



K B 2 9 B - 0 1





Thank you for using DOIO products. The following tutorial will guide you on how to perform advanced settings on your keyboard. The documents required for the tutorial can be downloaded from the official [DOIO website](#). VIA is a powerful and professional keyboard customization program. Any custom modifications you make to your keyboard settings will be saved in the keyboard's hardware storage. When connected to other computers, the custom key values can be used directly without the need for additional configuration.

Keyboard Function Description (Take the left keyboard for example)

Standard Key Value Zone



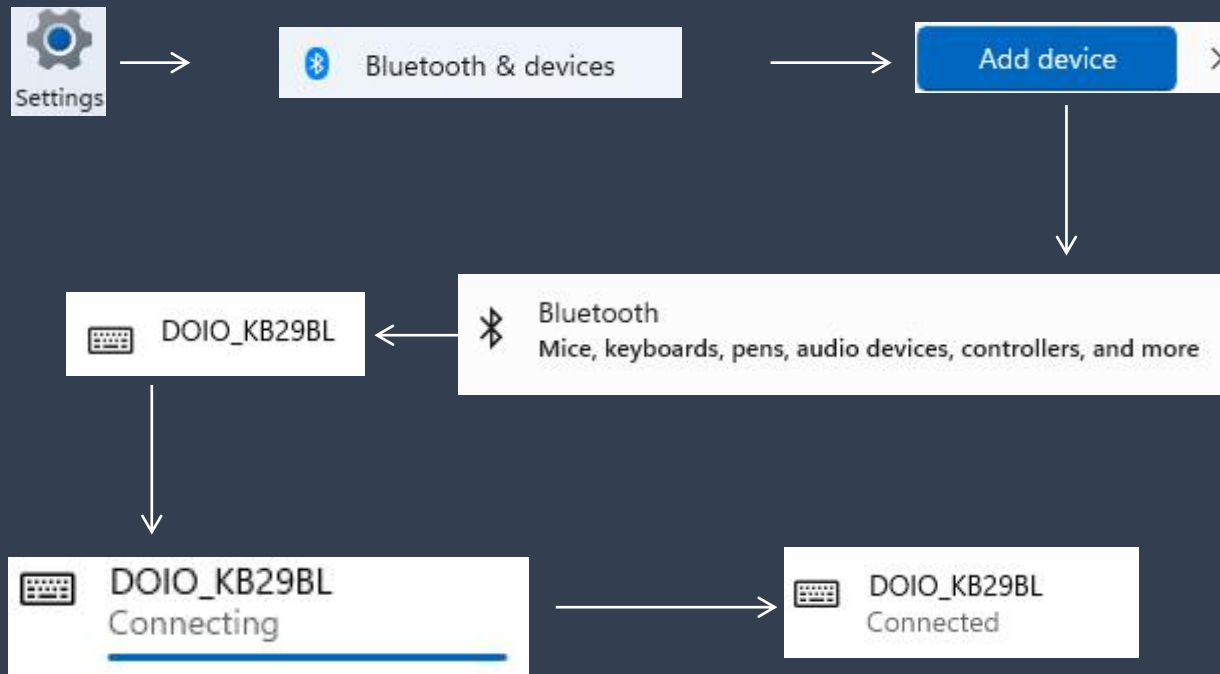
MO(3): emporary Layer Switch Key

4 direction switch
Rotate Left: volume-
Rotate Right: volume+



Light switch

Bluetooth Connection Instructions (Using WINDOWS computers as an example)



When connecting to Bluetooth, please make sure that the computer is equipped with a Bluetooth adapter receiver.

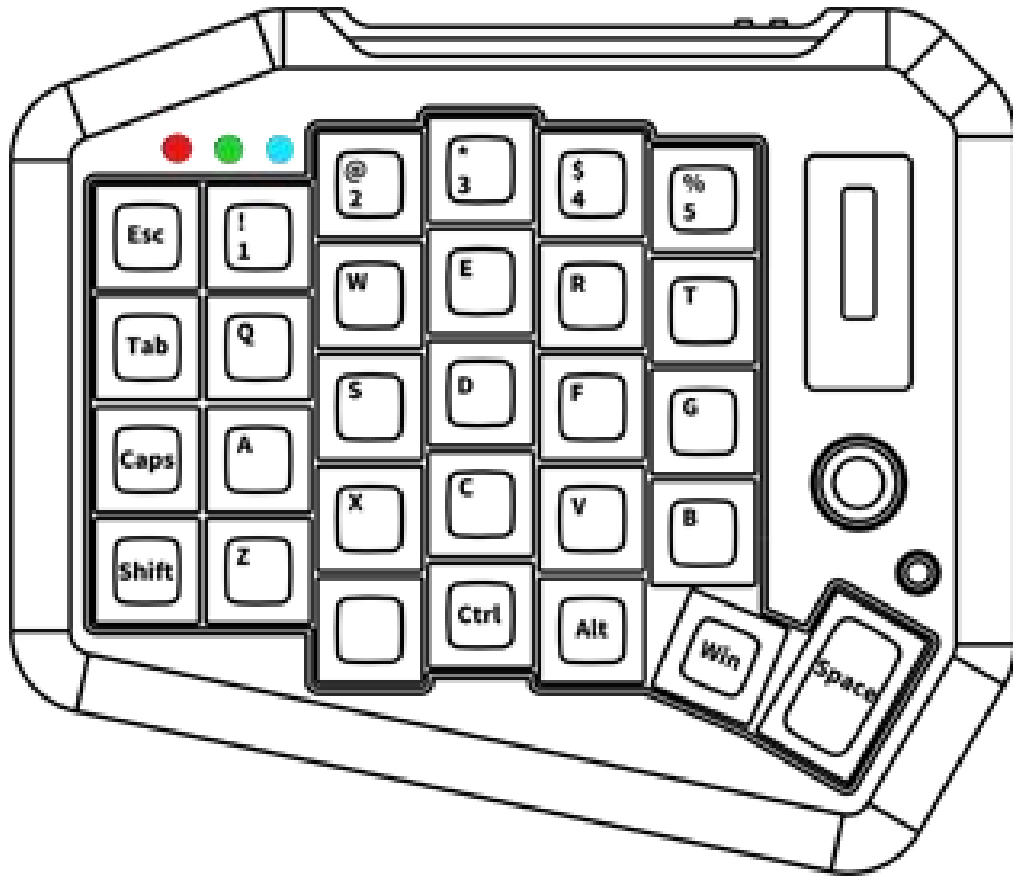
1. Press the “B” pairing button on the top of the keyboard. At this point, the keyboard screen starts to flash;

2. On the computer, go to Settings → Bluetooth and other devices, click Add Device → Bluetooth on the right, find DOIO-KB29B and click;











3. After clicking, the keyboard screen will change from “USB” to “BLE”. After changing to BLE, At the same time, the blue indicator at the top left of the keyboard lights up,

* Both left and right keyboards need to be paired with Bluetooth

Lighting control instructions (Left keyboard)

