

# Shuriken Korean Lever PCB



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



Blunderbuss Designs



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# Overview

## **Product Description**

Korean levers can be a pain to wire up and the end result can look like wire spaghetti, despite best efforts. To clean up this modding process we came up with a solution that integrates all wiring and connections into one simple product. Enter the Shuriken Korean Lever PCB! The following features are:

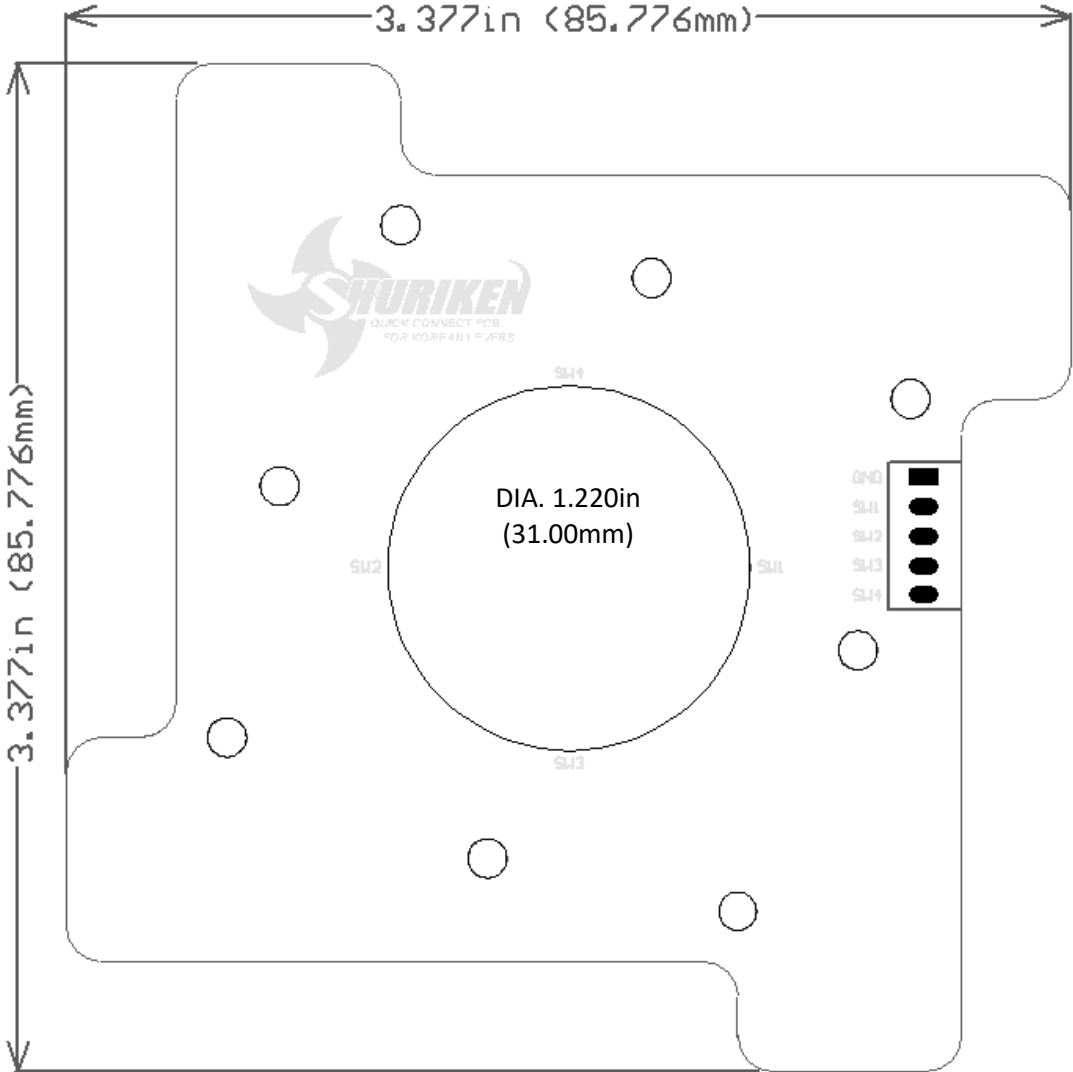
- ✦ A clean solution to wiring up the switches by using a PCB that comes with heavy duty clips. Installing switches to the PCB takes seconds!
- ✦ Elegantly breaks out all signals to a 5-pin JST-NH connector.
- ✦ Presses down on all switch bodies evenly. This eliminates switch tilt found on some Korean levers and creates a predictable mechanical installation.
- ✦ Labels all switches and pins to help understand which wires on the 5-pin JST-NH connector perform which directional action.
- ✦ Sports a 2mm thick aluminum core for added durability and sleek look.

