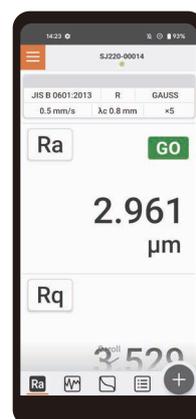


## Inspection Certificate Production and Editing Application for Surface Roughness Tester SJ-220

### SJ-App V1.0



## User's Manual - Instruction for use -

Read this document thoroughly before operating the product. After reading, retain it close at hand for future reference.

This English language version of the document contains the original instructions.

No. 99MBB808A

Date of publication: July 1, 2023 (1)



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## ■ Product names and model numbers covered in this document

Product name	Model number
Inspection Certificate Production and Editing Application for Surface Roughness Tester SJ-220	SJ-App V1.0

## ■ Notice regarding this document

- Mitutoyo Corporation assumes no responsibilities for any damage to the product, caused by its use not conforming to the procedure described in this document.
- Upon loan or transfer of this product, be sure to attach this document to the product.
- In the event of loss or damage to this document, immediately contact the agent where you purchased the product or a Mitutoyo sales office.
- Read this document thoroughly before operating the product. In particular, be sure to fully understand "Precautions for Use" on page 6.
- The contents of this document are based on information current as of August 2023.
- No part or whole of this document may be transmitted or reproduced by any means without prior written permission of Mitutoyo Corporation.
- Some screen displays in this document may be highlighted, simplified or partially omitted for convenience of explanation. In addition, some of them may differ from actual ones to the extent that no user will misunderstand the functions and operations.
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This EULA shall be governed by and construed in accordance with the laws of Japan, without giving effect to the principles of conflict of law. Customer agrees to submit to the exclusive jurisdiction of the district courts in Tokyo, Japan with respect to any dispute, controversy or claim arising out of or relating to this EULA and the parties respective rights and obligations hereunder. This EULA shall not be governed by the United Nations Convention on Contracts for the International Sale of Goods, the application which is expressly excluded.

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This EULA constitutes the entire agreement between Customer and Mitutoyo with respect to the subject matter hereof.

Customer shall indemnify, defend and hold harmless Mitutoyo, its affiliated and related companies and its suppliers from and against any and all claims and liability of any nature whatsoever arising out of or in connection with Customer's breach of this EULA.

The governing language of this EULA shall be English. English version will prevail to the extent that there is any inconsistency between English version and any version translated into another language.

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# About This Document

## ■ Positioning of this document, document map

This describes the positioning of this document and its relationship with other installments.

### **IMPORTANT**

Before using SJ-Communication-Tool (referred to as "this application" in this manual), read  the separate "SJ-220 User's Manual" in advance and understand how to operate the SJ-220.

## ● Hardware manual

Surface Roughness Measuring Instrument SURFTEST SJ-220 Instruction Manual

Explains the safety precautions, overview, components, maintenance and inspection, troubleshooting, specifications, etc. of this product that are excerpted from the User's Manual.

Surface Roughness Measuring Instrument SURFTEST SJ-220 Cases of Troubleshooting

Explains problems that are likely to occur during measurement work, from setup work to measurement data output, and the solutions to those problems.

## ● Application manuals

Surface Roughness Measuring Instrument SURFTEST SJ-220 User's Manual (This document)

Explains the overview, function of each part, usage, maintenance, specifications, and troubleshooting of this product.

Surface Roughness Measuring Instrument SURFTEST SJ-220 Basic Operation Guide

The contents of the explanation focus on helping you understand the basic operations of this product. Useful functions are also introduced.

Surface Roughness Measuring Instrument SURFTEST SJ-220 Surface Roughness Parameters

Explains the roughness standards and the roughness parameters.

SJ-App  
User's Manual  
(This document)

Explains the procedure for importing the measurement data from the SJ-220 into a smartphone on which this application is installed and creating an certificate of inspection.

## ■ Intended readers and purpose of this document

### ● Intended readers

This document is intended for operators of the SJ-220.

The readers are assumed to have been familiar with basic operations on a smartphone and Windows.

### ● Purpose

The purpose of this manual is to help you to understand how to use this application to create an certificate of inspection from the data of the SJ-220 and how to edit the tolerance settings of the SJ-220 on a smartphone.

# Conventions Used in This Document

## ■ Safety reminder conventions warning against potential hazards

<b>NOTICE</b>	Indicates a situation which, if not avoided, <b>may result in property damage.</b>
---------------	--

## ■ Conventions indicating referential information or reference location

<b>IMPORTANT</b>	Indicates information that must be known when using the product.
<b>Tips</b>	Indicates further information and details relevant for the operating methods and procedures that are explained in that section.
	Indicates reference location if there is information that should be referred to in this document or an extraneous User's Manual. Example: For details about XX, see  "1 Appellations for Each Part" on page A-5 in "Part A Overview".

## ■ Other conventions

<b>( ): Round brackets</b>	Represent a paraphrase of an immediately preceding phrase or a supplementary explanation.
<b>" ": Double quotation marks</b>	Represent a highlighted phrase. They also indicate an index where information to be referenced is described.
<b>[ ]: Square brackets</b>	Represent a menu name on the screen, screen name, dialog name, button, display item, tab name, or key on the keyboard. They also indicate an item to be purposely entered or selected by the customer.
, , <b>1, 2, 3, ...</b>	Indicates the order and the contents of tasks. ( : indicates main tasks, <b>1</b> : indicates detailed tasks)
<b>»</b>	Indicates the action resulted from some operation(s).

# Precautions for Use

## ■ Use and handling of this application

- Use this application only for SJ-220.

Do not use this application for measuring instruments other than this product.

- This product is for creating and editing a certificate of inspection.

Do not use this application for purposes other than the above.

## ■ Notes on backing up important data

### IMPORTANT

Important data such as measurement data should be backed up regularly to recording media.

Data stored on a PC can be damaged or lost for various reasons. Please note that we are not responsible for damage or loss of measurement data for any reason.

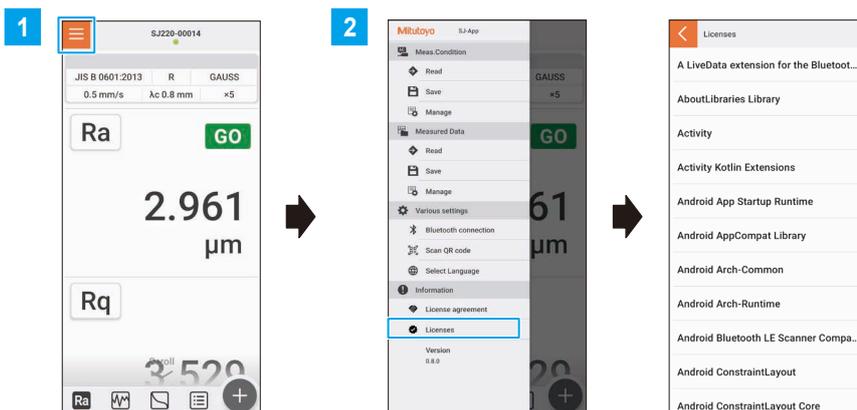
# Third party license

- 1 Tap  on the [Home] screen.

» The main menu is displayed.

- 2 Tap [License] under the [Information].

» The license list is displayed.



# 1 Setup

This chapter describes the procedures from installing the application to attaching the wireless communication unit for measuring instruments.

## 1.1 Installation of the Application

Install the application on a smartphone\*.

\*Applicable smartphones: Android 12 or later (OS), compatible with Bluetooth 5.0

**1** Turn on the smartphone.

**2** View our website.

URL: <https://www2.mitutoyo.co.jp/eng/contact/products/SJ-App/>

**3** Scan the QR code with a smartphone application to access the download site.

**4** Download and install [SJ-App].

This completes the installation of the application.

## 1.2 Attachment of the Wireless Communication Unit for Measuring Instruments

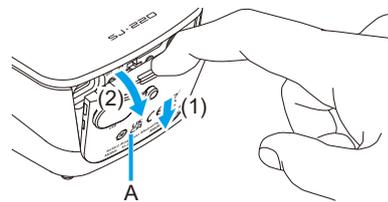
Attach the wireless communication unit for measuring instruments to the display unit (SJ-220).

### IMPORTANT

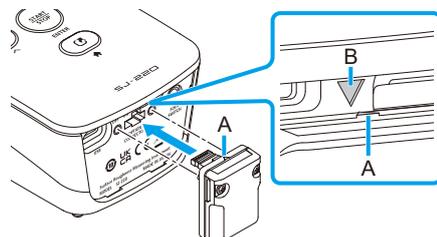
To pair (Bluetooth connection) a smartphone with SJ-220, the wireless communication unit for measuring instruments (option: Code No. 264-628) must be attached.

