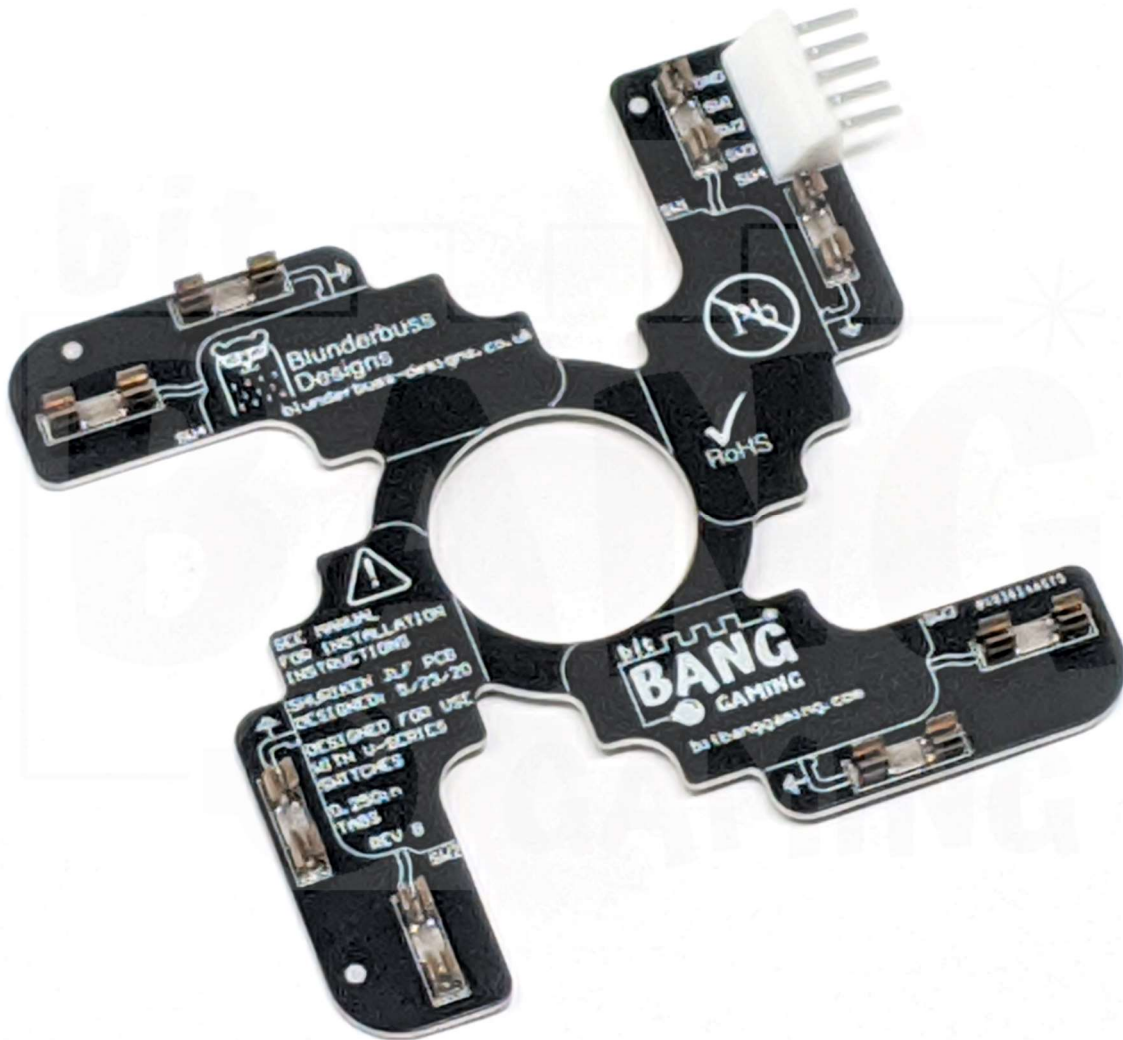


Shuriken JLF PCB



A collaborative project with Bit Bang Gaming LLC & Blunderbuss Designs.



