

DIGITAL SCALE UNIT (Horizontal)

OPERATION INSTRUCTIONS

● INSTALLATION:

1. The bar can be fixed on a machine with the left and right stands.
Adjust the two ends of the bar to make the bar parallel to the direction of movement.
2. The slider can be connected to the machine with a Z-shaped board (thickness 0.5-1mm, width 55-88mm). The board must have enough rigidity on the direction of width and enough flexibility on the direction of thickness.

Checking:

- A. Suck the magnetic stand on the part of the machine of which is connected with the slider. Touch the wide face and the narrow face of the bar with the anvil head of an indicator and check them. The reading value on both ends should be almost the same (the difference not bigger than 0.02mm), or it is necessary to adjust both ends by putting in or taking out spacers.
- B. Take off the anvil head, touch the side (near the slider) of the Z-shaped board with the flat face of the anvil and make the spindle parallel to the bar. Move the slider on both directions and check the reading value. If the reading value doesn't change or changes little (less than 0.01mm), it shows the the rigidity of the Z-shaped board along the length direction of the bar is enough.

● BATTERY REPLACEMENT:

When the display keeps flashing or even does not appear, take off the battery cover as the arrow shows and replace the battery with a new one (SR44, 1.55V). Please note that the positive pole of the battery must face out. If the battery bought from the market does not work satisfactorily (The power may wear down because of the long-term storage and the battery's automatic discharge etc.), please do not hesitate to contact the supplier.

● BRIEF ON MAINTENANCE:

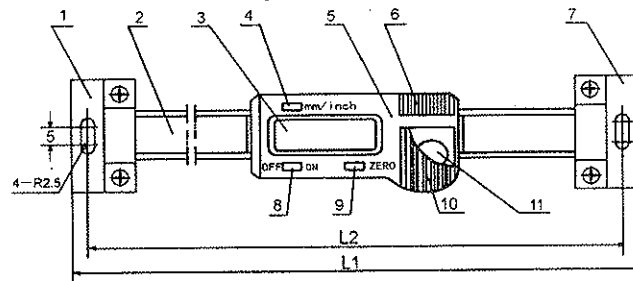
Troubles	Possible Causes	Solutions
Flashing digits	Low voltage	Replace the battery
No Display	1. Low voltage 2. Poor contact	1. Replace the battery 2. Adjust and clean the battery seat
Fixed digits	Accidental trouble in circuit	Take out the battery and put it back after one minute

● INSTRUCTIONS:

1. The bar must be kept dry and clean. Liquid must be prevented from entering the bar. Dry the bar under 60°C if there is liquid in the bar.
2. Before using the Digital Caliper, clean the surface of the protective sticker with dry and clean cloth (or soaked with cleaning oil)
3. Never apply voltage on any part of the Digital Caliper or engrave with an electric pen for fear of damaging the electronics.
4. Take out the battery if the Digital Caliper will stay idle for a long time.

● NOMENCLATURE:

1. Left stand
2. Bar
3. LCD display screen
4. mm/in interchange
5. Slider
6. Data output
7. Right stand
8. ON/OFF button
9. Zero setting button
10. Battery cover
11. Silver oxide button battery (SR44)



● TECHNICAL SPECIFICATIONS:

Resolution: 0.01mm

Power: One silver oxide button battery SR44, 1.55V

Measuring Speed: $\leq 1.5\text{m/s}$.

Working Conditions:

Temperature: 0--40°C

Relative Humidity: $\leq 80\%$

Storage Temperature: -10--60°C

● FUNCTIONS:

1. Zero setting at any location.
2. Inch/metric system interchange at any location.
3. Data can be input into a special microprinter with a special cable.

Working way of the interface: synchronous serial

Data: Binary code, 24 bits. Each datum will be sent twice.

The cycle is 300ms (or 20ms in fast reading state)

Transmitting time: 0.5ms.

The four wires (from left to right): Negative Power (-), Clock Pulse CP, Data D, Positive Power (+)

Pulse range of data: Datum level $\leq 0.2\text{V}$, Level "1" $\geq 1.3\text{V}$

Clock pulse CP: 90KHz, effective for high power level