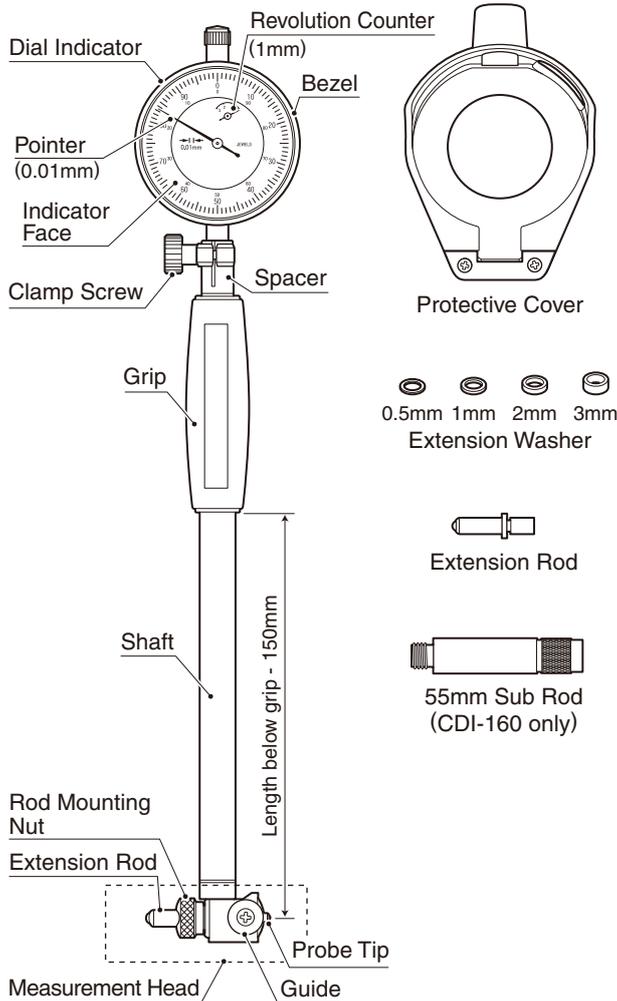


Thank you for purchasing the DIAL Bore Gauge.
Please read this manual thoroughly before use for proper operation.

■ PART IDENTIFICATION



■ SPECIFICATIONS

*: Including supplied Dial Indicator.

Model No.	CDI-50	CDI-100	CDI-160
Measuring Range (mm)	35~50	50~100	50~160
Graduation (mm)	0.01		
* Wide Range Accuracy (μm)	15	18	18
* Adjacent Error (μm)	5	6	6
* Repeat Accuracy (μm)	3		
Single Probe Measuring Range (mm)	1.2	1.6	1.6
Extension Washer	0.5, 1, 2, 3 mm (One each)		
Weight (kg)	1.05	1.1	1.15

Extension Rods:

CDI-50.....35, 40, 45, 50mm (4 pieces)

CDI-100...50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100mm (11 pieces)

CDI-160...50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105mm (12 pieces)
+ Sub Rod 55mm (1 piece)

■ NOTICE

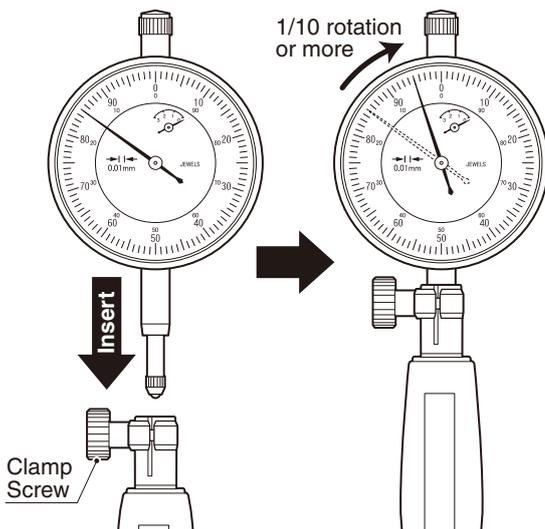
- This is a precision instrument, use care not to drop or mishandle.
- Please do not disassemble or modify.
- Keep instrument away from water and oil.
- Use only with provided Extension Rod, Washers, and Sub Rod.
- Keep instrument away from direct sunlight or high temperatures such as in a car, or near a stove or heat source.
- After use, remove dust and cutting chips, and apply rust preventative oil to Extension Rod and Washers. When not in use store in original storage case.
- This product is for measuring inside diameter. Use only as directed. Improper use may cause accident or injury.