**1** Remove the connector cover of the display unit (SJ-220).

- 1** Place your fingernail in the recess located at the top of the connector cover and push the connector cover A in the direction of arrow (1).
- 2** Open and remove the connector cover in the direction of arrow (2)



**2** Insert the wireless communication unit for measuring instruments and secure it with screws (two locations).



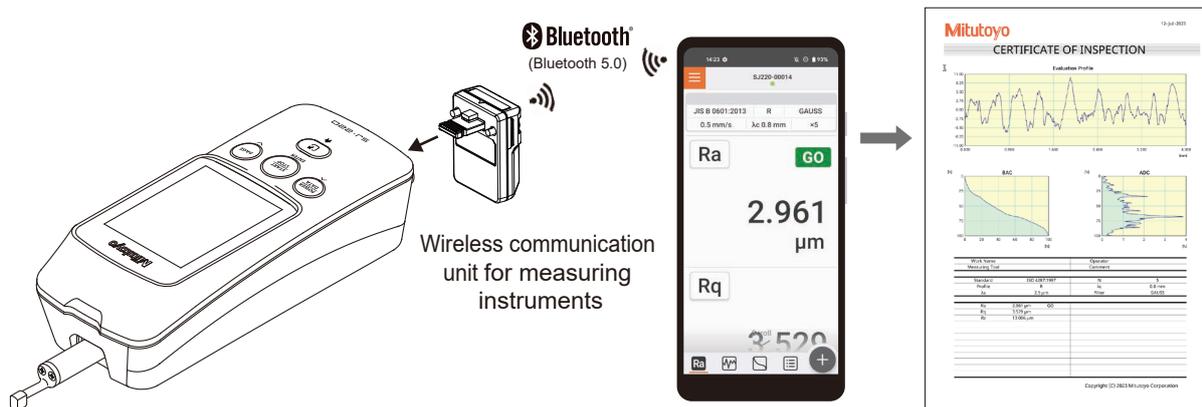
---

**MEMO**

# 2 Operating Method

This application loads data (measurement conditions, parameter settings, parameter results, and measured data) from the display unit (SJ-220) via the paired wireless communication unit for measuring instruments into a smartphone and displays them on the smartphone screen to create and print a inspection certificat.

The loaded data can also be edited, transferred, and saved.



## 2.1 Starting the Application and Pairing

Start the application to pair (Bluetooth connection) the smartphone with the wireless communication unit for measuring instruments attached to SJ-220.

### 1 Start SJ-220 and then turn on the smartphone.

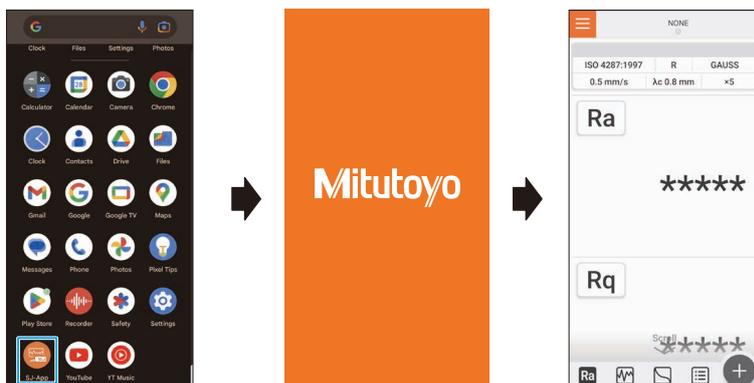
#### IMPORTANT

Be sure to turn on the smartphone while SJ-220 is activated.

Pairing may not be possible if the smartphone is turned on before SJ-220 is activated.

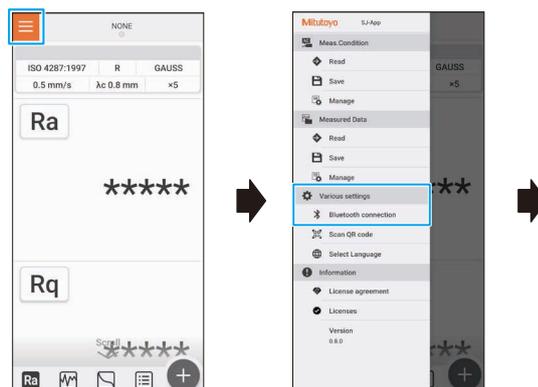
### 2 Tap [SJ-App] on the smartphone to start the application.

» The [Home] screen appears. ("\*\*\*\*\*" is displayed)



### 3 Pair and connect (via Bluetooth) the smartphone with SJ-220.

- 1 Tap  on the [Home] screen.
  - » The main menu is displayed.
- 2 Tap [Bluetooth Connection] under [Various settings].

