HIOKI

Z3210 Wireless Adapter
Instruction Manual for Excel® Direct Input (HID function)

Introduction

The Z3210's Excel® Direct Input function allows you to input measured values directly into Excel in the same way as a wireless keyboard. By connecting the Z3210 with the firmware version number V2.10 or higher installed to Z3210-compatible devices and enabling the Excel® Direct Input (HID) function, you can easily input data to existing Excel spreadsheets. Please read this instruction manual to check whether data can be input to your device (computer or tablet) in this way before use.

Supported operating systems: Windows 10
iOS 14, iPadOS 14
Android™ 9, 10, 11
(Operation on ALL terminals is not assured.)

Preparation

Before using this function, you need to enable the HID function of the Z3210 and configure the **Bluetooth**® connection settings.
Depending on your operating environment, the keyboard layout and Excel settings may also be required.
See Table 1 about how to enable/disable the HID function of the Z3210.

No keyboard layout settings are required to change in countries using a US101-equivalent keyboard, such as China, Korea, Taiwan, and the Middle East. However, the keyboard layout setting is required for countries that use a different keyboard from US101, such as France and Germany.
Depending on the country, it may be necessary to set Excel options because the decimal point of Z3210 is displayed as a period (.), not a comma (,).

Table 1. How to enable/disable the HID function

Model	How to enable/disable the HID function	How to check whether the HID function is enabled or not
CM4001 (V1.03 or higher) *1	1. Turn on the instrument while pressing the backlight key and the **RANGE** key. 2. Press the **MAX/MIN** key. The HID function can be enabled/disabled every time the key is pressed. 3. Press the **HOLD** key to confirm. The instrument is automatically turned off.	1. Turn on the instrument while pressing the backlight and **RANGE** keys. 2. Press the power key to turn off the instrument.

*1. To check the firmware version number of the CM4001

1) Turn on the instrument while pressing the **MAX/MIN** and **RANGE** keys.

2) Check that the characters representing the model number "4001" and the firmware version number "vEr." and "v1.0x" are displayed in turn, and all symbols are displayed.

3) Press the power key to turn off the instrument.

Model	How to enable/disable the HID function	How to check whether the HID function is enabled or not
CM4002 CM4003	1. Turn on the instrument while pressing the **HOLD** and **COMP** keys to enable/disable the HID function. The instrument is automatically turned off.	1. Turn on the instrument while pressing the **HOLD** and **MAX/MIN** keys. 2. Press the power key to turn off the instrument.

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Model	How to enable/disable the HID function	How to check whether the HID function is enabled or not
FT6031-50 (V1.02 or higher) *2	1. Turn on the instrument while pressing the **COMP** and **0Ω ADJ** keys to enable/disable the HID function. The instrument is automatically turned off.	1. Turn on the instrument while pressing the **3P/2P** key. 2. Press the power key to turn off the instrument.

*2. To confirm the firmware version number of the FT6031-50
   1) Turn on the instrument while pressing the **Fn** and **COMP** keys.
   2) When the character "vEr" appears on the display, press the **0Ω ADJ** key.
   3) Check that the characters representing the firmware version number "v1.0x." and model number "6031" are displayed in turn.
   4) Press the power key to turn off the instrument.		

FT6380-50	1. Turn on the instrument while pressing the **A/Ω** and **Fn** keys to enable/disable the HID function. The instrument is automatically turned off.	1. Turn on the instrument while pressing the **A/Ω** key. 2. Press the power key to turn off the instrument.
PD3259-50	1. Turn on the instrument while pressing the **HOLD** and **Fn** keys. 2. Press the **Fn** key. 3. Press and hold the **HOLD** and **Fn** keys for at least 1 s. 4. Press the **HOLD** key. The HID function can be enabled/disabled every time the key is pressed. 5. Press the **Fn** key to confirm. The instrument is automatically turned off.	1. Turn on the instrument while pressing the **HOLD** and **Fn** keys. 2. Press the **Fn** key. 3. Press and hold the **HOLD** and **Fn** keys for at least 1 s. 4. Press the power key to turn off the instrument.
IR4052-50 IR4057-50	1. Turn on the instrument while holding down the **RELEASE** key. 2. Press and hold the **RELEASE** key for at least 3 s. 3. Press the **COMP** key. The HID function can be enabled/disabled every time the key is pressed. 4. Press the **RELEASE** key to confirm. The instrument is automatically turned off.	1. Turn on the instrument while holding down the **RELEASE** key. 2. Press and hold the **RELEASE** key for at least 3 s. 3. Turn the rotary switch to the **OFF** position to turn off the instrument.
BT3554-50	1. Turn on the instrument while pressing the comparator buzzer key. 2. Press the arrow key. The HID function can be enabled/disabled every time the key is pressed. 3. Press the **ENTER** key to confirm. 4. Press the power key to turn off the instrument.	1. Turn on the instrument while pressing the comparator buzzer key. 2. Press the power key to turn off the instrument.

