



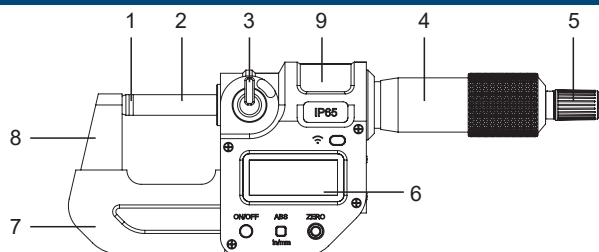
**PRODUCTS ENGINEERING
CORPORATION**

IP65 WATERPROOF DIGITAL OUTSIDE MICROMETER

INSTRUCTION MANUAL

For your safety, please read this manual book before using. Thanks for choosing PEC TOOLS !

STRUCTURE



1. Anvil
2. Spindle
3. Locking screw
4. Thimble
5. Ratchet barrel
6. LCD screen
7. Frame shield
8. Frame
9. Bluetooth

SYMBOL



in: INCH measurement
mm: Metric measurement

INC: Increasing measurement

FUNCTION

- Buttons are pressed two ways to execute functions :
 - 1 . Press and immediately release
 - 2 . Press and hold for at least two seconds
- 1 .ON / OFF Button
 - Press and release : Power on / off
- 2 .Zero Button
 - Press and release : Zero set for absolute measuring
- 3 .ABS / - Unit Button
 - Press and release : Absolute and INC measuring mode conversion
 - Press and hold : Inch / Metric conversion (" in " will appear for inch readings , " mm " will appear for metric readings
- 4 . Bluetooth
 - Enable device Bluetooth, Press & hold DATA button 3+ sec until LED blinks fast (1/sec).
 - On device, select "Bluetooth Keyboard" and tap "Pair".
 - When connected, LED blinks slowly.

GENERAL SPECIFICATIONS

Measuring force : 5-10N
Operating temperature : 0-40°C
Storage temperature : -20-60°C

⚠ WARNING

- INGESTION HAZARD:** This product contains a button cell or coin battery.
- DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause **Internal Chemical Burns** in as little as **2 hours**.
- KEEP** new and used batteries **OUT OF REACH OF CHILDREN**
- Seek immediate medical attention** if a battery is suspected to be swallowed or inserted inside any part of the body.



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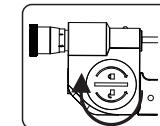
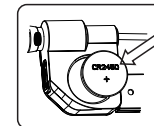
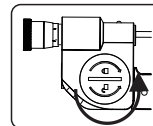


PRODUCT USAGE

- 1 . Press the ON / OFF (On/Off) key to illuminate the display. If the display shows "SET", use the appropriate calibration post or block. Make a tight fit between the measuring surface and the surface to be measured, then twist the ratchet barrel so that it clicks three times. Finally press and hold ON / OFF and it will be set to the corresponding preset 0 position.
- 2 . According to the measurement requirement, long press ABS / mm / in button to select the measurement unit.
- 3 . When the measuring range is 0-25 mm and below, turn the ratchet barrel to close the two measuring surfaces of the micrometer, observe the displayed value and check whether the 0 position is correct. If the product exceeds the range of 25 mm, select the measuring calibration bar or block corresponding to the corresponding range, make the measuring surface and the measured surface fit closely, and select the measuring unit. If the product exceeds 2.5 mm range, select the measuring calibration bar or block corresponding to the corresponding range, make the measuring surface and the measured surface close together, observe the displayed value and check whether the 0 position is correct. When the 0 position of the product is not correct, press the ZERO key to reset the 0 position of the micrometer.
- 4 . Rotate the ratchet barrel or micrometer barrel so that the measuring surface and the surface being measured fit closely together, then twist the ratchet barrel so that the ratchet barrel rattles three times. Then observe the display and read the value.

BATTERY USAGE AND INSTALLATION

- 1 . Without any operation for more than 25 minutes, the screen is automatically off, rotating the sleeve can be turned on; without any operation for more than 72 H, then the system Power off, you need to press ON / OFF power on, the screen appears "SET" characters, at this time, long press "ON / OFF" to reset the 0 position. 2 . The product uses CR2450 batteries. 3 . Using the supplied 'S' wrench, rotate the battery cover in a counterclockwise direction and remove. Then install the battery with the positive terminal facing up.