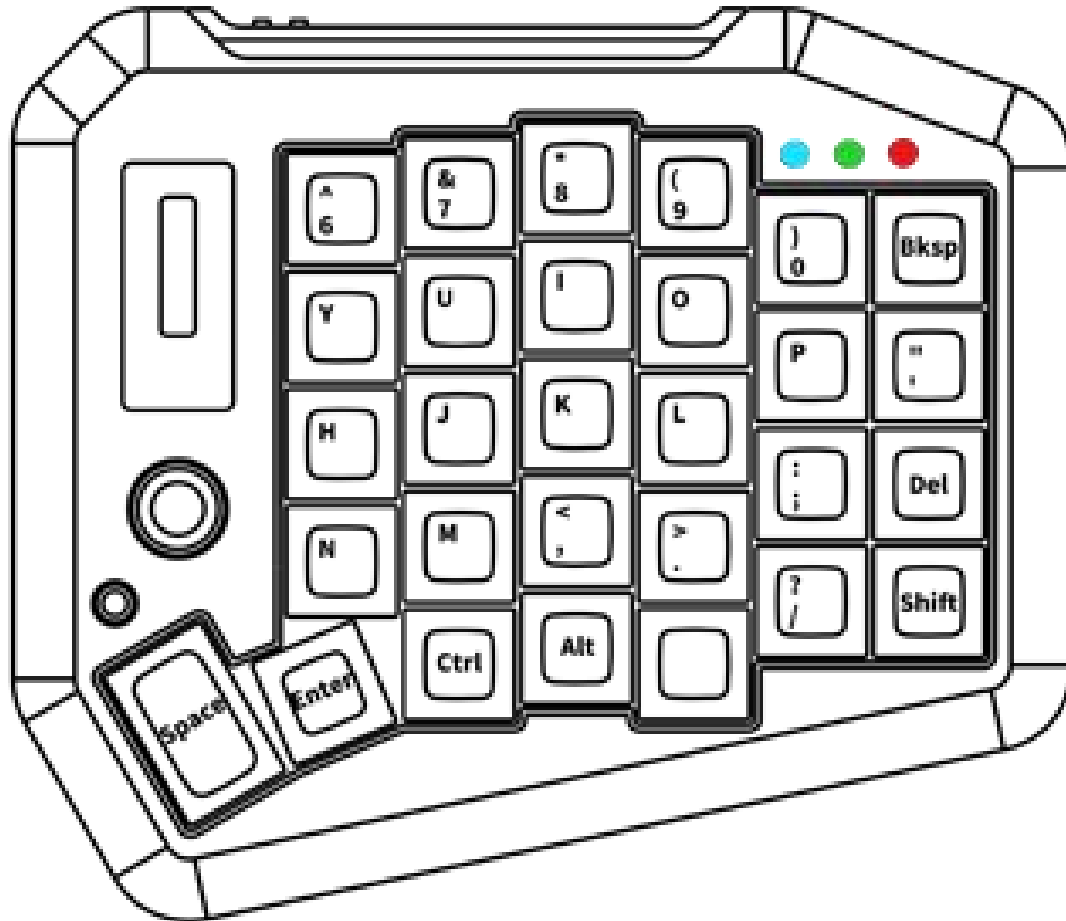


- Bluetooth connection indicator light
- Charging indicator light
- Power loss indicator light











- | | |
|---|--|
|  Accelerate the speed of dynamic lighting effect |  Slow down the speed of dynamic lighting effect |
|  Increase the color saturation of the lighting |  Decrease the color saturation of the lighting |
|  Change the color of the lighting+ |  Change the color of the lighting+ |
|  Increase lighting brightness |  Decrease lighting brightness |
|  Switch |  Change the model of the lighting |

The above lighting function buttons need to be used on the 6th floor

Lighting control instructions (Right keyboard)

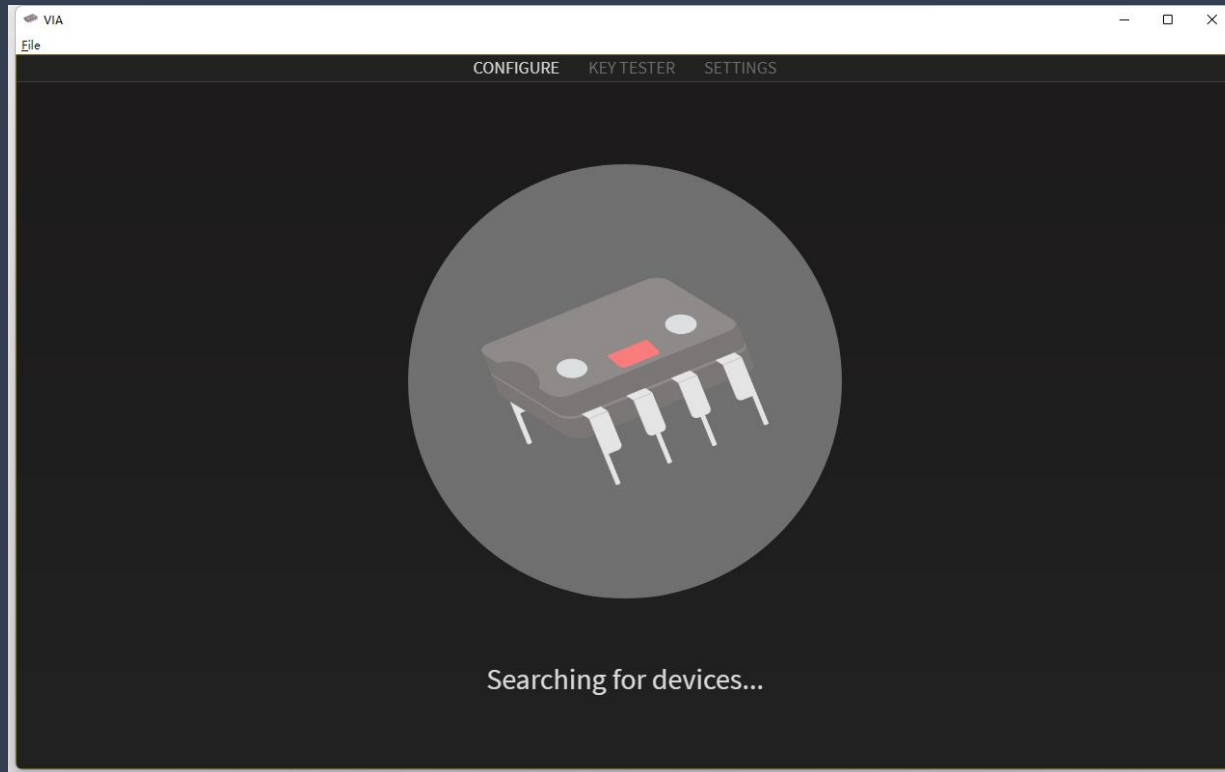


- Bluetooth connection indicator light
- Charging indicator light
- Power loss indicator light

- | | |
|---|--|
|  Accelerate the speed of dynamic lighting effect |  Slow down the speed of dynamic lighting effect |
|  Increase the color saturation of the lighting |  Decrease the color saturation of the lighting |
|  Change the color of the lighting+ |  Change the color of the lighting+ |
|  Increase lighting brightness |  Decrease lighting brightness |
|  Switch |  Change the model of the lighting |

The above lighting function buttons need to be used on the 6th floor

VIA program



The VIA program can implement more advanced modification applications for the keyboard in addition to the initial key position function, such as modifying the key value of a certain key, setting key combinations, shortcuts, macro command programming, etc. The VIA program can be downloaded on its own from the official website and sales page.

