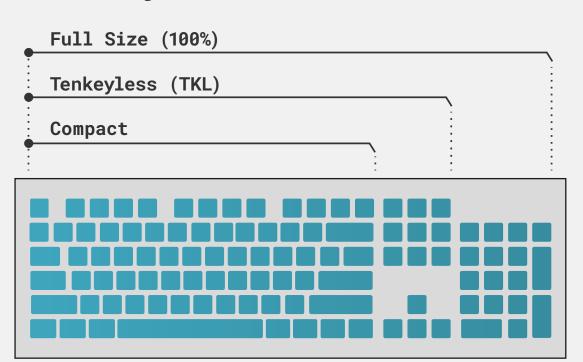
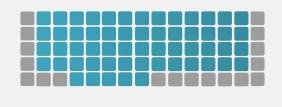
# 1 Keyboard

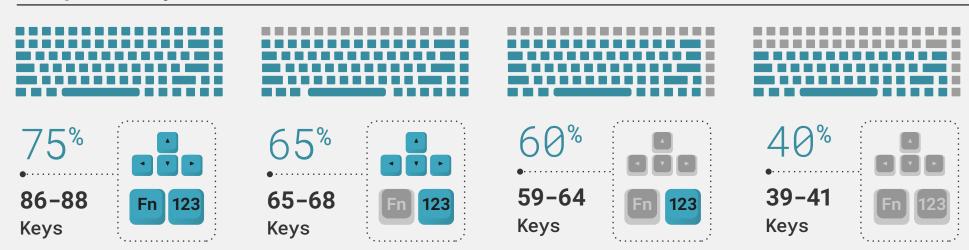


Split & Ergonomic Separated in 2 modules, with different shapes and layouts.



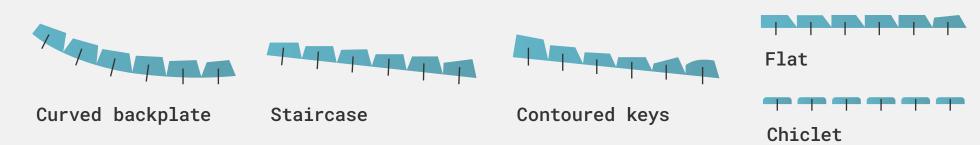
**Ortho** The rows are straight and in line with each other, freedom of functionality/programmability.

## Compact keyboards



This is a simplification. The presence and position of some modifiers may vary. Check carefully the keyboard layout you pick.

# Keyboard profile



# Modifiers compatibility

IXI	IXI	IXI	Space	bai	IXI	IXI	IXI	IXI
1x1.25	1x1.25	1x1.25	1x6.25		1x1.25	1x1.25	1x1.25	1x1.25
R1	R1	R1	Space	bar	R1	R1	R1	R1
1x1.5	1x1	1x1.25	1x6.50		1x1.25	11 1	1x1	1x1.5
IXIII	x	171120	IXOTO				ı.x.	IXIIO
D4		D.4	7 [		D4		D4	<b>D</b> 4
R1	R1	R1	Spac	ebar	R1	R1	R1	R1
1x1.5	1x1	1x1.5	1x6.00	)	1x1.5	1x1	1x1	1x1.5
R1	R1	R1	R1	Spacebar	R1	R1	R1	R1
1x1.25	1x1.25	1x1.25	1x1.25	1x5.00	1x1.25	1x1.25	1x1.25	1x1.25
171.72	171.72	171.72	181.25	183.00	181.25	1×1.25	181.25	181.23

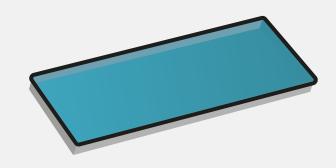
D1 D1 D1 Chacebar D1 D1 D1 D1

# Standard bottom row

All bottom row modifiers are 1.25 wide.

Non-Standard bottom row The bottom row modifiers vary in size.

# <sup>2</sup> Case



### Common materials







Acrylic



## 2-Piece construction

Such a kit consists of a case and a PCB/Plate combo. PCB and plate are only counted as ONE piece since the plate is potentially optional.

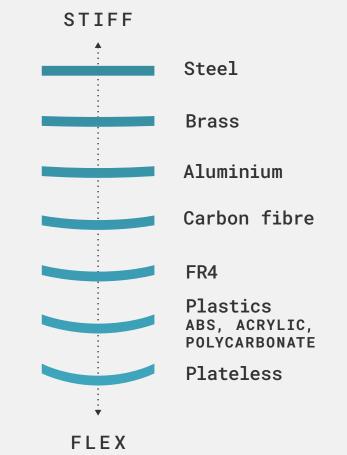
## 3-Piece construction

On top of the Two Piece construction content, these kits usually include a top frame for the case and is commonly held in place by screws through the bottom case.

