

Square

Square with Base

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.

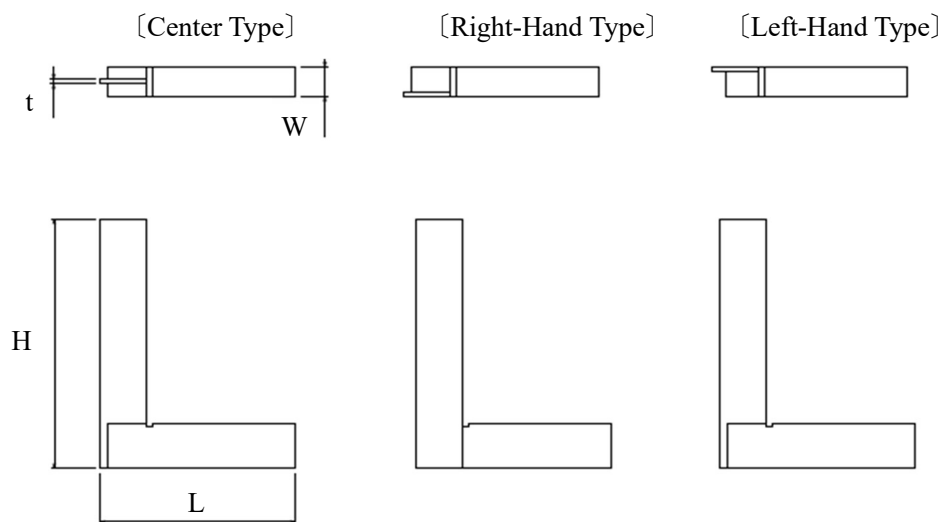
For Safe and Proper Use		
This instruction manual includes various symbols and pictograms throughout the text to ensure correct use of the product and to prevent harm or damage to the user. The symbols and their meanings are as follows. ● Please read the text after fully understanding the symbols and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

Square with Base Instruction Manual

1. Product Features

- This product is manufactured in accordance with JIS B7526.
- It is suitable for checking the squareness of jigs and fixtures, verifying squareness after mounting jigs and fixtures, and measuring the squareness of products.
- The short side has sufficient thickness to allow stable measurements.
- The long and short sides are securely joined by a special method for enhanced durability.

2. External View



3. Specifications

Grade 1 Hardened

Nominal	Size (H×L×W ×t mm)	Center Type	Right- Hand Type	Left-Hand Type	Squareness (μ m)	Mass (kg)
		Code No.	Code No.	Code No.		
75	75 × 50 × 12×2.0	FC101	FE101	FE201	±14	0.1
100	100 × 75 × 12×2.0	FC102	FE102	FE202	±15	0.15

150	150 × 100 × 18 × 2.9	FC104	FE104	FE204	±18	0.35
200	200 × 130 × 20 × 2.9	FC105	FE105	FE205	±20	0.7
300	300 × 200 × 27 × 3.6	FC107	FE107	FE207	±25	1.6
400	400 × 210 × 25 × 5.7	FC109	FE109	FE209	±30	2.3
500	500 × 300 × 30 × 5.7	FC111	FE111	FE211	±35	4.6
600	600 × 350 × 30 × 5.7	FC112	FE112	FE212	±40	5.5
750	750 × 400 × 50 × 7.0	FC113	FE113	FE213	±48	12.5
1000	1000 × 550 × 65 × 10	FC114	FE114	FE214	±60	27.0
1500	1500 × 620 × 65 × 10	FC115	FE115	FE215	±85	40.0
2000	2000 × 830 × 70 × 10	FC116	FE116	FE216	±110	70.0

Type A Square with Base

Grade 2 Non-hardened

Nominal	Size (H × L × W × t mm)	Center Type	Right- Hand Type	Left-Hand Type	Squareness (μ m)	Mass (kg)
		Code No.	Code No.	Code No.		
75	75 × 50 × 10 × 2.0	FD101	FF101	FF201	±27	0.1
100	100 × 70 × 12 × 2.0	FD102	FF102	FF202	±30	0.15
150	150 × 100 × 18 × 3.0	FD104	FF104	FF204	±35	0.35
200	200 × 130 × 22 × 3.0	FD105	FF105	FF205	±40	0.7

300	$300 \times 200 \times 27 \times 3.0$	FD107	FF107	FF207	± 50	1.6
400	$400 \times 200 \times 27 \times 5.7$	FD109	FF109	FF209	± 60	2.4
500	$500 \times 265 \times 30 \times 5.7$	FD111	FF111	FF211	± 70	4.1
600	$600 \times 335 \times 30 \times 5.7$	FD112	FF112	FF212	± 80	5.6
750	$750 \times 360 \times 40 \times 6.0$	FD113	FF113	FF213	± 95	9.0
1000	$1000 \times 430 \times 55 \times 7.0$	FD114	FF114	FF214	± 120	15.5
1500	$1500 \times 620 \times 60 \times 9.0$	FD115	FF115	FF215	± 170	40.0
2000	$2000 \times 830 \times 70 \times 10$	FD116	FF116	FF216	± 220	70.0

4. Instructions for Use

- 1) As shown in Figure 2.A, place the square upright on a Reference Surface Plate or similar, and press the Precision Surface against the workpiece to perform the measurement. At this time, check the gap between the square and the workpiece by the amount of light passing through or by using a thickness gauge.
- 2) As shown in Figure 2.B, measure the right angle by placing the side face of the square against the workpiece. It can also be used as a reference when setting up parts..

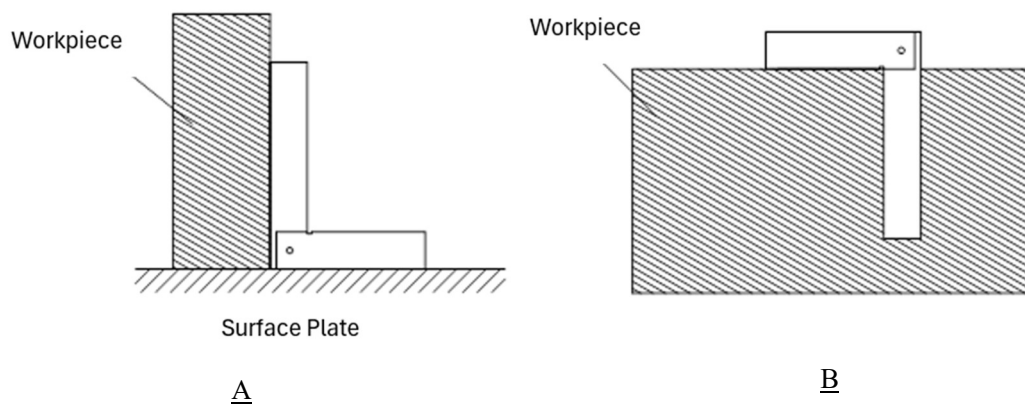


Figure 2 Instructions for Using the Engineer's Square

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 If there are scratches or damage, have the instrument repaired and inspected. Remove minor scratches on the Precision Surface locally with an Arkansas stone or similar before use.
- ⑧ Check the accuracy regularly before using the product.
- △ ⑨ If the product has sharp edges, handle it carefully to avoid injuring your fingers or other parts of your body.
- △ ⑩ When handling long and heavy products, perform the operation with multiple people and take sufficient care to prevent injury.
- ⑪ Wear protective gloves and safety glasses as necessary to prevent injury while working.
- △ ⑫ Do not use this product if it is damaged or deteriorated, as it may cause injury or accidents.
- △ ⑬ 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

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).