DONG-DO

High Precision Wireless Bore Gauge

B-100

User's Guide

The contents of this manual could be different according to the software version and it can be changed without notice.
Please use this good after reading the manual thoroughly.

Table of Contents

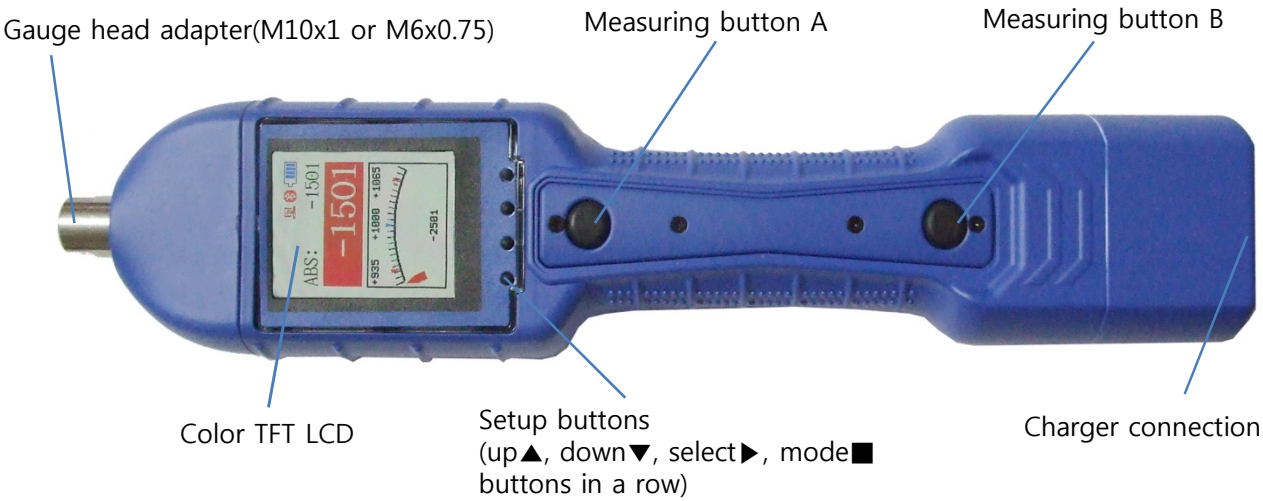
Introduction

Thanks for buying our product.
B-100 is a high precision wireless bore gauge with Bluetooth communication and a color TFT LCD. So, it is possible to send the measured data without any wire connection to the PC and also possible to check the data immediately by its own color TFT LCD.

Specialty of B-100
1. Wireless(Bluetooth) portable bore gauge.
2. Real time value checking by 2" color TFT LCD.
3. Up to 0.1μm resolution(option).
4. Built-in Li-polymer rechargeable battery.
5. Robustness.
6. IP65 sealing.

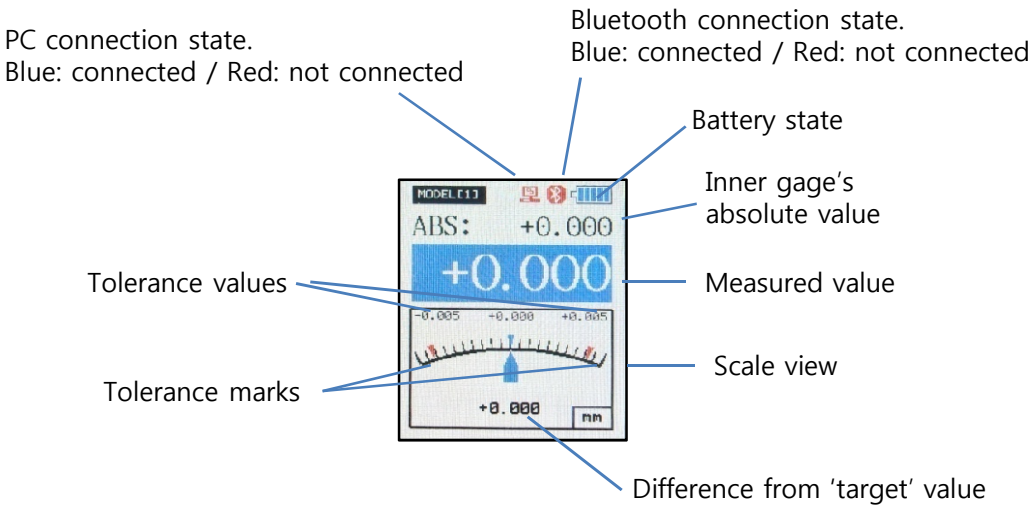
Product features & composition

1. B-100



2. Stand for recharging battery

3. Measuring screen



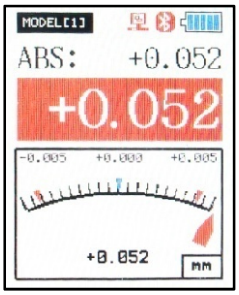
Functions

1. Power on / off

- If the measuring button B is pushed for over 3 sec, the power is on or off.
- The power is off automatically after 'time off' time. The 'time off' is set at the 'Setup' menu.

