

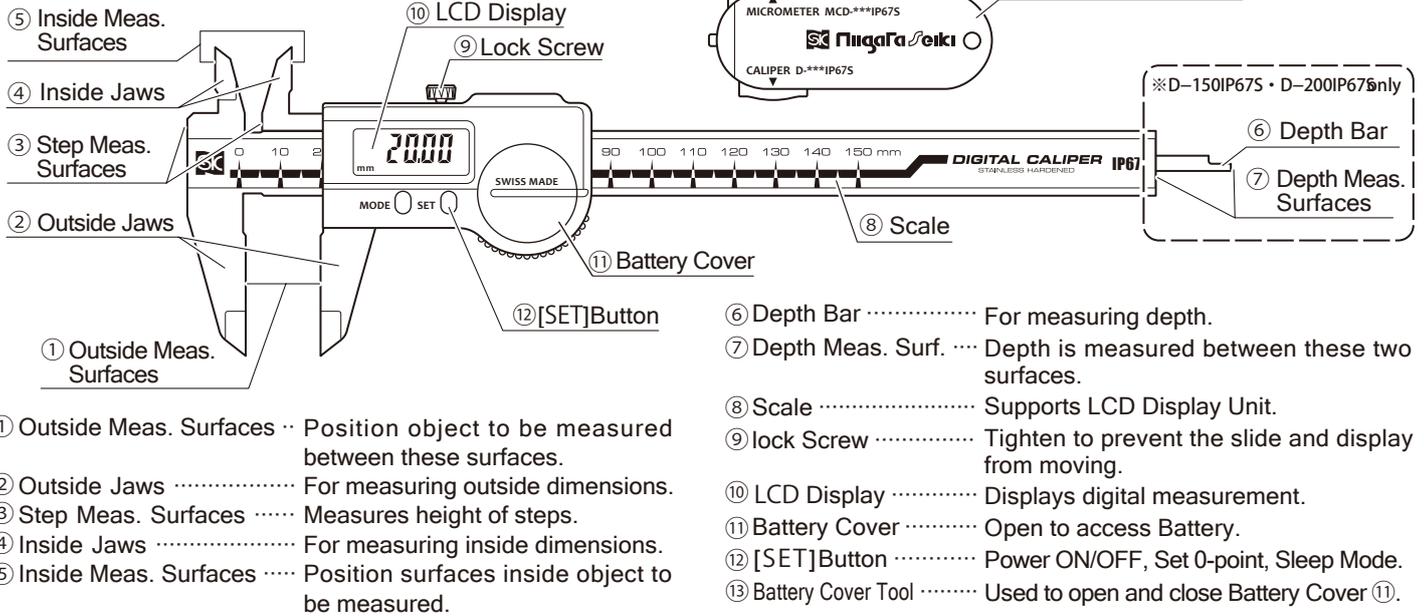
Precision Measuring Tool DIGITAL S-LINE CALIPER

Thank you for purchasing Niigata Seiki Digital S-Line Caliper.

This caliper is IP-67 rated for water and dust resistance, and can be used in applications where it will be exposed to water, cutting fluid, lubricating oil, etc.

- For safe and proper use, please read this instruction manual before use and follow the procedures described.
 - Please keep manual where it is accessible to user for future reference.
 - Keep this manual with the instrument if transferred or leased to a third party.
- For inquiries about this product, please contact dealer or Niigata Seiki at the address listed on the following page.

■ PARTS IDENTIFICATION • FUNCTION



SAFETY PRECAUTIONS Please Observe

To prevent harm to yourself or others, and to prevent damage to property, always follow the procedures marked by the following symbols.

Denotes a prohibition - You **MUST NOT** do

Denotes a requirement - You **MUST** do

WARNING: Indicates risk of **personal injury** or **property damage** if not followed.

- Read the manual and follow the directions.**
 - Use of product other than as described in this manual may cause accident.
- Use only for measuring.**
 - Use for any purpose other than measuring may damage or wear the instrument. Improper use may also cause accident.
- Handle with Care.**
 - Do not drop or subject instrument to excessive shock. Do not place under heavy objects. Improper handling may cause damage or poor accuracy.
 - Do not scratch instrument, for example by writing ID number.
- Avoid using in high electric fields, such as near fluorescent lights or switching power supplies.**
 - Incorrect value may be displayed on LCD.

- Use and store only in environment meeting the following conditions:**
 - Dry location protected from rain, water, and oils.
 - Location that is not excessively hot.
 - Location protected from use by children and unauthorized people.
 - Use in places contrary to the above may cause damage to the product resulting in accident or injury.
- Jaw Tips Are Sharp—Handle With Care.**
 - Careless handling may cause injury.
- Do not disassemble or modify.**
 - Disassembly may damage product or cause accident. For repair, please contact distributor or place of purchase.
- Do not write on instrument with electric engraver.**
 - Do not engrave instrument body or jaw, such as an ID number with engraver or electric pen.

