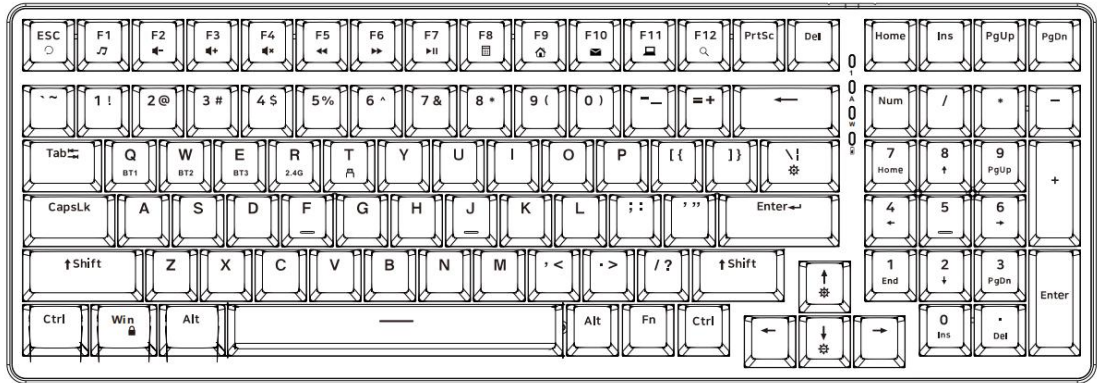


JK98 RGB Mechanical Keyboard Specification

Guangzhou Boda Electronic Equipment Co., Ltd.

SPECIFICATION



JK98 RGB Three-Mode Mechanical Keyboard

Customer Type:

Customer LOGO:

Version: 1.1

Writer	Auditor	Approved	Customer Signature
XI JIE MO			

Address:Boda Science Park, Xiapu Environmental Protection Road 3, Xintang Town,
Zengcheng City, Guangzhou City, Guangdong Province,China

Tel: +86-20-87548310

Fax: +86-20-82673197

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Figure1

Figure1: Appearance and size

Figure2: keyboard layout

Figure3: PCB wiring image

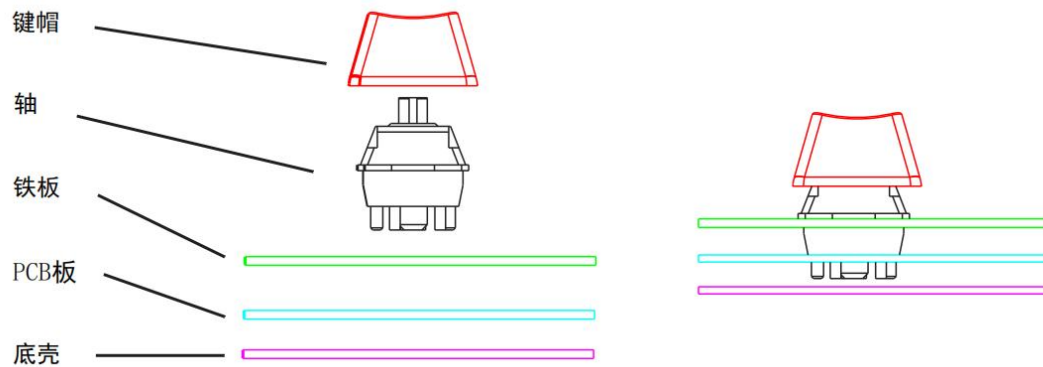
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1. Range of application

The keyboard of 100 KEY USB C wired/ 2.4 G \ Bluetooth 5.0 three mode all KEY without mechanical keyboard, and IBM/ PC Win/ XP Win/ Win10 System are fully compatible.