■ ASSEMBLY

- Remove the protective cover by unscrewing the two screws that hold the cover in place.

※ To reattach the protective cover, please refer to the section: "Attaching the Protective Cover"

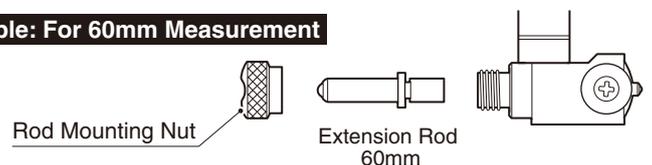
- Loosen the Clamp Screw and insert the Dial Indicator until the Pointer rotates 1/10 turn or more. Secure by tightening the Clamp Screw.



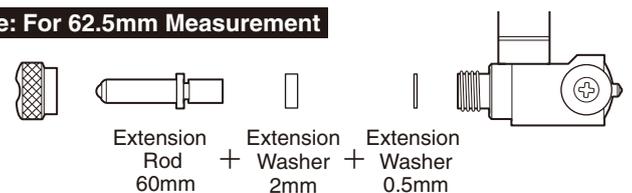
- Choose combination of Rod, Washer, and Sub Rod (CDI-160D only) applicable for desired measurement range. Remove the Rod Mounting Nut and install the selected Rod, Washers and Sub Rod, then replace Mounting Nut to secure to body.

※ When selecting washers, use combination with fewest washers.

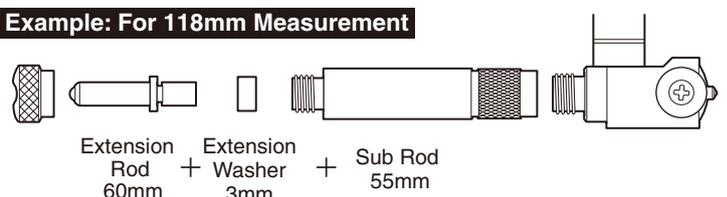
Example: For 60mm Measurement



Example: For 62.5mm Measurement



Example: For 118mm Measurement

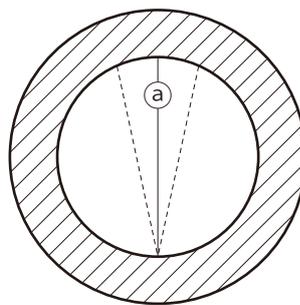


OPERATION

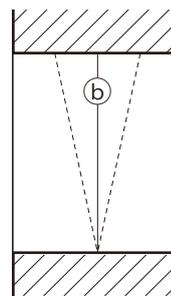
※Before use, please make sure the Measurement Head is secure. Tighten as necessary.

ZERO POINT ADJUSTMENT

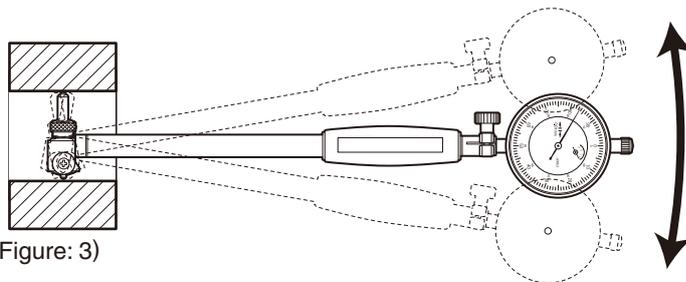
- ① Prepare a ring gauge to use as a reference standard for setting the zero-point. Insert the Measurement Head into the ring gauge.
- ② In cross section perpendicular to the axis of the ring gauge, position the gauge along diameter **a** (Figure: 1). This is the maximum distance, and at this point the Dial Indicator will read the minimum value. The Gauge Head will automatically sit in this position when inserted.
- ③ In cross section parallel to the axis of the ring gauge through diameter **a**, position the indicator to minimize the distance **b** (Figure: 2). In this position the Dial Indicator will read the maximum value. This position must be manually achieved by moving the indicator and noting the position where the Pointer shows the maximum value. (Figure: 3)
- ④ The reading obtained at step ③ is the zero-point. Rotate the bezel of the gauge until the Pointer is at the zero point of the Indicator Face. (Figure: 4)



