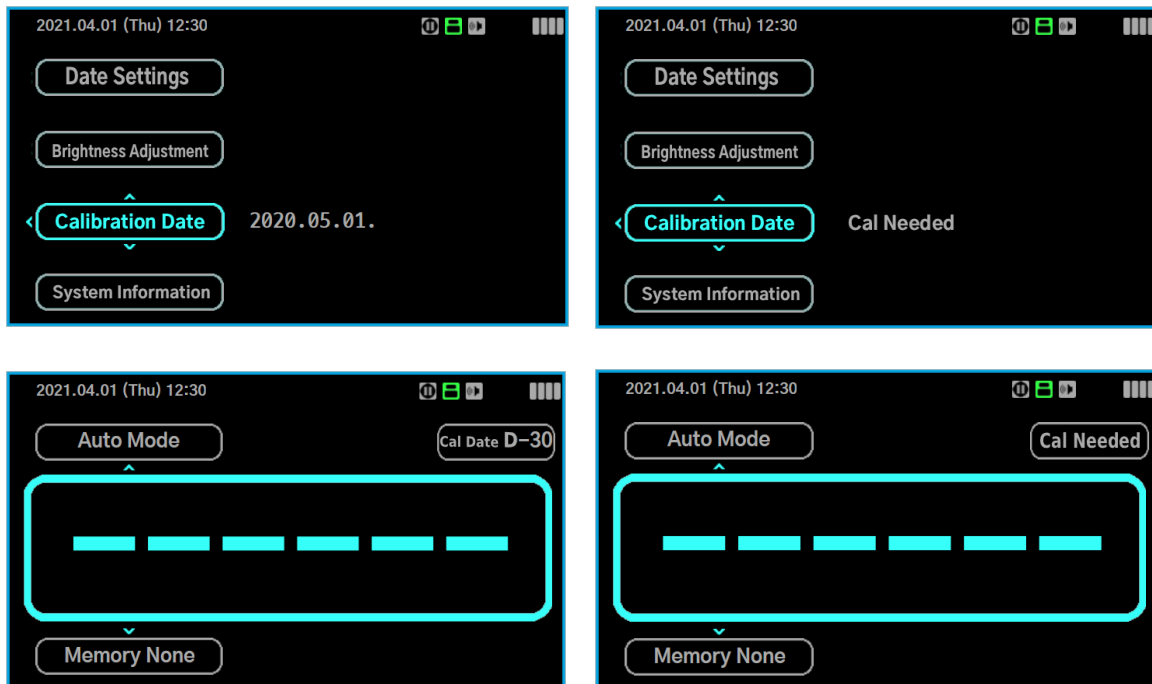
Use the up and down arrow keys to select a brightness level from 1 to 5.

Then, navigate to the Brightness Adjustment tab to save and apply the setting simultaneously.

Calibration Day

The calibration cycle is annual, and the most recent calibration date can be viewed. When 100 days have passed since the last calibration, the status is marked as **Calibration Required**.

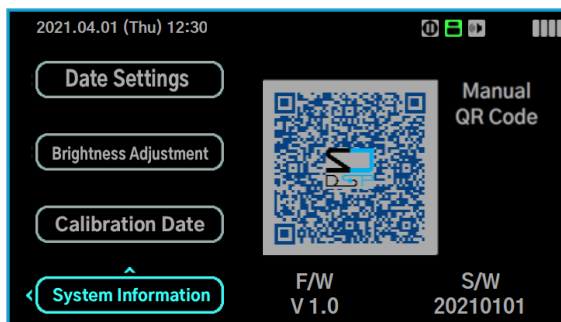
The latest calibration diagnosis date is displayed.



Starting 11 months after the last calibration date, a countdown from D-30 is displayed. After 100 days beyond the calibration date, the status changes to Correction Required.

System Information

Indicates firmware information.



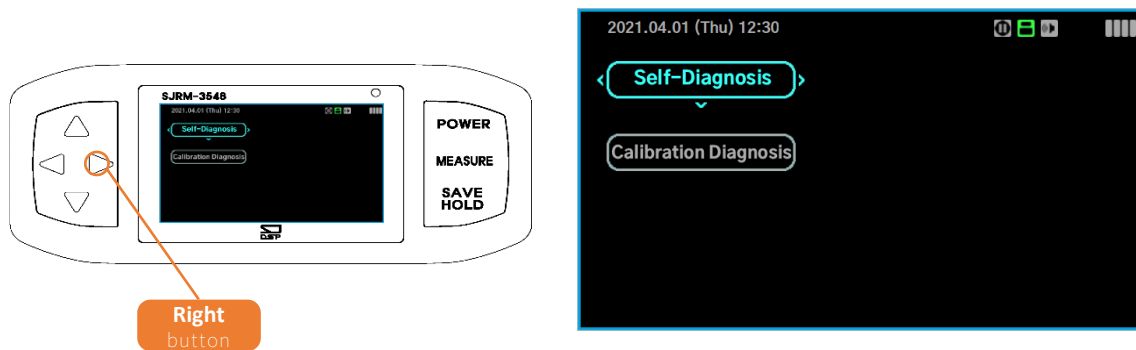
Diagnostic Settings

The Diagnostic menu consists of Self-Diagnosis and Calibration Diagnosis.

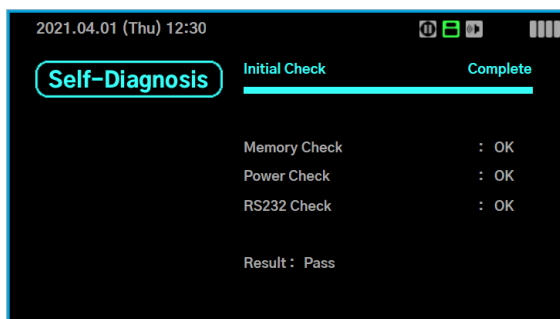
- Self-Diagnosis includes automatic checks performed during boot-up and manual checks initiated from the menu. Both perform the same diagnostic tests.
- During boot-up, self-diagnosis results are saved only if a failure occurs.
- Self-diagnosis performed via the menu saves all results as history, regardless of pass or fail.
- Calibration Diagnosis verifies whether the device requires calibration.
- This process uses the calibration resistance of the standard resistor to connect the probe rod to the probe cable to determine whether the product needs calibration.