2. Mechanical properties

2-1. Key hole structure



2-2. Keycap operation load (finished product)

Maximum load: $75 \pm 5\text{g}$

2-3. Control runs (finished product)

Total control runs: $3.8 \pm 0.2\text{mm}$ (120g under pressure)

Highest load control runs: $4.0 \pm 0.3\text{mm}$

2-4. Key minimum back stretch: $\geq 15\text{g}$ (finished)

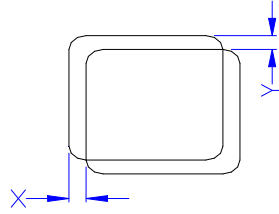
2-5. Key pull force: $\geq 1.5\text{Kg}$

2-6. Keycap deviation degree requirements

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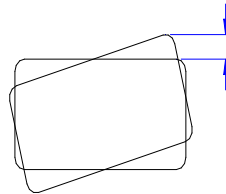
2-6-1 Key cap overall displacement demands

AS illustrated below , Keycaps in the X and Y direction displacement is less than 0.25 mm



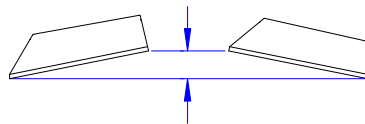
2-6-2.Turn knob Angle offset requirements:

The following figure, the key cap turn offset should be less than 0.25 mm.



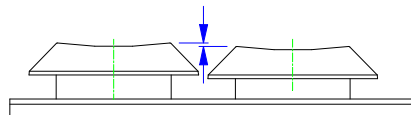
2-6-3.Inclination requirement:

The following figure, keycap tilt amount should be less than 0.35 mm.



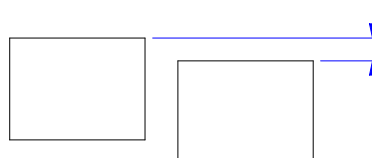
2-6-4.High and low key requirements:

The diagram below, the same row keyboard keys should be in 0.3 mm the following:



2-6-5. Line straightness requirement

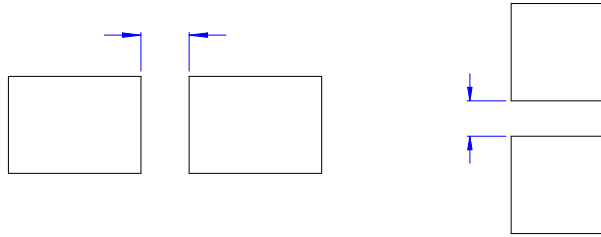
The diagram below, with rows of keys before and after the offset must be less than 0.2 mm



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2-6-6. Keycap seam requirements:

The following figure, clearance between the up and down or so was 1.0 + / - 0.2 mm



2-7. Operating life:

Mechanical electrical 50 million times

2-8. Operating temperature: 0°C to+40°C

2-9. Operating temperature: -20°C to+60°C

2-10. Feel touch

Knock at the rate of 4 times per second buttons anywhere feel no feel bad phenomenon,

2-11. Main parts material

Upper cover	Metal spray	Iron
Lower cover	Black	ABS
Keycaps	Mixed color	ABS
Tripod	Black	ABS
Switch	White+ Blue	ABS+POM
PCB	Green	FR-4 1.0

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3 Electrical characteristics

3-1. Power supply

Voltage: DC5V $\pm$ 0.5V Current: 210mA MAX. (Wired)

Voltage: DC3.7V $\pm$ 0.4V Current: 100mA MAX. (Wireless)

Internal battery capacity: 1500mAh.

3-2. Cable specifications

Cable wire sheath is PVC Black Wire, 16\0.1 full copper 2C+10\0.1 full copper 2C+AL wire length L1500 $\pm$ 30mm, Diameter 3.8 $\pm$ 0.1mm; White/black USB port

(1). USB 4-Pin Port

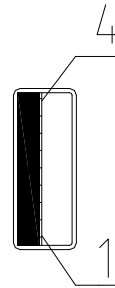
Front View

Pin 1: VDD

Pin 2: Data-

Pin 3: Data+

Pin 4: Field



(2). Cable swing test

Swing times: more than 2000 times

Weight: 100 g

Angle: $\pm 60^\circ$

Speed: 30 times/min

4. Test or inspection standard

4-1. Test conditions

In the absence of special rules, all the test according to the following conditions:

Temperature: +5 to +35 $^\circ$ C

Humidity: 45% to 85% RH

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4-2. Low temperature test

After the test according to the following conditions placed in normal room temperature and humidity room 2 hours after the test:

- (1) Temperature: $-20\pm 2^{\circ}\text{C}$
- (2) Times: 72 hours
- (3) Test form water droplets to be removed.