Blunderbuss Designs



www.bitbanggaming.com



www.blunderbuss-designs.co.uk



@BitBangGaming



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Overview

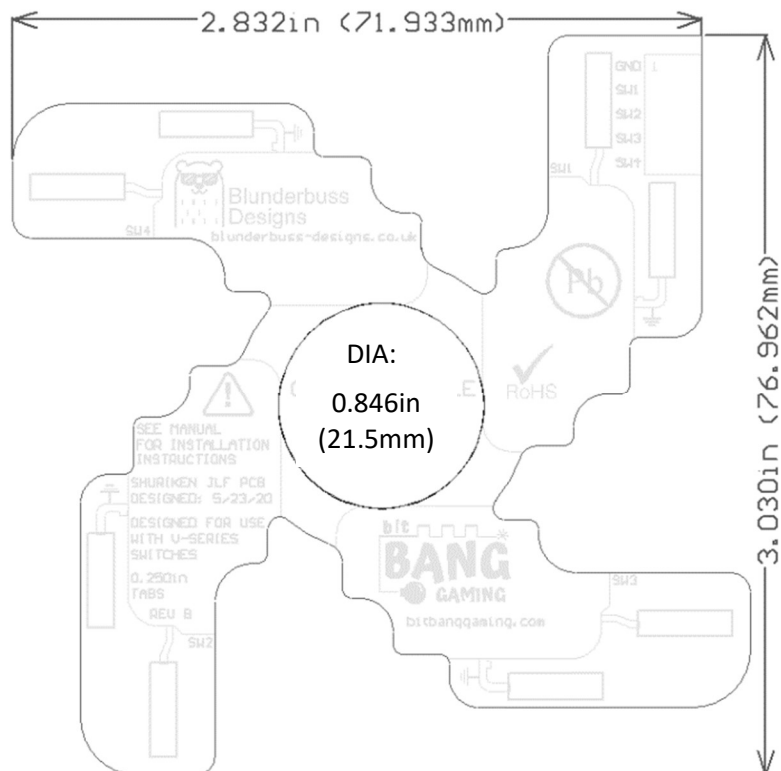
Product Description:

Replacing a switch on your Sanwa JLF PCB is tedious and daunting! We aim to make life a bit easier with the Shuriken JLF PCB. It fits perfectly into an authentic Sanwa JLF stick (or clone) as it is designed to be a drop-in replacement. It is also compatible with the Sanjuk V3 and the OTTO DIY V2 & V5 Kit.

Each switch can be replaced separately with no need for soldering and no need to replace a whole PCB that might have other functioning switches. You can swap out switches on the fly and even mix in different operating forces. The Shuriken JLF PCB was specifically designed for the Omron V series switches and is also compatible with the Omron D3V series. In total, there are 60+ switches that are compatible - please refer to our compatibility chart below for the full list of switches.

The PCB's core is made from aluminum so it's sturdier than the OEM PCB which is made from phenolic (aluminum is also way cooler). A 5-pin JST-NH connector serves as the connection port, just like in an authentic Sanwa JLF PCB.

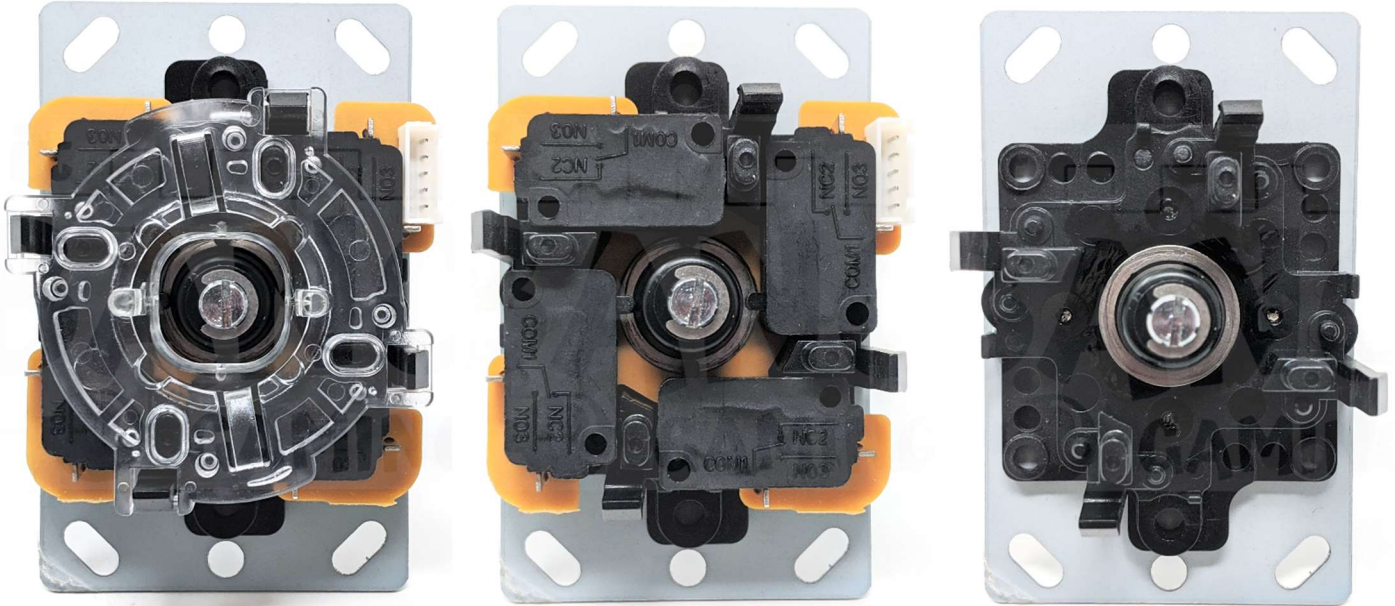
Dimensions:



How to Use

The Shuriken JLF PCB will come without the switches installed (switches are sold separately). The main part that keeps the PCB in place is the plastic housing on the joystick and the joystick gate. As the switches get installed, the whole assembly will start to feel more and more solid. Follow the steps below for installation procedure.

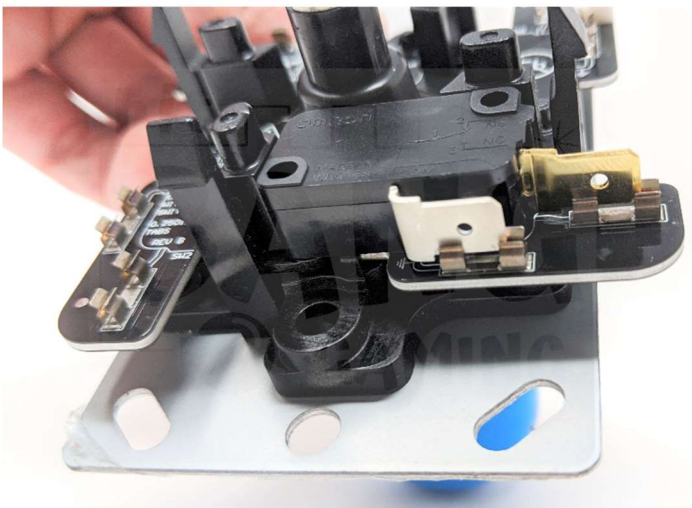
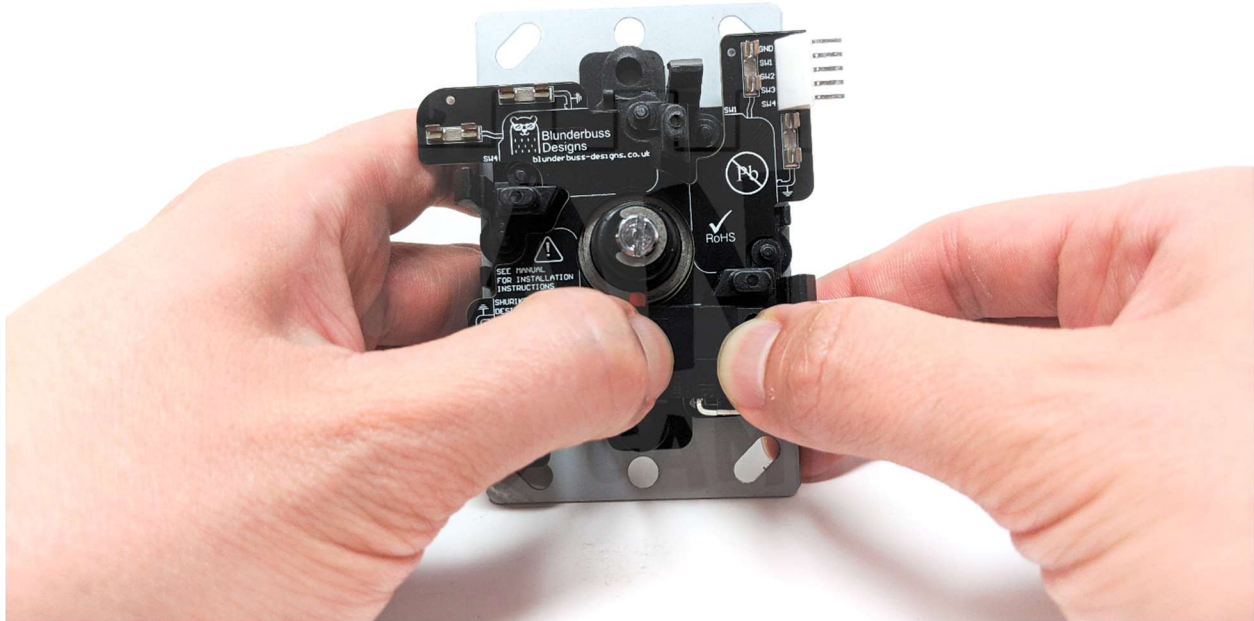
1. Take off the joystick gate and remove the stock PCB.



