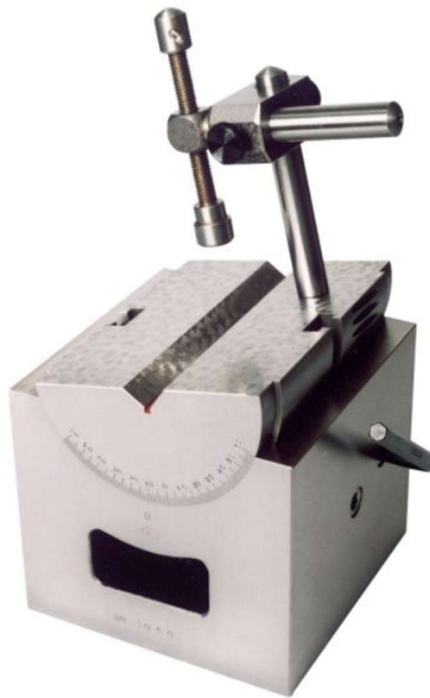


Angle Plate

Angular Combination Block

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.

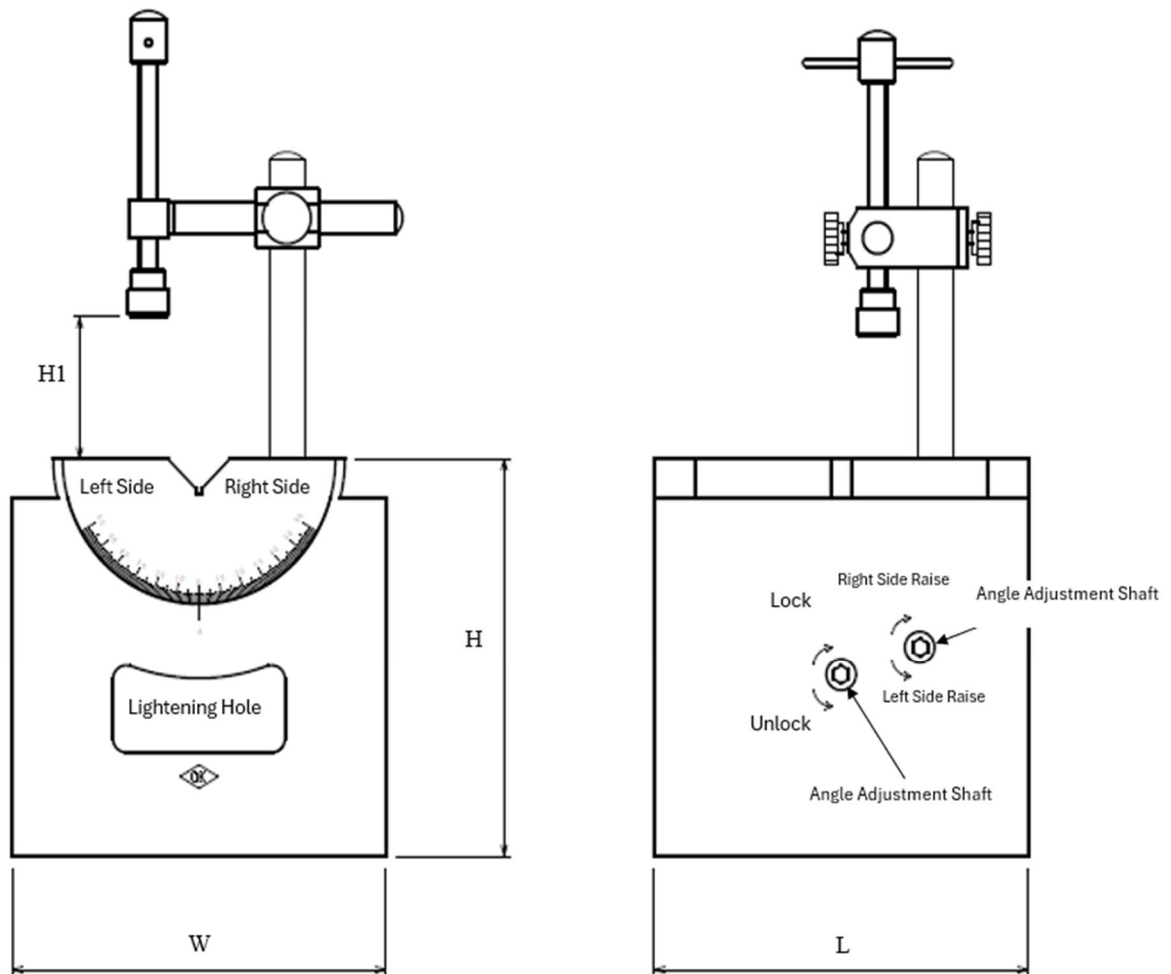
For Safe and Proper Use		
This instruction manual includes various symbols and pictograms throughout the text to ensure correct use of the product and to prevent harm or damage to the user. The symbols and their meanings are as follows. ● Please read the text after fully understanding the symbols and 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.)

