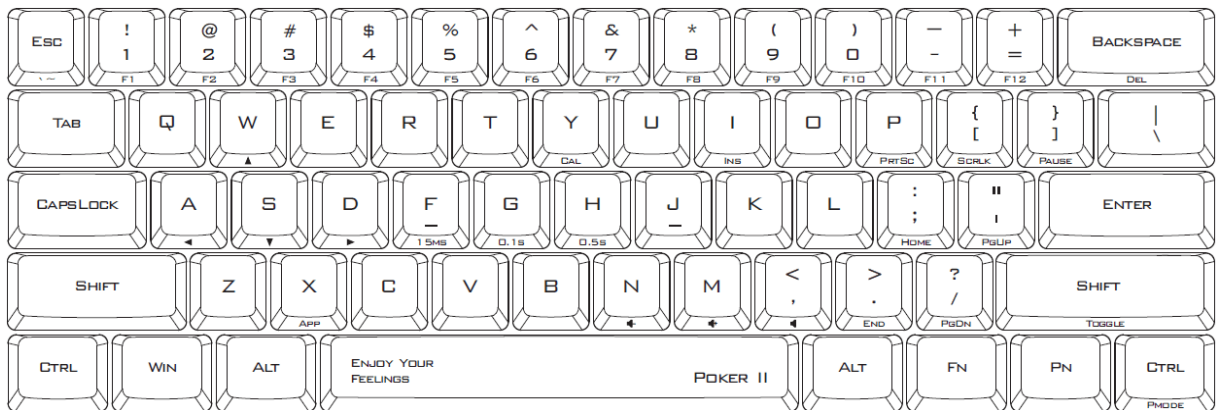# Main Features:

1. Removable
2. 60% keyboard with QWERTY layout (61 Key)
3. Cherry MX key switch (Black, Blue, Brown, Red)
4. Dual layer PCB
5. Key cap material: ABS(UV coating- Backlit version only) 、PBT
6. LED backlight (Backlit version only)
7. USB Interface

Package Material

1. Keyboard x 1
2. User Manual x 1
3. USB Cable x 1

Technical Specification

Number of keys:
US ASCII (61 keys) = US Layout
Dimension:
29.5 x 10.2 x 3.8cm (Keyboard)

Cable: **Interface:**
1.5 meters (mini USB B type)   USB (DC5V ----100mA)
Key switch life time: **Available layout:**
Cherry: >50 million actuation   US   USA
Package:
20 keyboards / 1 outer box

Programming Instruction

1. Press PMode(FN + Right CTRL) to enter the programming mode (Spacebar right LED flashing)
2. Press the key you want to program (Spacebar right LED on)
3. Key in the programming content and then press PN (Spacebar right LED flashing again)
4. Repeat step 2 and step 3 to program other keys
5. Press PMode(FN + Right CTRL) to exit programming mode (Spacebar right LED off)

Note:
- Support FN layer programming, you can select the FN combination key (e.g., FN + A) to program it
- Under SELECT state (step 1), you can press PN + any key to view its content in a word processing software (e.g., Notepad)
- Support time delay, press 15ms key(FN + F) each time to delay 15ms, press 0.1s key(FN + G) each time to delay 0.1s, press 0.5s key(FN + H) each time to delay 0.5s. Consecutive delay will add up but will only be counted as 1 key stroke
- Every key can program up to 14 key strokes
- If there is no key pressed for 15 sec in programming mode, it will exit to normal mode

Programming Usage

Press PN + Programmed key, OR
Press Toggle(FN+Right SHIFT) to light up the spacebar left LED first. Then press the programmed key directly. If you press PN + Programmed key at this moment, it will output the original key code.

Programming Examples

1. Program A as 123: FN + Right CTRL, A, 1, 2, 3, PN
2. Continue to program FN + A as 456: FN + A, 4, 5, 6, PN
3. Continue to program B as CTRL + C: B, CTRL(Not release), C, Release CTRL and C, PN
4. Continue to program C invoking CMD under WIN7: WIN, C, FN + G, M, FN + G, D, FN + H, ENTER, PN
5. Finish programming: FN + Right CTRL
6. Invoking programmed A: PN + A => Output 123
7. Invoking programmed FN + A: PN + FN+ A => Output 456
8. Invoking programmed C: PN + C => Running CMD.EXE
9. Switch to PN layer: Toggle(FN + Right SHIFT) => Spacebar left LED on
     (1) Invoking programmed B: B => Outpu CTRL + C (Same as copy)
     (2) Invoking programmed FN + A: FN+ A => Output 456(No need to press PN)
     (3) Invoking programmed C: C=> Running CMD.EXE
     (4) If you need to get the A back (Now pressing A is 123): PN + A => A

Restore to factory default

Press and hold FN + R, Spacebar left LED is flashing after 3 sec. Continue to hold FN + R until the Spacebar left LED flashes for 9 times will restore to factory default

FN General keys					Remark
FN	+	ESC	=	` ~	Key code change
		1		F1	
		2		F2	
		3		F3	
		4		F4	
		5		F5	
		6		F6	
		7		F7	
		8		F8	
		9		F9	
		0		F10	
		- _		F11	
		= +		F12	
		BACKSPACE		DEL	
		I		INS	
		P		PRINT SCREEN	
		[{		SCROLL LOCK	
		] }		PAUSE	
		; :		HOME	
		' "		PAGE UP	
		X		APP	
		. >		END	
		/ ?		PAGE DOWN	
		W		↑	
		A		←	
		S		↓	
		D		→	

FN Multimedia keys					Remark
FN	+	Y	=	Calculator	Key code change
		N		Volume Down	
		M		Volume Up	
		, <		Mute	

FN LED Control keys (Only for backlit version)				Remark
FN	+	V	=	Backlit LED on (Except Left WIN)	Press the 1st time
				Backlit LED off	Press the 2nd time
		C		Reduce LED brightness	Totally 7 level of brightness, backlight status and brightness will be saved after power down
		B		Increase LED brightness	

FN Programming Control keys					Remark
FN	+	R	=	Restore to factory default	Need to hold for 12 sec
		Right SHIFT		Switch to program layer	Press the 1st time (Right FN on)
				Switch to visible layer	Press the 2nd time (Right FN LED off)
		Right CTRL		Enter Programming Mode	Press the 1st time (PN LED flashing)
				Exit Programming Mode	Press the 2nd time (PN LED off)
		F		Delay 15ms	Only valid in Programming Mode
		G		Delay 0.1s	
		H		Delay 0.5s	

FN Special keys					Remark
FN	+	Z	=	SHIFT key is down even when the SHIFT key is released. Press the SHIFT key again will make the SHIFT key up	Press the 1st time (Left WIN LED on)
				SHIFT key returns to normal	Press the 2nd time (Left WIN LED off)
		SPACE		Change W, A, S, D to ↑, ←, ↓, →	Press the 1st time
				Change ↑, ←, ↓, → to W, A, S, D	Press the 2nd time

DIP Switch			
	ON	**OFF**	**Remark**
SW 1	CAP = Left WIN/Left FN CAP LED = Left WIN LED	CAP = CAP CAP LED = CAP LED	Default = OFF
	Left WIN/Left FN = CAP Left WIN LED = CAP LED	Left WIN/Left FN = Left WIN/Left FN Left WIN LED = Left WIN LED	
SW 2	Right CTRL = ` ~	Right CTRL = Right CTRL	Default = OFF
SW 3	Left WIN = Left FN	Left WIN = Left WIN	Default = OFF
SW 4	Write protect, try to press FN+R to program a key will cause PN LED flashing quickly for one sec and then returns to normal		Default = OFF