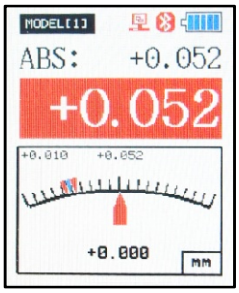
2. View point change

- If the measuring button A is hit twice, the middle displayed value is set to the current value.
- If the measuring button B is hit twice, the middle displayed value is set to the target value.
  The target value is set at the 'Tolerance' menu.



The target value is in the middle. And tolerances are shown at the each sides.

<Target value centered view>



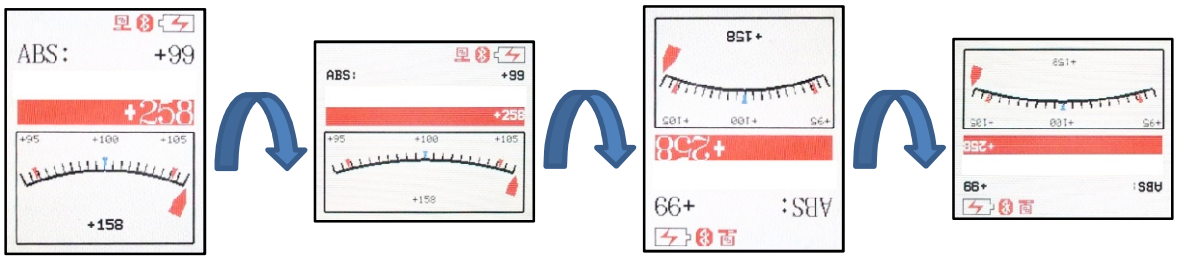
The current value is in the middle. And scale unit is shown at the left side.
*the scale unit is set at the 'Setup' menu.

<Current value centered view>

3. Rotating display

- B-100 has the function that rotating display on the measuring screen.

It is helpful to set a comfort user's view depended on the measuring direction.

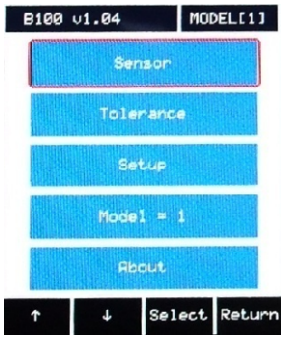


Whenever the ▲ or ▼ buttons are hit on the measuring screen, the display is rotated by 90˚.

- ▲ for counterclockwise / ▼ for clockwise.

4. Main menu

- Main menu is entered by hitting ■ button(4th button from left) on the measuring screen.



-The main menu is composed as like the picture at the left.
-Each functions can be chosen by ▶ button after cursor is moved by ▲▼buttons.

1. Sensor : To input master ring size or calibrate the sensors for measuring.
2. Tolerance : To input the tolerance of the measuring part.
3. Setup : To setup the brightness or power off time, etc.
4. Model : 16 memory spaces are given to save the users' specification setting. And user could recall them later.
5. About : To see the information of the manufacturer and Bluetooth information.

5. Sensor

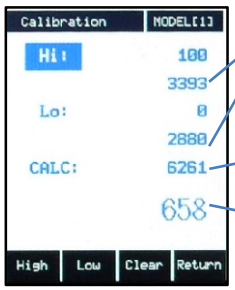
-The 'Sensor' menu is composed as like below. And the setting orders are,
a. Hi/Lo Master Size input → b. Hi/Lo Master Calibration →
c. Zero Master Calibration(Optional) → d. Zero Master offset(Optional)

5-1. Hi/Lo Master Size

-The Hi/Low master's ring sizes are input in this menu.
ex) Low master ring: 5.000mm / Hi master ring: 5.100mm
→ Setting values Lo : 0μm / Hi : 100μm

5-2. Hi/Lo Master Calib.

-The sensor is calibrated by the Hi/Low master rings along the steps below.
a. High button(▲) is hit after B-100 is set at the Hi master ring.
b. Low button(▼) is hit after B-100 is set at the Low master ring.
→ Sensor calibration is done.
c. Clear button(▶) is used to clear the current setting.
d. Return to save the calibration.



Saved absolute sensor value for Hi/Low master.

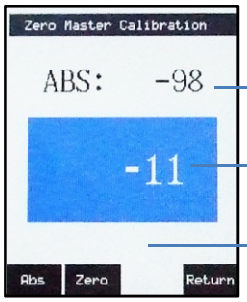
Absolute sensor value
without Hi/Lo calibration.

Absolute sensor value
after Hi/Lo calibration.