Self-Diagnosis

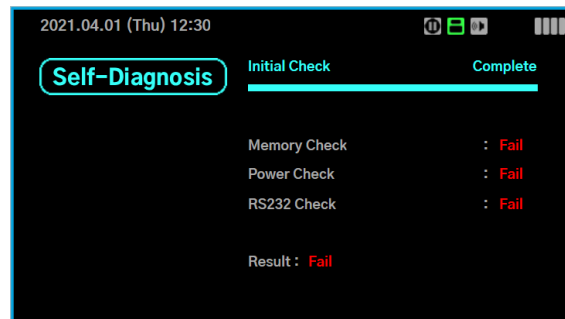
From the Diagnostics menu, press the right arrow button to enter the Self-Diagnosis menu.



Upon entering the menu, diagnostics will start automatically, as they do during boot-up.



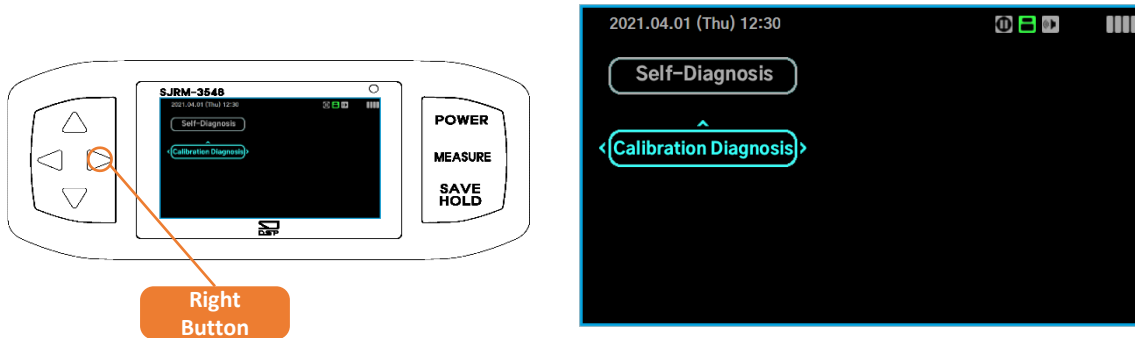
Self-diagnosis success screen



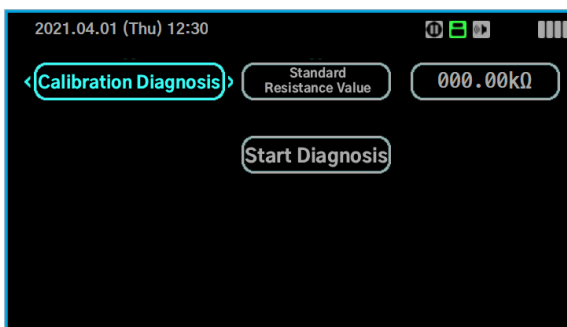
Self-diagnosis failure screen

Calibration Diagnosis

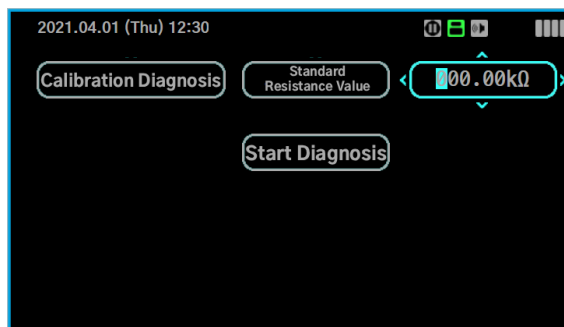
From the Diagnostics menu, press the right arrow button to enter the Calibration Diagnosis menu.



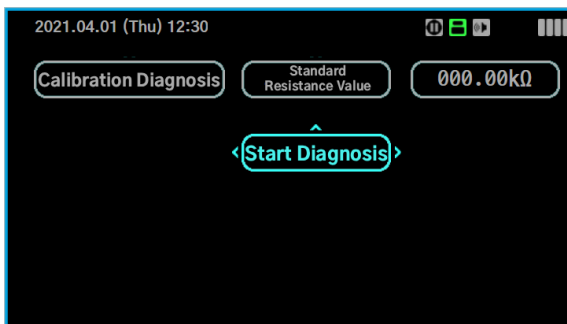
After entering the desired resistance value using the up and down arrow buttons, press the Start Diagnostics button to begin calibration diagnostics.



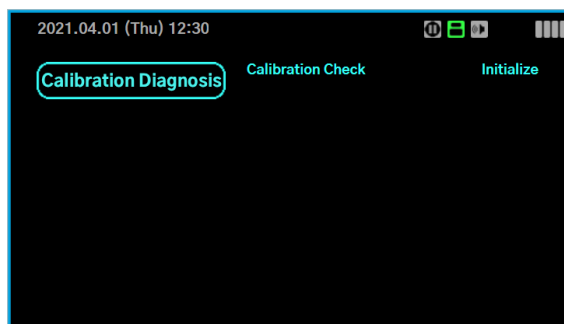
Calibration Diagnostic Menu



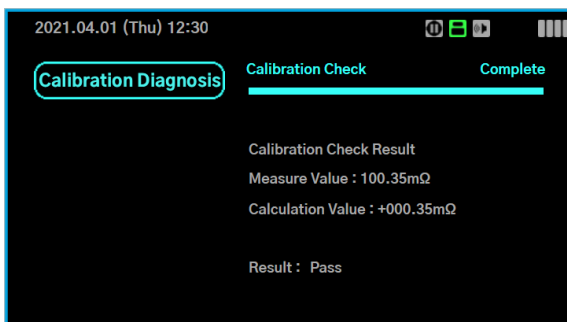
Entry Screen Resistance Set Screen



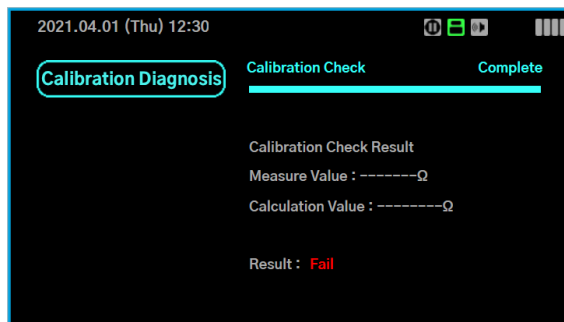
Diagnostic Start Screen



Calibration Diagnostic Progress Screen



Calibration Diagnostics Success Screen



Calibration Diagnostics Failure Screen

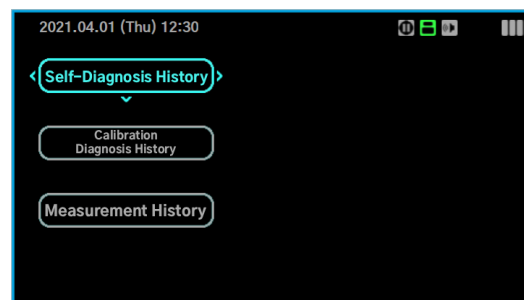
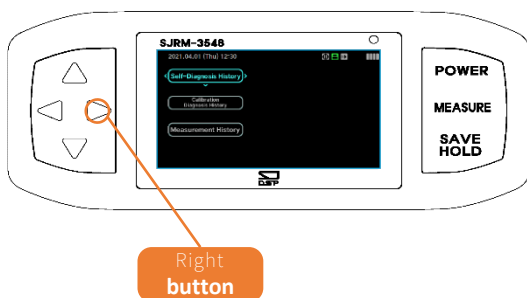
History

History management includes Self-Diagnostic History, Calibration Diagnostic History, and Measurement History.

