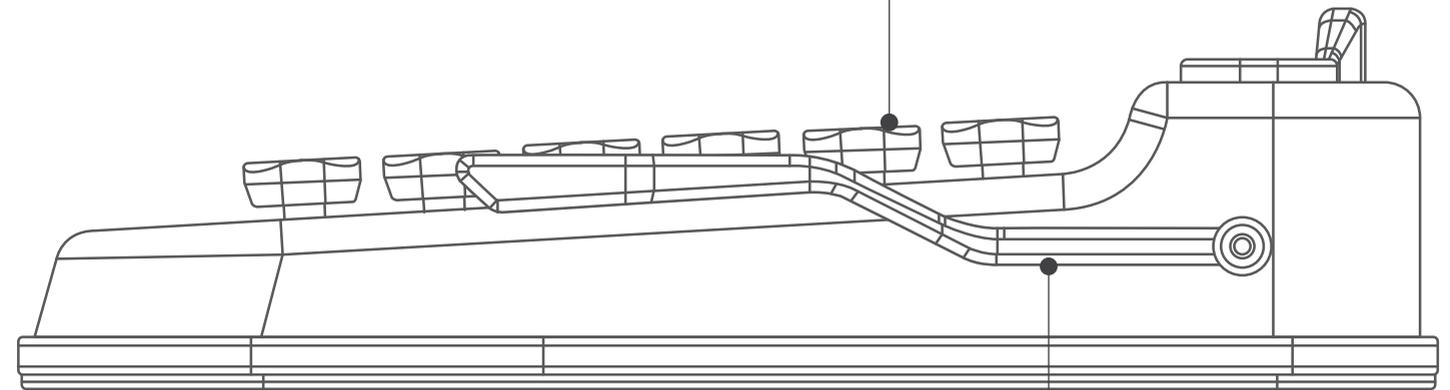


## WIRELESS

PENNA supports  
iOS/ Android/ MacOS/ Windows

## CHERRY SWITCH

Adaptation of cherry switch known  
as the world's most advanced switch technology,  
ensure fast and accurate typing



## MACRO BAR

Utilize macro bar to save frequently  
used keys or words and recall them any  
time by pressing down the bar just once

## SWITCHING DEVICE

DEVICE 1  + 

DEVICE 2  + 

DEVICE 3  + 

DEVICE 4  + 

DEVICE 5  + 

## HOW TO CONNECT BLUETOOTH

### STEP 01.

By pressing FN+B at the same time, you may activate the Bluetooth pairing mode. Among the 5 LED lights at the top left corner, an empty slot, not currently assigned to any device will be lit. However, if the slot is previously assigned to another device, the LED will appear blinking.



### STEP 02.

Press F1-F5 located directly below the slot you want to assign for the connection.

The LED will start blinking and be in the Pairing mode (for connection) for 60 seconds. If no further action is taken in 60 seconds, the pairing mode will end automatically. Now, you may find the PENNA paired with any of your Bluetooth activated devices, such as PADS / PCs / MOBILE PHONES.



### STEP 03.

Ending the Bluetooth pairing mode. Press FN+B at the same time to activate the pairing mode and by pressing FN+ESC, you may exit the Bluetooth pairing mode. The pairing mode will be terminated and the keyboard will try to connect to the device to which it was last connected



Thank you for purchasing the PENNA wireless keyboard.  
This user's manual contains all of the information needed to operate your keyboard.

## Introduction

Thank you for purchasing PENNA. PENNA is a stylish retro Bluetooth keyboard manufactured by the professional design group, Elretron INC.

PENNA is a mechanical keyboard made with CHERRY switches, known globally for unrivaled quality in keyboard switches.

PENNA has been designed to increase the productivity of multi-devices, such as mobile phones, and tablet PCs.

PENNA combines a retro style design with the most recent technologies, such as Bluetooth 4.2, multi-pairing, and macro functions, while achieving NEWTRO which allows for the reminisces analog emotions with the newest technology.

## Feature Description

- Bluetooth 4.2(BLE)
- Multi-pairing - 5 Devices support
- Auto Sleep
- Hot key - FN+Multimedia key
- OS Support - Mac / Windows / iOS / Android
- Cherry Mechanical Switches
- 6 Months Of Idle Battery Time : 2AA BATTERY (Not included)
- Maximum Cradle length : 267mm
- SIZE 356X195X54mm
- Weight : 1.1kg

## Package Contents

- PENNA Keyboard
- PENNA Keyboard Keycaps(Retro chrome or Diamond shape)
  - 1 Additional space bar only for Retro chrome keycap model
- Supporting to mount keycaps
- User manual

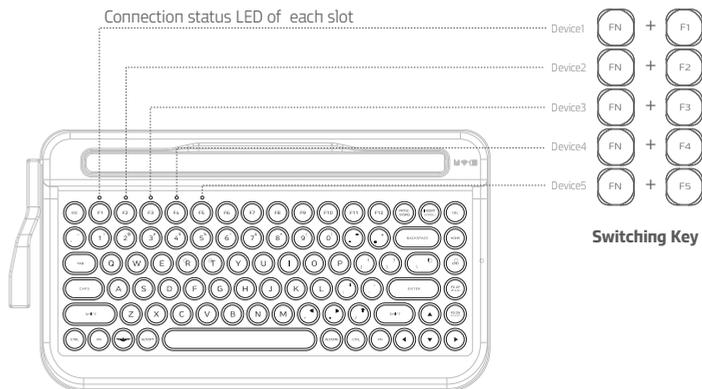
## Bluetooth connection



### Multi-pairing

You can connect various devices such as PCs, mobile phones, tablets, etc. to PENNA.