5-3. Zero Master Calib.

-The zero master is set in this menu. It is useful if user need to change the zero point.

a. Abs(▲) is hit.
b. Zero(▼) is hit after B-100 is set at the Zero master ring or master piece.
→ Zero Master Calibration is done.
c. Return to save the calibration.

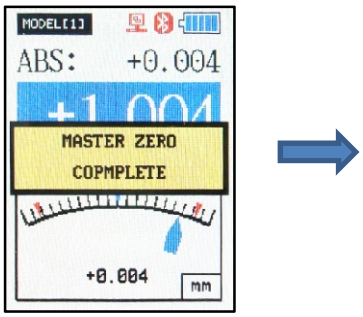


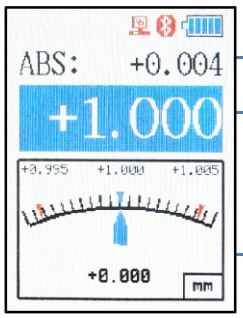
Absolute sensor value after Hi/Lo calibration.

Value after zero master setting.

If zero master offset is not 0, the offset value is shown at the bottom.

d. The 'Zero Master Calib.' can be done at the measuring screen. So, user can set the master zero very conveniently.
- Push the measuring button A for over 2 sec. after B-100 is set at the zero master, then the master zero is set and saved at the position.





Absolute sensor value after Hi/Lo calibration.

(Target value is set 1000 at the tolerance menu.)

Difference from master zero.

5-4. Zero Master offset.

-If the zero master is not right size, the master value can be fixed by zero master offset.
And the measuring value is added with this master offset.

5-5. Average

- To change the number of input row data to average them. B-100 always gives the averaged data.

6. Tolerance

-Target, +/- tolerances values are set in this menu.
** Target value only affects to the display on the measuring screen, not affects to the OK/NG result.
ex) 5.000(+0.02/-0.01)
Target : 5000 / Tol.▲: +20 / Tol.▼:-10

7. Setup

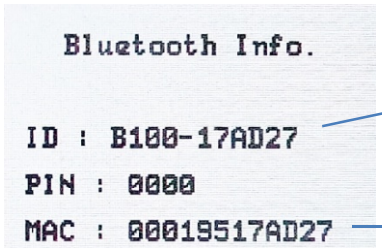
-The Setup menu is composed as like below.
-Each functions can be chosen by ▶ button after cursor is moved by ▲▼buttons.
1. Bright Sleep : The brightness that the LCD is become dark
when B-100 is not used during 'Time sleep' time.
2. Bright Max. : The maximum brightness of the LCD during B-100 is working.
3. Time Sleep : The time that the LCD's brightness is become dark
when B-100 is not used during this time.
4. Time Off : The time that the power is off when B-100 is not used over this time.
5. Scale Unit: The scale size at the measuring screen at the 'current value centered view'.
The scale size for the 'target value centered view is decided automatically.

8. Model

-Model : 16 memory spaces are given to save the users' specification setting.
And user could recall them later.

9. About

-To see the information of the manufacturer and Bluetooth information.
At first, the manufacturer information is shown and then if user hit any keys on B-100,
the Bluetooth information is shown.



B-100's Bluetooth ID

The serial number of Bluetooth chip

Specifications

System

Bore measuring range	Variable diameter heads can be used that has M10x1mm or M6x0.75mm thread
Internal gauge measuring range	±1.5mm (±2.0mm stroke)
Internal gauge resolution	0.1μm (1μm for display)
Internal gauge repeatability	±0.3μm
Internal gauge non-linearity	0.1% at ±1.0mm
Bluetooth range	10m
Display	2" color TFT LCD
Operating temperature	0 ~ 40˚C
Sealing	IP65