- Self-Diagnostic History records results from both boot-time self-diagnosis and self-diagnosis performed via the Diagnostics menu.
- Boot-time self-diagnosis results are saved only when a failure occurs.
- Menu-initiated self-diagnosis results are always saved regardless of pass or fail.
- Calibration Diagnostic History records results from calibration diagnostics conducted in the Diagnostics menu.
- Measurement History stores measured values saved through the Hold and Save modes during measurement.
- Up to 50 history records are supported; once this limit is exceeded, the oldest records are deleted.

Self-Diagnostic History

From the menu screen, press the right arrow button to enter the Diagnostics menu.



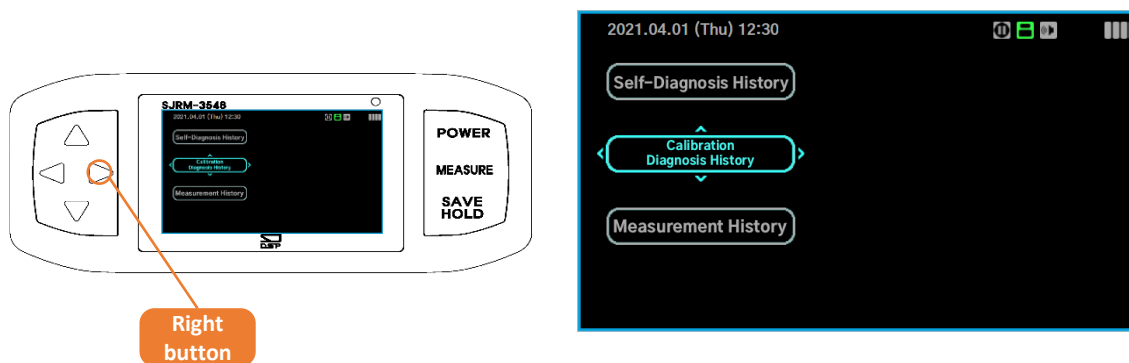
Self-Diagnostic History includes records saved when a failure occurs during boot-up, as well as records from self-diagnosis performed via the menu.

Item	Description
No	Number of the history.
Date	Recorded time.
Position	Abnormalities at boot time.
Memory	SD card abnormalities.
Power	Power supply abnormality.
RS232	This is a communication malfunction.

No	Date	Position	Memory	Power	RS232
01	2021.01.10 15:23	Booting	OK	OK	Fail
02	2021.01.24 09:17	Initial	OK	Fail	OK
03	2021.02.01 11:28	Booting	Fail	OK	OK
04	2021.02.08 18:55	Initial	OK	OK	OK
05	2021.02.28 09:00	Booting	OK	Fail	OK
06	2021.03.12 10:00	Booting	FAIL	OK	OK
07	2021.03.27 15:42	Initial	OK	FAIL	FAIL
08	2021.04.01 11:48	Initial	OK	OK	OK

Calibration Diagnostic History

From the menu screen, press the right arrow button to enter the Diagnostics menu.



Calibration Diagnostic History records are saved when calibration diagnostics are performed from the Diagnostics menu.

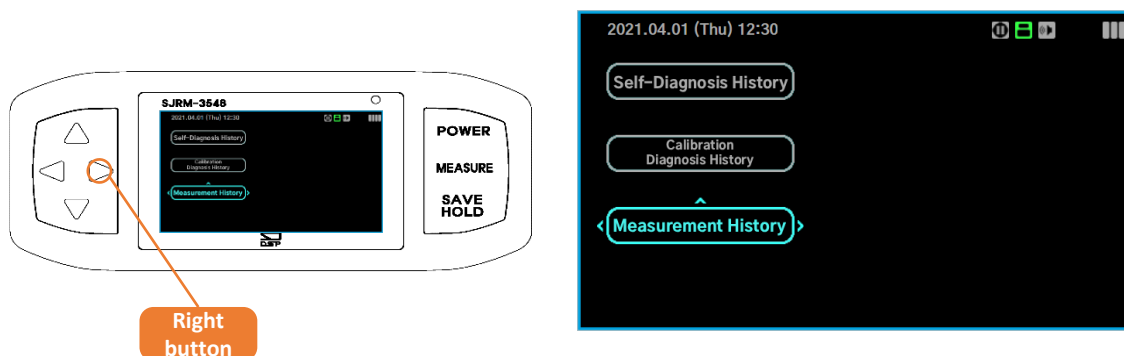
Item	Description
No	Number of the history.
Date	Recorded time.
Ref. R Value	Resistance value set.
Meaure Value	The actual measured resistance value.
Calculate	This is a calculation that requires calibration.
Result	The result value.

2021.04.01 (Thu) 12:30						
No	Date	Ref. R Value	Measure Value	Calculate	Result	
01	2020.05.01 10:28	010.00mΩ	010.10mΩ	+00.010mΩ	Pass	
02	2020.05.01 10:30	100.00mΩ	100.20mΩ	+000.10mΩ	Pass	
03	2020.05.01 10:31	01.000 Ω	00.991 Ω	+001.00 Ω	Pass	
04	2020.05.01 10:33	010.00 Ω	09.990 Ω	+00.010 Ω	Pass	
05	2020.05.01 10:35	100.00 Ω	100.00Ω	00.100 Ω	Pass	

2021.04.01 (Thu) 12:30						
No	Date	Ref. R Value	Measure Value	Calculate	Result	
06	2020.05.01 10:37	01.000kΩ	01.001kΩ	+00.013kΩ	Pass	

Measurement History

From the menu screen, press the right arrow button to enter the Diagnostics menu.



Measurement History is recorded by pressing the measurement button after switching from the main menu to Hold or Save mode.

Item	Description
No	Number of the history.
Date	Recorded time.
Mem.No	The stored memory number.
Low Limit	Low limit value of stored memory.
High Limit	Upper limit value of stored memory.
Measure	The measured value.
Result	Results of whether the measured value is between the upper and lower limits.