Model	How to enable/disable the HID function	How to check whether the HID function is enabled or not
DT4261	1. Turn on the instrument while holding down the backlight key and the **RANGE** key to enable/disable the HID function. The instrument is automatically turned off.	1. Set the rotary switch to the **Ω** position (at the 5th position from the **OFF** position) while holding down the **RANGE** key to turn on the instrument. 2. Release the key. The display automatically switches to the measurement display.
CM4371-50 CM4373-50 CM4375-50	1. Turn on the instrument while holding down the backlight key and the **Fn** key to enable/disable the HID function. The instrument is automatically turned off.	1. Set the rotary switch to the **NCV** position (the **A+V** position for the CM4375-50, at the 5th position from the **OFF** position) while holding down the **RANGE** key to turn on the instrument. 2. Release the key. The display automatically switches to the measurement display.
CM4141-50	1. Turn on the instrument while holding down the backlight key and the **Fn** key to enable/disable the HID function. The instrument is automatically turned off.	1. Set the rotary switch to the **TEMP** position (at the 5th position from the **OFF** position) while holding down the **RANGE** key to turn on the instrument. 2. Release the key. The display automatically switches to the measurement display.
CM3286-50	1. Turn on the instrument while holding down the backlight key and the **Fn** key to enable/disable the HID function. The instrument is automatically turned off.	1. Set the rotary switch to the **Phase Detect** position (at the 5th position from the **OFF** position) while holding down the **Fn** key to turn on the instrument. 2. Release the key. The display automatically switches to the measurement display.

How to Check the Firmware Version Number of the Z3210

The HID switching function requires the Z3210 with the firmware version number V2.10 or higher installed. You can find the firmware version number by following the steps below. If you have the Z3210 with the firmware version number V2.10 or lower installed and want to use the HID function, please contact your authorized Hioki distributor or reseller.

1. Turn on the measuring instrument with the Z3210 connected, and then enable the wireless communication function.
   The symbol ◻⟩ will be displayed.

2. Open your device's Bluetooth setting.
   Windows 10: Press [Windows] + [I], and then go to [Settings] - [Devices] - [Bluetooth].
   iOS, iPadOS: Go to [Settings] - [Bluetooth]
   Android™:   Go to [Settings] - [Wireless & Network] - [Bluetooth] (depends on models)

3. Turn on the device's Bluetooth.

4. Pair the Z3210 with the device.
   Windows 10: Go to [Add Bluetooth or another device] - [Bluetooth] - [Z3210.]
   iOS, iPadOS: Tap [Z3210.] or [Accessories]
                      (Visible as **[Accessories]** if the Z3210 is paired with the device for the first time.)
   Android™:   Tap [Z3210.]

5. The character string **[Z3210Vx.xx:model#serial number]** is displayed. Check that the characters representing the version number "Vx.xx" are "V2.10" or higher.

Pairing the Z3210 with Your Device

Follow the steps below to pair the Z3210 of which the HID function enabled with your device:

1. Turn on the measuring instrument with the Z3210 connected, and turn on the wireless communication function.
   (e.g., press and hold the **HOLD** and **MAX/MIN** keys for at least 1 s to enable the CM4001 wireless communication function.)
   The symbol ◻⟩ will be displayed.

2. Open the device's Bluetooth setting.
   Windows 10: Press [Windows] + [I], and then go to [Settings] - [Devices] - [Bluetooth].
   iOS, iPadOS: Go to [Settings] - [Bluetooth]
   Android™:   Go to [Settings] - [Wireless & Network] - [Bluetooth] (depends on models)

3. Turn on the device's Bluetooth.

4. Pair the Z3210 with the device.
   Windows 10: Go to [Add Bluetooth or another device] - [Bluetooth] - [Z3210.]
   iOS, iPadOS: Tap [Z3210.] or [Accessories]
                      (Visible as **[Accessories]** if the Z3210 is connected to the device for the first time.)
   Android™:   Tap [Z3210.]

The symbol ◻⟩ will be flashed on and off when the instrument is connected.

