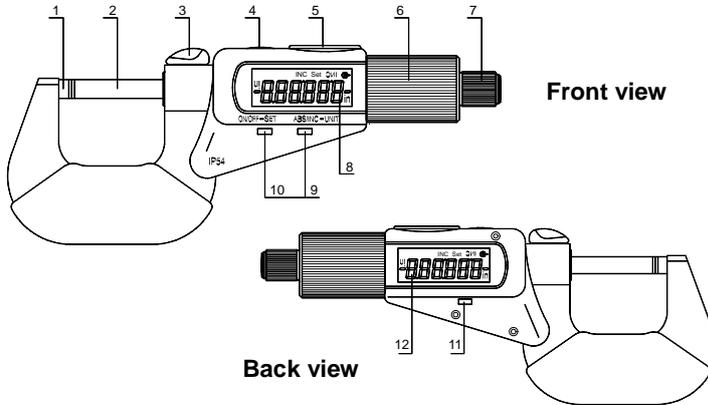


Double Display Digital Micrometer Operation Manual

1. Functional elements

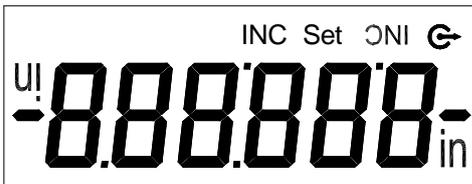


- 1、 Anvil
- 2、 Spindle
- 3、 Locking device
- 4、 SPC output
- 5、 Battery cap
- 6、 Friction drive
- 7、 Quick drive (or ratchet stop)
- 8、 Front LCD
- 9、 ABS/INC***UNIT key
- 10、 ON/OFF***SET key
- 11、 LCD direction key
- 12、 Back LCD

2. Keys

- ON/OFF***SET key: Power switch. Origin set.
- ABS/INC***UNIT key: Absolute & relative measuring conversion. Metric/Inch conversion.
- LCD direction key: Direction of display changing key.

3. LCD Display



- in , U! : Unit: inch, otherwise mm.
- INC , ONI : Relative measuring mode, otherwise absolute measuring mode.
- Set : Origin set.
- ↻ : Data output is going.

4. Operation

Two ways of pressing key are used in following illustration:
 (1) Press and release; (2) Press and hold (2 sec. or more).

4.1 ON/OFF***SET key:

- Press and release: Power on/off.
- Press and hold (2 sec. or more): Setting origin data for absolute measurement; "Set" sign displayed on LCD. Origin of metric is 0, 25, 50, 75 *** 275mm. Origin of inch is 0, 1" , 2" , 3" *** 11" . Default origin data of micrometer head is 0.
- Setting origin data automatically after reset battery.

4.2 ABS/INC***UNIT key:

- Press and release: Absolute and relative measuring mode conversion; "INC" sign displayed on LCD in relative measuring mode, otherwise absolute measuring mode.
- Press and hold (2 sec. or more): Metric/Inch conversion; "in" sign displayed on LCD for inch, otherwise mm.

4.3 LCD direction key:

- Direction of display changing key.
- Pressing this key will turn on back LCD → reverse display → normal display (turn off back LCD).

5. Power

- If not used in about five minutes, the power will auto-off. The micrometer will wake up when pressing "ON/OFF***SET" key or turning the spindle. Power off the micrometer by pressing "ON/OFF***SET" key to save battery if not use.
- Use a CR2032 battery. Replace the battery when display data is blurring.
- Remove the battery cap by turning it counterclockwise (arrow direction) with a coin.
- Put a new battery with the positive (+) side up. Secure the battery cap by turning it clockwise.

6. Data output

- Data output interface is RS232C.
- The micrometer can be connected to PC's serial port by SPC cable (Order No. P1101) or to PC's USB port by SPC cable and USB to serial port cable (Order No. P1201).
- One pressing of the button on the cable plug, the micrometer will output the displayed data and display “ ” or “ ”.
- Pressing and holding (2 sec. or more) the button, the micrometer will output the data and display “ ” continually until pressing the button again.

6.1 Serial port format

Baud rate	1200	Stop bit	2
Start bit	1	Parity	none
Data bit	7	Data logic	–

6.2 Data output format

Order	1	2	3	4	5	6	7	8	9	10
Metric	S	N1	N1	N	.	N	N	N	CR	LF
Inch	S	N	.	N	N	N	N	N	CR	LF

S: Minus or Space

N1: Minus or Space or digit 0-9

N: Digit 0-9

7. Specifications

Measuring force : 5~10N

Power consumption: <=40 μ A

Operating temperature: 0 ~ 40°C

Storage temperature: -20 ~ 60°C

8. Precautions

- Do not subject the instrument to blows or knocks. Do not drop it or apply excessive force to it.
- Do not disassemble the instrument.
- Do not press the key with a pointed object. Pressing the key along its moving direction, otherwise it will affects the key's sensitivity.
- Do not use or store the instrument under direct sunlight, or in an excessively hot or cold place.
- Do not let the instrument near strong magnetic field and high voltage.
- Use a soft or a cotton swab that is dry to wipe stains from the instrument. Do not use organic solvent such as acetone and benzene.
- Wipe measuring faces of the instrument before use it.
- Remove the battery if the instrument not used for a long of time.

9. Trouble shooting

Failure	Causes	Repairing
Display “E 1” on LCD.	Data overflow.	Move spindle reverse or press “ON/OFF••SET” key.
Display “E 3” on LCD.	1. Sensor overflow. 2. Something wrong with sensor.	1. Reset battery. 2. Return the micrometer for repair.
Measuring data is not correct.	1. Dirty measuring surfaces. 2. Preset data isn't correct.	1. Clean measuring surfaces. 2. Inspect preset data and reset it.
No display on LCD.	1. Battery voltage under 2.8v. 2. Battery is not properly set.	1. Replace battery. 2. Reset battery.
Display confusing or remains dead.		Reset battery.
1. Display blurring. 2. The output data is wrong.	Battery voltage under 2.8v.	Replace battery.