4-3. High temperature test:

After the test according to the following conditions placed in normal room temperature and humidity room 2 hours after the test:

- (1) Temperature: $+55\pm 2^{\circ}\text{C}$
- (2) Times: 72 hours

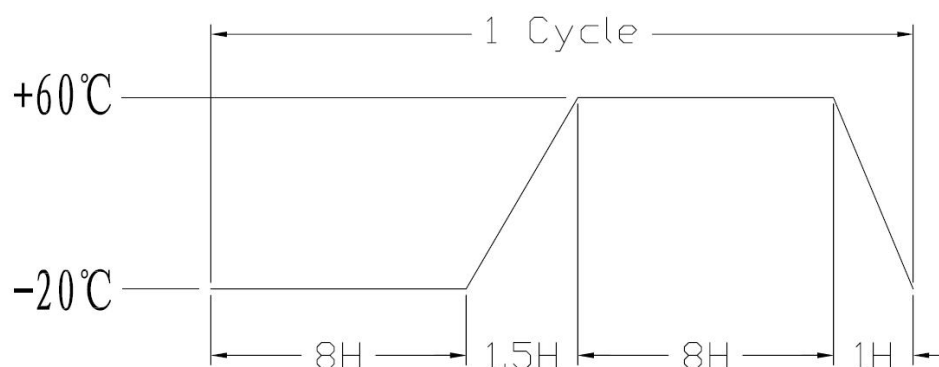
4-4. Humidity test

After the test according to the following conditions in normal room temperature and humidity room 24 hours after the test:

- (1) Temperature: $+50\pm 2^{\circ}\text{C}$
- (2) Humidity : 90 to 95%
- (2) Times: 72 hours
- (3) Test form water droplets to be removed.

4-5. High and low temperature cycle experiment

- 1) Test form water droplets to be removed
- 2) Test time: 4-5 cycle weeks , a total of 83.25 hours

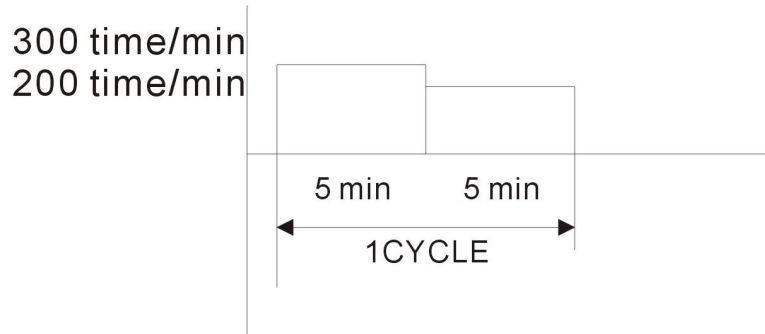


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4-6. Vibration test

Test method

Item	High	Low speed	Vibration type	Vibration time	Cycles
1	300 times/min	200 times/min	Straight	0.5 hour	3
2	300 times/min	200 times/min	Reverse	0.5 hour	3
3	300 times/min	200 times/min	Up and down	0.5 hour	3



(2) Result: no abnormal after test

4-7. Drop Test

4-7-1 With package drop test

On the carton, in the high 76 cm 1, 3, 6 surface after let it free fall, electrical and mechanical performance must be normal.

4-7-2. Product fall test (without packaging)

(1) Drop height: 50 cm, 30 mm thick wooden floor

(2) Test type: 1 Angle 3 side 1 6 each fall

(3) Result: after test, the keyboard casing cannot have broken phenomenon, electrical performance must work normally. And every time I fall behind, the common key cap off number must be less than 5 PCS, with balance beam keycap allowed to have a loss.