Download the VIA program suitable for your operating system

Download the VIA program for the Windows system:

[VIA-1.3.1\(中文\)](#)

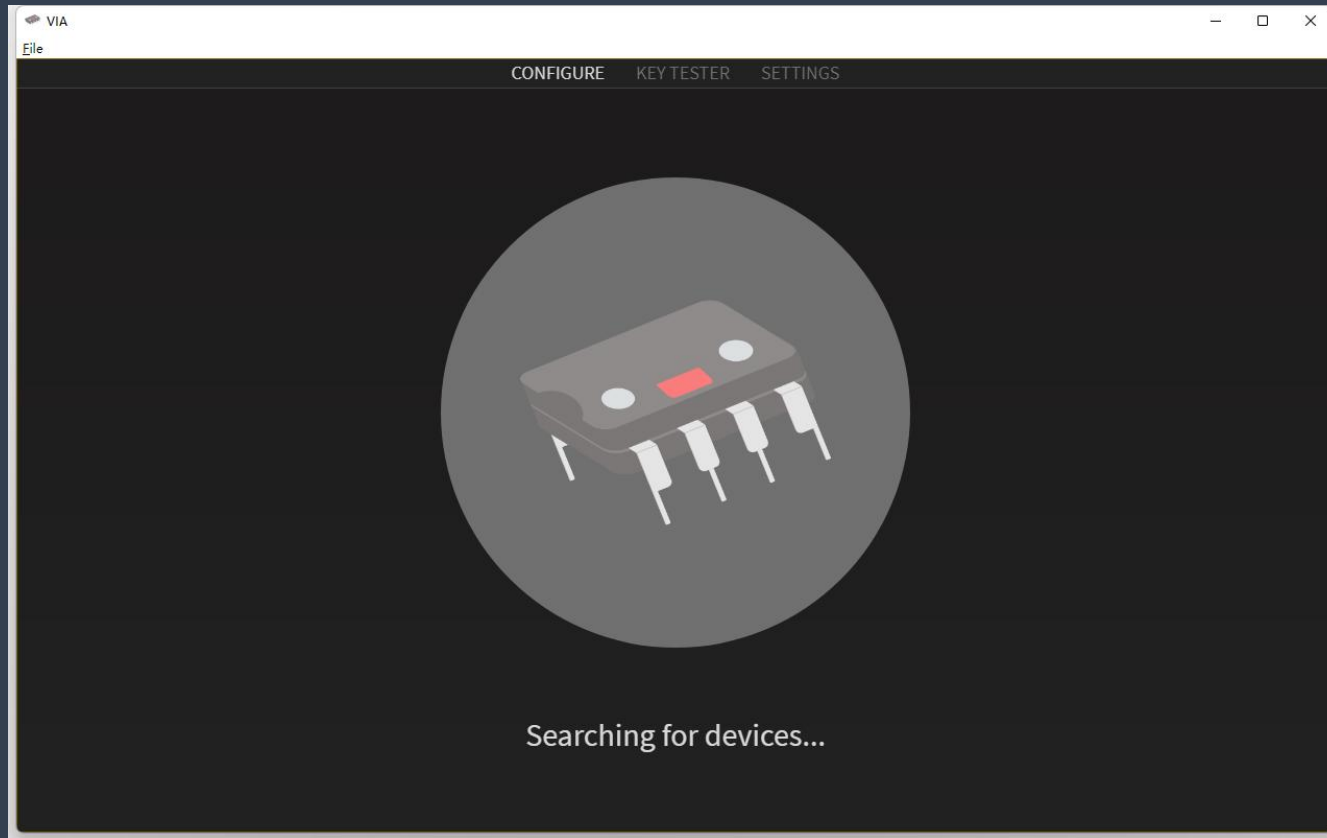
[VIA-1.3.1\(English\) \(ANY\)](#)


Download the VIA program for MAC systems:

[VIA-1.3.1](#)

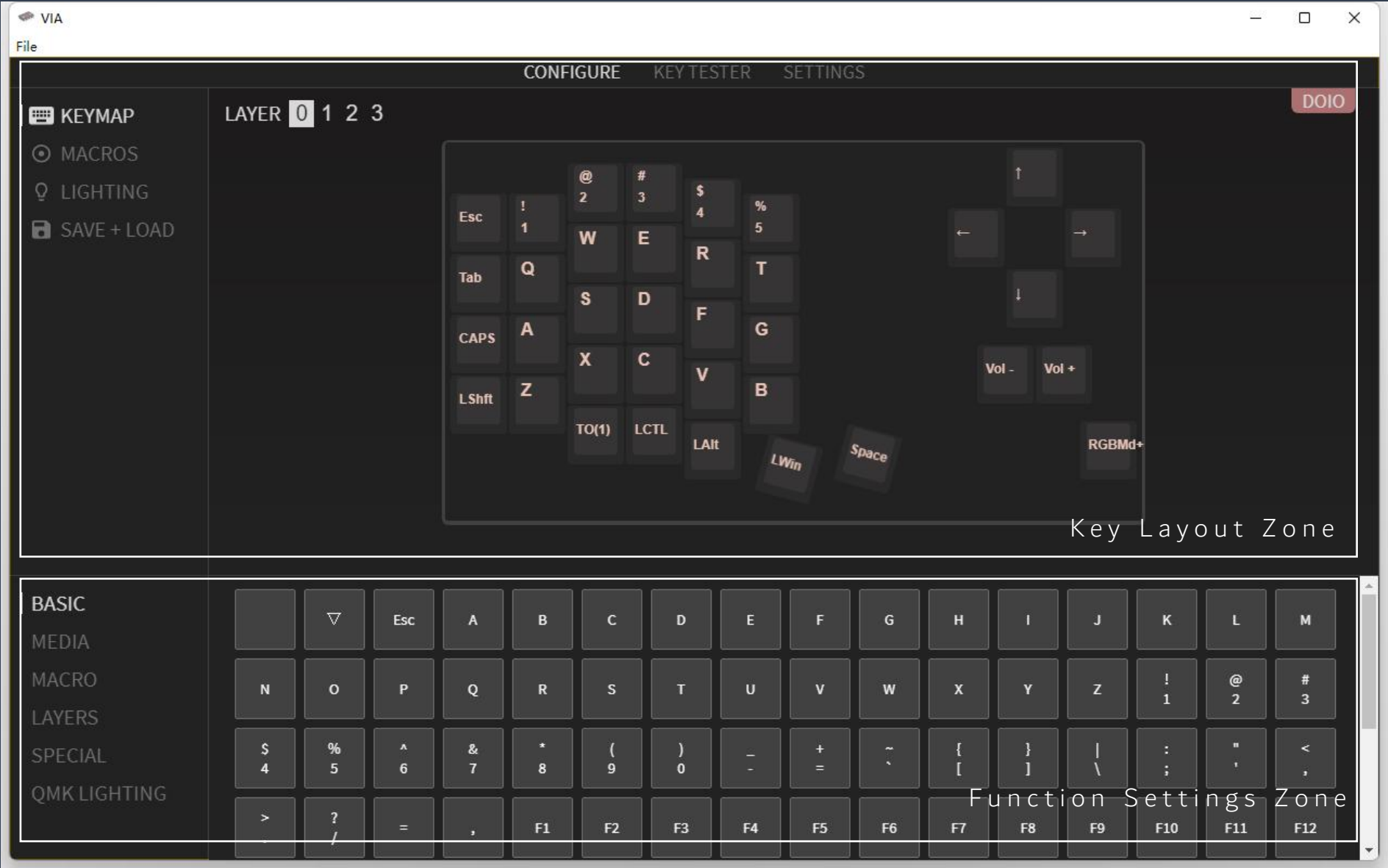
The VIA program only supports operation in a wired connection, and VIA operation is not supported in Bluetooth mode.