TROUBLE SHOOTING

Problem (s)	Cause (s)	Solution (s)
Measuring data incorrect	1 . Dirty measuring faces 2 . Zero is incorrect	1 . Clean measuring faces 2 . Inspect and reset zero
No display on LCD	1 . Battery position is incorrect 2 . Battery is dead	1 . Reset battery 2 . Replace with new battery
1 . Flickering display 2 . Display is sporadic 3 . Display remains dead	1 . Weak battery 2 . Weak battery 3 . Battery position is incorrect	1 . Replace battery 2 . Replace battery 3 . Reset battery
1 . Display is blurry 2 . Output data is incorrect	Weak battery	Replace with new battery

Precautions

- Do not subject the instrument to blows or shock .
- Do not drop it or apply excessive force
- Do not disassemble the instrument
- Do not use or store the instrument under direct sunlight
- Avoid exposing the instrument away from strong magnetic fields and high voltage .
- Use a soft cloth to clean the instrument . Never use organic solvents such as acetone or benzene to clean
- If the instrument is to be stored or left unused for extended periods , remove the battery

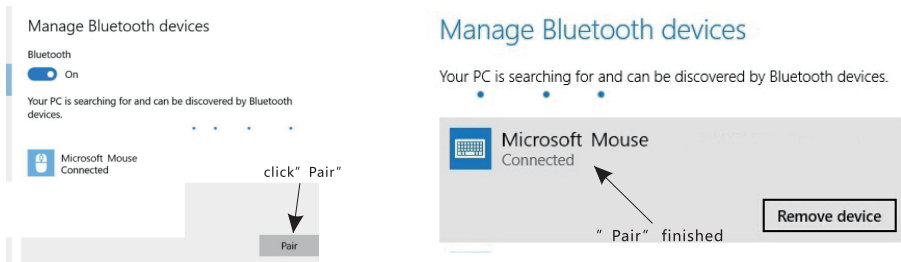
Bluetooth 4.1 module INSTRUCTIONS



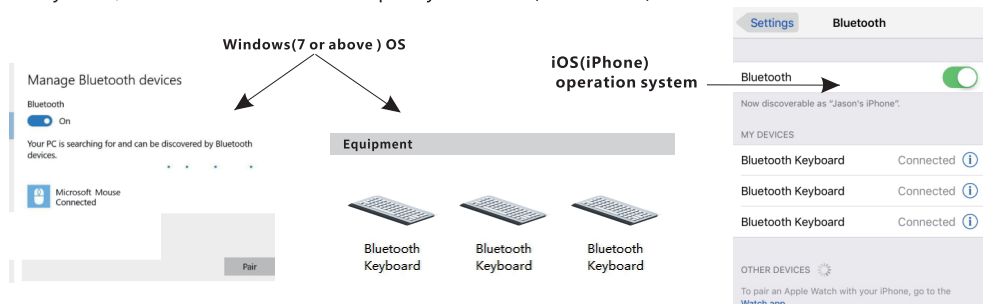
Please indicate the position according to the actual product.

Pair and send data

As the measuring tool and Bluetooth device (PC, mobile etc.) used for the first time, it needs to pair each other, the operation method as following: Open the Bluetooth seeking function of the device (PC, mobile etc.), then press the DATA button of measuring tool and keep over 3 seconds, until the blue LED blinks quickly (approx 1 second per time), that meaning is the measuring tool can be found by the receiving device, then relax the DATA button, waiting for "Bluetooth Keyboard" symbol shows on the receiving device, and then click "Pair", the receiving device and the measuring tool will be connected. After the connecting successful, blue LED will blink slowly (1 second on and then 5 seconds off, once by once...). If the pairing is unable to connect successful in 5 minutes, the measuring tool will quit pairing mode automatic. Still needs to continue to pair, please repeat the previous operation.



for the difference OS, it may support multiple Bluetooth keyboard at the same time, such as windows (7 or above) 、IOS, after connecting successful, system will appear multiple Bluetooth keyboard icon or symbol, shows as below :for example by Windows(7 or above) OS



After the connecting successful, short press the DATA button and relax, the measuring tool will send data to receiving device (PC, mobile etc.), and the blue LED will blink twice quickly to alert user that data has been sent out. For example by Windows OS:
Activate the interface of office program

	A	B	C	D	E	F
1						
2						

To be explained is, using multiple Bluetooth Keyboard collect data in IOS at the same time, it will happen to switch slowly between each Bluetooth keyboard automatically than Windows OS, (caused to press the data button, the data send failure, and need to try to press the data button again to send data), it may be difference between Windows OS and IOS.

- Notice:**
- During pairing between the receiving device and the measuring tool, be careful to keep them closely.
 - For windows 7 and previous versions of the operating system, before pairing, please confirm that if installed the operating system for the Bluetooth adapter, if not installed, may not be paired. It can be matched directly for windows version 8 and above without installing Driver.
 - When the time is less than 2 seconds between twice sending, it will happen to lose the data.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Micrometer Caliper



Resolution 0-25mm/0-1" * 0.001mm/0.00005"
Accuracy ±0.02mm/0.001"
Battery: 3V CR2450 2PC
FCC ID: 2BT4E-4410-1105