

Code	Range	Accuracy
2944-1	0.2-5mm/0.008-0.197"	±0.02mm

- 1-Dial indicator
- 2-Locking knob
- 3-Probe
- 4-Setting gage (include)



1. The product is used to measure outside or inside chamfer height .

2. Buttons:

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

TOL---Short press to enter into tolerance measuring mode. Under this mode, "▶" at the upper right corner blinks if the reading is larger than the upper limit; "◀" at the top left corner blinks if the reading is less than the lower limit.

---Long press to enter into tolerance set mode. "▼" appears and the last digit blinks. Short press "ZERO" button to position the digit, the digit blinks when it is positioned. Short press "in/mm" button to change the digit from 0 to 9. After setting the lower limit, short press "TOL" button, "▲" appears and the last digit blinks. Set the upper limit as setting the lower limit way. Short press "TOL" button to finish set and enter into tolerance measuring mode.

If the lower limit is larger than the upper limit, "EEE" will appear and the digital indicator enter into tolerance set mode again automatically.

M---Short press, "MAX" appears and enter into maximum reading tracking mode. Short press again, "MIN" appears and enter into minimum reading tracking mode. Short press for the third time, "TIR" appears and to get the difference between the maximum and minimum reading of one measurement.

in/mm---Short press for inch and metric reading conversion

---Long press to change measuring direction. "▲" appears, the value increases if the spindle moves up. "▼" appears, the value decreases if the spindle moves up.

ABS---Short press for absolute and relative measuring mode conversion. The normal mode is absolute measuring mode("ABS" is on display). Short press the button to enter relative measuring mode at any point(this point is called "relative zero point"), "ABS" disappears and the reading is zero. In this mode, the reading is the distance to the "relative zero point". Press the button again to return back to absolute measuring mode.

---Long press to enter into initial reading set mode. "SET" appears and the last digit blinks. Short press "ZERO" button to position the digit, the digit blinks when it is positioned. Short press "in/mm" button to change the digit from 0 to 9. Long press "ABS" button to exit set mode.

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.

Shutdown time setting:

After shutting down, press and hold the ABS button, short press the ZERO button to turn on, after displaying "----", release the ABS button to enter the shutdown time mode setting, the default display is "6.0", which means it will automatically shut down after 6 hours of standing, short press ABS The key can switch the value, and it can switch between 0 and 6 hours every 0.5 hour. When the switch display is "0.0", it means that the gauge will not automatically shut down.

3. The chamfer height gage should be calibrated before measuring:

- Set initial value to 0 or b
 - Put the chamfer height gage obliquely into the setting gage so that the groove of the probe touches the inner edge of the setting gage
 - Slowly align the chamfer height gage to fit the probe and the inner wall of the setting gage
 - Short press zero to set zero,complete calibrate
- The common chamfer angle corresponding the calculated value of b is shown in the following table:

Chamfer angle	b (mm)
10°	0.85
11°	0.77
15°	0.56
17°	0.49
18°	0.46
20°	0.41
21°	0.39
25°	0.32
27°	0.29

Chamfer angle	b (mm)
30°	0.26
35°	0.21
37°	0.20
40°	0.18
45°	0.15
50°	0.13
55°	0.11
60°	0.09
75°	0.04

4. Measurement:

- Make sure the chamfer height gage and the workpiece are clean.
- Put the chamfer height gage obliquely into the workpiece (fig.1) so that the groove of the probe touches the lower edge of the chamfer, slowly straighten chamfer height gage, so that the probe and the inner wall of the workpiece completely fit.
- Get the reading of R.
- For the calibration that the reading is adjusted to zero,the chamfer height $L = R + b$ (fig.2).
- For the calibration that the reading is added to the value of b in advance, the reading is the height of the chamfer.

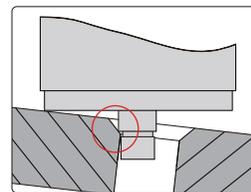


fig.1

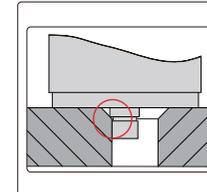


fig.2

L=R+b
L: chamfer height
α: chamfer angle
R: reading of digital indicator

$$b = \frac{0.15}{\tan \alpha}$$

5. Optional accessory: data output cable

MN-2944-C/E