The Shuriken Korean Lever PCB was specifically designed for the Gersung GSM-V series and Omron V series that offer 0.187 inch quick disconnect terminals. It is compatible with many Korean levers.

## **Compatibility List**

- ✦ ASI Golden Lever
- ✦ Cool Bear Lever V1 
- ✦ Coorejam V3
- ✦ Crown 303A / FK
- ✦ Crown 303N
- ✦ Crown 303 Crazy Dongpal
- ✦ Crown 309Helpme
- ✦ Crown 309MJ-Benylis
- ✦ Crown 309MJ-KMS-ST25
- ✦ Crown 309MJ-KMS-ST35
- ✦ Crown 309FJ-KMS-ST25
- ✦ Crown 309FJ-KMS-ST35
- ✦ IST Alpha 49s
- ✦ IST Fujin V3
- ✦ IST Knee Lever
- ✦ Myoungshin Fanta (pre-2019 & 2019, late 2020)
- ✦ Sanjuks V5, V5C, & V6
- ✦ Taeyoung Fanta

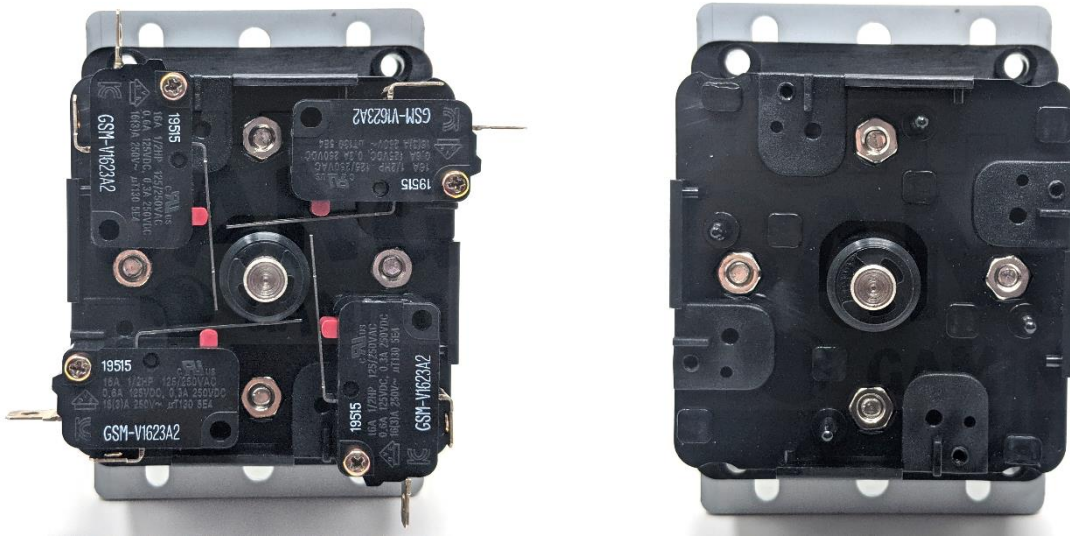
**Dimensions:**



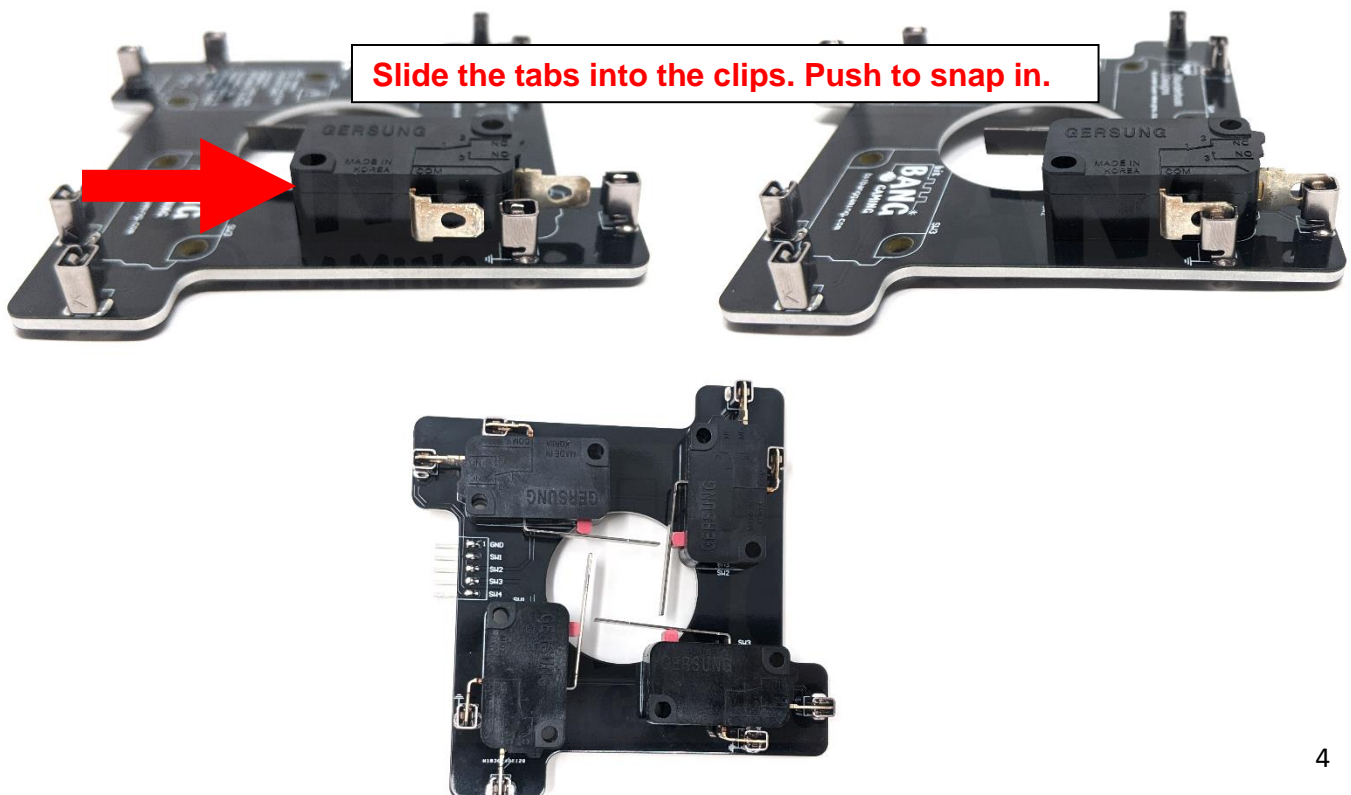
# How to Use

The Shuriken Korean Lever PCB will come without the switches installed. The main part that keeps the PCB in place are the screws that are installed on a lever to secure the switches. Follow the steps below for installation procedure. The below installation examples are with a Taeyoung Fanta Lever.