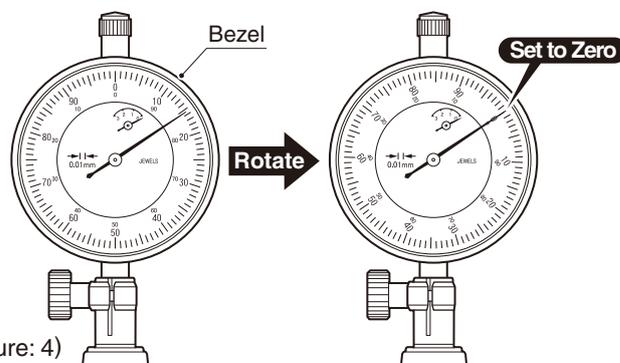
(Figure: 1)



(Figure: 2)



(Figure: 3)



(Figure: 4)

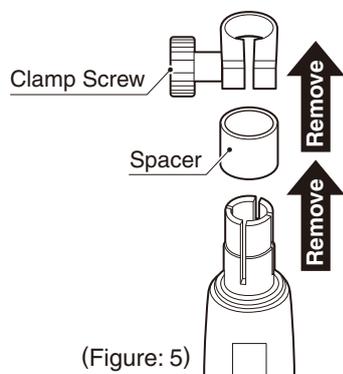
MEASUREMENT

Insert the Measurement Head of the Bore Gauge into the object to be measured. As in step ③ of "Zero-Point Adjustment" above, pivot the gauge while checking the pointer to determine the diameter **b** where the indicator will show the maximum value to determine the measurement reading.

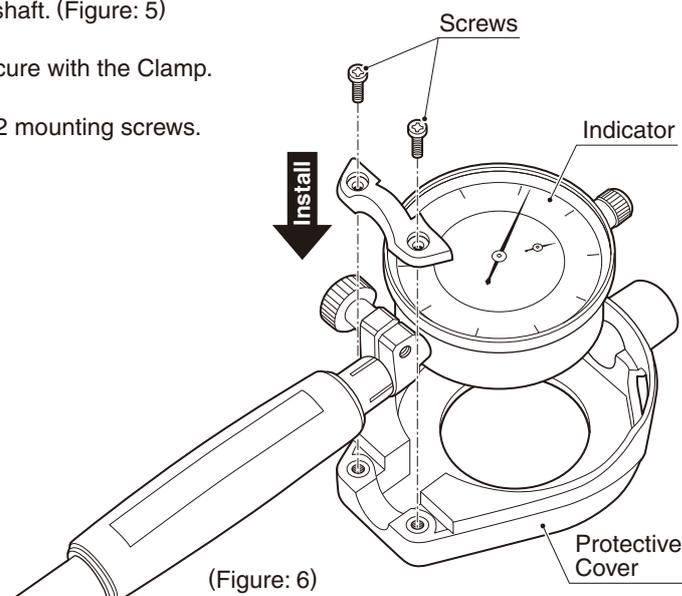
ATTACHING THE PROTECTIVE COVER

To use the Protective Cover, please attach using the following procedure.

- ① Loosen the Clamp Screw and remove Clamp and Spacer from shaft. (Figure: 5)
- ② Follow the "Assembly" procedure to mount the Indicator and secure with the Clamp.
- ③ Mount the Protective Cover to the Indicator and attach with the 2 mounting screws. (Figure: 6)



(Figure: 5)



(Figure: 6)

REPAIRS AND SERVICE

- If Gauge does not operate 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.

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