# 3 Plate & PCB

### Hard plate vs soft plate

The main factor affecting typing feel is how hard the plate is during bottom out.



# **PCB**

# Regular PCB

With multiple solder points (plated through-holes) to accommodate alternate layouts

### Hot swap PCB

It allows to swap out the switch without having to solder or desolder anything.

'A' AA ALAGAAAAA 

# 4 Switches

### Types of switch

# Linear switches

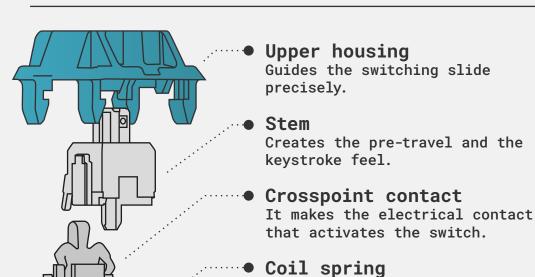
Move straight up and down. No tactile feedback or clicking noise. Rapid actuation.

### Tactile switches

Provide a noticeable bump in the middle of travel to let the user feel the response of the operation.

Clicky switches Similar to tactile, but with a "click" sound when the key is activated.

# Switch structure



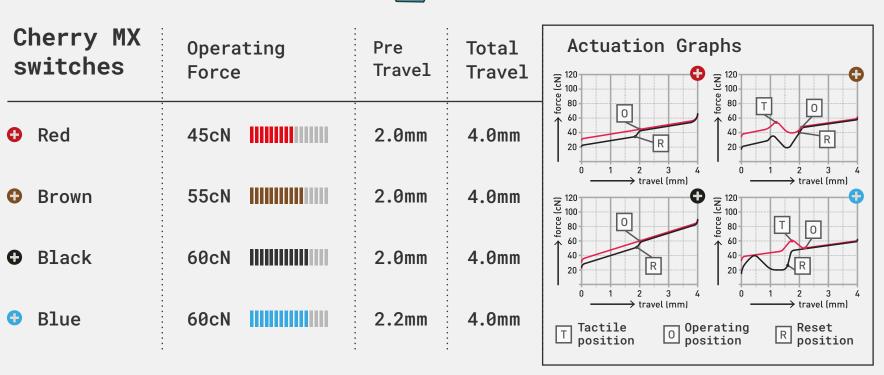
### position. Housing base

The inner part forms the mounting for the keyswitch's switching mechanism. The outer part is both the base and mounting surface for mechanical keyboards.

Sets up the pressure needed to

switch moving back to original

activate the switch and helps the



### Technical characteristics



Operation force How hard you have to press the key. It is measured in centinewton (cN) or gram-force (gf).

0-55	cN	$\equiv$	Light
55-75	cN	$\equiv$	Medium
75-95	cN	I	Heavy

95+ cN Super Heavy

When a keypress is recognized by the keyboard. It is measured in millimeters. It is also known as operating position or actuation point.

Reset position The distance at which the key is deactivated when released.

### **▼** Total travel distance The distance your keycap travels until it hits the upper housing of the switch (the distance until you bottom out). It is measured in millimeters.

# Tactile position

The point where you feel the bump on tactile and clicky switches. On linear switches, there's no tactile position.

# 5 Keycaps

**Keycaps profile** 

R1 R2 R3 R4 Space

.....

# **Keycaps materials**

Merch available at <u>superanked.com</u>

Impact resistant, lightweight and durable. Uncoated ABS keycaps are prone to becoming shiny over time. Common due to low cost in manufacture.

A more chalky feel and higher resistance to key shine than ABS. Heavier than ABS. Less common due to higher cost.

Similar properties to PBT with resistance to shine and heavier compared to ABS. Less common than PBT due to even higher cost of manufacture. Very smooth feel due to low coefficient of friction.

## **Keycaps printing**



Double shot injection molding This keycap type is produced when two layers of

plastic are molded into each other. With this method, markings cannot be worn off and the characters can achieve high contrast.

# Dye sublimation



Process where heat is used to impregnate a material with a dye. Dye sublimation requires that the dye must be darker than the material it is being used to dye.

Pad printing Pads are dipped into ink, and then pressed onto

the keycap to form a layer of ink on top of the keycap. This is flexible (i.e. various colors) but the ink is prone to wear.

### Screen printing with UV coat Also called as silk screen printing. The letters



will be hollowed in a specially made woven mesh. When the paint is brushed, paint will fill the hollow parts and print letters on keycaps. It can also print various colors. A UV coating will be added on top of letters.

# ري عيلي

## Laser ablation

The transparent plastic is covered in paint, and a laser burns off the paint to expose the transparent plastic in the shape of the character.



## Laser etching

A laser is used to burn the required letters into the keycaps. This printing is mainly used for white keycaps, grey keycaps, or bamboo.