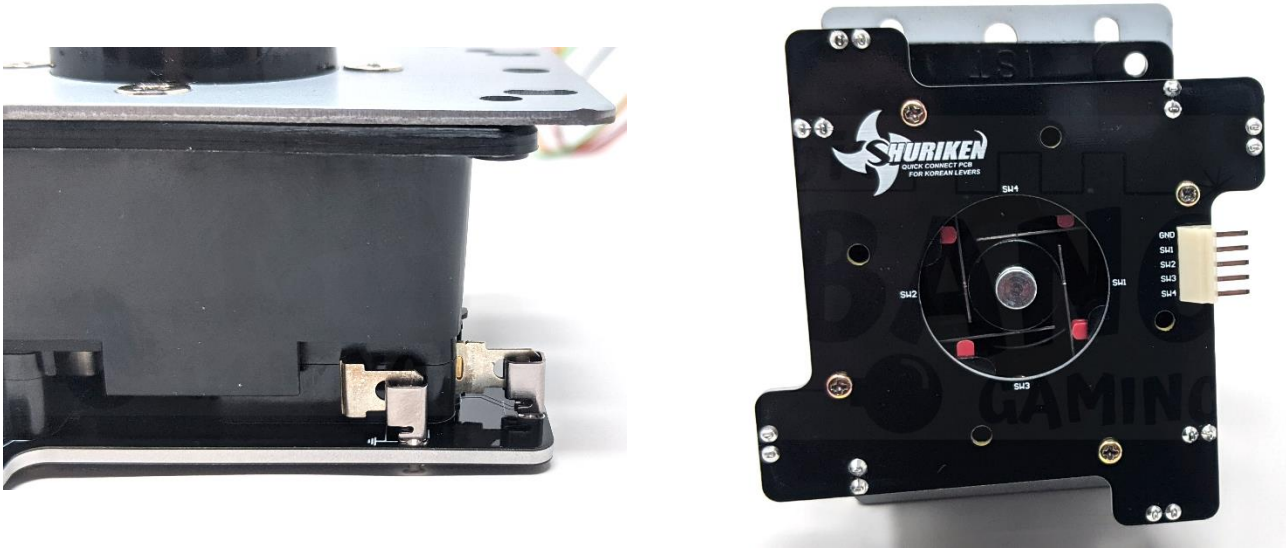
1. Unscrew all switches and remove from the lever body.



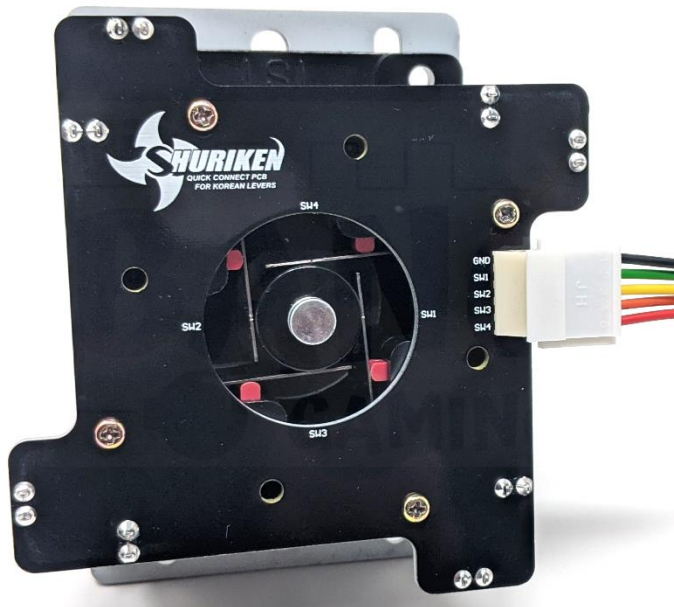
2. Install switches onto Shuriken Korean Lever PCB. Switch can enter the clip from above or from the side. Make sure it is fully inserted and the holes on the PCB can be seen through the holes of the switch.



3. Place Shuriken Korean Lever PCB onto the lever housing, carefully aligning the pegs through the switch holes. Then re-install all screws.




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



5. Installation is complete and ready to use!

## Compatible Levers

The Shuriken Korean Lever PCB was specifically designed for the Gersung GSM-V series and Omron V series that offer 0.187 inch quick disconnect terminals. The PCB also fits a wide range of levers. See list below along with installation notes.

Lever	Installation Notes
ASI Golden Lever	Requires shorter M4 bolts because default bolts will hit the plate as they are too long. M4X25 or M4X30 have been reported to work as a replacement. Also note that variable switch spacing feature will no longer work.
Cool Bear Lever V1 	Stock M3 bolts holding down the switches are too short by 2mm. Requires purchase of 8 x M3 x14mm bolts
Coorejam V3	
Crown 303A / FK	
Crown 303N	
Crown 303 Crazy Dongpal	
Crown 309Helpme	
Crown 309MJ-Benylis	
Crown 309MJ-KMS-ST25	
Crown 309MJ-KMS-ST35	
Crown 309FJ-KMS-ST25	
Crown 309FJ-KMS-ST35	
IST Alpha 49s	
IST Fujin V3	
IST Knee Lever	
Myoungshin Fanta (pre-2019, 2019, late 2020)	
Sanjuks V5, V5C, & V6	Tight fit, take your time installing.
Taeyoung Fanta	

## Compatible Switches

(Switches sold separately)

The Shuriken Korean Lever PCB was specifically designed for the Gersung GSM-V series and Omron V series that offer 0.187 inch quick disconnect terminals.