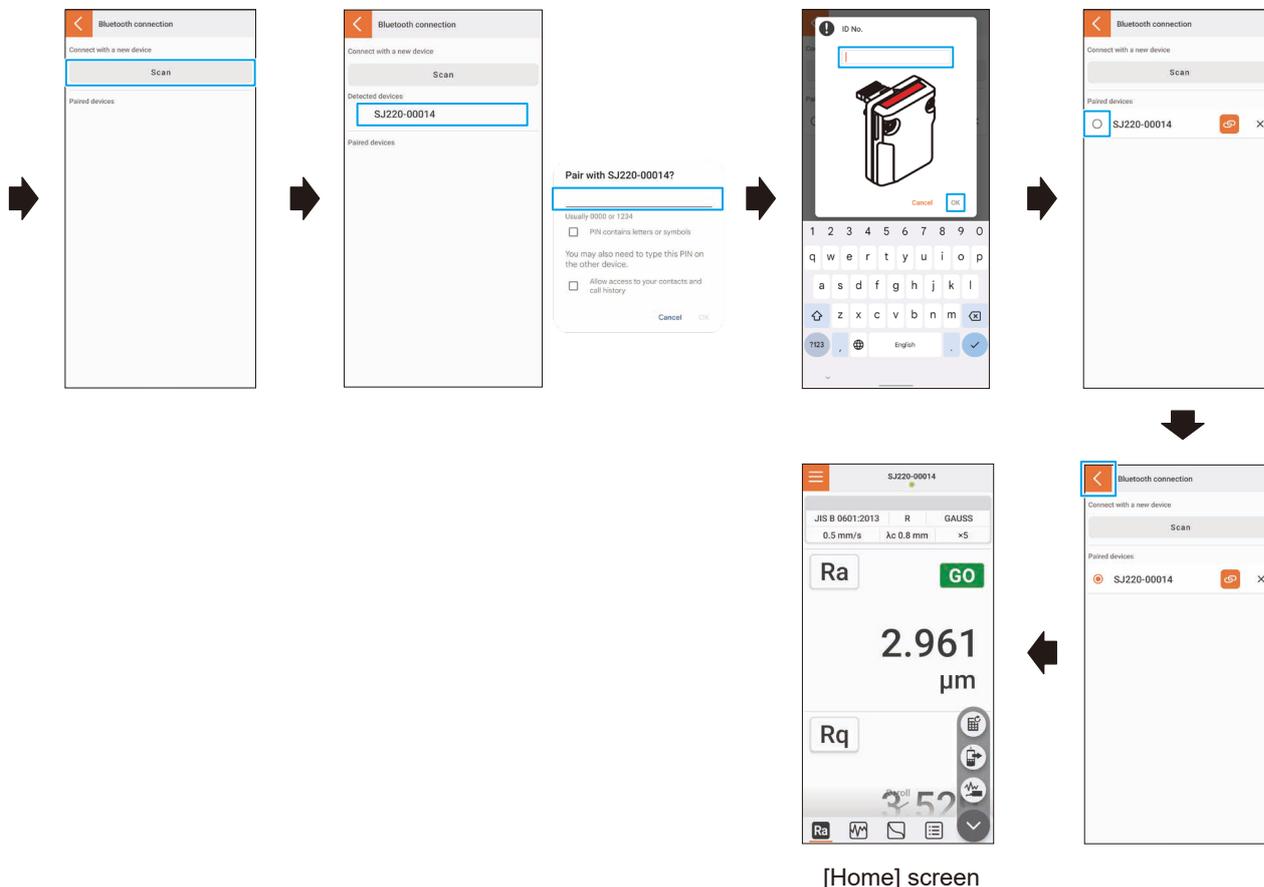


#### To pair and connect them for the first time

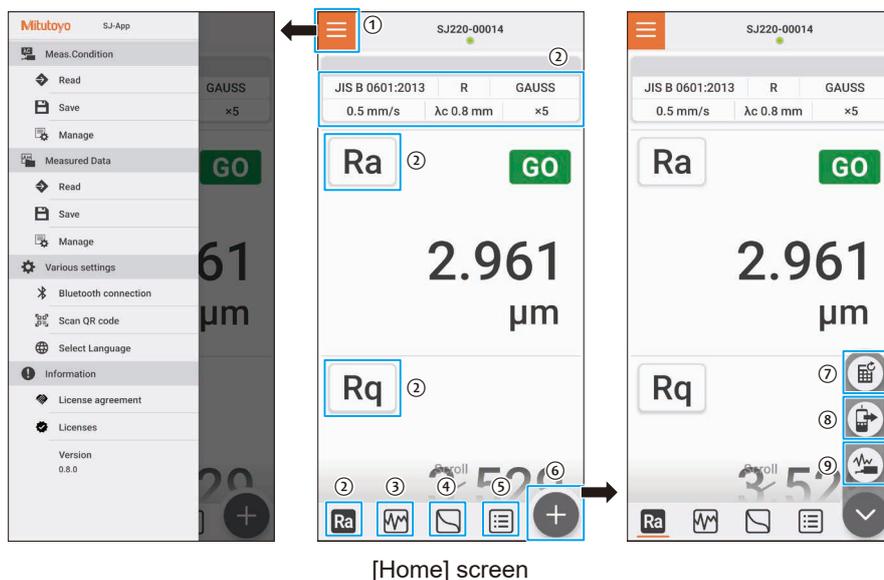
- 3 Tap [Scan] to find SJ-220 that can be paired.
- 4 Tap the name of SJ-220 to pair and enter the PIN number "193410" on the screen that appears.
- 5 Tap a selection button that has been deselected, and then tap a connection button.
  - » The selection button turns orange, and the connection is initiated.
- 6 Enter the ID No. indicated on the wireless communication unit for measuring instruments, and tap [OK].
- 7 Tap  to return to the [Home] screen.
  - » The measured data of the connected display unit is displayed.

#### To resume connection with the paired SJ-220

- 3 Perform only steps 5 and 7 above.



## 2.2 List of Operations



[Home] screen

Description of operation		Tap operation	Reference page
Switch the display language (25 languages supported).		① + [Select Language]	Page 12
Switch the calculation results displayed on the [Home] screen.		-	Page 13
Check and change the measurement conditions and parameters.		②	Page 15
Display the evaluation profile.		③	Page 13
Display the BAC and ADC profiles.		④	Page 14
Recalculate with the changed measurement conditions and parameters.		⑥ + ⑦	Page 18
Reload the data in the display unit (SJ-220 main unit).		⑥ + ⑧	Page 19
Perform measurement.		⑥ + ⑨	Page 19
Edit the inspection certificat.	Preview the print image.	⑤	Page 20
	Add/edit comments.		Page 21
	Show/hide the BAC and ADC profiles.		Page 21
	Change the header image.		Page 22
	Select the paper size (A4-size/Letter-size).		Page 22
Output the file in PDF or CSV format.			Page 23
Read the measurement conditions.		① + [Read]	Page 26
Save the measurement conditions.		① + [Save]	Page 25
Manage the measurement conditions.		① + [Manage]	Page 27
Read the measured data.		① + [Read]	Page 26
Save the measured data.		① + [Save]	Page 25
Manage the measured data.		① + [Manage]	Page 27

Description of operation	Tap operation	Reference page
Enable Bluetooth connection.	① + [Bluetooth Connection]	Page 9
Scan the QR code.	① + [Scan QR code]	Page 28

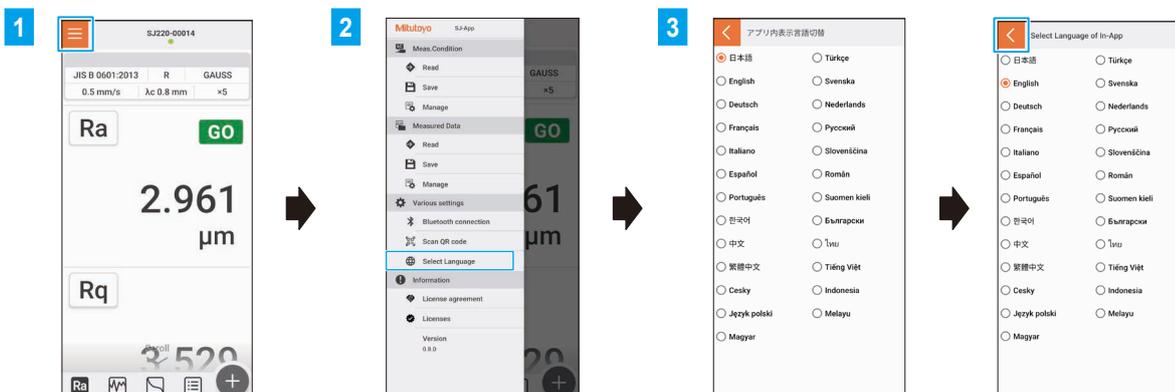
Measurement conditions: Roughness standard, evaluation profile, filter,  $\lambda_s$ ,  $\lambda_c$ , measuring speed (M-Speed), number of sampling lengths (N), pre-trave/post-trave (Pre/Post) ON/OFF, measurement range, etc.

Parameters: Parameter settings, tolerance judgment settings (ON/OFF, judgment rules, upper/lower tolerance values)

## 2.3 Changing the Display Language

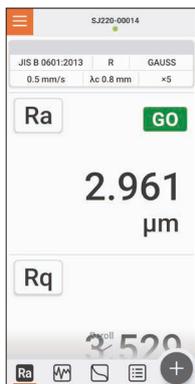
This section describes the procedure for selecting and changing the display language from 25 languages.

- 1 Tap the  icon on the [Home] screen.
  - » The main menu is displayed.
- 2 Tap [Select Language] under [Various settings].
  - » A list of display languages is displayed. The current display language is indicated by an orange button.
- 3 Tap the name of the language you want to change to and tap the  icon.
  - » The display language switches to the language you tapped. (e.g., English)



## 2.4 Displaying Calculation Results

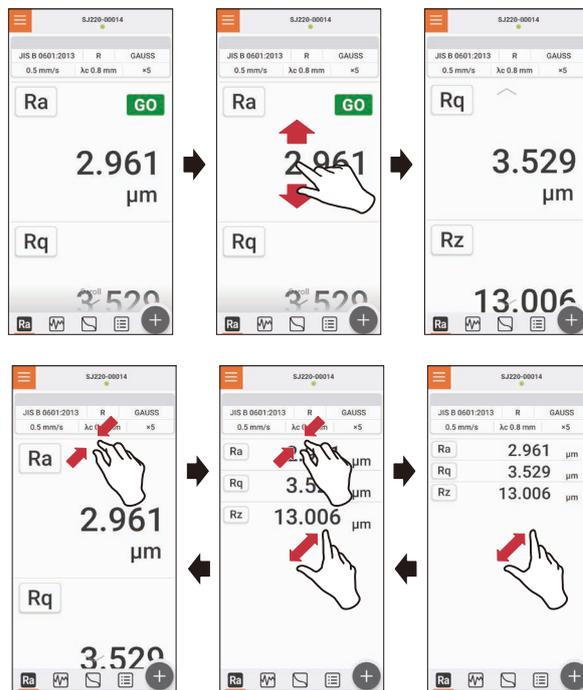
The parameter calculation results are displayed on the [Home] screen.



### Tips

The calculation results for other parameters can be viewed by swiping the screen vertically.

Pinch in/out the screen to switch between three display sizes.



## 2.5 Displaying the Evaluation Profile

- 1 Tap on the [Home] screen.
  - » The evaluation profile is displayed horizontally.
- 2 Tap for enlarged display (vertical display).
  - » The evaluation profile is enlarged (displayed vertically).



To return to the [Home] screen: Tap .  
 To return to horizontal display: Tap .

## 2.6 Displaying BAC and ADC Profiles

- 1 Tap  on the [Home] screen.
  - » The BAC and ADC profiles are displayed horizontally.

- 2 Tap  for enlarged display (vertical display).
  - » The BAC and ADC profiles are enlarged (displayed vertically).



To return to the [Home] screen:

Tap .

To return to horizontal display:

Tap .

## 2.7 Checking and Changing Calculation Condition Settings

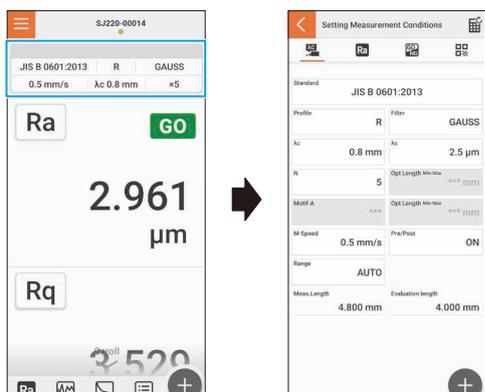
This section describes the procedures for changing the measurement conditions and setting parameters, tolerance values, and other calculation conditions.

