

Thank you for purchasing BluetoothBOX, DTW-DG01.

Please read this document thoroughly for proper operation and in order to get the greatest benefit from the product.

■OVERVIEW

Wireless adapter for GD series Calipers.

Bluetooth communication using an external USB Bluetooth adapter (Bluetooth 4.0 or higher) with support for USBHID class.

※ This adapter requires a standard USB Bluetooth Adapter (Bluetooth 4.0 or higher,) purchased separately.

※ The Bluetooth adapter must support Peripheral Role. TP-Link does not support Peripheral Role.

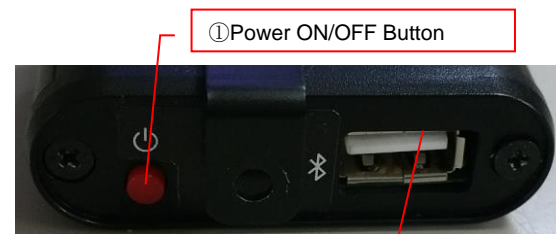
■FEATURES

- Can communicate with wide range of Bluetooth capable devices.
- Accepts a standard USB Bluetooth adapter, available worldwide.
- Measurement data can be transferred to software such as Excel, etc.

■PART IDENTIFICATION

① Power ON/OFF Button

- Short press of button will turn device ON (Status LED = Red).
- When ON, a short press will turn the device OFF (Status LED = off).
- Hold down the Send Button and press the Power Button at same time to enter pairing (discovery) mode (Status LED = Blinking Green).

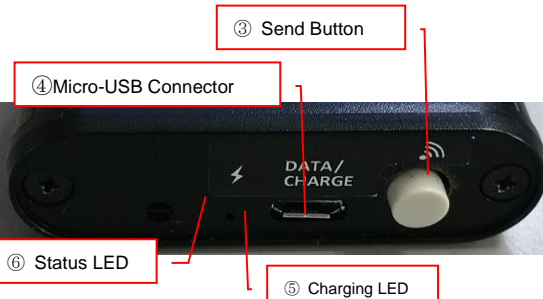


② USB-A Connector

- Customer supplied USB Bluetooth adapter plugs in here.
- Do not use to connect other USB devices.

③ Send Button

- When device is communicating (Status LED = Blue), pressing this button will transmit the measurement to the PC.
- Hold down the Send Button and press the Power Button at same time to enter pairing (discovery) mode (Status LED = Blinking Green).



④ Micro-USB Connector

- Connects to the Caliper using the included Communication Cable (Micro-USB to Mini-USB) to send the measurement data to the wireless adapter.
- Connect to the included AC-USB charger and Charging Cable, or connect to PC to charge the device.

※ Do not use to connect other USB devices.

⑤ Charging LED

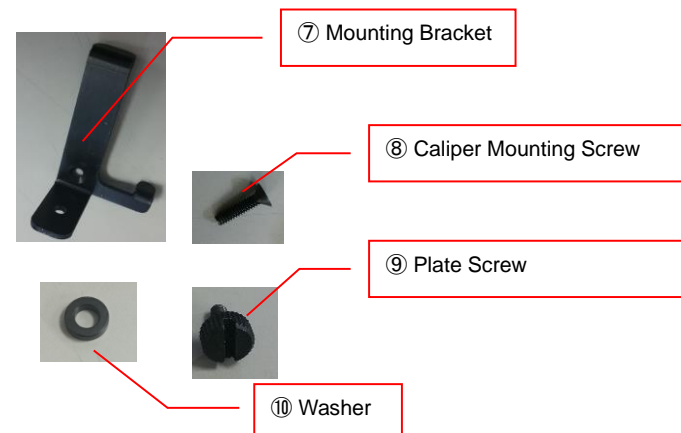
- LED on when charging; goes off when complete.

⑥ Status LED

- Power ON :LED=Red
- Communicating :LED=Blue
- Pairing :LED=Green
- Transmitting data :LED=Blinking Green
- SLEEP :LED=Purple
- Voltage low :LED=Blinking Red

⑦-⑩

Metal clamp for mounting adapter on to Calipers.



