

Measuring Instruments

Straightness Tester

Instruction Manual

To ensure correct use, please read this instruction manual carefully before use. After reading, keep it in a safe place where the user can always refer to it.



OBISHI KEIKI SEISAKUSHO Co., Ltd.

Safety Precautions

- ※Before use, please read this instruction manual carefully and use the product correctly.
- ※The precautions shown here are intended to ensure the safe and proper use of the product and to prevent any potential hazards to the user.
- ※The precautions are categorized into three levels — **Danger, Warning, and Caution** — to clearly indicate the severity and urgency of potential harm or damage that may occur if the product is mishandled.

For Safe and Proper Use		
This instruction manual includes various symbols and pictograms throughout the text to ensure correct use of the product and to prevent harm or damage to the user. The symbols and their meanings are as follows. ● Please read the text after fully understanding the symbols and their meanings. ● After reading, be sure to keep this manual in a place where anyone using the product can easily refer to it at any time. ● All of these are safety-related instructions, so please be sure to follow them.		
	Danger	This indicates situations where incorrect handling could result in imminent risk of death or serious injury.
	Warning	This indicates situations where incorrect handling could potentially result in death or serious injury.
	Caution	This indicates situations where incorrect handling may result in injury to persons or only property damage.
Examples of symbols		The △ symbol indicates the presence of danger, warning, or caution messages, with specific precautions described within the figure. (The left figure is used to indicate general danger, warning, or caution without specifying details.)
		The ○ symbol indicates prohibited actions, with specific precautions described within or below the figure. (The figure on the left is used for general prohibition notices without specifying particular actions.)
		The ● symbol indicates mandatory actions, with specific instructions detailed within the figure. (The figure on the left is used for general mandatory actions or instructions without specifying details.)