### 2.7.1 Checking and Changing Measurement Condition Settings

This subsection describes the procedure for listing and changing the setting status of measurement conditions.

**1 Tap the "displayed measurement conditions" on the [Home] screen.**

» The current measurement conditions are listed.



**Tips**

Swipe the screen left or right or tap the icon to change the selected screen (orange underbar).

- : Measurement condition setting (see "2.7.1" (page 15))
- : Parameter selection (see "2.7.2" (page 16))
- : Tolerance judgment setting (see "2.7.3" (page 17))
- : QR code registration (see "2.14" (page 28))

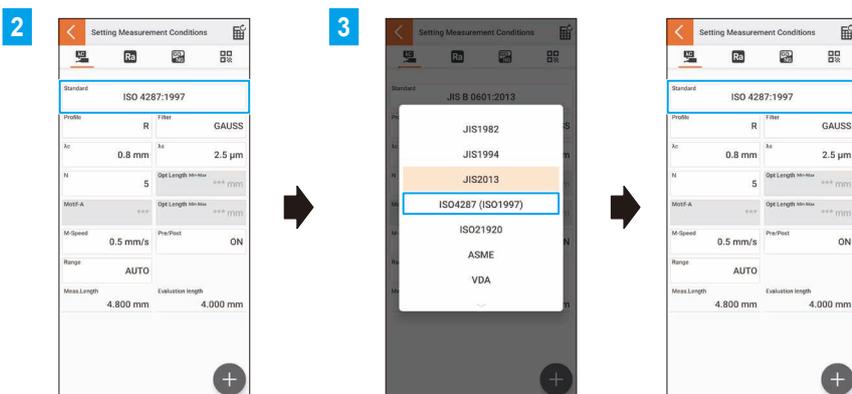
**2 Tap the condition item you want to change (e.g., Standard).**

» A list of choices is displayed.

**3 Tap the item you want to change to. (e.g., ISO4287 (ISO1997))**

Flip the screen to scroll the display up and down.

» The measurement condition changes to the item you tapped.



**4 Perform recalculation.**

**IMPORTANT**

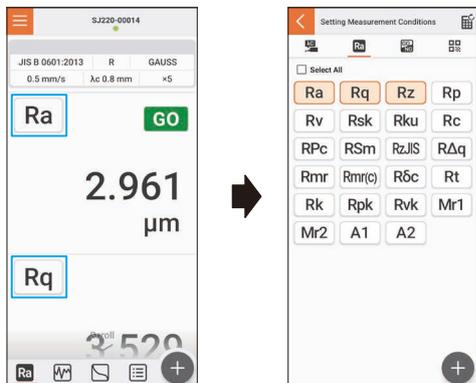
Recalculation is required when the measurement conditions are changed (when the roughness standard is changed, the filter is changed, or the number of sampling lengths (N) is decreased).  
For details about the operating procedure, see (see "2.8" (page 18)).

## 2.7.2 Checking and Changing Parameter Selections

This subsection describes the procedure for listing and changing the parameter selection status.

### 1 Tap "parameter names" on the [Home] screen.

» The currently selected parameters are listed.



#### Tips

Swipe the screen left or right or tap the icon to change the selected screen (orange underbar).

- : Measurement condition setting ["2.7.1"](#) (page 15)
- : Parameter selection ["2.7.2"](#) (page 16)
- : Tolerance judgment setting ["2.7.3"](#) (page 17)
- : QR code registration ["2.14"](#) (page 28)

#### IMPORTANT

Details of the parameter must be set in advance on the SJ-220 itself.  
For details, see ["2.4 Calculation condition setting"](#) of the SJ-220 User's Manual..

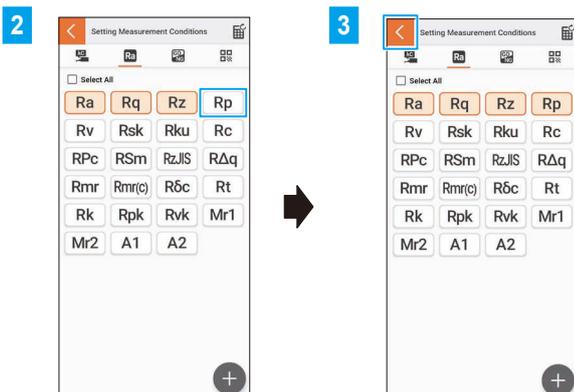
### 2 Tap the name of the parameter you want to change. (e.g., Rp)

» Each tap toggles between [Selected (orange)] and [Unselected (white)].

### 3 Tap < to return to the [Home] screen.

» The selected/unselected parameters are reflected in the [Home] screen.

When additional parameters are selected, the calculation results are displayed with "\*\*\*\*\*".



### 4 Perform recalculation.

#### IMPORTANT

Recalculation is required when parameter settings are changed.  
For details about the operating procedure, see ["2.8"](#) (page 18).

## 2.7.3 Checking and Changing Tolerance Settings

This subsection describes the procedure for listing and changing the tolerance setting status.

**1** Tap the "displayed measurement conditions" on the [Home] screen.

» The currently selected parameters are listed.

**2** Swipe the screen horizontally or tap  to switch to the [Tolerance Setting] screen.

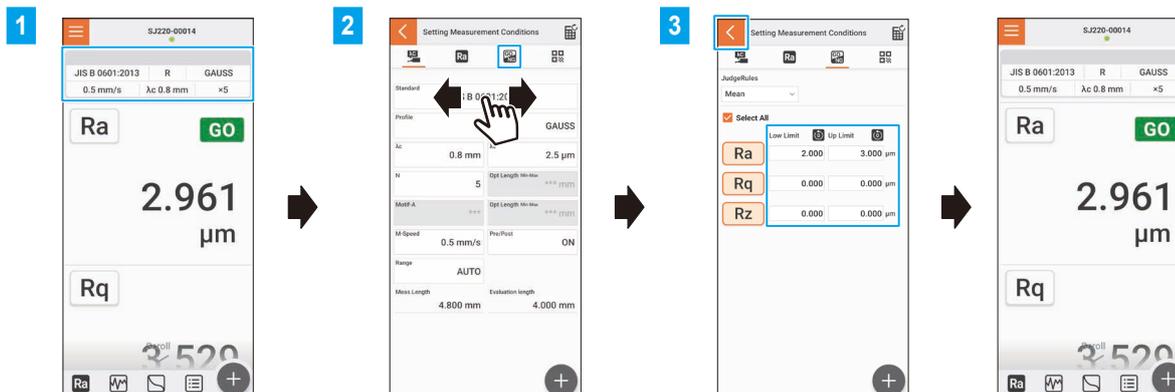
» The tolerance setting status is listed.

**3** Tap the [Low Limit] and [Up Limit] columns, enter the desired values, and then tap .

### IMPORTANT

Some smartphones may not display the minus sign on the number input keyboard. In that case, use the keyboard app for Android..

» The [Home] screen appears.



**4** Perform recalculation.

### IMPORTANT

Recalculation is required when the tolerance settings are changed.  
For details about the operating procedure, see  "2.8" (page 18).

## 2.8 Recalculating Calculation Results

If any of the following selections or settings are changed for the measurement conditions or parameters, recalculation should be performed.

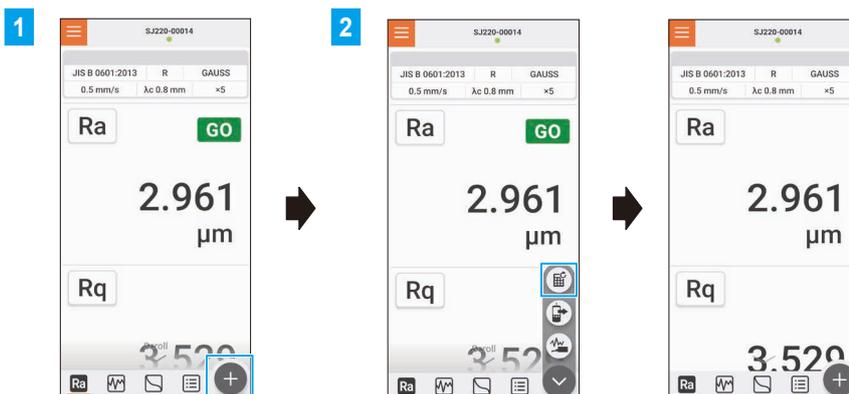
- Selection of a roughness standard
- Selection of a filter
- Selection of the number of sampling lengths (N) (if decreased)
- Selection of parameters
- Tolerance judgment and tolerance settings

**1** Tap **+** on the [Home] screen.

» Additional icons are displayed.