Open the VIA program



Find the downloaded VIA program package, decompress it, click  Start program, click file-import Keymap in the upper left corner, select and open the corresponding JSON File in the pop-up box, and then the keyboard layout will be displayed on the VIA program interface; If the home page is still displayed, check whether the USB cable on the keyboard is properly connected. After the USB cable is correctly connected, open the VIA software again and load the JSON file.

Program Interface Description



VIA Program Interface Description--Key Layout Zone ((Using WINDOWS computers as an example))

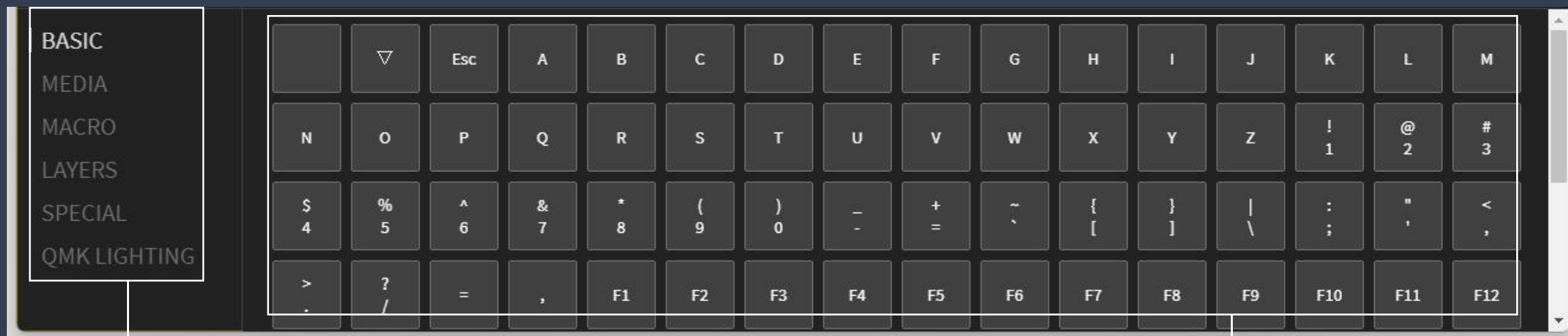
The screenshot shows the VIA keyboard configuration software interface. The window has a title bar with 'VIA' and standard window controls. Below the title bar is a menu bar with 'File'. The main interface is divided into several sections:

- Left Sidebar:** Contains a 'KEYMAP' button with a keyboard icon, and three radio buttons labeled 'MACROS', 'LIGHTING', and 'SAVE + LOAD'.
- Level Display:** A section labeled 'LAYER' with four buttons labeled '0', '1', '2', and '3'. Below it, text reads: 'Level Display: shows the total number of layers that can be edited on the current keyboard'.
- Navigation Bar:** A horizontal bar with three tabs: 'CONFIGURE', 'KEYTESTER', and 'SETTINGS'. To the right of these tabs is a red button labeled 'DOIO'.
- Key Layout Zone:** A large area displaying a virtual keyboard layout. The keys are labeled with their current values. For example, the top row includes '@ 2', '# 3', '\$ 4', and '% 5'. The bottom row includes 'TO(1)', 'LCTL', 'LAlt', 'LWin', 'Space', and 'RGBMd+'. Below this area, text reads: 'Key Layout: shows the current keyboard key layout'.

Functional Zone :

- KEYMAP:** change keyboard key values
- MACROS:** edit macro commands
- SAVE+LOAD:** An operation that saves and loads the current key-value layout

VIA Program Interface Description--Function setting area



Key Value Types:

BASIC: Basic Key Value Type
MEDIA: Multimedia key Type
MACRO: Macro Command Key Value Type
LAYERS: Hierarchical Change of Key Value Types
SPECIAL: Special Key Value Type
LIGHTING: Light Key Value Type

Key Values::

Show the current key values under this zone . You can change the keyboard key values by selecting the key values in this zone .

Basic Key Changes

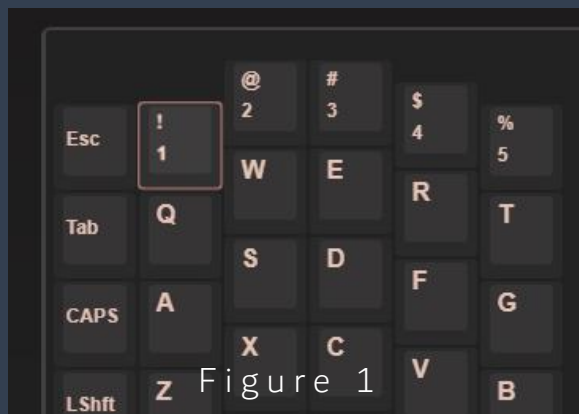


Figure 1

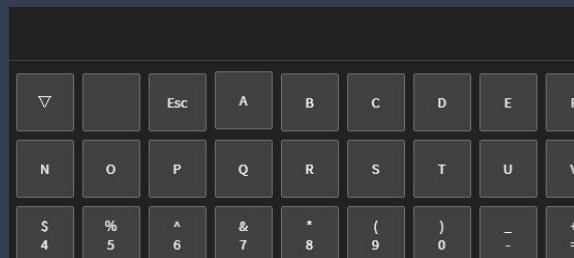


Figure 2

Through VIA, we can modify the key values of each key on the keyboard, including basic single-key values, multimedia key values, layer key value modifications, lighting function key value modifications, combination key value settings, macro commands, and ANY key settings

Let's start with the easiest example.

