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**ISR-S1000B
SURFACE ROUGHNESS TESTER
OPERATION MANUAL**



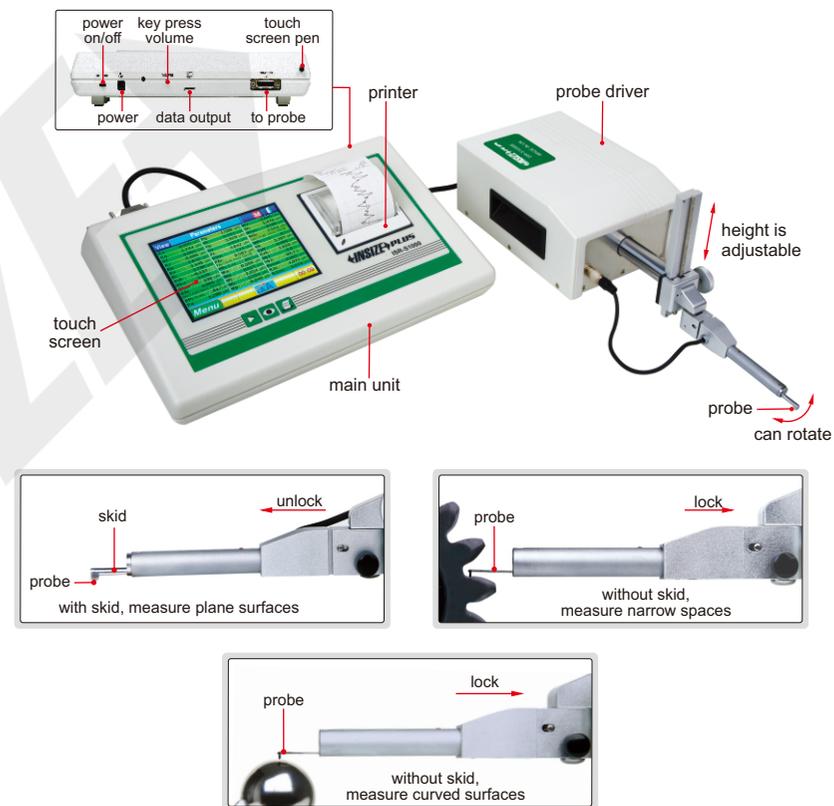
Attention

This instrument uses a calibrated stylus on the end of the pick-up. Therefore always take great care when handling it and avoid shocks.

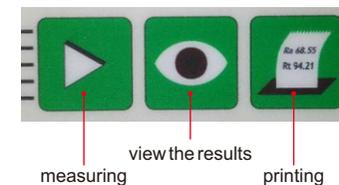
- ◆ For the mains power supply, follow the indications on the power supply and in this manual. Do not use power supplies other than the one supplied.
- ◆ Do not disassemble the instrument, with the exception of the parts specified in this manual. Damage or malfunctions may result. The pick-up is a delicate, precision part. Do not subject to stresses or shocks.
- ◆ Do not use the instrument in dusty environments and with strong vibrations. Where possible, keep it away from generators of noise, such as large power supplies or transformers, high voltage switches and relays.
- ◆ Do not use/leave the instrument in places where there may be excessive and sudden temperature excursions, or in closed rooms with very high temperature or with direct sunlight.
- ◆ Store the instrument in places where the temperature can be kept at between -10°C and +50°C. Do not leave it exposed to direct sunlight.
- ◆ Before starting measurements, eliminate all oil residues and dirt from the surface to be measured.
- ◆ Do not subject the instrument to shocks or drops because its internal translator, in spite of being extremely robust, may become damaged and falsify the readings.
- ◆ In order to obtain better accuracy, please place it on a smooth and stable table such as marble when measuring.
- ◆ For better accuracy, please remove the skid before measuring and keep the probe parallel to the workpiece surface.

Product Introduction

1 General description:



2 Function keys:



- Power on/off:
Use the power on/off key on the back to turn on/off the instrument.
Note: the instrument will enter standby mode without any operation after 2min, you can awaken it by pressing any key.
Please turn off the power when don't use the instrument for long time.