**2** Tap **⌘** among the displayed icons to perform recalculation.

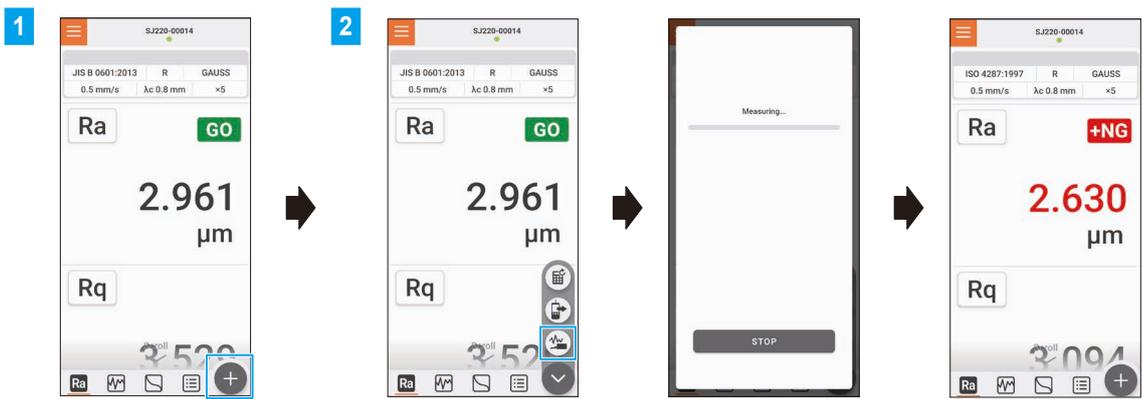
» Recalculation is performed on the display unit (SJ-220), and the [Home] screen is updated. (e.g., release of the tolerance judgment)



## 2.9 Performing Measurement

This section describes the procedure for having SJ-220 perform measurement from the application.

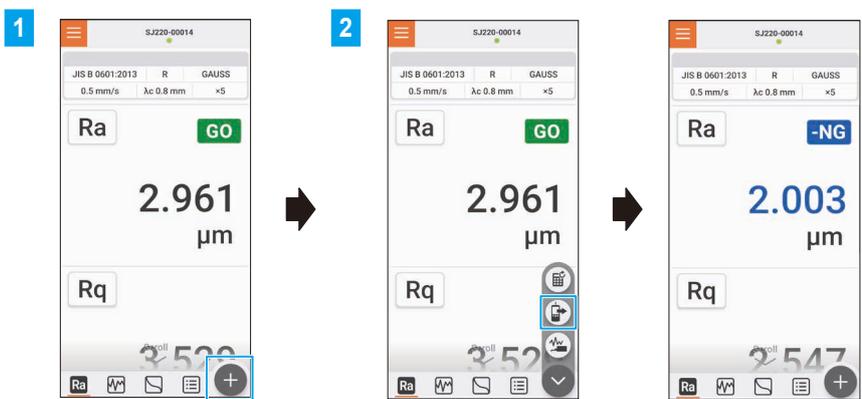
- 1 Tap **+** on the [Home] screen.
  - » Additional icons are displayed.
- 2 Tap **📏** among the displayed icons to have SJ-220 perform measurement.
  - » SJ-220 performs measurement, and the new measurement results are displayed on the [Home] screen.



## 2.10 Reloading Data

This section describes the procedure for reloading the data from the display unit (SJ-220) into the application.

- 1 Tap **+** on the [Home] screen.
  - » Additional icons are displayed.
- 2 Tap **🔄** among the displayed icon to perform reloading.
  - » Data is newly loaded from the display unit (SJ-220), and the [Home] screen is updated.



## 2.11 Print and File Output of a Certificate of Inspection

This section describes the procedure for previewing the print image of the inspection certificate, checking and changing the print conditions as necessary, and printing or outputting it as a file (saving it in PDF or CSV format).

### IMPORTANT

Printing directly from a smartphone to a printer requires a dedicated application.

For details, please refer to your smartphone's user manual.

### 2.11.1 Previewing the Print Image

**1** Tap  on the [Home] screen.

» The [Preview] screen appears.

**2** Tap  to enlarge the image.

» The preview of the inspection certificate is enlarged.

**3** Then, change print conditions or perform file output.

- Add/edit comments and display change language.  Continue with "2.11.2" (page 21)
- Show/hide the BAC and ADC profiles.  Continue with "2.11.3" (page 21)
- Change the header image.  Continue with "2.11.4" (page 22)
- Switch the paper size (A4-size/Letter-size).  Continue with "2.11.5" (page 22)
- Output a file (in PDF or CSV format).  Continue with "2.11.6" (page 23)



To return to the [Home] screen:

Tap .

To return to the normal display screen:

Tap .

To change the print conditions:

Tap .

Change the display language of the certificate of inspection.

## 2.11.2 Adding and Editing Comments

The following operating instructions are a continuation of "2.11.1 Previewing the Print Image" (page 20).

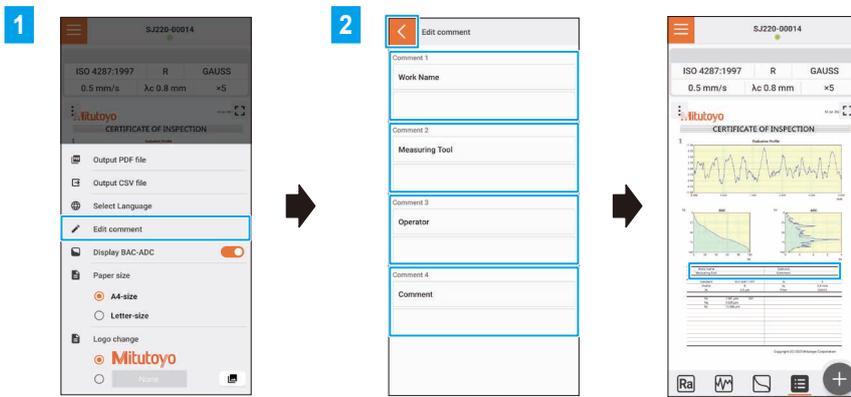
**1 Tap [Edit Comment].**

» The [Edit comment] screen appears.

**2 Enter a comment and tap .**

Comments for up to four items can be entered. (e.g., workpiece name, measuring instrument, operator, comments)

» The application returns to the [Preview] screen, and the comments you have entered are displayed.



## 2.11.3 Showing/Hiding BAC and ADC Profiles

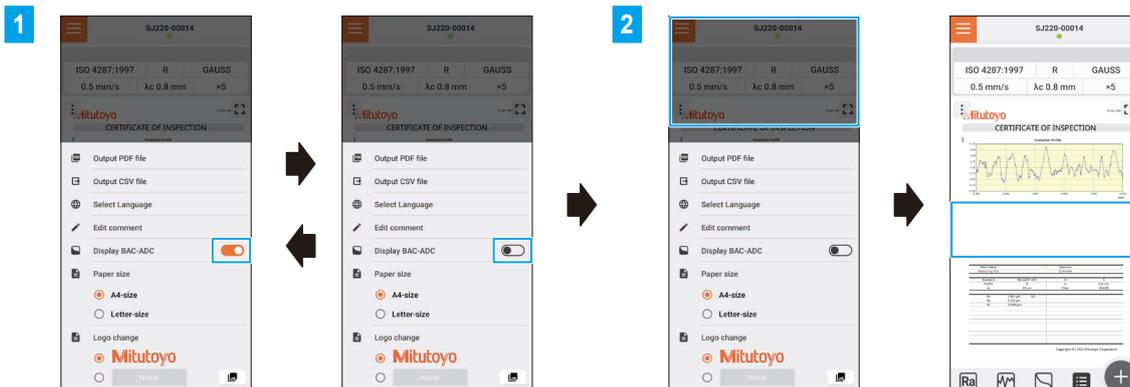
The following operating instructions are a continuation of "2.11.1 Previewing the Print Image" (page 20).

**1 Tap the [BAC/ADC Display] ON/OFF button.**

» Each tap of the button toggles ON and OFF.  indicates the ON state.

**2 Tap the gray area to confirm your selection.**

» The application returns to the [Preview] screen and the result of the ON/OFF selection is reflected in the display. (e.g., OFF)



## 2.11.4 Changing the Header Image

This subsection describes the procedure for switching the Mitutoyo logo in the header section of the inspection certificat to an arbitrary image.

The following operating procedures are a continuation of "2.11.1 Previewing the Print Image" (page 20).