Let's try changing key 1 on the keyboard to A,

First, click the 1 key value in the key layout zone above (Figure 1). In the function settings zone below, click to select the key value category on the left. We find A in the corresponding category and click (Figure 2). At this point, we will see that 1 in the key layout has programmed A (Figure 3). At this point, there is no need to click Save key; the key value takes effect immediately.

For other keys, if they are also changed to single-key values, just repeat the above steps.

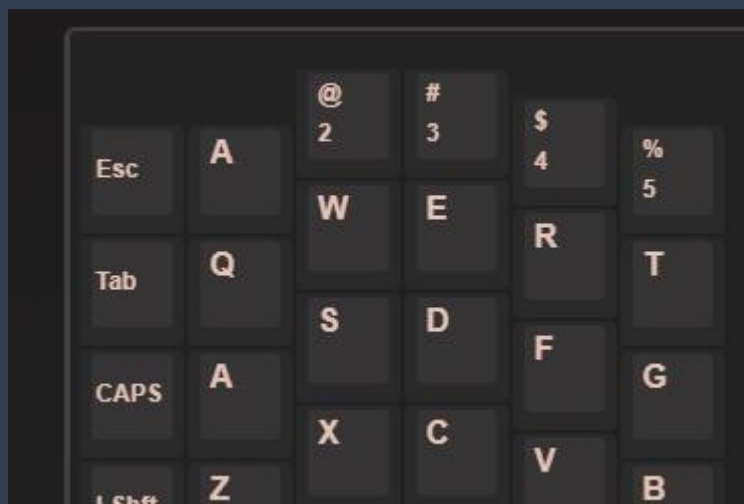
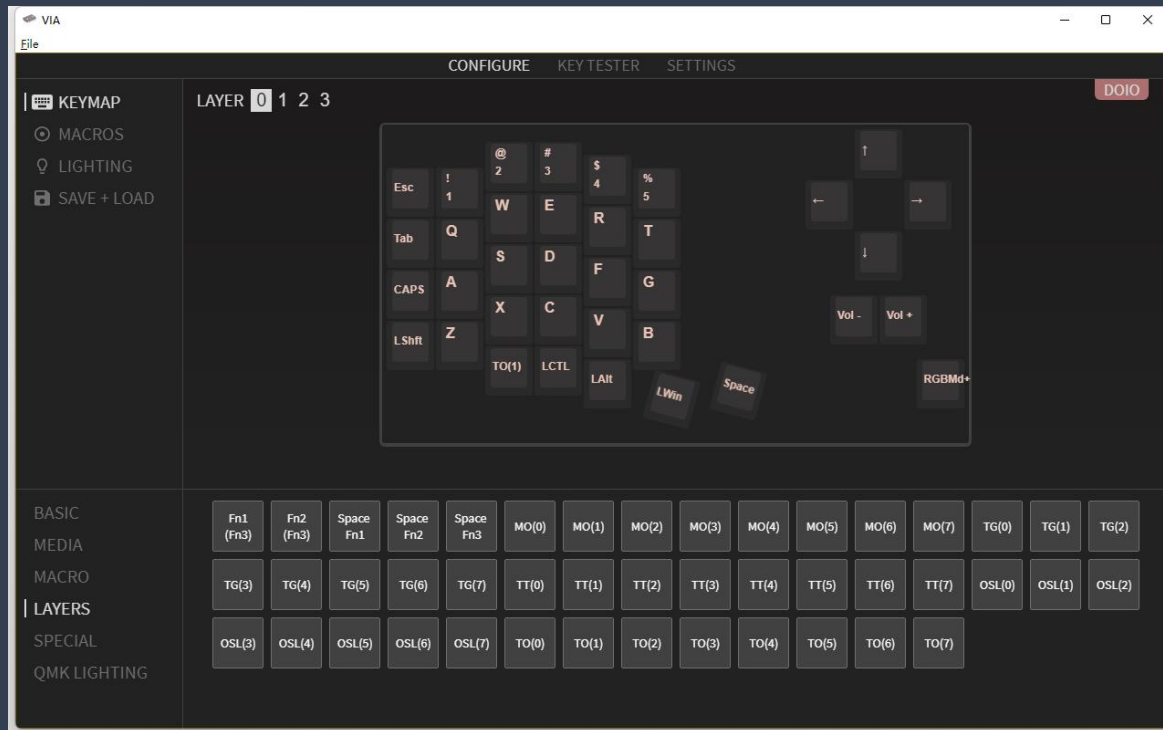


Figure 3

How to use Layer



LAYERS: Indicate the number of key values that can be set with the same key on the keyboard, and one can use the following shortcuts to change the current key to the target key value

There are various command methods that can be used for the slice function key values, the most common being MO and TO

MO(*) When this key is pressed, the current keyboard key value is temporarily switched to the corresponding layer's keyboard key value, and by pressing the corresponding layer key at the same time, the corresponding layer key value function input can be realized. Release the MO (*) key to return to the original layer.

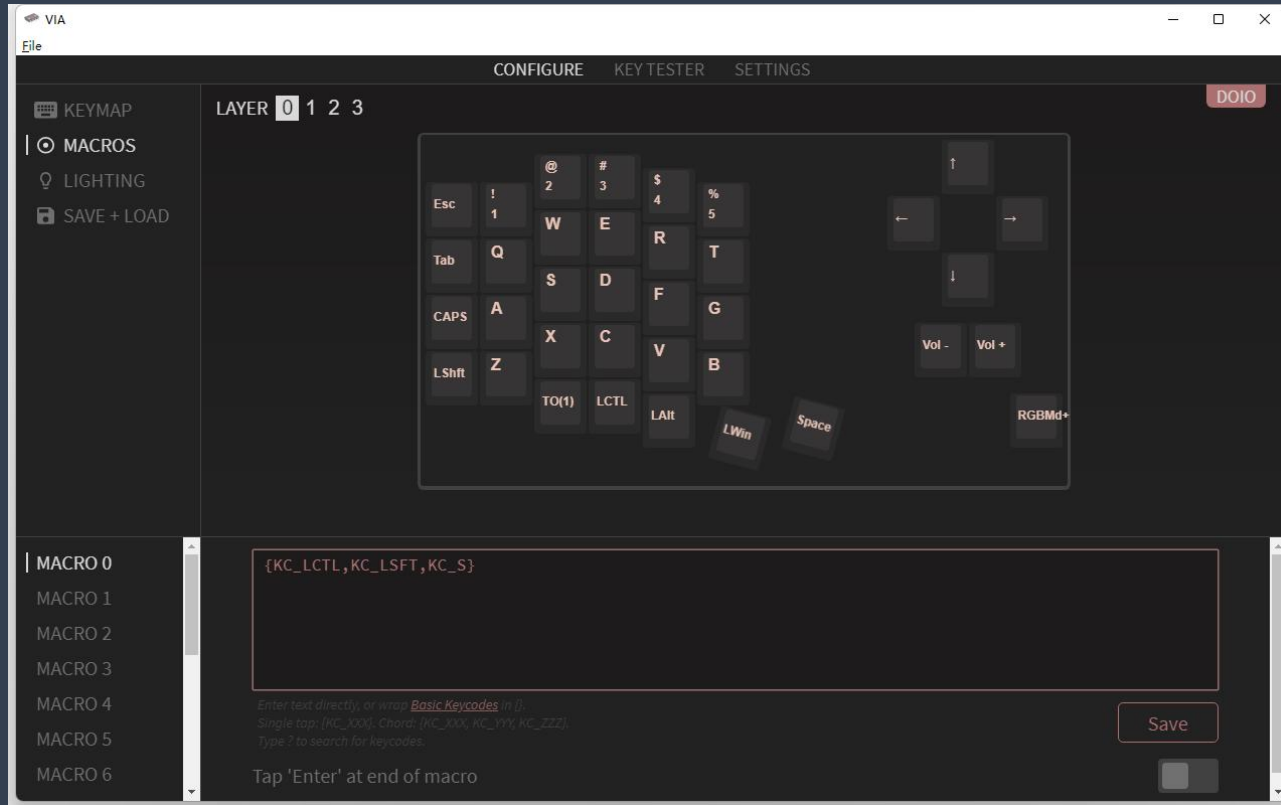
TO(*): This key is a layer switch key, and you can switch to the target layer keyboard key value by pressing it.

