



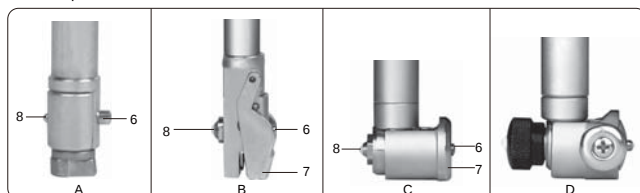
OPERATION INSTRUCTION

Bore Gauge

Caution: Prevent liquid from getting into digital indicator to damage electronics.

Code	Range	Indicator	Accuracy	Repeatability	Contact point type
2152-10	6-10mm	digital indicator, range 12.7mm/0.5", resolution 0.002mm/0.0001" (code 2108-10F)	±0.012mm	0.003mm	A
2152-18	10-18.5mm		±0.012mm	0.003mm	B
2122-35A	18-35mm		±0.015mm	0.003mm	C
2122-60A	35-60mm		±0.018mm	0.003mm	D
2122-100A	50-100mm		±0.018mm	0.003mm	D
2122-160A	50-160mm		±0.018mm	0.003mm	D
2122-161A	100-160mm		±0.018mm	0.003mm	D
2122-250A	160-250mm		±0.018mm	0.003mm	D
2122-450A	250-450mm		±0.018mm	0.003mm	D

Contact points



- 1-Battery cover
- 2-LCD display
- 3-Output
- 4-Buttons
- 5-Main pole
- 6-Contact point
- 7-Protect bridge
- 8-Anvil
- 9-Extension rod
- 10-Washer



1. Install and remove battery(CR2032), the negative side of battery should face out(fig.1).



2. Display can be rotated by 320°.

3. Buttons:

Long press: longer than 2 seconds; short press: less than 2 seconds.

START---Short press(after calibration) to enter into measuring mode.

---Long press for metric and inch conversion.

ABS---Short press for absolute("ABS" is on display) and relative measuring mode conversion.

---Long press to enter into initial reading set mode, "SET" blinks and the last digit blinks. Short press "ZERO" button to position the digit and the digit blinks when it is positioned. Short press "START" button to change the digit from 0 to 9(the rightmost digit according to the order 0, 2, 4, 6, 8 change in metric mode). After finishing setting, long press "ABS" button to exit set mode, long press "ZERO" button can exit set mode without saving the setting.

ZERO---When display is powered on: short press to get initial reading on absolute measuring mode("ABS" is on display); long press to turn off display.

---When display is powered off: short press to turn on display.

M---Short press to enter into minimum reading tracking mode, "MIN" blinks. Short press again to exit and "MIN" disappears.

---Long press to change the analog pointer resolution between 0.002mm, 0.004mm, 0.01mm in metric mode or 0.0001", 0.0002", 0.0005" in inch mode.

CAL---For calibration

4. Measuring(take 2122-60A, Ø35mm setting ring as example):

- (1) Relative measurement

---Short press "ZERO" button to turn on display

---Short press "M" button, "MIN" blinks and the bore gauge enter into minimum reading tracking mode.



---Insert the bore gauge into setting ring and sway the bore gauge wiggly, the bore gauge will find the minimum reading automatically, and "MIN" stop blinking.

---Take out the bore gauge and then long press "CAL" button, "CCC" appears then disappears, calibration is finished.

---Short press "START" button, "MIN" blinks and the bore gauge enter into measuring mode.

---Insert the bore gauge into workpiece and sway the bore gauge wiggly, the bore gauge will find the minimum reading automatically.

---The reading is the difference between the workpiece and setting ring. If there is "-" in front of the reading, the workpiece is smaller than the setting ring. Otherwise, the workpiece is larger than setting ring. The diameter of above figure should be 35.014mm.

---Take out bore gauge, then short press "START" button, "MIN" blinks and start the next time measurement.

---If need to exit measuring mode please short press "M" button. When measuring again, it is necessary to calibrate for the second time.

- (2) Absolute measurement

---Set the initial reading same as the setting ring(more than 100 do not show percentile), please refer to the instruction of "ABS" button.

---Short press "M" button, "MIN" blinks and the bore gauge enter into minimum reading tracking mode.

---Insert the bore gauge into setting ring and sway the bore gauge wiggly, the bore gauge will find the minimum reading automatically, and "MIN" stop blinking.

---Take out the bore gauge and then long press "CAL" button, "CCC" appears then disappears, calibration is finished.

---Short press "START" button, "MIN" blinks and the bore gauge enter into measuring mode.

---Insert the bore gauge into workpiece and sway the bore gauge wiggly, the bore gauge will find the minimum reading automatically.

---The reading is the diameter of the workpiece to be measured. The diameter of above figure should be 35.014mm.

---Take out bore gauge, then press "START" button, "MIN" blinks and start the next time measurement.

---If need to exit measuring mode please short press "M" button. When measuring again, it is necessary to calibrate for the second time.

Caution: The contact point should be protected from being pressed improperly, please follow figure 2 and 3 way to insert and take out bore gauge. Let the bore gauge tilt to insert into the workpiece or setting ring(fig.2), the protect bridge contact with the inwall first and then turn the bore gauge upright(let the anvil contact with the inwall firstly, then let the contact point contact with the inwall). Let the bore gauge tilt to take out of the workpiece or setting ring(fig.3, do not press the contact point).

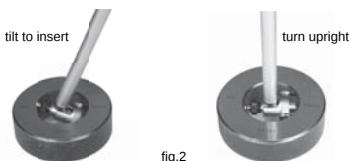


fig.2

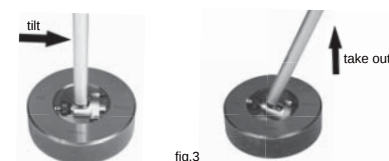


fig.3

5. Automatic power off in about 30 minutes, press "ZERO" button to turn on display, it is necessary to calibrate again before measurement.

6. Optional accessories: SPC cable(7302-SPC3 or series 7304), setting ring(series 6312), long main pole(series 7351).

7. One battery can last for one year use. If there is nothing on display or digits blurring, battery voltage is too low, please replace battery. If digits do not change when buttons are pressed or contact point is moved, please take out battery and put it back after 1 minute. If the bore gauge is not to be used for a long period of time, please remove the battery. Otherwise, liquid may leak from the battery and damage the digital indicator.

8. Working temperature is 0-40°C/32-104°F, relative humidity should not exceed 80%.

MN-2122-C/E