**1 Tap the [Mitutoyo] or [None (optional)] button under [Logo change].**

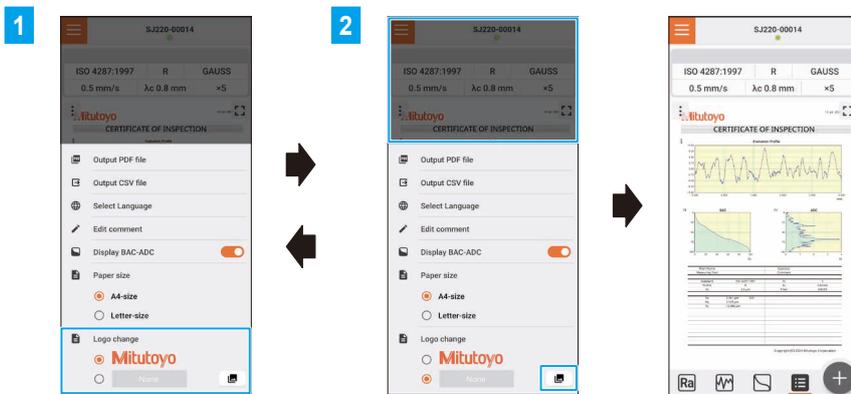
» The button for the selected item is indicated in orange.

**2 If you choose "None", tap  to search the saved image.**

» A list of folders in the smartphone is displayed. Select the desired image.

**To confirm your selection, tap the gray area.**

» The application returns to the [Preview] screen.



**IMPORTANT**  
The image files can be cropped to any size.

## 2.11.5 Selecting the Paper Size (A4-size/Letter-size)

This subsection describes the procedure for selecting the paper size for the inspection certificat.

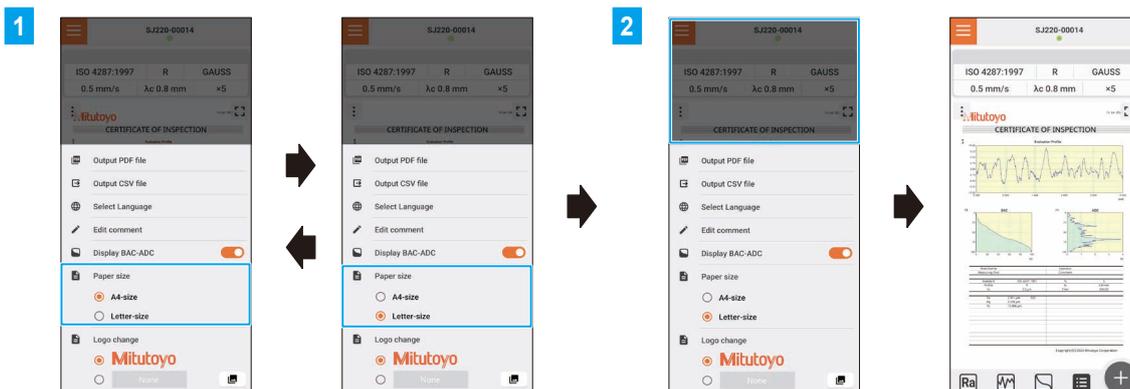
The following operating procedures are a continuation of "2.11.1 Previewing the Print Image" (page 20).

**1 Tap the [A4-size] or [Letter-size] button under [Paper size].**

» The button for the selected item is indicated in orange.

**2 Tap the gray area to confirm your selection.**

» The application returns to the [Preview] screen.



## 2.11.6 File Output in PDF or CSV Format

This subsection describes the procedure for outputting the inspection certificate as a file in PDF or CSV format. The following operating procedures are a continuation of "2.11.1 Previewing the Print Image" (page 20).

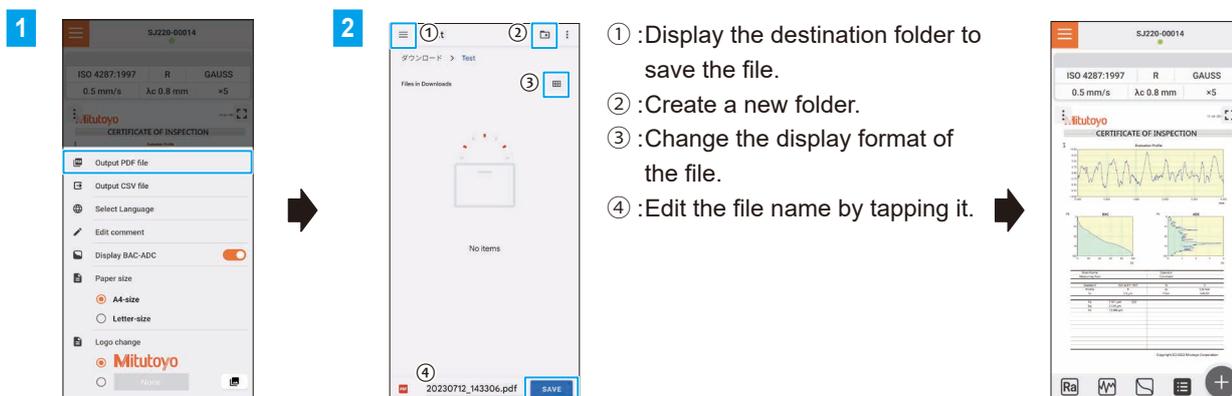
### ■ Outputting as a PDF file

#### 1 Tap [Output PDF file].

» The [Download] screen appears.

#### 2 Select the destination to save the file and click the [Save] button.

» The file is saved, and the application returns to the [Preview] screen.



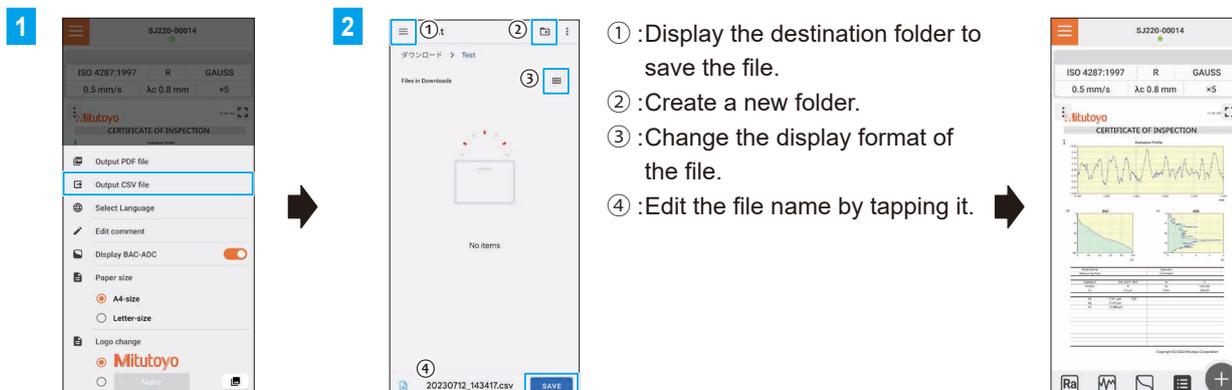
### ■ Outputting as a file in CSV format

#### 1 Tap [Output CSV file].

» The [Download] screen appears.

#### 2 Select the destination to save the file and click the [Save] button.

» The file is saved, and the application returns to the [Preview] screen.

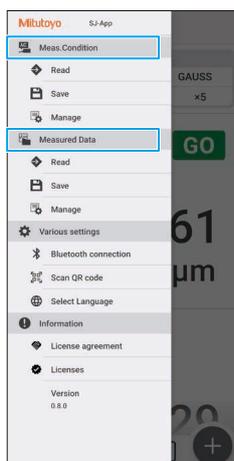


# 2.12 Saving and Reading Measurement Conditions/ Measured Data

This section describes the procedure for saving the data (measurement conditions and measured data) loaded into the application on the smartphone and reading the data (measurement conditions and measured data) saved on the smartphone.

## 2.12.1 Measured Data and Measurement Conditions

Measured data and measurement conditions are managed separately in the application.



Main menu

**Measured data (including measurement conditions)**

Calculation results

Evaluation profile

BAC and ADC profiles

CERTIFICATE OF INSPECTION

**Measurement conditions**

Measurement conditions

Parameters

Tolerance settings

QR code

## 2.12.2 Saving Measurement Conditions and Measured Data

**1** Tap the  icon on the [Home] screen.

» The main menu is displayed.