2021.04.01 (Thu) 12:30						
No	Date	Mem.No	Low Limit	High Limit	Measure	Result
01	2020.11.11 15:38	None	-----Ω	-----Ω	-----Ω	Pass
02	2020.12.20 20:45	01	000.00mΩ	100.00mΩ	056.32mΩ	Pass
03	2021.12.29 17:11	02	200.00mΩ	282.00mΩ	290.12mΩ	Fail
04	2021.04.01 09:01	03	000.00mΩ	500.00mΩ	302.13mΩ	Pass
05	2021.04.01 09:02	03	000.00mΩ	500.00mΩ	302.10mΩ	Pass

2021.04.01 (Thu) 12:30						
No	Date	Mem.No	Low Limit	High Limit	Measure	Result
06	2021.04.01 09:02	03	000.00mΩ	500.00mΩ	302.15mΩ	Pass
07	2021.04.01 09:02	03	000.00mΩ	500.00mΩ	302.14mΩ	Pass
08	2021.04.01 09:02	03	000.00mΩ	500.00mΩ	302.13mΩ	Pass
09	2021.04.01 09:02	03	000.00mΩ	500.00mΩ	302.13mΩ	Pass
10	2021.04.01 09:03	03	000.00mΩ	500.00mΩ	302.10mΩ	Pass

PC and Product Interworking

This function allows you to connect the USB port of the resistance meter to the USB port of a computer, enabling synchronization of historical data from the resistance meter to the computer for viewing, saving, and printing.

Installing and configuring programs

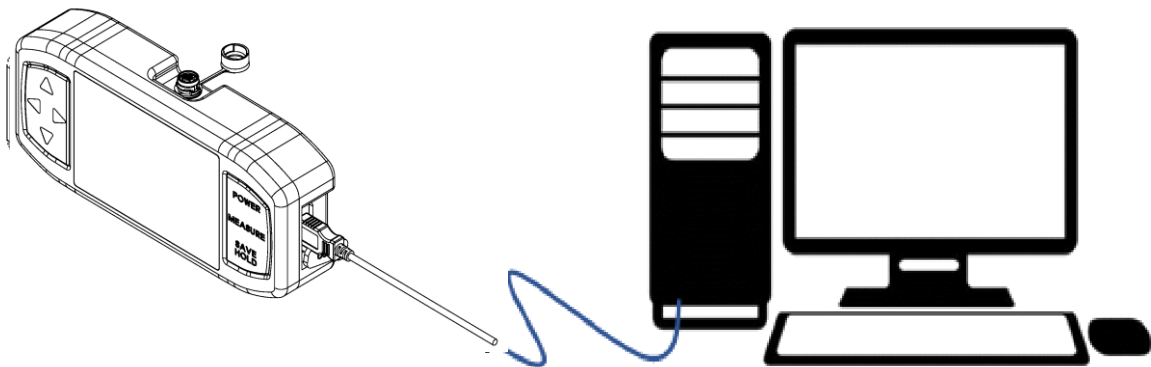
1. Insert the provided CD into the computer, then run 'dotnet-sdk-8.exe' and 'Milliohm Meter Setup.msi' from the CD to install them on the computer.

Name	Date modified	Type
 setup.exe	9/23/2024 4:33 PM	Application
 Milliohm Meter Setup.msi	9/23/2024 4:33 PM	Windows Installer Package
 dotnet-sdk-8.exe	5/2/2024 6:53 PM	Application

2. Turn off the resistor.

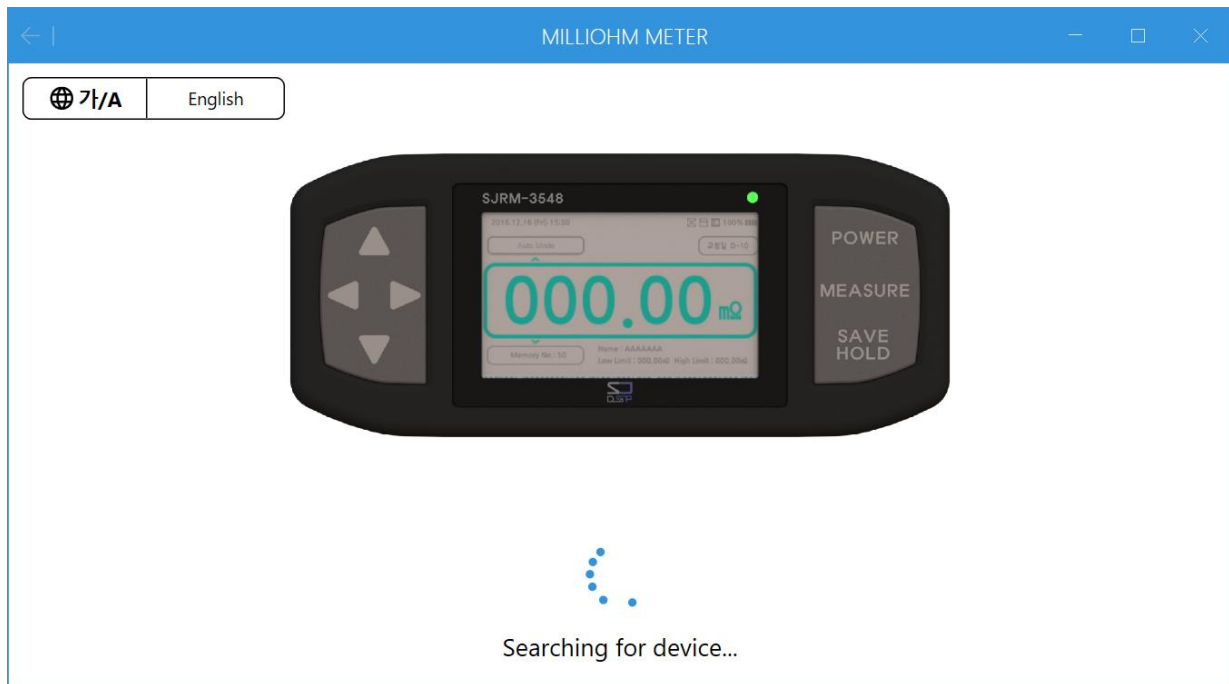
3. Open the port cover on the right side of the resistor and connect the USB A type cable provided, Connect the other side to the USB port of the computer.