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5. Functional test

5.1 Keys function

Using the keyboard is special test software, to test all keys, ensure that every keycap feel and function is Pass.

5.2 Switch backlight mode and adjust the Settings

FN + \/: combination switch backlight mode, a total of 21 kinds of backlight model;

For spectrum/gradient/Breath/static/flower/wave (default)/

waterfall/fountain/wave light/rotation/tide/wave/diffusion/ripple/single point/plum stroke/streamer/rain/light star/light flower/wave zone etc

FN + TAB: switch the light color (9 kinds of color switching: rainbow, red, orange, yellow, green, green, blue, purple, white)

FN + Left Shift: Combine keys to light custom colors

First press FN + left Shift key combination into a custom mode, press FN + left Shift key combination is start recording button color (the left Shift key flashing white light recording light mode), can choose according to be fond of light color (per click switch colors red, orange, yellow, green, green, blue, purple, white).

FN + ↑ 、↓: Adjustable backlight brightness 0%-20%-40%-60%-80%-100% (80% by default), all indicators blink three times when the limit gear is set.

FN+→ Adjustable light breathing speed up a total of 5 speed adjustable (default 60%), **FN+←** Lighting speed down, a total of 5 speed adjustable 60%(default)

Keyboard RGB backlight effect and support the switch or not:

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Keyboard RGB backlight effect and support the switch or not:

Item	Name	Adjustable content				Describe
		Bright	Speed	Color	Direction	
1	spectrum	✓	✓	×	✓	Backlight overall rainbow color cycle change
	ramp	✓	×	✓	×	Keyboard whole backlight brightness from left to right to reduce color saturation decrease at the same time
	static	✓	×	✓	×	Backlight normally on display as a whole
	breathing	✓	✓	✓	×	Display backlight whole breathing
	flowers	✓	✓	×	×	Each key light gradient of freedom
2	flowers	✓	✓	✓	✓	Light shows wave state, horizontal flow,
	waterfall	✓	✓	✓	✓	Light shows waterfall state, up and down flow
	geyser	✓	✓	✓	✓	Lights in fountain shape, from middle to flow around
	Virdem	✓	✓	✓	×	Light showed the fluctuating state of the lake
	rotate	✓	✓	✓	✓	Lights spinning at the center of the keyboard
	tide	✓	✓		×	Lights spinning at the center of the keyboard
	wave	✓	✓		×	Lights show the waves hit the coast state, lights to the side and back
3	diffuse	✓	✓	✓	×	Lights show the waves hit the coast state, lights to the side and back
	ripple	✓	✓	✓	×	Trigger buttons, buttons to center spread
	point	✓	✓	✓	×	Press the button light, loosen the button slowly extinguished
	plum blossom	✓	✓		×	Trigger buttons, buttons centered, shows that the plum blossom
	Key	✓	✓	✓	×	After press the button, light up the keys light, loosen the extinguished
4	meteor	✓	✓	✓	×	Lights show meteor state
	Falling rain	✓	✓	✓	×	Lights show water state
	starlight	✓	✓	✓	×	Light show star state, random light on/off
	fireworks	✓	✓	✓	×	Light show of fireworks state
	wave zone	✓	✓	✓	×	Lights show fluctuating state
5	user-defined	✓	×	✓	×	Users can customize each key color

✓: Support Adjustment

×: Nonsupport Adjustment

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5.3 Fn+[F1~F12]Combination of **multimedia** function

	Combination	Function	Combination	Function
FN+	F1	Player	F7	Pause&play
	F2	Volume -	F8	Calculator
	F3	Volume +	F9	Web page
	F4	Mute	F10	Mail
	F5	Last song	F11	My PC
	F6	Next song	F12	Search

5.4 Fn+Combination of functional description

FN+ WIN: Windows Key lock.At the same time have a corresponding indicator said that the current keyboard mode.

FN+ESC restore the original factory Settings : Press FN+ESC for 3 seconds to restore the original factory Settings.

FN+A: Switch Windows system.

FN+S:Switch MAC system.