TG(*): This key is a layer switch key. If you press it, you can switch the current keyboard key value to the target layer's keyboard key value, and press it again to return to the original keyboard key value.

TT(*): 1、Press to temporarily switch the current keyboard key value to the corresponding layer's keyboard key value, and press the corresponding layer key at the same time to enter the corresponding layer's key value function. 2. Click 5 times in a row to switch the current keyboard key value to the target layer key value.

OSL(*): When this key is pressed, the keyboard key value will be switched to the target layer key value. After clicking on a key in the target layer, the original keyboard key value will be restored.

How to use macros

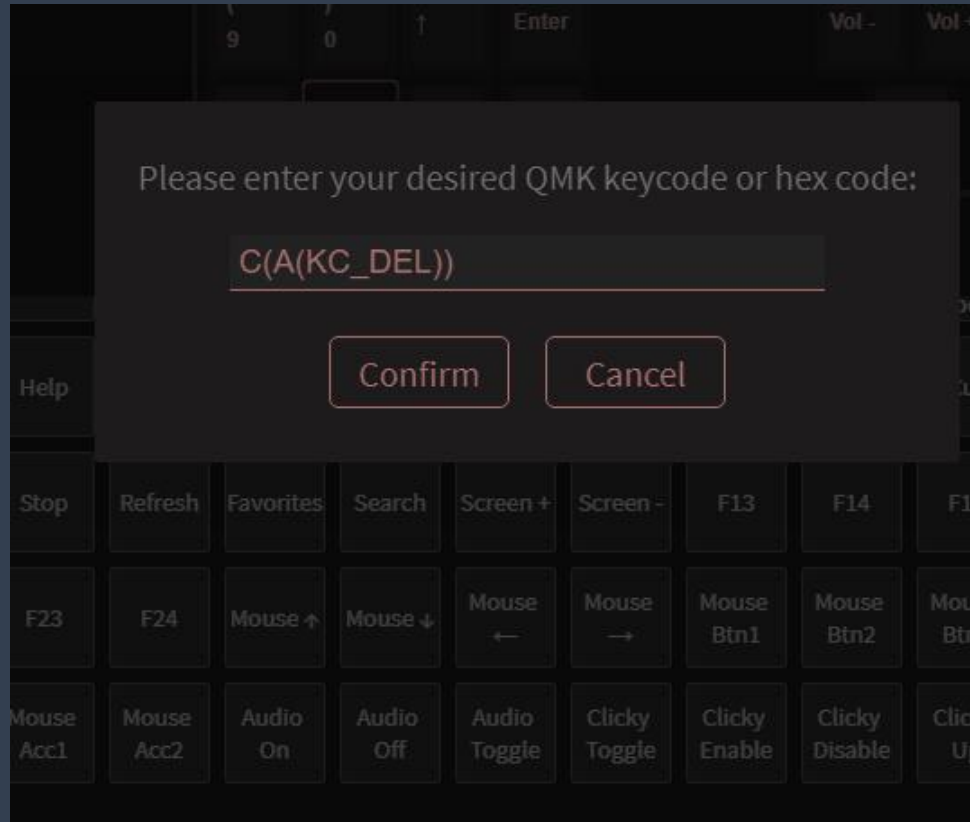


There are 16 editable macro command keys under macro editing. By editing macro commands, a single key can trigger a combination of key values.

Examples are as follows
(Take Windows VIA for example):
Ctrl+Shift+S: `{KC_LCTL,KC_LSFT,KC_S}`

Note: The macro function cannot support some simulated mouse operations. If you need to simulate mouse operation, please check the details of the ANY function section in the manual

How to use ANY



Note:

The ANY key can define the key value of only multiple function keys and one letter (number) key

For example, CTRL+ALT+A The values of function keys and multiple letters (digits) cannot be set, for example, ALT+A+O

The ANY key can edit custom key combinations. You can apply key values to the keys and knobs. First click the key you want to modify, then click the **SPECIAL** key value type in the function settings zone below, and select the key value list on the right scroll down to the bottom, click the **Any** key, and enter the corresponding ANY key value in the input box that pops up; the followthe ANY key:

Examples (Take Windows VIA for example):

How to write Ctrl+Alt+Del: `C(A(KC_DEL))`

“C” stands for “Ctrl” in this command

“A” stands for “ALT”;

“KC_DEL” stands for “Delete” key

Under the Apple MAC system, the keyboard key values correspond to the Windows key values:

`Option = Alt`

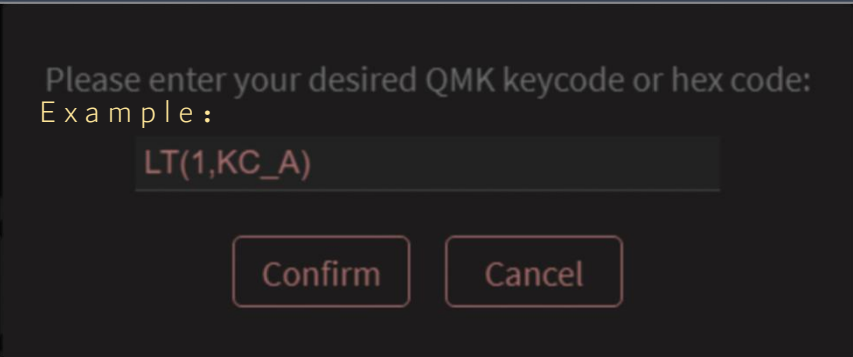
`Control = Ctrl`

`Command = Win = Meta key = Gui`

`Right Alt = AltGr = Option`

Usage of the ANY Key “LT”

LT is a two-in-one key, hold down to switch to the specified layer, click to another key value
Note that clicking on a key value cannot be a modifier such as CTRL, ALT, GUI, or SHIFT



