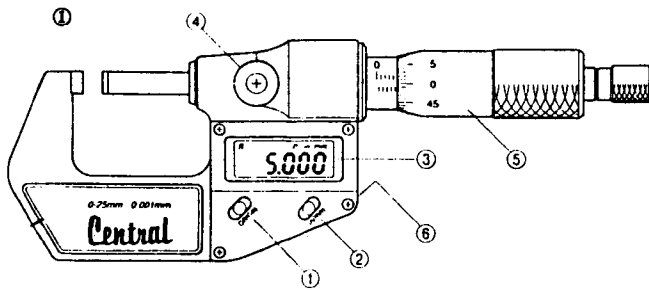


Digimatic Outside Micrometer 6144

Refer to the corresponding illustration while reading this manual.

1 NAME AND FUNCTION OF EACH PART



- ① ORIGIN button
- ② Inch/mm changeover button
- ③ LCD
- ④ Clamp screw
- ⑤ Thimble
- ⑥ Battery compartment cover (at back)

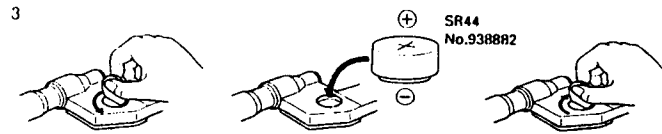
2 PRECAUTIONS

- *1: The spindle is designed so that it cannot be removed from the inner sleeve. Do not move it past the upper limit of the measuring range.
- *2: Do not use electric marker pens, etc. on micrometers.
- *3: Avoid using the micrometers where they may be subjected to coolant.

3 INSTALLING THE BATTERY

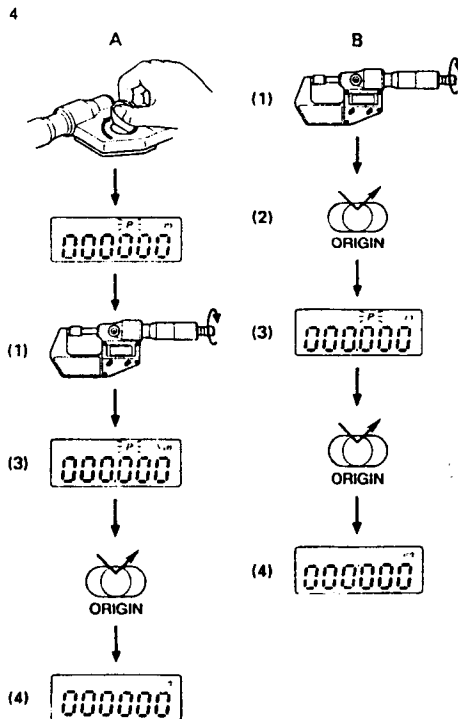
Install the supplied battery by referring to the illustrations on the left.

- Use an SR44 button-type silver oxide cell.
- Install the battery so that the positive side faces up.



4 SETTING THE ORIGIN

- Before measuring check the origin point and set the origin (datum-point) according to the steps below.
- Remove dust/oil from the measuring faces before origin setting.
- Use procedures "A" when the battery is replaced. The origin value 0.00000 is displayed and "P" flashes on the LCD when the battery is set.
- Use procedures "B" to reset the origin.



- (1) Insert the standard bar and apply the rated measuring force using the ratchet stop/friction thimble.
- (2) Press the ORIGIN button. (Unnecessary for procedures A)
- (3) If 0.00000 is displayed and "P" is flashing, press the ORIGIN button again. The displayed value will not change while "P" is flashing.
- (4) "P" disappears, indicating the origin has been set.

5 ERROR MESSAGES AND AUTO SLEEP

- (1) "E - - oS" message
An error due to electric interference or spindle overspeed has occurred. Reset the origin.
- (2) "B" indication
The battery voltage is low. Replace the battery as soon as possible.
- (3) **Auto-sleep function**
The LCD automatically goes off after approximately 20 minutes of idle time. Turn the thimble to activate the LCD.

6 SPECIFICATIONS

Instrumental error (20°C):	± (L/75)μm* (excluding quantizing error)
Resolution:	0.001 mm (.00005")
Quantizing error:	±1 count
Measuring force:	5 to 10N
Display:	LCD (6 digits and a minus sign)
Power supply:	SR44x1
Battery life:	1.2 years
Operation temperature:	5° C to 40° C
Storage temperature:	-10°C to 60°C
Standard accessory:	Wrench (No. 200877)

*: Fraction is rounded up, L = maximum measuring length

7 MECHANICAL CALIBRATION

Clean the measuring faces with a chamois, soft cloth, or paper. Run the spindle up to the proper length standard, using the ratchet stop. The thimble zero graduation should lie within one line width of the barrel major line. If it does, the mechanical calibration is good. If it does not, the thimble position must be adjusted.

To adjust the thimble, first use the spanner wrench to loosen the ratchet stop assembly, then unscrew it by hand 1 to 1 1/2 turns. The thimble is taper-fitted to the spindle. Unseat the taper by pulling and gently rocking the thimble by hand. The thimble will now rotate freely on the spindle. Run the spindle up to the length standard without fully engaging the taper. Be sure the ratchet stop assembly has not tightened itself against the thimble. Then turn the thimble, with the lightest possible friction on the internal taper, lining up the zero graduation. Push on the thimble to seat the taper, back it off, remove the standard, and tighten the ratchet stop assembly with the spanner. Check the adjustment with the length standard.