**2** Tap [Save] under [Measurement conditions] or [Measured data].

» A list of measurement condition files or measured data files is shown. (e.g., Measurement condition files)

**To overwrite an existing file**

**3** Tap the file to overwrite.

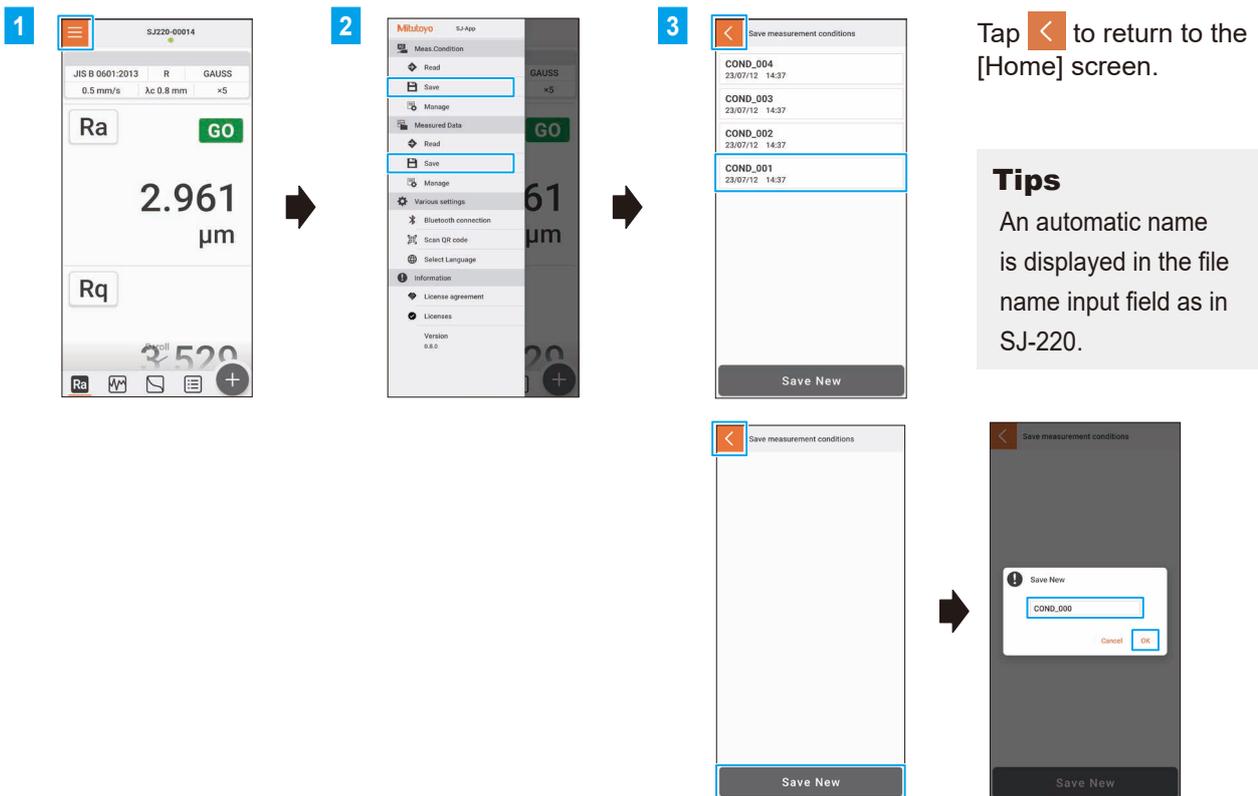
» The selected file is overwritten.

**To save a new file**

**3** Save the data as a new file.

**1** Tap [Save New].

**2** Enter a file name and click [OK].



Tap  to return to the [Home] screen.

**Tips**  
An automatic name is displayed in the file name input field as in SJ-220.

### 2.12.3 Reading Measurement Conditions and Measured Data

**1** Tap the  icon on the [Home] screen.

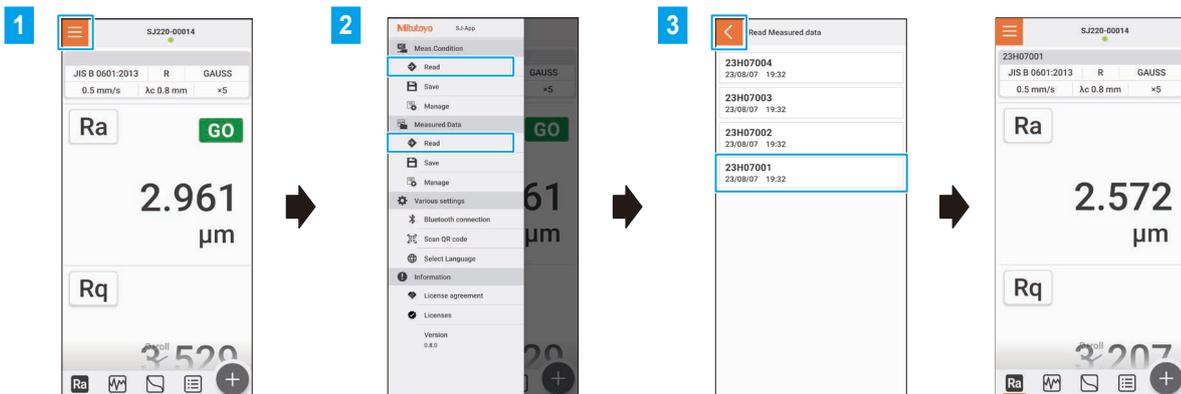
» The main menu is displayed.

**2** Tap [Read] under [Measurement conditions] or [Measured data].

» A list of measurement condition files or measured data files is shown. (e.g., Measured data files)

**3** Tap the file to read and then tap .

» The [Home] screen is updated with the contents of the read file.



## 2.13 Deleting and Renaming Measurement Conditions/ Measured Data

This section describes the procedure for deleting and renaming measurement condition and measured data files.

### 1 Tap the icon on the [Home] screen.

» The main menu is displayed.

### 2 Tap [Manage] under [Measurement conditions] or [Measured data].

» A list of measurement condition files or measured data files is shown. (e.g., Measurement condition files)

### 3 Tap the file to delete or rename.

» [✓] appears in the check box.

To delete multiple files at once, tap the  icon.

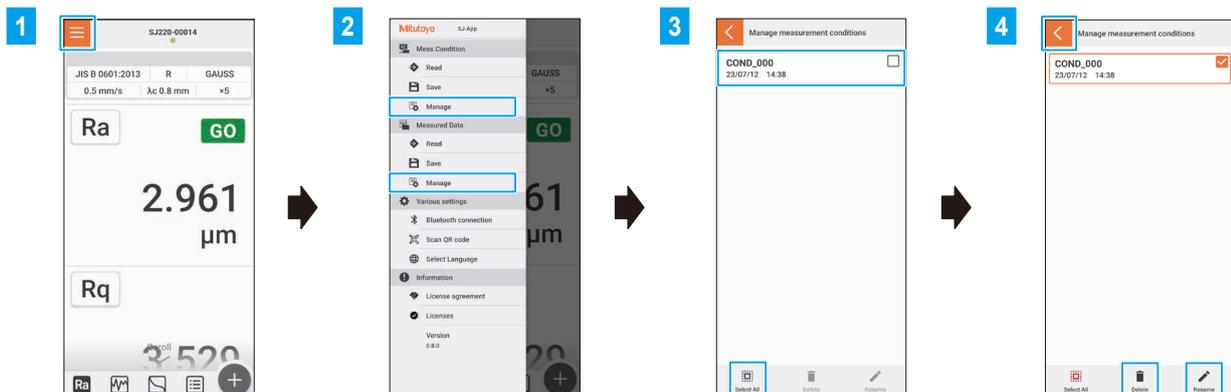
### 4 Tap the icon (delete) or the icon (rename).

**To delete a file**

» The confirmation screen appears.  
Tap [OK] to delete it.

**To rename a file**

» The name entry screen appears.  
Enter a name and tap [OK].



Tap  to return to the [Home] screen.

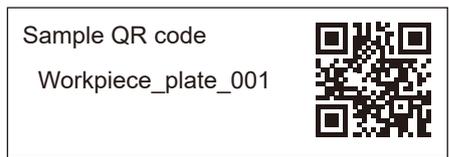
## 2.14 Using QR Codes

A prepared QR code can be scanned with the camera function of the smartphone and linked to measured data and measurement conditions.

A QR code is displayed on a certificate of inspection to allow, data management with the QR code.

### ■ Linking the QR code to the measured data

This section describes the procedure for reading the prepared QR code and linking it to the saved measured data.



**1** Tap [Display Measurement Conditions] on the [Home] screen.

» The current measurement conditions are listed.