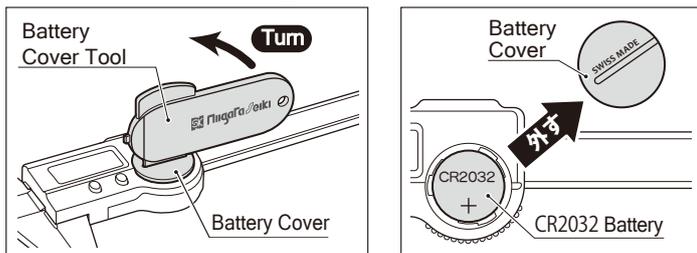
CALIBRATION

- To maintain instrument accuracy, periodic calibration is recommended. Wear of measuring surfaces from repeated use may affect accuracy and periodic accuracy checks should be performed.

Outside Japan,
Please contact distributor or place of purchase to inquire about calibration services.

INSERTING · REPLACING BATTERY

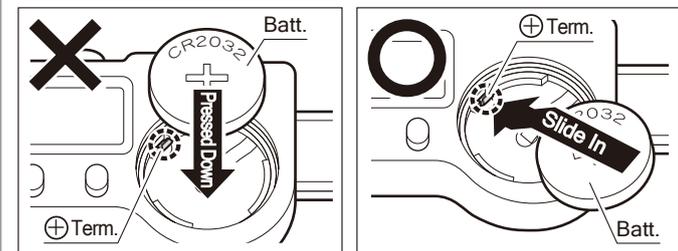
- ① Unscrew the cover using the Battery cover Tool, side marked 「CALIPER D-***IP67S」
- ② Remove the Cover.



- ③ Insert the new battery with the ⊕ side outward.
- ④ Replace the cover using the Battery Cover Tool.

Notice Use only CR2032 type battery

- Use care to avoid damaging terminals when inserting battery
- The ⊕ terminals may be broken if battery is pressed straight down.
- Insert battery at angle, with the ⊕ side outward as shown.



TROUBLESHOOTING

- Q. Nothing is displayed on LCD.**
A. The battery may be running low, please replace battery with a new one.
- Q. With power on, the number on the LCD does not change as Display Unit is moved.**
A. Please reset by removing battery for about 30sec., and then replacing.
- Q. No response when a button is pressed.**
A. Make sure that the battery is correctly installed.

AFTER USE CARE · STORAGE

- After use, wipe off any dirt or oil from measuring surfaces, sliding surfaces, and exterior using a dry cloth and perform rust prevention treatment. For rust prevention, lightly apply anti-rust oil, or place in rust preventive bag.
- Store with Jaws slightly open.
If stored with Jaws closed tight, expansion due to temperature changes may cause excessive force which will cause inaccuracy.
- Store in a cool, dry, and dark location in the provided case.
Keep out of direct sunlight and moisture, and please keep secure from unauthorized personnel.
- Remove battery if Caliper will not be used for a long period of time.

SERVICE

- If Instrument is not working properly, or if you have any questions, please contact distributor or place of purchase.
- Please note, manufacturer is unable to respond to inquires or provide service directly. Please contact distributor or place of purchase.

HOW TO USE

Before use please make the following preparations.

- Clean off any rust inhibitor or debris from measurement and sliding surfaces. Contamination of surfaces may cause measurement error.
- Allow the caliper and item to be measured time to reach same temperature. A temperature difference between the object to be measured and the caliper may cause measurement error. Allow enough time for the temperatures to equilibrate.

SET BUTTON

The SET button performs the following functions.

- ① Press and hold for 2s. . . . Display is set to 0
- ② Press and hold for 2s. . . . Sleep Mode
(Resume by moving Jaw or pressing any button)
- ③ Press and hold for 2s. . . . Power OFF
(Turn power ON by pressing any button two times)

Absolute Measurement Mode

- ① Turn power ON by pressing any button two times.
- ② With jaws closed, press and hold the [SET] Button for 2 sec.
- ③ When "0.00mm" is displayed on LCD, Caliper is ready to start measurement.

Comparison Measure Mode

- ① Turn power ON by pressing any button two times.
- ② With jaws set on reference part, press and hold the [SET] Button for 2 sec.
- ③ When "0.00mm" is displayed on LCD, Caliper is ready to start measurement.

IP CODE SUMMARY

• IP rating for electrical equipment defined by IEC standard for water and solid body protection.

IP 67

2nd Digit: Water proof rating
1st Digit: Direct contact-protection rating for ingress of solid foreign object

1st Digit	Description	Degree of Protection	Test method
6	Solid Ingress Protection	No ingress of dust allowed. Dust tight.	Complete protection from dust intrusion
2nd Digit	Description	Degree of Protection	Test method
7	Liquid Ingress Protection	No harmful effect when immersed in water for specified period and pressure.	Submersion for 30min. at depth of 1m (for devices of height less than 850mm)

SPECIFICATIONS

※0.02mm higher for other than outside measurements
※Not including quantization error (± 1 count)

Model No.	Range(mm)	※Inst. Error(mm)	Mass (g)
D-150IP67S	0 - 150	±0.02	170
D-200IP67S	0 - 200	±0.03	200
D-300IP67S	0 - 300		270

- Resolution: 0.01mm
- Display: 5 Digit LCD
- Auto Off: ~ 20 min.
- Maximum Response Speed: 2.5m/s
- Operating Temperature Range: 5°C to 40°C
- Power: CR2032 Lithium Battery (1x)
- Battery Life: approx. 1.5 years in normal use
- Accessory: CR2032 Lithium Battery (for test)
Battery Cover Tool

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