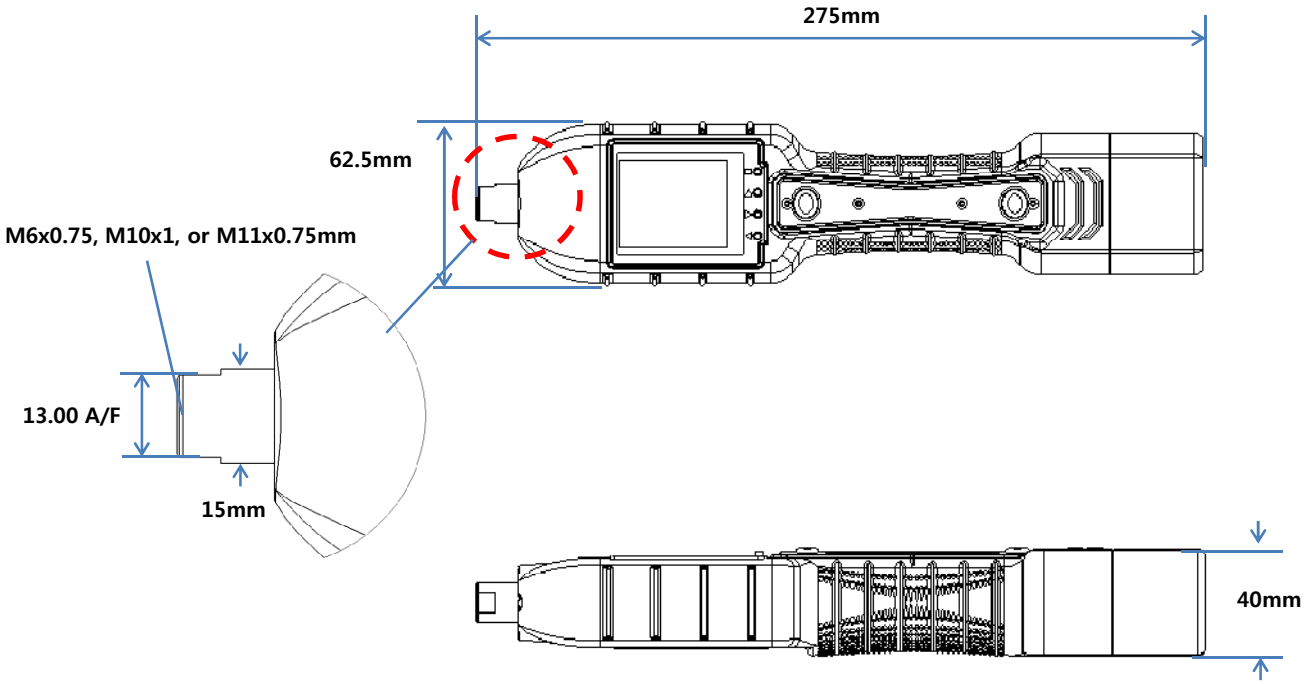
Power & Other features

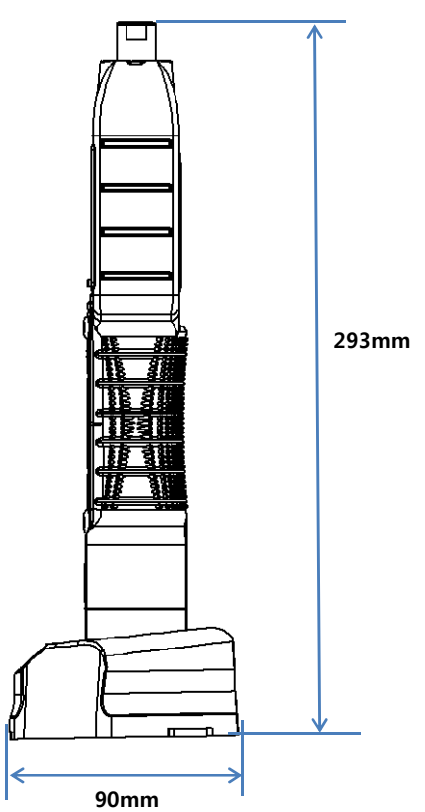
Power	Li-polymer Battery 14.8V (Rechargeable)
Operation time	Around 7.5 hours with fully charged battery. *
Charging	DC 24V, 350mA(max.)
LCD	176 x 220 pixel, Color TFT LCD
Size(W/L./H)	275 x 62.5 x 40mm
Weight	365g(without the stand for charging.)
Operation environment	Temp. : 0˚C ~ +45˚C / Humidity : below 80%

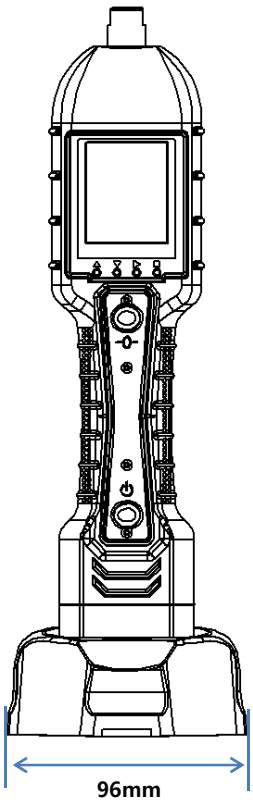
* Tip to save the battery power:
1. Reduce the brightness of the LCD.
2. Reduce the display on time.
3. Reduce the power on time.

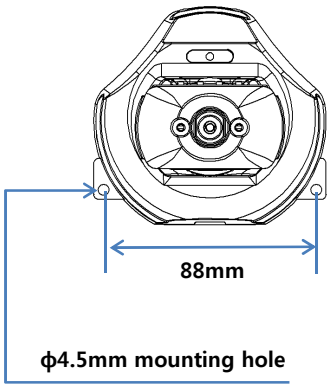
Specifications

Dimensions









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