<Connect computer to USB cable>

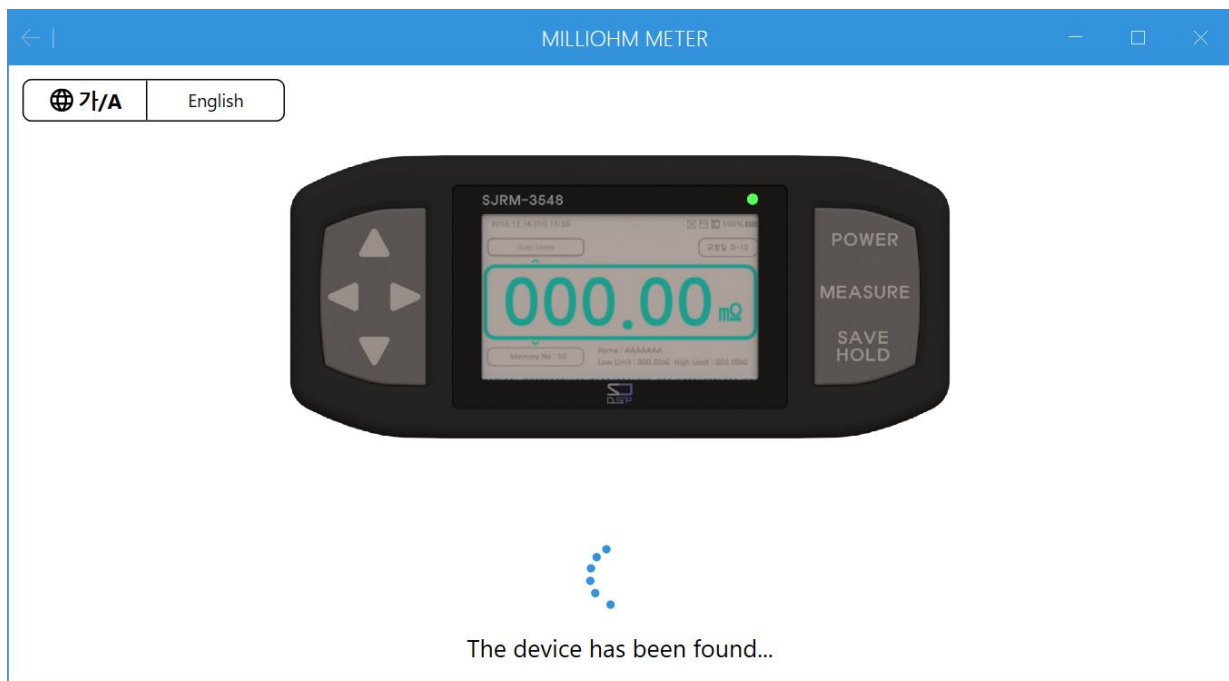


Run and Connect

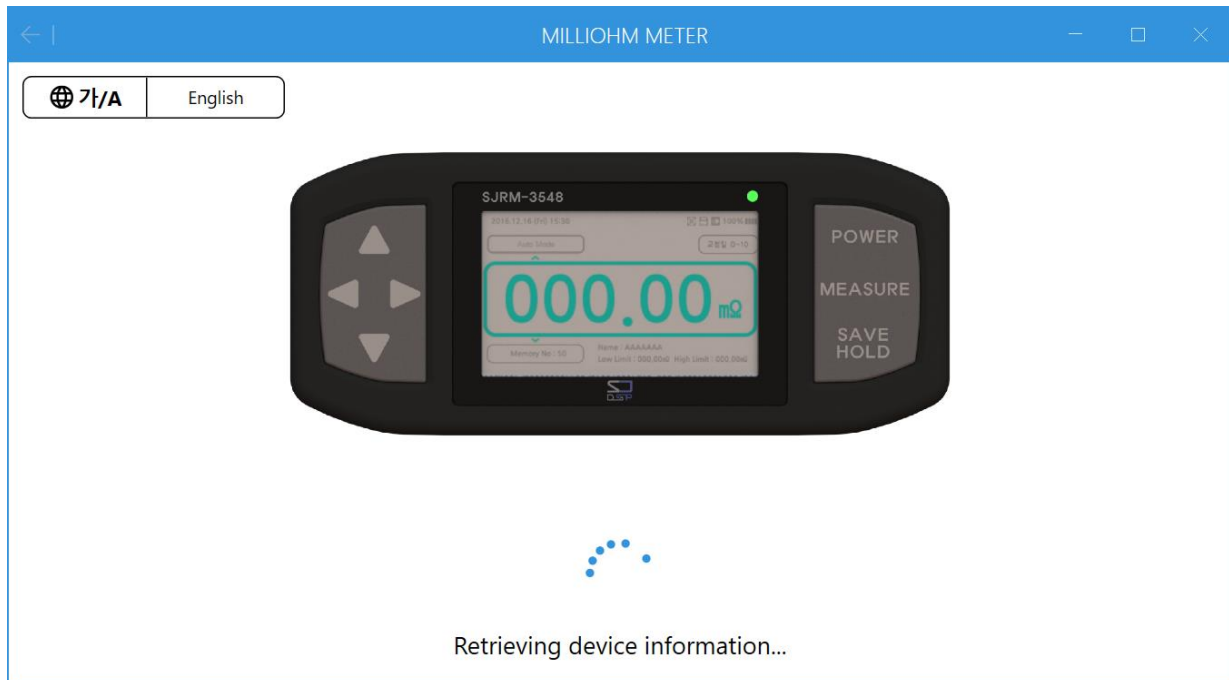
Run the SJDSP_Milliohm_Meter.exe program installed on your PC.



When the resistance meter is turned on, the History Management button will automatically activate with the message "Resistance Meter Found," as shown on the screen below.