Angular Combination Block Instruction Manual

1. Product Features

- By operating the handle, the instrument can be tilted up to 60° to both the left and right.
- Parallelism between the top surface and the bottom surface is ensured at 0° .
- The graduations are marked in 1° divisions over a range of $\pm 60^\circ$.
- Supplied with a clamp for fixing the workpiece and a rotation handle.

2. Appearance Diagram



3. Specifications

Code No.	Nominal	Size (L×W×H mm)	Clamping Range (H1 mm)	Parallelism (μ m)	Mass (kg)
NB101	150	150×150×150	65	18	15
NB102	200	200×200×200	100	20	30
NB103	250	250×250×250	100	23	55
NB104	300	300×300×300	100	25	100

4. Instructions for Use

【Use of the V-Groove】

- ① Wipe this instrument clean and place it on the surface plate.
- ② Attach the workpiece clamp.
- ③ Wipe the workpiece clean and set it in the V-groove.
- ④ Fix the workpiece using the clamp.
- ⑤ Operate the angle adjustment shaft and tilt the instrument to the required angle.
- ⑥ Bring the stylus of the dial gauge into contact with the workpiece to perform the measurement.
 - Either slide the stand with the dial gauge attached over the surface plate, or slide an Angular Combination Block for measurement.
- ⑦ After completing the measurement, remove the workpiece.
- ⑧ Return the instrument to its original angle (or leave it tilted).

【Use as a Parallel Block】

- ① Wipe this instrument clean and place it on the workbench.
- ② Operate the angle adjustment shaft and align the graduations of the Angular Combination Block and the drum to zero.
- ③ Perform the measurement.

- ④ After completing the measurement, remove the workpiece.

【Precautions】

- When fixing this instrument or the workpiece, always tighten the nuts and other fasteners securely to prevent movement during operation.
- The angle graduations on the Angular Combination Block are in 1° divisions and can be used as a reference for angle setting.
- When the angle lock shaft is locked, the angle adjustment shaft is pushed, causing a slight change in the adjusted angle. Always check the angle before use. (The amount of change is approximately a few micrometers.)
- When setting the angle with a round workpiece, the height of the workpiece may change.
- When fixing the Angular Combination Block, use the lightening holes.

5. Precautions for Use

- ① Clean the Precision Surface and the measurement surface of the workpiece before use.
- 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 After use, always apply rust prevention treatment and store the instrument in its storage case.
- ⑥ 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.
- ⑦ Check the accuracy regularly before using the product.
- △ ⑧ If the product has sharp edges, handle it carefully to avoid injuring your fingers or other parts of your body.
- △ ⑨ For heavy products, handle placement and other operations with two or more people, and take care to avoid injury.
- ⑩ Wear protective gloves and safety glasses as necessary to prevent injury while working.
- △ ⑪ Do not use this product if it is damaged or deteriorated, as it may cause injury or accidents.
- △ ⑫ If an injury occurs, give first aid immediately and seek medical attention if necessary.

Contact Information



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Head Office and Factory

ISO9001
JQA-QMA11294

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).