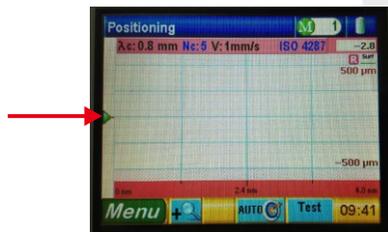
Measuring

- Measurement setting:
Press the key "MENU" and select "Meas. settings" to enter setting interface, press "Close" after finish setting.



Cut-off length: Cut-off selection.
Cut-off number: Cut-off number selection.
Gauge type: Please select "With skid" or "Without skid" according to the shape of workpiece.
Measurement surface: Please select "Plain" or "Curved" according to the shape of workpiece.
Measuring speed: Measuring speed selection.

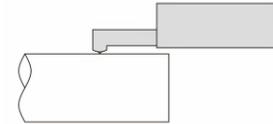
- Probe leveling:
Press the key "MENU" and select "Positioning" to enter leveling interface.



Adjust the height of the probe to contact the surface of workpiece, keep the probe parallel with surface as following picture.

Note: the measuring direction should be perpendicular to the grain of the surface.

Press "AUTO" to level the probe, the arrow will be in the center position.



- Measuring:
Press the measuring key to start the measurement, the results will be show on screen as following.

View	Parameters		M 1
Ra	2.908 μm	RSm	391 μm
Rq	3.509 μm	RSc	20.233 μm
Rt	20.233 μm	Rmr1 0.0%	Rmr2 100.0%
Rz	12.548 μm	RPC(0.00)	34 /cm
Rp	5.039 μm	Pa	6.013 μm
Rv	7.509 μm	Pq	6.810 μm
Rc	9.310 μm	Pt	26.256 μm
Rsk	-0.105	Pp	13.265 μm
Rku	2.729	Pv	12.991 μm

- View the results:
Press the function key or click the "Parameters" on the top to see the values and curves.
- Printing:
Press the function key or click the "M" on the top to print the results.
The memory function should be enabled as following picture.



Enable: enable the memory function.
View: see the saved results, select with right and left arrow key.
Print: print the results.
Reset: clear all the data.
Delete: delete the last measurement.

Calibration

- 1 Setting:
Press the key "MENU" and select "Calibration" to enter leveling interface.



- 2 Set the measuring times, we recommend 5 times, and then press "Pos" to enter leveling interface.
- 3 Do leveling operation and press measuring key to start measurement, change the position to next measurement. Press "Apply Calibration" to confirm the calibration after all measurements are finished.



Delete current measurement.
Confirm the calibration.

Other setting

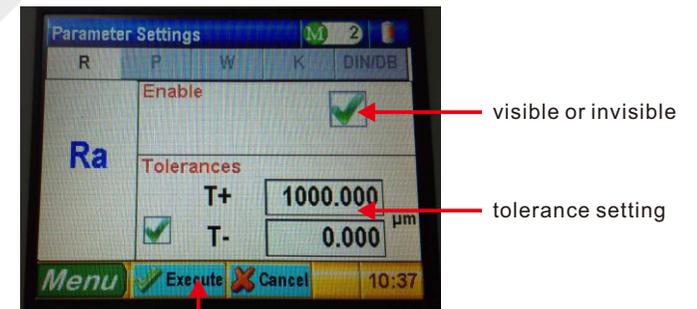
- 1 Standard setting:
Press the key "MENU" and select "System Setting"- "Standard&units" to enter setting interface, press "Close" after finish setting.



- 2 Parameters setting:
Press the key "MENU" and select "System Setting"- "Parameters" to enter setting interface, press "Close" after finish setting.



Click the parameter which you want to set, you can set if it is visible by "Enable", also can set tolerance and there will be judge the result with red or green color.



confirm the setting

- 3 Date and time setting:
Press the time symbol on the right down corner to enter the setting.