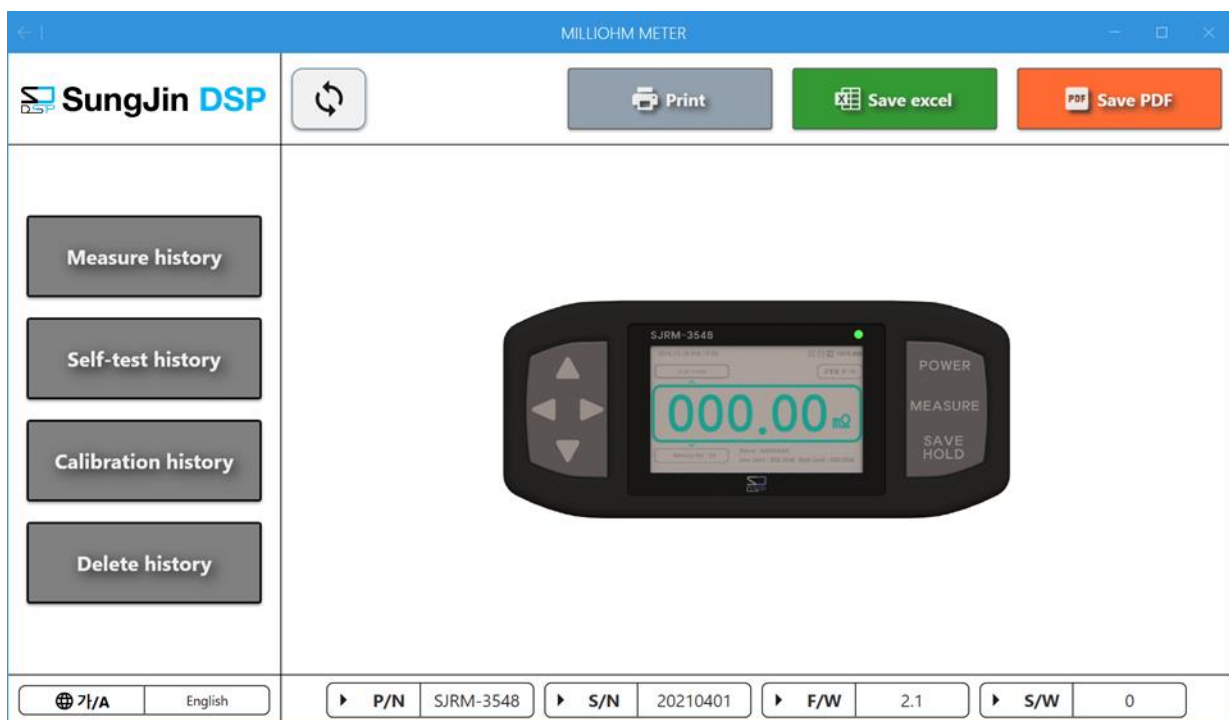


After retrieving the basic information of the device, the program automatically transitions to the main screen.



When the history read is completed, the history screen is automatically displayed.

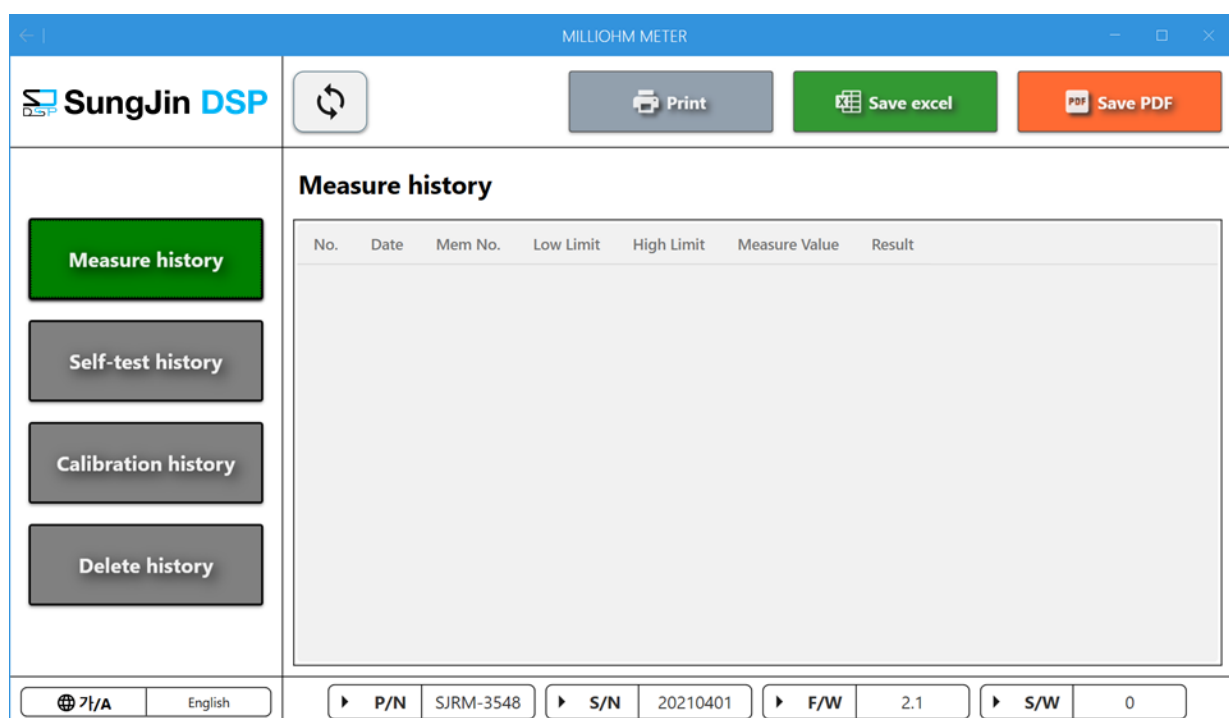
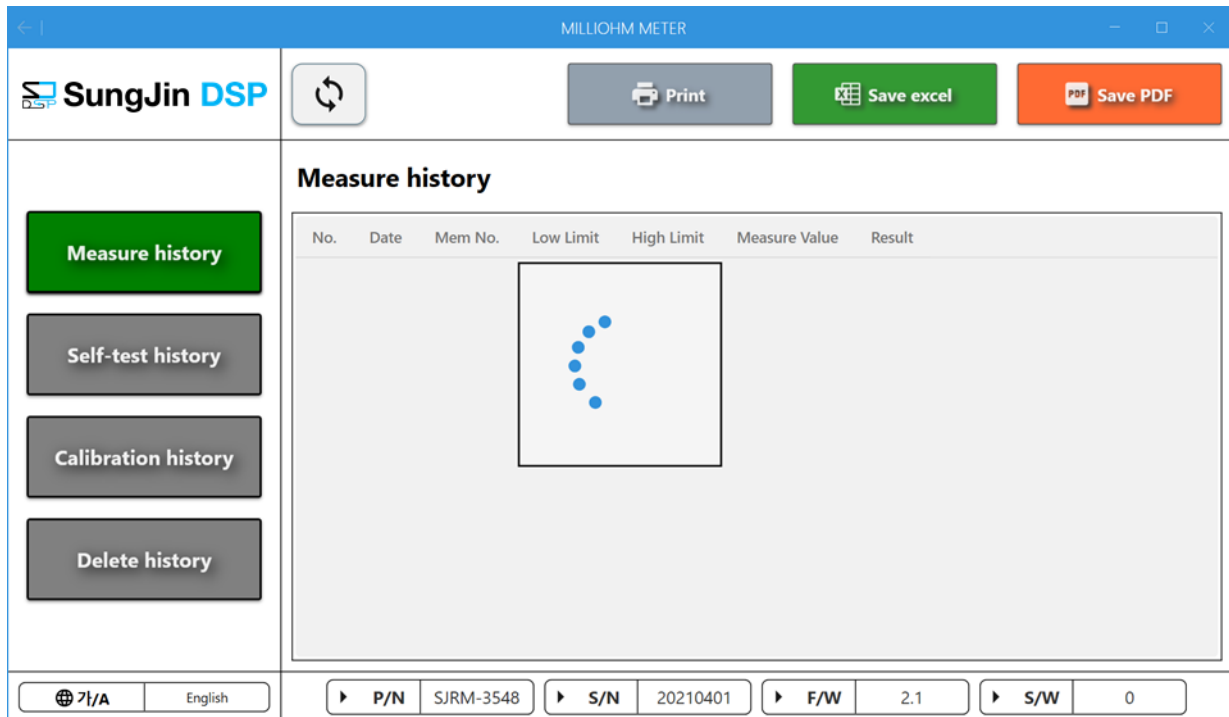
Main Screen



History Management Screen

The history management consists of three categories: **Measurement History**, **Self-Test History**, and **Calibration History**. When entering the screen, the resistance meter's history data is retrieved once initially.