You can utilize FN+F1-F5 keys to select which device you want to use. Use PENNA at home, school, cafes, and any other places you can think of!



## How to connect (Initial connection)

**STEP 1.** +

By pressing FN+B at the same time, you may activate the Bluetooth pairing mode.

Among the 5 LED lights at the top left corner, an empty slot, not currently assigned to any device will be lit. However, if the slot is previously assigned to another device, the LED will appear blinking.

**STEP 2.** or ~

Press F1-F5 located directly below the slot you want to assign for the connection.

The LED will start blinking and be in the Pairing mode (for connection) for 60 seconds. If no further action is taken in 60 seconds, the pairing mode will end automatically.

## STEP 3.

Now, you may find the PENNA paired with any of your Bluetooth activated devices, such as PADS / PCs / MOBILE PHONES.

When registering a Bluetooth device, a code in the form of "Penna-x-xx" is given. The first "x" is the slot in which the device is being registered.

The "xx" will change each time you register a new device. This format prevents bluetooth connection errors when devices are registered in the same slot.

**STEP 4.** +

Ending the Bluetooth pairing mode

Press FN+B at the same time to activate the pairing mode and by pressing FN+ESC, you may exit the Bluetooth pairing mode. The pairing mode will be terminated and the keyboard will try to connect to the device to which it was last connected.



## To initialize all slots

(Initialize new connections, deleting the information of the devices allocated to slots)

Press FN+B to activate the pairing mode and press C to delete all devices assigned to the Bluetooth slots or initialize the connection. Device connection history will be removed from the memory, and Bluetooth will be initialized.

**STEP 1.** +

Activate pairing mode

**STEP 2.**

Delete all devices assigned to Bluetooth slots

## ATTENTION

If More than 2 devices are searching for a Bluetooth connection to PENNA, it may cause connection errors. Please try connecting 1 device at a time. You may also connect a new device without deleting a previously assigned device.

In this case, the connection history in the Bluetooth slot will be deleted.

For example, while device A is assigned to slot no. 1, device B can be connected to it, the previous connection of device A will be deleted from the memory.

However, the Bluetooth connection history in device A will remain in the memory, so please delete it from the device separately.

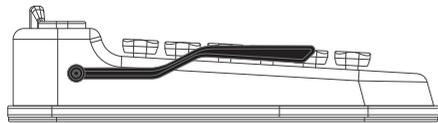
## Macro Bar

Saving frequently used keys and sentences both of which can be recalled instantly by using the macro bar.

Registration of frequently used keys such as Enter/Backspace, etc and even sentences by using Macro bar.

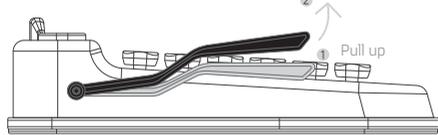
Warning: Do not use the macro function with sensitive information such as passwords, personal information, etc.

### Default Status



Macro Bar's usual height

### Record Mode

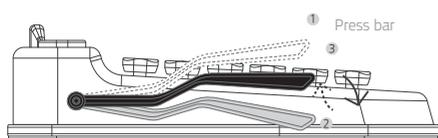


GREEN LED LIGHT ON

If you pull up the bar, it will remain in this position and record mode begins.

If you type at this moment, it will be recorded.

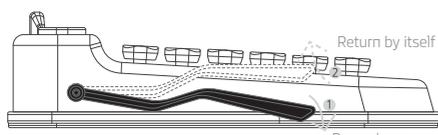
### Save & Wait Mode



GREEN LED LIGHT OFF

If press down the bar downward slightly for the first time, what you've typed using the record mode will be saved and the bar will return to its original position, while the wait mode begins.

### Transfer Mode



If you press the bar downward slightly, it will return by itself and saved keys are transferred to the tablet PC.

## Multi media keys

Using Multi media keys can increase your productivity as you do not have to take your hands off the keyboard so frequently, e.g. to use the mouse.

The available hot keys depend on the operating system used. The following keys show the functions and standard assignment of each hot key.

Sleep mode	FN + F8	Pgup	FN + ▲
Volume down	FN + F9	Pgdn	FN + ▼
Volume up	FN + F10	Context	FN + ALT
Brightness Down	FN + F11	←	FN + A
Brightness UP	FN + F12	→	FN + D
End	FN + ▶	↑	FN + W
Home	FN + ◀	↓	FN + S

## STATUS LED

PENNA has 3 LEDs, each for indicating the macro mode, Bluetooth connection status, and battery life. Please see below for the appearance.