Communication Cable



Charging Cable



SK-LOG software CD

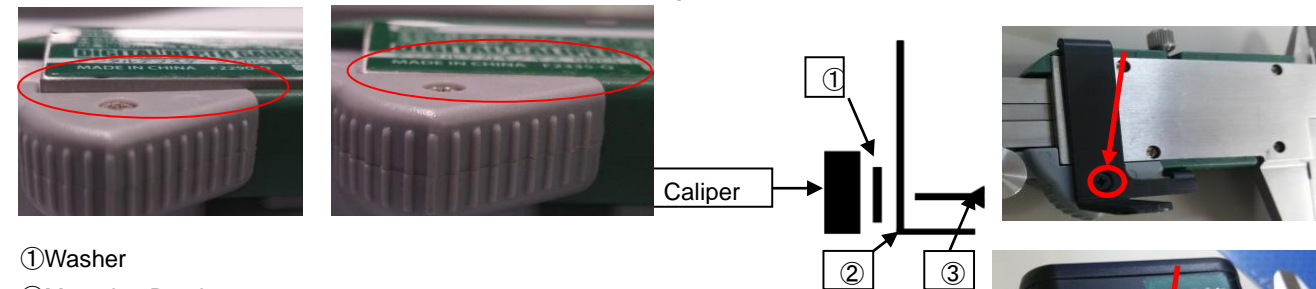
■MOUNTING

1. Install a standard USB Bluetooth adapter by plugging it into the USB-A connector of the adapter.



2. Remove the Caliper screw shown in the photo. Keep screw from being lost for future use.

3. Prepare a vernier caliper mounting plate and mounting screws. If the vernier caliper is thick (see left image), prepare a washer. If the thickness of the vernier caliper is thin (see image), no washer is required.



① Washer

② Mounting Bracket

③ Caliper Mounting Screw

Attach to the Caliper as shown and secure using a Phillips screwdriver.

4. Mount the Adapter to the Bracket and secure with the Plate Screw.

※ A standard screwdriver can be used to tighten the Plate Screw.

5. Connect the Adapter to the Calipers using the Mini-USB to Mico-USB connection cable.

※ When connecting with a caliper with a USB cable, the caliper setting value is initialized.

After connecting the cable, please set the calipers.



■PAIRING

• Turn on the PC you want to communicate with and enable the Bluetooth interface.

※ For Windows 7 computers without Bluetooth already installed, please install the drivers supplied with the USB Bluetooth adapter.

For computers with Windows 8 or higher, device will work with standard Windows drivers. If other drivers are installed, there is a possibility of a conflict so change setting to work with standard Windows drivers.

• Hold down the Send Button and press the Power Button at same time to enter pairing mode (Status LED = Blinking Green).

• Have the communicating PC or Tablet search for available Bluetooth devices. (This procedure varies depending on the computer. Please refer to the instruction manual for the PC.)

• Select "BLEBOX" from the detected devices and begin pairing.

• When pairing is complete, the Status LED will be blue.

■TRANSMITTING DATA

• Turn on the Computer and enable the Bluetooth interface.

• Confirm that the device is connected. The Status LED will be blue, and the PC will list the "BLEBOX" on the list of connected devices.

• Copy the file "SKLOG.exe" to the PC (any location is OK) and double click the file to start the software.

• When the SK-LOG software "Connect" Button is clicked, the software will begin communicating with the BOX, and through the connection cable, to the Caliper.

※ Please refer to the SK-LOG Instruction Manual for information on setting up data output options, etc.

• When you press the adapter's Send Button, data will be transmitted to the SK-LOG software.

• To end communication, click on the "End" button on the SK-LOG software and press the Power Button on the Wireless adapter to turn OFF.

※ After pairing is complete and the power is turned off, if you turn on the power again too quickly (about 5 seconds,) it may not be able to connect. Please unplug the computer's USB Bluetooth adapter, reinsert and try pairing again.

■AUTO OFF

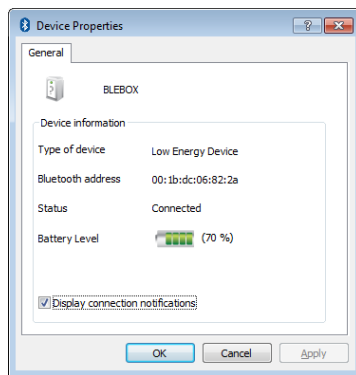
If inactive for 20 minutes, the power will turn OFF. Please press the Power Button to turn back ON. If battery voltage drops below a certain level, the Status LED will blink Red. As voltage continues to drop the adapter will automatically turn OFF.

■LOW BATTERY LEVEL

If battery voltage drops below a certain level, the Status LED will blink Red. As voltage continues to drop the adapter will turn OFF automatically in order to protect the Lithium Polymer Battery.