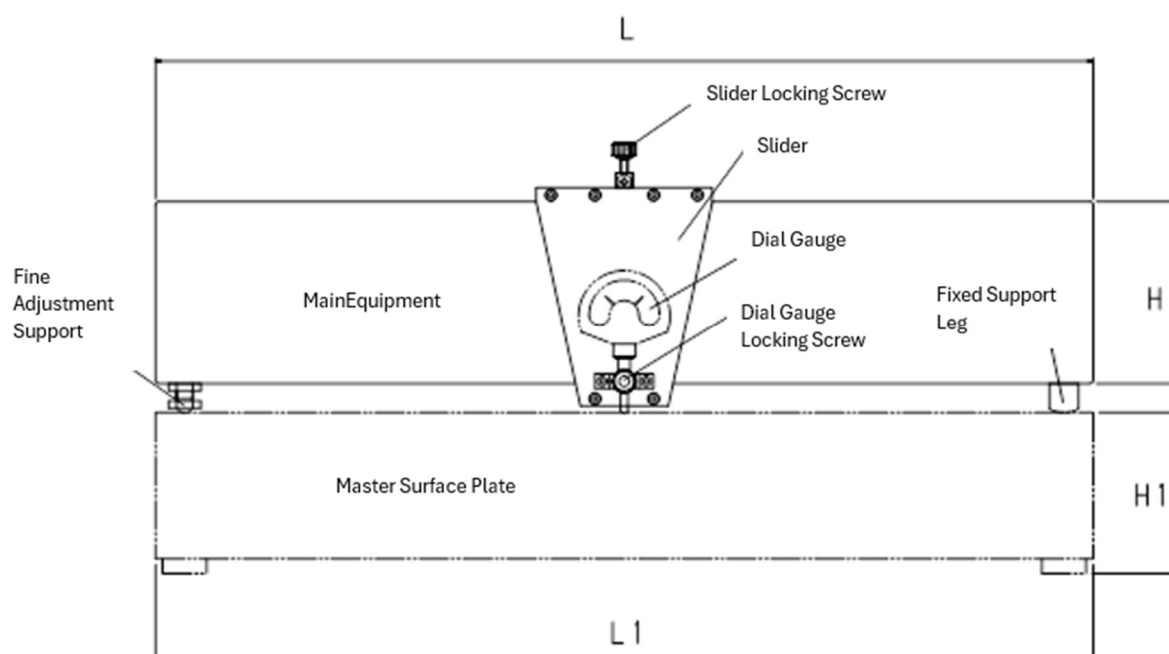
Straightness Tester Instruction Manual

1. Product Features

- The stone reference straightedge is equipped with three support points on the bottom surface, enabling stable measurement.
- The precision surface is finished to be highly accurate and lightweight, making it easy to handle.
- By moving the slider, straightness measurement can be performed easily.
- By setting “0” in advance on a master surface plate, absolute value measurement of the workpiece is possible.
- By using a probe with external output instead of a dial gauge, automatic data processing and recording can also be performed.

Note: The dial gauge is not included.

2. Names of Parts and External View



3. Specifications

Main Equipment

Code No.	Nominal	Size (L×H×W mm)	Effective Measurement Length (mm)	Straightness (μ m)	Mass (kg)
CA101	500	640 x 60 x 125	500	2	18
CA102	1000	1140 x 60 x 125	1000	4	30

Master Surface Plate

Code No.	Nominal	Size (L1×H1×W1 mm)	Flatness (μ m)	Mass (kg)
CA201	500	640 x 125 x 110	1.5	25
CA202	1000	1140 x 125 x 110	3.0	44

4. Instructions for Use

- ① Remove the master surface plate from the storage box and wipe the precision surface on the top clean.
- ② Remove the straightness tester (hereinafter referred to as “tester”) in the same way, clean the support legs, and place it on the master surface plate.
- ③ Properly attach the dial gauge to the slider.
- ④ Move the slider on the master surface plate, read the dial gauge values, and compare them with the actual values of the master surface plate to check the straightness of the tester.

If the measured values at both ends are not zero (or close to zero), adjust the height of the fine adjustment support leg using a spanner. After adjustment, always lock the fine adjustment support leg with the locking screw.
- ⑤ Place the tester on the workpiece to be measured.
- ⑥ Move the slider to measure the straightness of the workpiece.
- ⑦ Compare the reference value of the tester with the measurement value to calculate the straightness of the workpiece.
- ⑧ Remove the dial gauge, wipe the tester clean, and store it in the storage box.
- ⑨ After cleaning, carefully store the master surface plate in the storage box.

5. Precautions for Use

- ① Before use, wipe the bottom surface of the instrument and the reference guide surface clean.
- ② Handle the instrument carefully during use and storage to avoid impact or shock.
- ③ Allow the instrument to acclimate to the ambient temperature before use.
- ④ Do not use or store the instrument in places with drastic temperature changes.
- ⑤ When using the instrument in a location subject to temperature variations, frequently check it with a master angle or an equivalent reference.
- ⑥ Be careful not to apply excessive load or impact.
- ⑦ Do not place this instrument in locations subject to vibration or other similar conditions.
- ⑧ After use, always apply rust prevention treatment and store the instrument in its storage case.
- ⑨ Check the instrument for abnormalities before use in the following cases:
 - When the instrument has been dropped.
 - When an object has been dropped onto the instrument.
- ⑩ Check the accuracy regularly before using the product.
- △ ⑪ If the product has sharp edges, handle it carefully to avoid injuring your fingers or other parts of your body.
- △ ⑫ Wear protective gloves and safety glasses as necessary to prevent injury while working.
- △ ⑬ Do not use this product if it is damaged or deteriorated, as it may cause injury or accidents.
- △ ⑭ If an injury occurs, give first aid immediately and seek medical attention if necessary.

Contact Information

JIS Certified Factory



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Head Office and Factory

Design, development, manufacturing, and calibration services for precision measuring instruments (levels, surface plates, straight edges, reference measuring instruments, square rulers, blocks, dial gauge stands, comparators, angle measuring instruments, bench centers, squareness measuring instruments).