These 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.

Please see below for the compatibility list.

<b>Part Number</b>	<b>Configuration</b>	<b>Actuator</b>	<b>Actuation Force</b>
V-152-1C26	SPDT	Hinge Lever	250gf (2.45N)
V-152-1C26-T	SPDT	Hinge Lever	250gf (2.45N)
V-152-1C25	SPDT	Hinge Lever	125gf (1.23N)
V-102-1C25	SPDT	Hinge Lever	125gf (1.23N)
V-152-1C25-T	SPDT	Hinge Lever	125gf (1.23N)
V-102-1C25-T	SPDT	Hinge Lever	125gf (1.23N)
V-102-1C24	SPDT	Hinge Lever	60gf (0.59N)
V-102-1C24-T	SPDT	Hinge Lever	60gf (0.59N)
V-162-1C26	SPDT	Hinge Lever	60gf (0.59N)
V-162-1C25	SPDT	Hinge Lever	125gf (1.23N)
V-152-1A6	SPDT	Hinge Lever	250gf (2.45N)
V-152-1A6-T	SPDT	Hinge Lever	250gf (2.45N)
V-152-1A5	SPDT	Hinge Lever	125gf (1.23N)
V-102-1A5	SPDT	Hinge Lever	125gf (1.23N)
V-152-1A5-T	SPDT	Hinge Lever	125gf (1.23N)
V-102-1A5-T	SPDT	Hinge Lever	125gf (1.23N)
V-102-1A4	SPDT	Hinge Lever	60gf (0.59N)
V-102-1A4-T	SPDT	Hinge Lever	60gf (0.59N)
V-162-1A6	SPDT	Hinge Lever	250gf (2.45N)
V-162-3A6	SPDT	Hinge Lever	125gf (1.23N)
V-152-3C26	SPST-NO	Hinge Lever	250gf (2.45N)
V-152-3C25	SPST-NO	Hinge Lever	125gf (1.23N)
V-102-3C25	SPST-NO	Hinge Lever	125gf (1.23N)
V-102-3C24	SPST-NO	Hinge Lever	60gf (0.59N)
V-162-3C26	SPST-NO	Hinge Lever	250gf (2.45N)
V-162-3C25	SPST-NO	Hinge Lever	125gf (1.23N)
V-152-3A6	SPST-NO	Hinge Lever	250gf (2.45N)
V-152-3A5	SPST-NO	Hinge Lever	125gf (1.23N)
V-102-3A5	SPST-NO	Hinge Lever	125gf (1.23N)
V-102-3A4	SPST-NO	Hinge Lever	60gf (0.59N)
V-162-1A5	SPST-NO	Hinge Lever	250gf (2.45N)
V-162-3A5	SPST-NO	Hinge Lever	125gf (1.23N)
GSM-V1623A2	SPST-NO	Hinge Lever	120gf (1.18N)
GSM-V1623A3	SPST-NO	Hinge Lever	190gf (1.86N)
GSM-V0303A3HM	SPST-NO	Hinge Lever	190gf (1.86N)
GSM-V1603A3HM	SPST-NO	Hinge Lever	190gf (1.86N)

## Questions?



If you have any questions please connect via Twitter ([@BitBangGaming](#)) or email ([bitbanggaming@gmail.com](mailto:bitbanggaming@gmail.com)).

## Revisions

Revision	Date	Description	Initials
A	10/21/2020	Prototype	JC
B	12/15/2020	Initial Release	JC
C	1/23/2021	Changed "Gersung A series" to "Gersung GSM-V series. Next round of PCBs will fix this as well. Thanks Alex (OMNI Arcade) for the friendly correction!	JC
D	3/23/2021	Added Coorejam V3 to compatibility list. Created compatible switch table. M4 length for Golden Lever bolts.	JC