Setting the Keyboard Layout for Windows 10

If you do not use a keyboard equivalent to the US101 keyboard or the Japanese 109 keyboard, follow the steps below:

1. Press **[Windows]** + **[I]** to open **[Windows Settings]**.

2. Click **[Time and Language]** - **[Region & language]**.

3. Under **[Languages]**, select the currently set default language (such as "Japanese") and click **[Options]**.
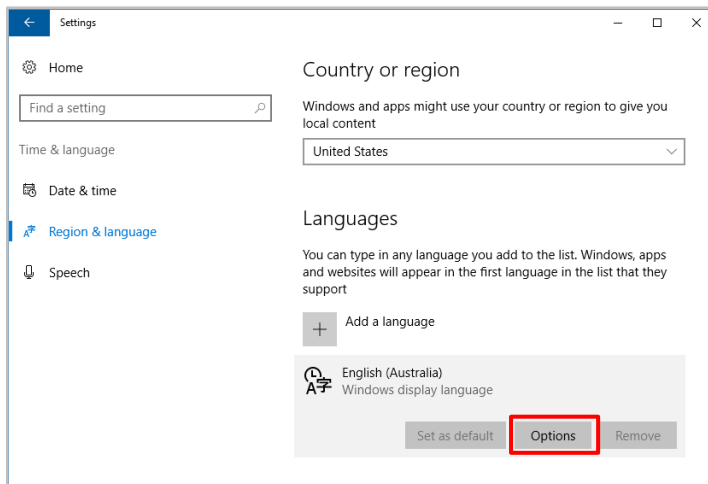

4. Click **[Keyboard]** - **[Add a Keyboard]**.
    (Otherwise, click **[Hardware Keyboard Layout]** - **[Change Layout]**.)

5. Select a keyboard layout you want to use. (US QWERTY)
    The new layout is installed on Windows 10.

After the installation has been completed, you can switch the keyboard layout by pressing **[Windows]** + **[Space]**.
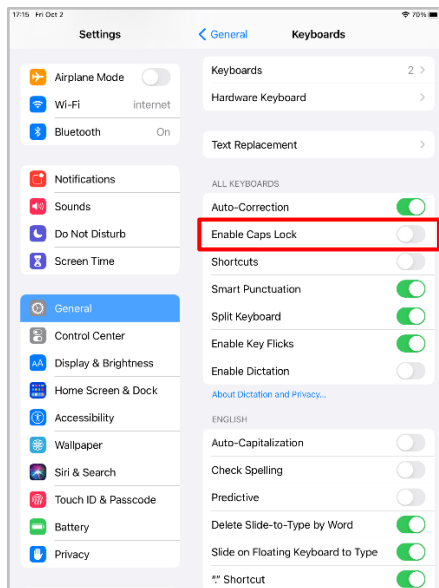
Setting the Keyboard for iOS and iPadOS
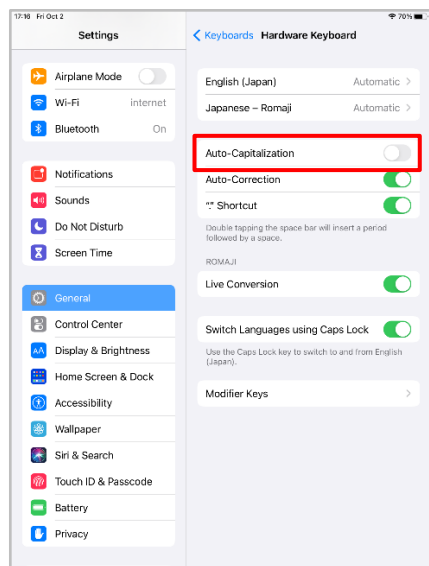
Follow the steps below to set the keyboard:

1. Select [Settings] - [General] - [Keyboard] on the device.
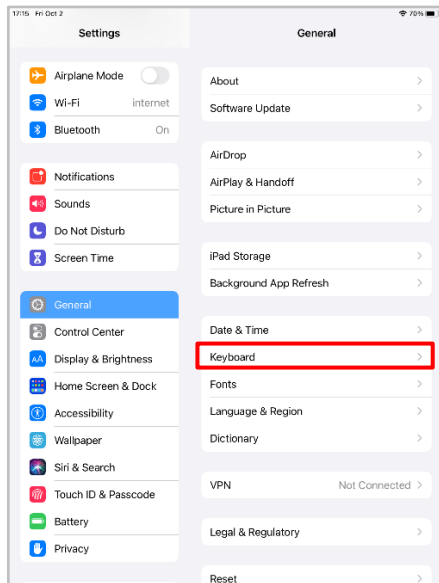
2. Turn off [Enable Caps Lock].

3. In **[Settings]** - **[General]** - **[Keyboard]** - **[Hardware Keyboard]**, turn off **[Auto-Capitalization]**.
   If the Z3210 is not paired with your device, **[Hardware Keyboard]** will not appear. Pair it, and then go to step 1.

How to Switch the Decimal Point to a Comma (,)

The Z3210 outputs values with the decimal point represented by a period (.). Thus, you do not need to change the decimal point setting in the US, Japan, or other countries where an operating system with the decimal point represented by a period (.) is used. If you are using an operating system with the decimal point represented by a comma (,), follow either one of the two methods below:

Method 1 (Changing the Excel decimal point setting to a comma)

In **[Files]** - **[Options]** - **[Advanced]**, click to clear the **[Use system digit separators]** checkbox, and then enter the period (.) and comma (,) in **[Decimal separator]** and **[Thousands separator]**, respectively.