To fetch new data later, you can use the refresh button in the top bar.



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MILLIOHM METER

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 **SungJin DSP**



 Print

 Save excel

 Save PDF

Measure history

Self-test history

Calibration history

Delete history

Self-test history

No.	Date	Position	Memory	Power	RS-232
					

 7/A

English

▶ P/N

SJRM-3548

▶ S/N

20210401

▶ F/W

2.1

▶ S/W

0

←

MILLIOHM METER

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 **SungJin DSP**



 Print

 Save excel

 Save PDF

Measure history

Self-test history

Calibration history

Delete history

Self-test history

No.	Date	Position	Memory	Power	RS-232
1	25.05.30 13:55:03	Booting	OK	Fail	Fail
2	25.05.30 13:50:50	Booting	OK	Fail	Fail
3	25.05.14 13:26:42	Booting	OK	Fail	Fail
4	25.05.14 13:20:49	Booting	OK	Fail	Fail
5	25.05.14 11:11:02	Booting	OK	Fail	Fail
6	25.05.13 16:13:59	Booting	OK	Fail	Fail
7	25.05.13 13:41:52	Booting	OK	OK	Fail
8	25.05.13 13:01:05	Booting	OK	OK	Fail

 7/A

English

▶ P/N

SJRM-3548

▶ S/N

20210401

▶ F/W

2.1

▶ S/W

0

ResistanceMETER

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MILLIOHM METER

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 **SungJin DSP**



 Print

 Save excel

 Save PDF

Measure history

Self-test history

Calibration history

Delete history

Calibration history

No.	Date	Ref.R Value	Measure Value	Calculate	Result
					

 ㄱ/A

English

▶ P/N

SJRM-3548

▶ S/N

20210401

▶ F/W

2.1

▶ S/W

0

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MILLIOHM METER

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 **SungJin DSP**



 Print

 Save excel

 Save PDF

Measure history

Self-test history

Calibration history

Delete history

Calibration history

No.	Date	Ref.R Value	Measure Value	Calculate	Result
1	25.05.09 15:54:59	000.00mΩ	000.00mΩ	-000.10mΩ	Fail
2	25.05.09 15:53:29	000.00mΩ	000.00mΩ	-000.00mΩ	Fail
3	25.05.09 15:19:33	000.00mΩ	000.00mΩ	-000.00mΩ	Fail
4	25.05.09 15:11:05	000.00mΩ	000.00mΩ	-000.00mΩ	Fail
5	25.05.09 15:07:30	000.00mΩ	000.00mΩ	-000.00mΩ	Fail
6	24.09.05 16:12:08	000.00mΩ	000.00mΩ	+000.00mΩ	Pass

 ㄱ/A

English

▶ P/N

SJRM-3548

▶ S/N

20210401

▶ F/W

2.1

▶ S/W

0

Menu Tools

The program includes tools to enhance the convenience of managing resistance meter history.

These tools provide functions to **Print**, **Save as Excel**, and **Save as PDF** the history data.



When each function button is clicked, a window appears where you can enter the **Author** and **Remarks (Notes)**.

Print

Author

Note

Save
Close

Save excel

Author

Note

Save
Close

Save PDF

Author

Note

Save
Close

After entering the **Author** and **Remarks (Notes)**, clicking the **Save** button will execute the selected function.

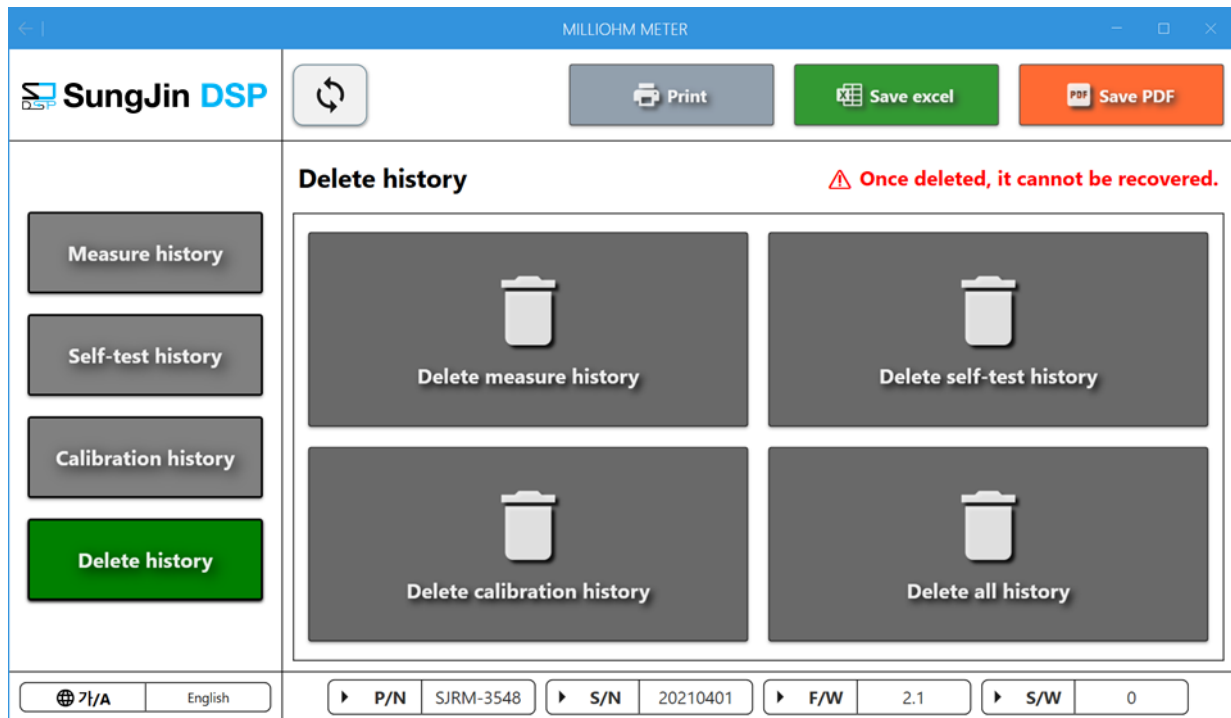
***Excel** files are saved to: Documents – SJRM-3548 – Excel