5.5 Toggle switch at the bottom for wireless mode power switch;

USB C Wired/2.4G wireless/Bluetooth mode switching pairing,

code connection description:

Bluetooth 1:Fn + Q(switch ON mode at the bottom), press the switch and Q slowly flashes white; . Long press to pair for 3 ~ 5 seconds)Q flash blue light indicator, device called KB5.0-1; After successful connection, the whole backlight effect is lit. The match failed to enter hibernation after 2 minutes and failed to enter hibernation even after 20 seconds.

Bluetooth 2:Fn + W(bottom switch to switch ON mode), press the switch and W slowly flashes white; . Long press to pair for 3 ~ 5 seconds)W flash blue light indicator, device called KB5.0-2: The whole backlight effect will be lit after successful connection; The match failed to enter hibernation after 2 minutes and failed to enter hibernation even after 20 seconds.

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Bluetooth 3:Fn + E(switch ON mode at the bottom), press the switch and E slowly flashes white; . Long press to pair for 3-5 seconds)E flash blue light indicator, device called KB5.0-3: The whole backlight effect will be lit after successful connection; The match failed to enter hibernation after 2 minutes and failed to enter hibernation even after 20 seconds.

2.4G :Fn + R(switch ON mode at the bottom), press the switch and R slowly flashes white; . Long press pairing for 3 ~ 5 seconds)Q The green light flashes quickly to indicate the matching state. At this time, insert the 2.4G receiver (the distance between the keyboard and the receiver should not exceed 30cm); After successful connection, the whole backlight effect is lit. The match failed to enter hibernation after 2 minutes and failed to enter hibernation even after 20 seconds

USB: Fn + T wired USB switch has no function when no USB cable is connected (it also has charging function when inserting the USB cable, while the battery indicator is normally bright red).

5.6

Indicator: There are four indicators from top to bottom: Num Lock, Caps Lock, WIN Lock, low d voltage alarm blinking red and charging indicator steady red (sharing the same command area). When the battery voltage is lower than 3.4V, the indicator keeps flashing red to remind you to charge. When charging, the indicator light is steady red, and when the battery is full, the indicator light is off.

6. Identification

There should be identification on bare keyboard, single keyboard and reinforced carton. The keyboard and logo on the individual package should have the product model number, version, serial number and production date code.

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7. Size and weight of the keyboard