For example: LT(1,KC_A)
When you hold it down, it switches to layer 1, and when you click it, it's the letter A

If you need to change the key value to a backlight adjustment key, you can use basic remapping to change the key value to a backlight control type key, or you can use the ANY key to change it to one of the following key values:

SWITCH: RGB_TOG

COLOR+: RGB_HUI

Saturation+: RGB_SAI

Bright+: RGB_VAI

Speed+: RGB_SPI

MODE: RGB_RMOD

COLOR-: RGB_HUD

Saturation-: RGB_SAD

Bright-: RGB_VAD

Speed-: RGB_SPD

Usage of the ANY Key “MT”

MT is a two-in-one key. Holding down is one key value, and clicking is another key value
Note that you can only hold down modifier keys such as CTRL, ALT, GUI, and SHIFT

| Modifier | Description |
|----------|--|
| MOD_LCTL | Left Control |
| MOD_LSFT | Left Shift |
| MOD_LALT | Left Alt |
| MOD_LGUI | Left GUI (Windows/Command/Meta key) |
| MOD_RCTL | Right Control |
| MOD_RSFT | Right Shift |
| MOD_RALT | Right Alt (AltGr) |
| MOD_RGUI | Right GUI (Windows/Command/Meta key) |
| MOD_HYPR | Hyper (Left Control, Shift, Alt and GUI) |
| MOD_MEH | Meh (Left Control, Shift, and Alt) |

For example:
MT(MOD_LALT,KC_A)
It's ALT when you hold it down, and the letter A when you click:

Letters and Numbers

| Key | Description |
|------|-------------|
| KC_A | a and A |
| KC_B | b and B |
| KC_C | c and C |
| KC_D | d and D |
| KC_E | e and E |
| KC_F | f and F |
| KC_G | g and G |
| KC_H | h and H |
| KC_I | i and I |
| KC_J | j and J |
| KC_K | k and K |
| KC_L | l and L |
| KC_M | m and M |
| KC_N | n and N |
| KC_O | o and O |
| KC_P | p and P |
| KC_Q | q and Q |
| KC_R | r and R |

| Key | Description |
|------|-------------|
| KC_S | s and S |
| KC_T | t and T |
| KC_U | u and U |
| KC_V | v and V |
| KC_W | w and W |
| KC_X | x and X |
| KC_Y | y and Y |
| KC_Z | z and Z |
| KC_1 | 1 and ! |
| KC_2 | 2 and @ |
| KC_3 | 3 and # |
| KC_4 | 4 and \$ |
| KC_5 | 5 and % |
| KC_6 | 6 and ^ |
| KC_7 | 7 and & |
| KC_8 | 8 and * |
| KC_9 | 9 and (|
| KC_0 | 0 and) |

At the end of the article, please find the reference key value codes for inputting key value commands in macros and ANY key:

F Keys

| Key | Description | Key | Description |
|--------|-------------|--------|-------------|
| KC_F1 | F1 | KC_F13 | F13 |
| KC_F2 | F2 | KC_F14 | F14 |
| KC_F3 | F3 | KC_F15 | F15 |
| KC_F4 | F4 | KC_F16 | F16 |
| KC_F5 | F5 | KC_F17 | F17 |
| KC_F6 | F6 | KC_F18 | F18 |
| KC_F7 | F7 | KC_F19 | F19 |
| KC_F8 | F8 | KC_F20 | F20 |
| KC_F9 | F9 | KC_F21 | F21 |
| KC_F10 | F10 | KC_F22 | F22 |
| KC_F11 | F11 | KC_F23 | F23 |
| KC_F12 | F12 | KC_F24 | F24 |

Punctuation

| Key | Aliases | Description |
|--------------------|---------|--------------------|
| KC_ENTER | KC_ENT | Return (Enter) |
| KC_ESCAPE | KC_ESC | Escape |
| KC_BACKSPACE | KC_BSPC | Delete (Backspace) |
| KC_TAB | | Tab |
| KC_SPACE | KC_SPC | Spacebar |
| KC_MINUS | KC_MINS | -and_ |
| KC_EQUAL | KC_EQL | =and+ |
| KC_LEFT_BRACKET | KC_LBRC | [and{ |
| KC_RIGHT_BRACKET | KC_RBRC |]and} |
| KC_BACKSLASH | KC_BSLS | \and |
| KC_NONUS_HASH | KC_NUHS | Non-US#and~ |
| KC_SEMICOLON | KC_SCLN | ;and: |
| KC_QUOTE | KC_QUOT | 'and" |
| KC_GRAVE | KC_GRV | `and~ |
| KC_COMMA | KC_COMM | ,and< |
| KC_DOT | | .and> |
| KC_SLASH | KC_SLSH | /and? |
| KC_NONUS_BACKSLASH | KC_NUBS | Non-US\and |

Lock Keys

| Key | Aliases | Description |
|------------------------|-----------------|--------------------------------------|
| KC_CAPS_LOCK | KC_CAPS | Caps Lock |
| KC_SCROLL_LOCK | KC_SCRL,KC_BRMD | Scroll Lock, Brightness Down (macOS) |
| KC_NUM_LOCK | KC_NUM | Keypad Num Lock and Clear |
| KC_LOCKING_CAPS_LOCK | KC_LCAP | Locking Caps Lock |
| KC_LOCKING_NUM_LOCK | KC_LNUM | Locking Num Lock |
| KC_LOCKING_SCROLL_LOCK | KC_LSCR | Locking Scroll Lock |

Modifiers

| Key | Aliases | Description |
|----------------|-------------------------|--------------------------------------|
| KC_LEFT_CTRL | KC_LCTL | Left Control |
| KC_LEFT_SHIFT | KC_LSFT | Left Shift |
| KC_LEFT_ALT | KC_LALT,KC_LOPT | Left Alt (Option) |
| KC_LEFT_GUI | KC_LGUI,KC_LCMD,KC_LWIN | Left GUI (Windows/Command/Meta key) |
| KC_RIGHT_CTRL | KC_RCTL | Right Control |
| KC_RIGHT_SHIFT | KC_RSFT | Right Shift |
| KC_RIGHT_ALT | KC_RALT,KC_ROPT,KC_ALGR | Right Alt (Option/AltGr) |
| KC_RIGHT_GUI | KC_RGUI,KC_RCMD,KC_RWIN | Right GUI (Windows/Command/Meta key) |

