



- Micrometer is used to measure the diameter of cylinder and the width of slot.
- Install battery:
 - Remove the battery cover
 - Install the battery, the positive side should face out (fig.1)
 - Close the battery cover

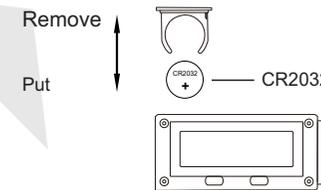


fig.1

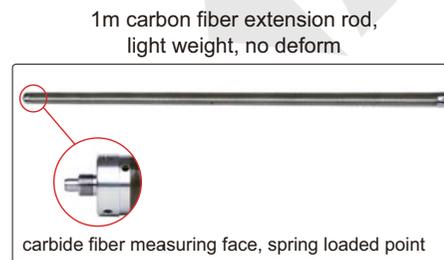
- Buttons:
 - Standby state: Press any button or turn the ratchet (half a circle above) power on.
 - Off state: Press any button to power on.
 - ∅ SET---Long press > 2s: Display initial value
Long press > 5s: Turn off the display
Long press > 10s: Power off
 - Short press: Data output / data hold (active state)
 - MODE---Short press, display appears "PrE", can set initial value: first digit flashes after short press "∅ SET", short press "MODE" to switch digit, short press "∅ SET" to modify the value, long press "MODE" save the value and exit.
 - Long press until the display appears "UNIT", short press can switch "RES", "DIR", "MODE", "HOLD", "MULT", "OFF" and "LOC"
 - "UNIT" state, short press "∅ SET", can switch inch and metric, short press "MODE" save the value and exit.
 - "RES" state, short press "∅ SET", can switch the resolution. In the metric: 0.01, 0.01E (E means the font of the last digit becomes smaller), 0.001, 0.001E, 0.0005, in the inch: 0.0005, 0.00005, 0.00002. Short press "MODE" save the value and exit.
 - "DIR" state, short press "∅ SET", can switch measurement direction. + means positive number, - means negative number. Short press "MODE" save the value and exit.
 - "MODE" state, short press "∅ SET", can switch "MIN", "MAX", "MIN MAX", "NOR". NOR means close the maximum and minimum functions. Short press "MODE" save the value and exit.

Micrometer head

Range	Resolution	Accuracy	Repeatability	Measuring force
150-180mm	0.01mm/0.0005" 0.001mm/0.00005" 0.0005mm/0.00002" (switchable)	±4μm	1μm	5-10N

Extension rods

Length(L)	Accuracy	Material
25mm	±1.25μm	Steel
50mm	±1.25μm	Steel
100mm	±2μm	Steel
200mm	±3.5μm	Steel
400mm	±4.5μm	Steel
1000mm	±7.5μm	Carbon fiber



"HOLD" state, short press "⊖ SET", can switch "ON", "OFF". ON means open data hold, short press "⊖ SET" can data hold in the measurement mode, OFF means close data hold. Short press "MODE" save the value and exit.

"MULT" state, can set coefficient. First digit flashes after short press "⊖ SET", short press "MODE" to switch digit, short press "⊖ SET" to modify the value, long press "MODE" save the value and exit.

"OFF" state, short press "⊖ SET", can switch auto power off and manual power off mode. MAN means manual power off, AUTO means automatically enter standby mode. MAN means manual power off, AUTO means automatically enter standby mode. Short press "MODE" save the value and exit.

"LOC" state, short press "⊖ SET", can switch "ON", "OFF". ON means open button lock, long press "⊖ SET", first digit flashes, short press "MODE" switch digit, short press "⊖ SET" to modify the value, set the value to 4747 to unlock the button, OFF means close button lock, short press "MODE" save the value and exit.

Attention: for range above 200mm, the resolution shall be set to 0.001E to ensure that preset value can be set to dimensions above 200mm.

4. Calibration:

- Set the initial value of the micrometer to be consistent with the setting ring value.
- Adjust the size of micrometer slightly less than the setting ring, then put micrometer into it.
- Put fixed tip to contact with the measured hole, rotate fine-adjustment nut to make movable tip contact with the measured hole. Continually rotate the fine-adjustment nut for two rounds, shake micrometer gently along hole's axial and radial to find the minimum value in axial direction (fig.2) and the maximum value in radial direction (fig.3).
- Short press "ON/OFF 0 HOLD" button to make the reading consistent with the value of setting ring.
- Use micrometer to measure setting ring again to confirm, finish calibration.

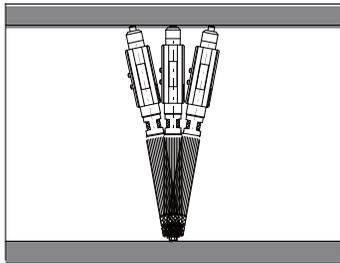


fig.2

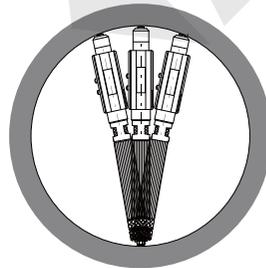


fig.3

5. Measurement

- Select extension rod according to the measured workpiece. The number of extension rod is as less as possible to reduce measurement error. Use the longest extension rod to connect the sleeve first, then connect according to the extension rod length, the shortest is the last one.
- How to install extension rod
Take down nut first, connect extension rods to sleeve, tighten threads of each extension rod, finally install the nut (fig.4).

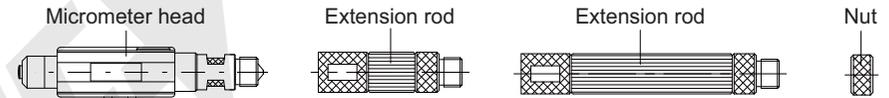


fig.4

- During measurement, make sure there are no cutting chips or other debris on the measuring faces and workpiece surface. Adjust the size of micrometer slightly less than the hole's diameter, and then put micrometer into the hole. Make fixed tip to contact with the measured hole, rotate fine-adjustment nut to make movable tip contact with the measured hole. Continually rotate the fine-adjustment nut for two rounds, shake micrometer gently along hole's axial and radial to find the minimum value in axial direction (fig.2) and the maximum value in radial direction (fig.3). Get the result and take out micrometer.

Note: If you measure the slot width, just find the minimum value.

6. Points of extension rods are spring loaded.

- 7. If the micrometer has been installed extension rods and is not in use, please place it on a flat plate or suspended vertically. It should not be allowed to tilt or place with other goods. The extension rod must be removed after use. Oil the threads to prevent rusting, and place it in a dry place.

8. Optional accessories: data output cable (code 7305-A03, 7305-SPC4, 7306-80).