2. Replace with the Shuriken JLF PCB.



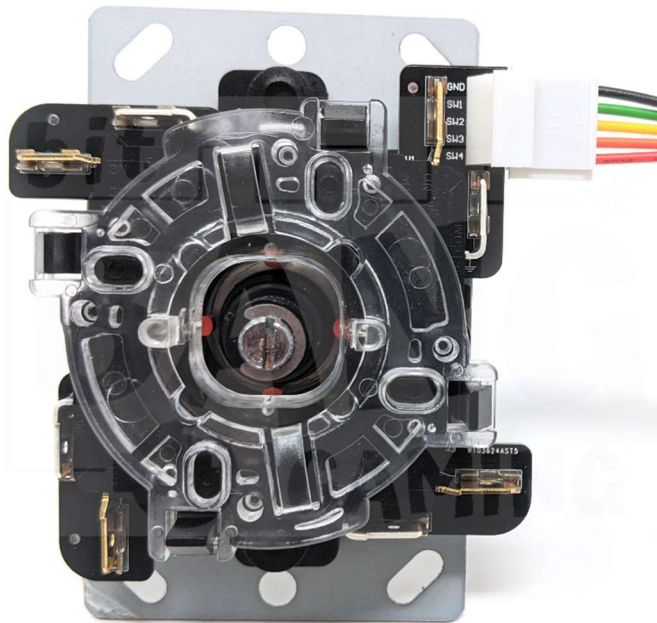
3. Carefully align each microswitch with the retention tabs. Make sure the microswitch terminals are between the retention tabs. The microswitches should naturally find its place when it aligns to the plastic pegs on the housing of the joystick. A firm push down will fully seat the microswitch.



4. Place the joystick gate back onto the joystick housing. Once snapped in, the Shuriken JLF PCB will be firmly secured.



5. Plug in the 5-pin wiring harness into the pin header.



6. Installation is complete and ready to use!

Compatible Switches

(Switches sold separately)

The Shuriken JLF PCB was specifically designed for the Omron V series switches. It is also compatible with the Omron D3V series.

These Omron switches were chosen because they have a variety of operating forces. At any moment in time we will be carrying a variety of these switches. If you are looking for a switch we do not have in stock, these may be found at common electronic component suppliers and arcade part distributors. **Due to technical reasons, the microswitch terminals must be 0.250in (6.35mm).**

Please see below for the compatibility list. For a frame of reference, 200gf (1.96N) is slightly stiffer than the stock JLF switches. Highest force is 400gf (3.92N) and lowest force is 25gf (0.25N).

Part Number	Configuration	Actuator	Actuation Force
D3V-6G-1C3	SPDT	Pin Plunger	50gf (0.49N)
D3V-01-1C3	SPDT	Pin Plunger	50gf (0.49N)
D3V-01-3C3	SPST-NO	Pin Plunger	50gf (0.49N)
D3V-11G1-1C3	SPDT	Short Hinge Lever	50gf (0.49N)
D3V-11G1M-1C3	SPDT	Short Hinge Lever	50gf (0.49N)
D3V-11G1-3C3	SPST-NO	Short Hinge Lever	50gf (0.49N)
D3V-11G1M-3C3	SPST-NO	Short Hinge Lever	50gf (0.49N)
D3V-6G1-1C3	SPDT	Short Hinge Lever	50gf (0.49N)
D3V-6G1M-1C3	SPDT	Short Hinge Lever	50gf (0.49N)
D3V-6G1-3C3	SPST-NO	Short Hinge Lever	50gf (0.49N)
D3V-6G1M-3C3	SPST-NO	Short Hinge Lever	50gf (0.49N)
D3V-011-1C3	SPDT	Short Hinge Lever	50gf (0.49N)
D3V-011M-1C3	SPDT	Short Hinge Lever	50gf (0.49N)
D3V-011-3C3	SPST-NO	Short Hinge Lever	50gf (0.49N)
D3V-011M-3C3	SPST-NO	Short Hinge Lever	50gf (0.49N)
V-21-1C6	SPDT	Pin Plunger	400gf (3.92N)
V-21-3C6	SPST-NO	Pin Plunger	400gf (3.92N)
V-16-1C6	SPDT	Pin Plunger	400gf (3.92N)
V-16-3C6	SPST-NO	Pin Plunger	400gf (3.92N)
V-15-1C6	SPDT	Pin Plunger	400gf (3.92N)
V-15-3C6	SPST-NO	Pin Plunger	400gf (3.92N)
V-15-1C6-T	SPDT	Pin Plunger	400gf (3.92N)
V-211-1C6	SPDT	Short Hinge Lever	400gf (3.92N)
D3V-01-1C2	SPDT	Pin Plunger	25gf (0.24N)
D3V-01-3C2	SPST-NO	Pin Plunger	25gf (0.24N)
V-16-1C5	SPDT	Pin Plunger	200gf (0.98N)
V-16-3C5	SPST-NO	Pin Plunger	200gf (0.98N)
V-15-1C5	SPDT	Pin Plunger	200gf (0.98N)