International

| Key | Aliases | Description |
|--------------------|---------|-----------------------|
| KC_INTERNATIONAL_1 | KC_INT1 | JIS\and_ |
| KC_INTERNATIONAL_2 | KC_INT2 | JIS Katakana/Hiragana |
| KC_INTERNATIONAL_3 | KC_INT3 | JIS ¥ and |
| KC_INTERNATIONAL_4 | KC_INT4 | JIS Henkan |
| KC_INTERNATIONAL_5 | KC_INT5 | JIS Muhenkan |
| KC_INTERNATIONAL_6 | KC_INT6 | JIS Numpad , |
| KC_INTERNATIONAL_7 | KC_INT7 | International 7 |
| KC_INTERNATIONAL_8 | KC_INT8 | International 8 |
| KC_INTERNATIONAL_9 | KC_INT9 | International 9 |
| KC_LANGUAGE_1 | KC_LNG1 | Hangul/English |
| KC_LANGUAGE_2 | KC_LNG2 | Hanja |
| KC_LANGUAGE_3 | KC_LNG3 | JIS Katakana |
| KC_LANGUAGE_4 | KC_LNG4 | JIS Hiragana |
| KC_LANGUAGE_5 | KC_LNG5 | JIS Zenkaku/Hankaku |
| KC_LANGUAGE_6 | KC_LNG6 | Language 6 |
| KC_LANGUAGE_7 | KC_LNG7 | Language 7 |
| KC_LANGUAGE_8 | KC_LNG8 | Language 8 |
| KC_LANGUAGE_9 | KC_LNG9 | Language 9 |

Commands

| Key | Aliases | Description | Key | Aliases | Description |
|-----------------|------------------------|--|--------------------|---------|------------------|
| KC_PRINT_SCREEN | KC_PSCR | Print Screen | KC_UNDO | | Undo |
| KC_PAUSE | KC_PAUS,KC_BRK,KC_BRMU | Pause, Brightness Up (macOS) | KC_CUT | | Cut |
| KC_INSERT | KC_INS | Insert | KC_COPY | | Copy |
| KC_HOME | | Home | KC_PASTE | KC_PSTE | Paste |
| KC_PAGE_UP | KC_PGUP | Page Up | KC_FIND | | Find |
| KC_DELETE | KC_DEL | Forward Delete | KC_KB_MUTE | | Mute |
| KC_END | | End | KC_KB_VOLUME_UP | | Volume Up |
| KC_PAGE_DOWN | KC_PGDN | Page Down | KC_KB_VOLUME_DOWN | | Volume Down |
| KC_RIGHT | KC_RGHT | Right Arrow | KC_ALTERNATE_ERASE | KC_ERAS | Alternate Erase |
| KC_LEFT | | Left Arrow | KC_SYSTEM_REQUEST | KC_SYRQ | SysReq/Attention |
| KC_DOWN | | Down Arrow | KC_CANCEL | KC_CNCL | Cancel |
| KC_UP | | Up Arrow | KC_CLEAR | KC_CLR | Clear |
| KC_APPLICATION | KC_APP | Application (Windows Context Menu Key) | KC_PRIOR | KC_PRIR | Prior |
| KC_KB_POWER | | System Power | KC_RETURN | KC_RETN | Return |
| KC_EXECUTE | KC_EXEC | Execute | KC_SEPARATOR | KC_SEPR | Separator |
| KC_HELP | | Help | KC_OUT | | Out |
| KC_MENU | | Menu | KC_OPER | | Oper |
| KC_SELECT | KC_SLCT | Select | KC_CLEAR_AGAIN | KC_CLAG | Clear/Again |
| KC_STOP | | Stop | KC_CRSEL | KC_CRSL | CrSel/Props |
| KC_AGAIN | KC_AGIN | Again | KC_EXSEL | KC_EXSL | ExSel |

Media Keys

| Key | Aliases | Description | Key | Aliases | Description |
|---------------------|---------|---------------------|-----------------------|---------|----------------------|
| KC_SYSTEM_POWER | KC_PWR | System Power Down | KC_WWW_SEARCH | KC_WSCH | Browser Search |
| KC_SYSTEM_SLEEP | KC_SLEP | System Sleep | KC_WWW_HOME | KC_WHOM | Browser Home |
| KC_SYSTEM_WAKE | KC_WAKE | System Wake | KC_WWW_BACK | KC_WBAK | Browser Back |
| KC_AUDIO_MUTE | KC_MUTE | Mute | KC_WWW_FORWARD | KC_WFWD | Browser Forward |
| KC_AUDIO_VOL_UP | KC_VOLU | Volume Up | KC_WWW_STOP | KC_WSTP | Browser Stop |
| KC_AUDIO_VOL_DOWN | KC_VOLD | Volume Down | KC_WWW_REFRESH | KC_WREF | Browser Refresh |
| KC_MEDIA_NEXT_TRACK | KC_MNXT | Next Track | KC_WWW_FAVORITES | KC_WFAV | Browser Favorites |
| KC_MEDIA_PREV_TRACK | KC_MPRV | Previous Track | KC_MEDIA_FAST_FORWARD | KC_MFFD | Next Track |
| KC_MEDIA_STOP | KC_MSTP | Stop Track | KC_MEDIA_REWIND | KC_MRWD | Previous Track |
| KC_MEDIA_PLAY_PAUSE | KC_MPLY | Play/Pause Track | KC_BRIGHTNESS_UP | KC_BRIU | Brightness Up |
| KC_MEDIA_SELECT | KC_MSEL | Launch Media Player | KC_BRIGHTNESS_DOWN | KC_BRID | Brightness Down |
| KC_MEDIA_EJECT | KC_EJCT | Eject | KC_CONTROL_PANEL | KC_CPNL | Open Control Panel |
| KC_MAIL | | Launch Mail | KC_ASSISTANT | KC_ASST | Launch Assistant |
| KC_CALCULATOR | KC_CALC | Launch Calculator | KC_MISSION_CONTROL | KC_MCTL | Open Mission Control |
| KC_MY_COMPUTER | KC_MYCM | Launch My Computer | KC_LAUNCHPAD | KC_LPAD | Open Launchpad |

Number Pad

| Key | Aliases | Description | Key | Aliases | Description |
|----------------|---------|-----------------------|-------------------|----------|----------------------------|
| KC_KP_SLASH | KC_PSLS | Keypad/ | KC_KP_6 | KC_P6 | Keypad6and Right Arrow |
| KC_KP_ASTERISK | KC_PAST | Keypad* | KC_KP_7 | KC_P7 | Keypad7and Home |
| KC_KP_MINUS | KC_PMNS | Keypad- | KC_KP_8 | KC_P8 | Keypad8and Up Arrow |
| KC_KP_PLUS | KC_PPLS | Keypad+ | KC_KP_9 | KC_P9 | Keypad9and Page Up |
| KC_KP_ENTER | KC_PENT | Keypad Enter | KC_KP_0 | KC_P0 | Keypad0and Insert |
| KC_KP_1 | KC_P1 | Keypad1and End | KC_KP_DOT | KC_PDOT | Keypad . and Delete |
| KC_KP_2 | KC_P2 | Keypad2and Down Arrow | KC_KP_EQUAL | KC_PEQ L | Keypad= |
| KC_KP_3 | KC_P3 | Keypad3and Page Down | KC_KP_COMMA | KC_PCMM | Keypad, |
| KC_KP_4 | KC_P4 | Keypad4and Left Arrow | KC_KP_EQUAL_AS400 | | Keypad=on AS/400 keyboards |
| KC_KP_5 | KC_P5 | Keypad5 | | | |