※ Since the adapter enters SLEEP mode when not active, to determine if Battery is low, turn the adapter back ON and check the Status LED. If the LED blinks when the Send Button has not been pressed, the power level is low.

Some PC Bluetooth interfaces will display battery status for connected devices. The adapter transmits the status when connection is completed, and does not updated afterward. Please use this value as an indication of battery level.



■CHARGING

- Disconnect the Communication Cable from the adapter's Micro-USB Connector, and connect the Charging Cable.
- Connect the USB-A end of the cable to the AC-USB Charger, or to a PC Port for charging
- ※ The charging LED will light when charging is started. The LED will go out when complete.

■AFTER USE CARE · STORAGE

Storage When not in use, store away from direct sunlight in moderate temperatures (0°C~40°C).
Store with the power OFF. If not used for a long period, please maintain the battery by charging to 50% capacity every three months.

■TROUBLESHOOTING

Problem	Cause	Solution
Will not Pair	① A USB Bluetooth adapter is not plugged in. ② The settings on the PC and the Wireless adapter may not match	① Please install a USB Bluetooth adapter compatible with BluetoothLE (HOGP profile) into the Wireless Adapter. ② Delete the device "BLEBOX" in the PC's Bluetooth device list, reboot the PC, and try again.
Device not found	① Pairing Mode did complete. ② The settings on the PC and the Wireless adapter may not match.	① Make sure a USB Bluetooth adapter is plugged in. Hold down the Send Button and press the Power Button at same time to enter pairing mode. ② Please try the following. • Delete the device "BLEBOX" in the PC's Bluetooth device list. • Remove and replace the PC Bluetooth adapter. • Reboot the PC
Data does not transmit	① Measuring instrument data does not display. ② Bluetooth connection error. ③ Software communication error. ④ Bluetooth status error. ⑤ Display reads "ERR1" ⑥ Once power is turned OFF, does not reconnect when power is turned back ON.	① Check the measuring instrument and cable, and make sure the instrument is in a measuring mode. ② Make sure the device is within Bluetooth range, and redo the pairing if necessary. ③ Close, and then restart the communication software. ④ Cancel the pairing, remove and reinsert the PC Bluetooth adapter, and pair again. ⑤ No data is received by adapter, so there is a problem with the measuring instrument or communication cable, please check.. ⑥ If you turn OFF power, and turn ON again before the PC disconnects, the PC will not connect to the device. Please remove and reinsert the PC Bluetooth adapter, reboot, and pair again.

■COMMUNICATION DATA SPECIFICATION

When Send Button is pressed, the following information is transmitted using HID class protocol. After sending, the device enters sleep state.

When sleep state is entered after transmitting data, it will only be canceled when Send Button is Pressed again.

Normal operation (Ex. data = "-1.23")

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2D	30	30	31	3E	32	33	20	20	20	0D	0A	FF	FF	FF	FF	FF	FF	00
-	0	0	1	.	2	3				CR	LF	(address unique for each adapter)						

For Error Event (Error Code = 1 Measuring Instrument not connected)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
E	R	R	1							CR	LF	(address unique for each adapter)						

■SPECIFICATION

- Model : DTW-DG01
- Wireless Protocol : Bluetooth LE (HOGP profile compatible)
- Input : Caliper proprietary signal
- Output : USBHID class compliant
- Power : Lithium Polymer Battery (350mAh)
- Continuous on time: 17 hours (for send rate of 250 sends/hr)
- charge time : 100 minutes
- Dimensions : 35(L)×57(W)×17.5(H)mm
- Weight : 45g (Including battery)
- Package contents : Main unit (×1), SK-LOG software (×1), Charging Cable(1m) (×1), Communication Cable (20cm, ×1), Mounting Bracket (×1), Plate Screw (M3, ×1), Caliper Mounting Screw (M2, ×1), Washer (×1), Instruction Manual
- Compatible OS : Windows7, 8

■NOTES

For best performance, and in order to keep the adapter in good condition for long service, please read and follow these instructions.

- Avoid using where the device will be subject to the following conditions:
 - Dirty or dusty locations
 - Exposed to direct sunlight
 - Exposed to acids, alkali solutions, or organic solvents.
 - Exposed to oils or water.
 - Equipment which creates sparks or electric discharge, or other locations which require high electric shielding.
 - Near equipment which produces strong electromagnetic fields, such as high voltage cables, or broadcasting facilities.
- Clean only with dry cloth slightly moistened with a mild detergent or alcohol. Do not use any organic solvents.
- Do not disassemble or modify.