V-15-3C5	SPST-NO	Pin Plunger	200gf (0.98N)
V-10-1C5	SPDT	Pin Plunger	200gf (0.98N)
V-10-3C5	SPST-NO	Pin Plunger	200gf (0.98N)
V-15-1C5-T	SPDT	Pin Plunger	200gf (0.98N)
V-10-1C5-T	SPDT	Pin Plunger	200gf (0.98N)
D3V-16-1C5	SPDT	Pin Plunger	200gf (0.98N)
D3V-16-3C5	SPST-NO	Pin Plunger	200gf (0.98N)
D3V-11-1C5	SPDT	Pin Plunger	200gf (0.98N)
V-161-1C5	SPDT	Short Hinge Lever	200gf (0.98N)
D3V-161-1C5	SPDT	Short Hinge Lever	200gf (0.98N)
D3V-161M-1C5	SPDT	Short Hinge Lever	200gf (0.98N)
D3V-161-3C5	SPST-NO	Short Hinge Lever	200gf (0.98N)
D3V-161M-3C5	SPST-NO	Short Hinge Lever	200gf (0.98N)
D3V-111-1C5	SPDT	Short Hinge Lever	200gf (0.98N)
D3V-111M-1C5	SPDT	Short Hinge Lever	200gf (0.98N)
D3V-111-3C5	SPST-NO	Short Hinge Lever	200gf (0.98N)
D3V-111M-3C5	SPST-NO	Short Hinge Lever	200gf (0.98N)
D3V-21G-1C4A	SPDT	Pin Plunger	125gf (1.23N)
D3V-21G1-1C4A	SPDT	Short Hinge Lever	125gf (1.23N)
D3V-21G1M-1C4A	SPDT	Short Hinge Lever	125gf (1.23N)
D3V-21G1-3C4A	SPST-NO	Short Hinge Lever	125gf (1.23N)
D3V-21G1M-3C4A	SPST-NO	Short Hinge Lever	125gf (1.23N)
V-10-1C4	SPDT	Pin Plunger	100gf (0.98N)
V-10-3C4	SPST-NO	Pin Plunger	100gf (0.98N)
V-10-1C4-T	SPDT	Pin Plunger	100gf (0.98N)
D3V-11-1C4	SPDT	Pin Plunger	100gf (0.98N)
D3V-6-1C4	SPDT	Pin Plunger	100gf (0.98N)
V-111-1C4	SPDT	Short Hinge Lever	100gf (0.98N)
D3V-161-1C4	SPDT	Short Hinge Lever	100gf (0.98N)
D3V-161M-1C4	SPDT	Short Hinge Lever	100gf (0.98N)
D3V-161-3C4	SPST-NO	Short Hinge Lever	100gf (0.98N)
D3V-161M-3C4	SPST-NO	Short Hinge Lever	100gf (0.98N)
D3V-111-1C4	SPDT	Short Hinge Lever	100gf (0.98N)
D3V-111M-1C4	SPDT	Short Hinge Lever	100gf (0.98N)
D3V-111-3C4	SPST-NO	Short Hinge Lever	100gf (0.98N)
D3V-111M-3C4	SPST-NO	Short Hinge Lever	100gf (0.98N)
D3V-61-1C4	SPDT	Short Hinge Lever	100gf (0.98N)
D3V-61M-1C4	SPDT	Short Hinge Lever	100gf (0.98N)
D3V-61-3C4	SPST-NO	Short Hinge Lever	100gf (0.98N)
D3V-61M-3C4	SPST-NO	Short Hinge Lever	100gf (0.98N)

Questions?



If you have any questions please connect via Twitter (@BitBangGaming) or email (bitbanggaming@gmail.com).

Revisions

Revision	Date	Description	Initials
A	6/14/2020	Prototype	JC
B	7/15/2020	Initial Release	JC
C	11/25/2020	Switch update, Intro update (Sanjuk V3 & Otto V2), Dimension correction	JC