Size: (L) 385.2mm x 137.5(W) mm x 44.2(H) mm

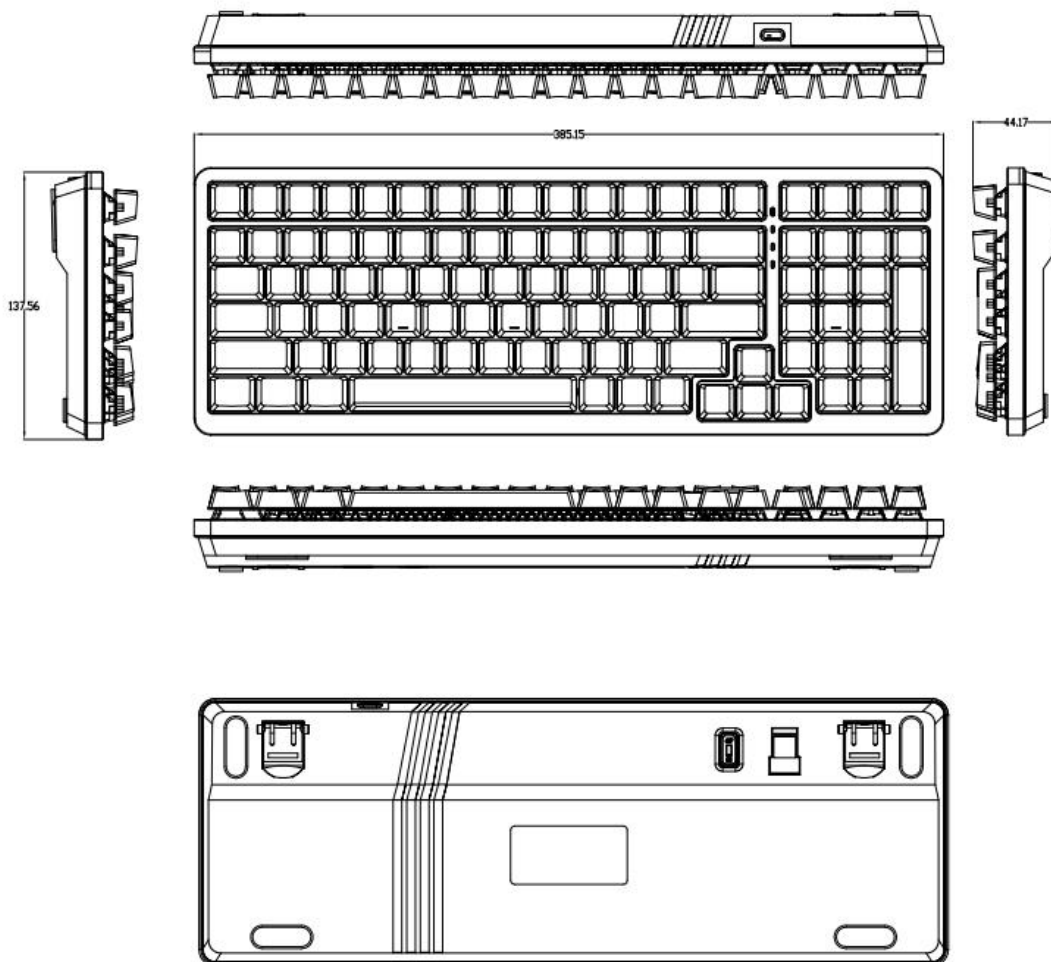
Weight: 870g $\pm$ 20

8.LOGO &characters of the process

Logo: printing or laser carving

Character: double color injection molding

FIG. 1: Appearance& size



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FIG. 2 : Keyboard layout (standard US Layout)

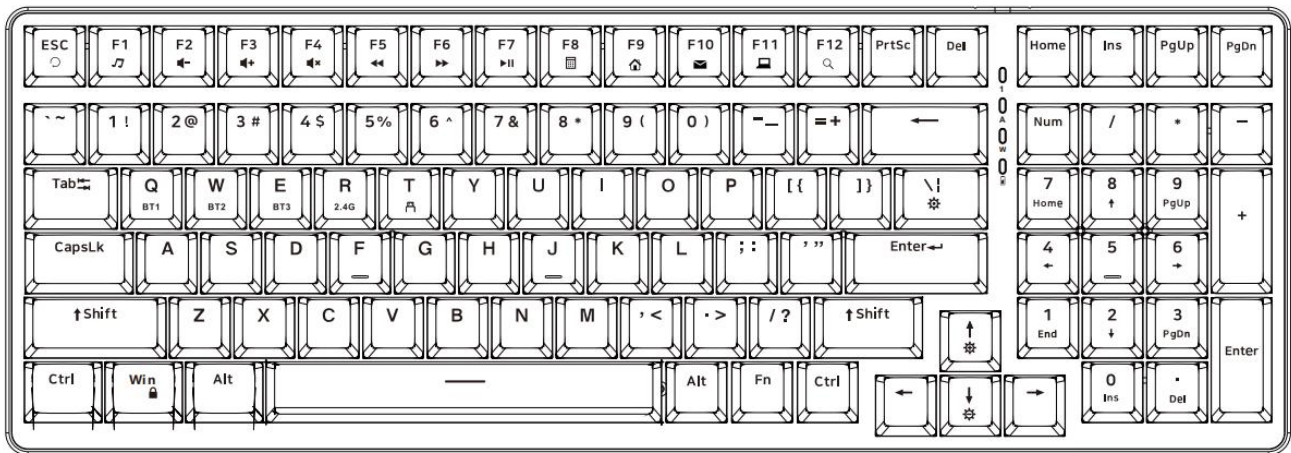


FIG. 3 : PCB circuit diagram