### Macro mode(GREEN)

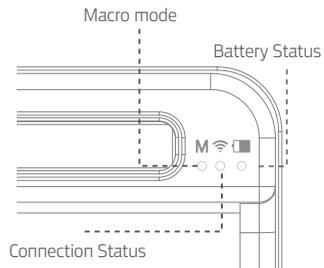
- Recording mode : GREEN LED

### Connection Status(BLUE)

- Lit for 3 seconds if the Bluetooth is disconnected

### Battery Status(RED)

- ON/OFF : Lit for 3 seconds
- Warning : Blinks for 3 seconds
- Autosleep : Lit for 3 seconds
- Autosleep off: Lit for 3seconds

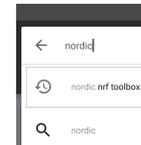


## Firmware update

Firmware for PENNA can be upgraded with a Bluetooth connection in the future. You can download software from our web-site ([www.elretron.com](http://www.elretron.com)). PENNA comes with the most recent software, V10.0, but if newer version is released, please proceed to update the system update with the following instructions.



1. Scan the QR code, and download the latest firmware



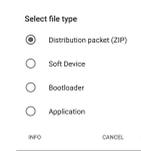
2. Install Nordic nrf toolbox from the Play Store or App Store



3. Tap on Dfu to enter DEVICE FIRMWARE UPDATED MODE



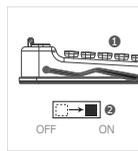
4. Tap on SELECT FILE



5. Select ZIP as the file type, then tap on OK



6. Select the latest firmware file downloaded from step 1 (File format must be saved as, XXX.pkg.zip)



7. Press down and hold the macro bar and turn on the keyboard (keyboard is now in firmware mode)



8. Tap on SELECT DEVICE (Search for the target device for the firmware update)



9. Tap on Dfu Target at the bottom



10. Tap on LOAD to start uploading the device

**Warning : Do not interrupt power during the upload. Ensure that the battery level of your mobile device is above 50%. The device shuts down when the firmware update is completed, so to reboot set the On/Off button from On->Off->On settings.**

## Troubleshooting

In case of any problems, please follow the below steps before contacting our service center.

### [BLUETOOTH CONNECTION]

**Please check below if Bluetooth connection problems occur.**

1) If slot number you are trying to connect is different from the number that appears on your device: You may discover this problem if you are trying to connect one device to several slots.

PENNA does not allow registering the same device to more than 2 of the 5 Bluetooth slots. If you cannot remember which device has been registered, please initialize by pressing FN+B then C to delete previous connection history and try again.

2) After initializing PENNA by pressing FN+B -> C then press FN+B doesn't activate pairing ready status (with 5 LED lights lit up and only 1 LED blinking):

Even if PENNA's Bluetooth slots have been initialized, the device may still try to connect to PENNA based on its past connection history. Please check if PENNA appears in the device connection history and delete it accordingly.

3) If device doesn't connect to assigned slot or is not recognized: When many devices simultaneously trying to connect to PENNA, there may be errors. When assigning devices to a slot, please do so one at a time.

4) If none of the above solutions resolve connection problems: Most of the problems from Bluetooth connection occur because of the previous history of connected device. Please erase PENNA from the device connection history and try again.

### [Problems relating to compatibility]

#### If the device is old:

PENNA employs the most current version of Bluetooth (4.2 BLE), so some old devices or software variations may not work. Please update your software or use a newer device.

#### If using Bluetooth dongle on Windows 7:

Since PENNA employs Bluetooth 4.2 BLE, dongles not compatible with BLE on Windows 7 may not work. So please update your OS to Windows 8.1 or above or use dongles that support Windows BLE.

If other problems are discovered, please contact our service center at the below e-mail address: [Tech-support@elretron.com](mailto:Tech-support@elretron.com)

## Warranty

PENNA guarantees world class quality by using key switch made from CHERRY, one of the mostly known manufacturers of key switches.

We, at Elretron, spent 3 years of R&D to make PENNA a reality, with support from many enthusiasts through a crowdfunding campaign.

PENNA has been endlessly upgrading design and production with feedbacks from our supporters. It comes with 6 months warranty and technical supports.

Other than manufacturer's defects, exchange or refunds are not accepted and any damages from liquid submersion, free drop, disassembly, unintended usage, or customer negligence will not be compensated. Key caps are not included in the warranty.

If purchased through crowdfunding, the warranty clauses at the time of purchase supersede previous conditions.

All technical and design are intellectual properties and are owned by Elretron INC., Any attempts to damage our technical or design values will result in legal prosecution.

contact : [webmaster@elretron.com](mailto:webmaster@elretron.com)

## Certification Information

PENNA is sold in 72 countries worldwide and adheres to various certifications. Below are the logos of international quality standards that PENNA has been approved by.