Method 2 (Changing decimal points of data from periods into commas without changing the Excel decimal point setting from a comma)

1. Copy and paste all data in a text editor, such as Notepad (for Windows 10).

2. Replace all periods with commas, and then copy and paste the replaced data into Excel.

How to Use the HID Function

1. Switch the keyboard input mode to lowercase and half-width characters and numbers.

2. Tap or click the selected cell where you want to enter data on an Excel spreadsheet.

3. Press the instrument's **HOLD** key (or perform the function to freeze the reading on the screen temporarily).
   Numeric values and units are transferred to the selected cell. Do not select another cell during data transfer.
   If data cannot be input, check the Excel settings (e.g., sign in to your Microsoft Office account).

Troubleshooting

Identify the problem in the following table and follow the instructions to solve it.

Problem	Instruction
The Z3210 cannot be paired with an Android device through Bluetooth.	To pair the Z3210 with an Android device through Bluetooth, enable the device's GPS function (location information). Use OS settings to turn on **[Use location]**.
The Z3210 cannot be found on the device when you attempt to pair the Z3210 with iOS for the first time.	The devices that have not been connected may be displayed as **[Accessories]** on iOS or iPad OS. It will be correctly displayed after the pairing is completed.
GENNECT Cross is not available.	The Z3210 cannot be connected to GENNECT Cross when the HID function is enabled. Please follow the steps below to reconnect the measuring instrument to GENNECT Cross. 1. Delete the measuring instrument on the list of the Bluetooth setting of your device. 2. Disable the HID function of the Z3210. (For details, see the "Preparation" section of this manual.) 3. Reconnect the measuring instrument through the connection setting of GENNECT Cross.

The Excel Direct Input function of the Z3210 is not available.	Check the following items.
	· The HID function is disabled.
	   → Enable it. See the "Preparation" section of this manual for details.
	· The instrument is not paired with the device.
	   → Unpair the instrument once and try to register it again.
	· Excel has not been initialized.
	   → Configure the Excel settings so that data can be input.
	· The file is read-only.
	   → Open the file's property window, and then click to clear the **[Read-only]** checkbox.

GENNECT Cross and the Excel Direct Input function of Z3210 cannot be used simultaneously.	Concurrent use of them is not available. After unpairing the instrument on the Bluetooth setting of your device, turn the HID function on or off, depending on the function you want to use. See this manual's "Preparation" section for details about enabling/disabling the HID function.

Problem	Instruction
GENNECT Cross displays a PIN on its connection screen (Instrument Settings screen) and attempts to be paired with the Z3210 to use the HID function.	GENNECT Cross doesn't start working correctly when the HID function is enabled. Follow the steps below: 1. Close GENNECT Cross. 2. Remove the measuring instrument on the Bluetooth settings of your device. 3. Disable the HID function of the Z3210. For details, see the "Preparation" section of this manual.
The software keyboard of the connected device cannot be used for typing.	When the device is HID-connected to the measuring instrument, the software keyboard may be disabled depending on the device settings. If necessary, turn off the connected measuring instrument.
The device that has been paired with an instrument displays the PIN after the instrument is turned on.	Restart the instrument.
Windows 10's Bluetooth setting window continues to display the message "Connected."	Remove the Bluetooth device on Windows 10 and try pairing again.
Windows 10's Bluetooth list repeatedly displays the messages "Paired" and "Connected."	Remove the Bluetooth device on Windows 10 and try pairing again.
When I try to pair multiple measuring instruments with an iOS device, the second and subsequent instruments disappear from the list.	If you want to register multiple measuring instruments subsequently, turn off and on the iOS device's Bluetooth connectivity for every measuring instrument and register them.
Uppercase and lowercase letters in units are reversed.	Turn off Caps Lock mode.
Excel is not fast enough to accept input data in time, missing some characters.	In Excel, calculations are performed when cells are active, slowing down the process on some computers. If this happens, the following methods are recommended: (1) configure the Excel setting such that it performs follow-up calculations, or (2) enter all data into a tab-capable text editor, such as Notepad (Windows 10), and copy and paste the data into an Excel spreadsheet.
Using a comma (,) as the decimal separator in Excel without changing the language setting is preferable.	It is recommended to enter all data into a tab-capable text editor, including Notepad (Windows 10), and copy and paste the data into an Excel spreadsheet.
Measured values cannot be entered when using an Excel spreadsheet that has been already saved.	Select a cell to enter measured values.
Using applications other than Excel is preferable.	Applications with no particular tasks assigned to its [Tab] may be available. Check if no task is assigned beforehand.

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