**2** Swipe the screen horizontally or tap to switch to the [QR Code Registration] screen.

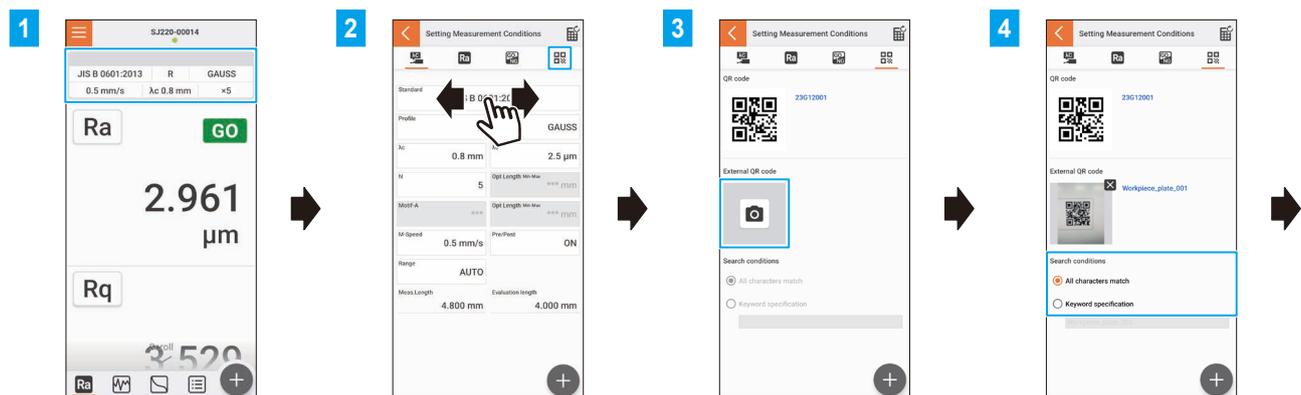
- » The [QR Code Registration] screen appears.
- QR code: `23C03001` representing the name of the current measured data (e.g., 23C03001)
  - External QR code: scanned by the camera for registration (e.g., Workpiece\_plate\_001)

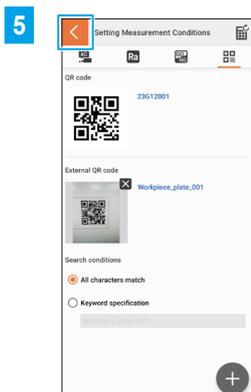
**3** Tap the icon to start the camera and read the prepared QR code.

**4** Set the judgement conditions.

» The [Keyword] is associated with any character string by partial match. (e.g.: workpiece)

**5** Tap to return to the [Home] screen.





**6** Tap the  icon on the [Home] screen.

**7** Tap [Save] under [Measured data].

» A list of measured data files is displayed.

**8** Tap the file to overwrite.

» The selected file is overwritten.

**9** Tap  to return to the [Home] screen.



Example of QR code display

### ■ Scanning the QR code to read the saved measured data

This section describes the procedure for scanning the QR code linked to the measured data and reading the saved measured data.

#### 1 Tap the icon on the [Home] screen.

» The main menu is displayed.

#### 2 Tap [Scan QR code] under [Various settings].

» The screen to permit scanning appears.  
Upon approval, the scanning screen appears.

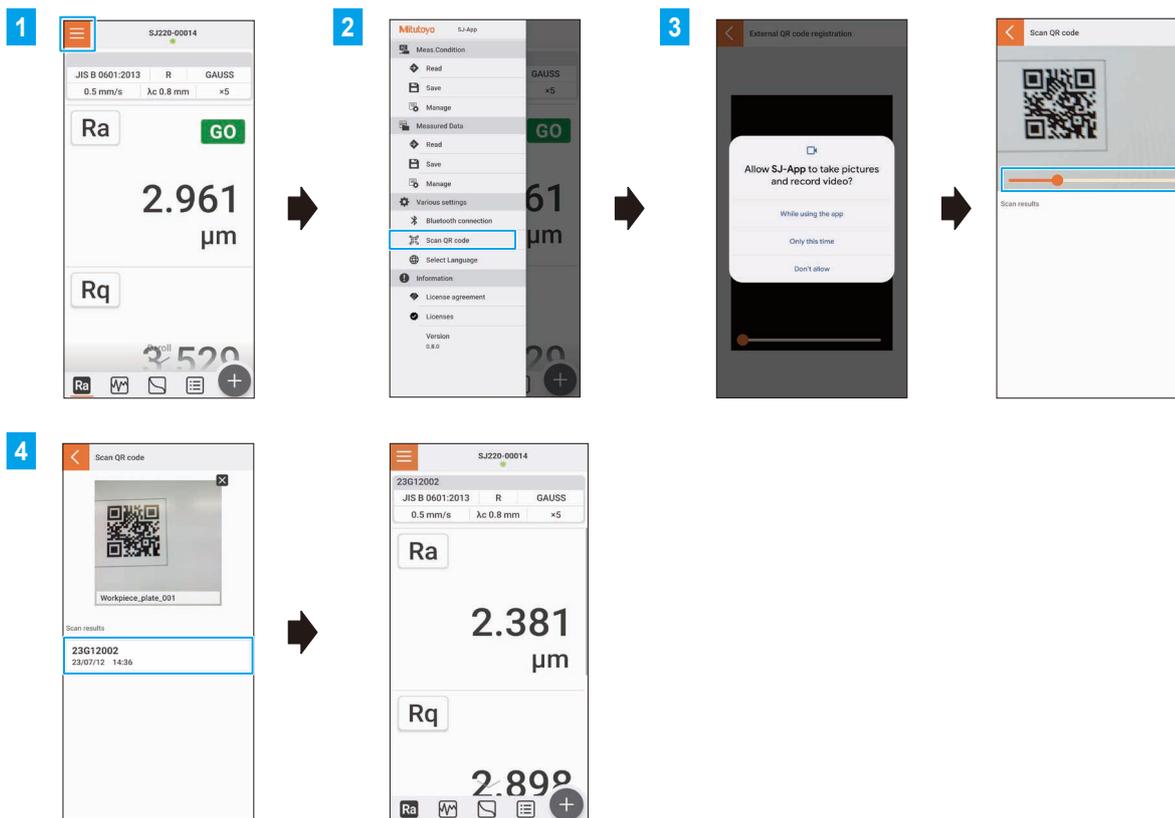
#### 3 Hold the smartphone over the QR code.

Slide [  ] to zoom the screen.

» The scan result (name of the measured data linked to the QR code) is displayed.

#### 4 Tap the name of the measured data.

» The measured data is read and displayed on the [Home] screen.



# 3 Troubleshooting

If you find something wrong with the operation, please read and check this chapter on troubleshooting first.

## 3.1 Troubleshooting

If you suspect that the application is not working properly, please read and check this chapter on troubleshooting first.

For information on how to respond to error messages that occur during operation, see  "3.2 Error Messages" (page 32).

■ The application cannot be connected online.

Point to check	Cause and solution
Is the application set up?	<ul style="list-style-type: none"> <li>• See  "1.2 Attachment of the Wireless Communication Unit for Measuring Instruments" (page 7)</li> <li>• See  "2.1 Starting the Application and Pairing" (page 9)</li> <li>• Restart the application.</li> </ul>
Is SJ-220 set up for wireless communication?	<ul style="list-style-type: none"> <li>• See  "3.1 Wireless Communication" in the "PART F Environment Settings" of the SJ-220 User's Manual.</li> <li>• Restart SJ-220.</li> </ul>

## 3.2 Error Messages

When an error message appears, first read and check this error message table.

Message	Cause	How to remedy
<ul style="list-style-type: none"> <li>• Please connect via Bluetooth.</li> <li>• Bluetooth connection is unsuccessful.</li> <li>• Bluetooth field intensity is weak.</li> </ul>	<ul style="list-style-type: none"> <li>• SJ-220 is turned OFF.</li> <li>• Bluetooth is not connected.</li> <li>• Bluetooth became disconnected during communication.</li> <li>• The PIN code and ID No. of the wireless communication unit for measuring instruments is not input correctly.</li> <li>• The Bluetooth signal is not strong enough.</li> </ul>	<ul style="list-style-type: none"> <li>• See  "2.1 Starting the Application and Pairing" (page 9).</li> <li>• Bring the smartphone closer to the wireless communication unit for measuring instruments. (The situation may not improve due to the surrounding radio wave environment).</li> </ul>
Cannot start measurement.	<ul style="list-style-type: none"> <li>• SJ-220 is already performing measurement.</li> <li>• The drive unit is not connected.</li> <li>• The detector is not connected.</li> <li>• The detector is retracted.</li> <li>• Detector over-range</li> <li>• Traverse length error</li> </ul>	<ul style="list-style-type: none"> <li>• See  "PART B Setting Up" of the SJ-220 User's Manual.</li> <li>• Press the [START/STOP] key on the measuring instrument to return the detector.</li> <li>• Change the measurement conditions according to the drive unit.</li> </ul>
Unexpected error occurred. Restart App or delete the App data.	Data is corrupted.	<ul style="list-style-type: none"> <li>• Restart the application.</li> <li>• Restart the smartphone.</li> <li>• Reinstall the application.</li> </ul>



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## Revision History

Date of issue	Edition number	Details of revision
August 1, 2023	First edition	Issuance

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