***PDF** files are saved to: Documents – SJRM-3548 – Pdf

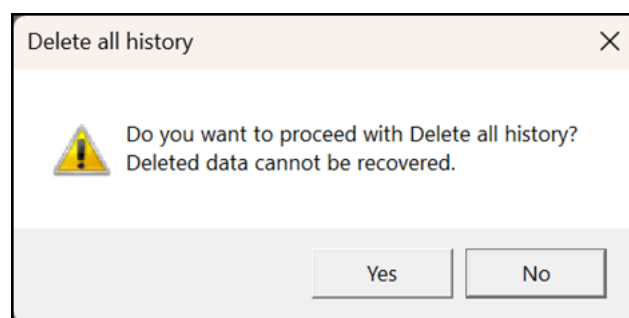
Measure History						
Product name		SJRM-3548		2025.05.29. 18:01:39		
Serial number		20210401		Name	Measure Value	1/2
No.	Date	Mem No	Low Limit	High Limit		Result
1	25.05.13 12:05:32	None	-----Q	-----Q	000.00mQ	Pass
2	25.05.13 12:05:31	None	-----Q	-----Q	000.00mQ	Pass
3	25.05.13 12:05:30	None	-----Q	-----Q	000.00mQ	Pass
4	25.05.12 15:02:11	None	-----Q	-----Q	000.00mQ	Pass
5	25.05.12 15:02:10	None	-----Q	-----Q	000.00mQ	Pass
6	25.05.12 15:02:08	None	-----Q	-----Q	000.00mQ	Pass
7	25.05.12 15:02:06	None	-----Q	-----Q	000.00mQ	Pass
8	25.05.12 09:58:42	None	-----Q	-----Q	000.00mQ	Pass
9	25.05.12 09:58:41	None	-----Q	-----Q	000.00mQ	Pass
10	25.05.09 15:47:25	1	040.00mQ	100.00 Q	39.920 Q	Pass
11	25.05.09 15:35:15	None	-----Q	-----Q	075.00 Q	Pass
12	25.05.09 15:35:09	None	-----Q	-----Q	075.05 Q	Pass
13	25.05.09 15:33:04	None	-----Q	-----Q	075.05 Q	Pass
14	25.05.09 15:32:59	None	-----Q	-----Q	39.920 Q	Pass
15	25.05.09 15:32:56	None	-----Q	-----Q	04.013 Q	Pass
16	25.05.09 15:32:51	None	-----Q	-----Q	04.010 Q	Pass
17	25.05.09 15:32:45	None	-----Q	-----Q	000.00mQ	Pass
18	25.05.09 15:30:48	None	-----Q	-----Q	398.71 Q	Pass
19	25.05.09 15:30:47	None	-----Q	-----Q	398.71 Q	Pass
20	25.05.09 15:05:02	None	-----Q	-----Q	04.010 Q	Pass
21	25.05.09 14:41:05	None	-----Q	-----Q	000.00mQ	Pass
22	25.05.09 14:41:04	None	-----Q	-----Q	000.00mQ	Pass
23	25.05.09 14:24:56	None	-----Q	-----Q	000.00mQ	Pass
24	25.05.09 14:24:55	None	-----Q	-----Q	000.00mQ	Pass
25	25.05.02 13:06:51	None	-----Q	-----Q	000.00mQ	Pass
26	25.05.02 13:06:50	None	-----Q	-----Q	000.00mQ	Pass
27	25.05.02 13:06:49	None	-----Q	-----Q	000.00mQ	Pass
28	25.04.30 13:15:26	None	-----Q	-----Q	000.00mQ	Pass
29	25.04.30 13:15:18	None	-----Q	-----Q	000.00mQ	Pass
30	25.04.30 13:01:40	None	-----Q	-----Q	000.00mQ	Pass
31	25.04.30 13:01:39	None	-----Q	-----Q	000.00mQ	Pass
32	25.04.30 13:01:38	None	-----Q	-----Q	000.00mQ	Pass
Note						

Delete History

This function allows you to delete the history data from the electric resistance meter. You can delete data individually for **Measurement History**, **Self-Test History**, and **Calibration History**, or delete **all data at once**.



When each delete button is clicked, a warning message will be displayed.



When **Yes** is clicked, the history data will be deleted from both the resistance meter and the program.

Deleted data **cannot be recovered**.

Product Specifications

Physical Specifications

Electrical Specifications

Measurement Section	Measurement Range
RANGE1	0mΩ - 40mΩ
RANGE2	40mΩ - 400mΩ
RANGE3	400mΩ - 4Ω
RANGE4	4Ω - 40Ω
RANGE5	40Ω - 400Ω
RANGE6	400Ω - 4kΩ

Method of measurement

The contact points of the outer and inner pins on the end of the probe of the two probes are exactly in contact with the contact surface (four-way method)

Measurement Section	Resolution	Permissible Current	Measurement Precision (+20±5°C, 1 year)
400Ω - 4kΩ	1Ω	100uA	±(0.05% Rdg + 0.02% FS)
40Ω - 400Ω	100mΩ	1mA	±(0.05% Rdg + 0.02% FS)
4Ω - 40Ω	10mΩ	10mA	±(0.05% Rdg + 0.02% FS)
400mΩ - 4Ω	1mΩ	10mA	±(0.05% Rdg + 0.03% FS)
40mΩ - 400mΩ	100uΩ	10mA	±(0.05% Rdg + 0.05% FS)
0mΩ - 40mΩ	10uΩ	100mA	±(0.05% Rdg + 0.1% FS)

Environmental Specifications

Temperature and Humidity Range

Classification	range
Operating temperature	0°C ~ +45°C
Storage Temperature	-10°C ~ +70°C
Humidity	Up to 95% or less, non-condensing conditions

electromagnetism

MIL-STD 461G Ground Airforce non external power supply condition.

Fall impact

MIL-STD 810G transit condition.

Instrument Specification

External Power and Battery

External power: Adapter input power: 110 vac to 240 VAC

External power: Adapter output power: +5VDC 3A or higher

Battery: Lithium-ion 18650 series 3.7VDC rechargeable battery

Battery quantity: 4

Weight

Measuring instrument: Approximate 1.0 kg with battery

Probe : Approximate 0.5kg

Resistor Set (Archive)

Size: 457 mm x 370 mm x 184 mm

Weight: Approximate 7.0 kg



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