

## INSTALLATION GUIDE

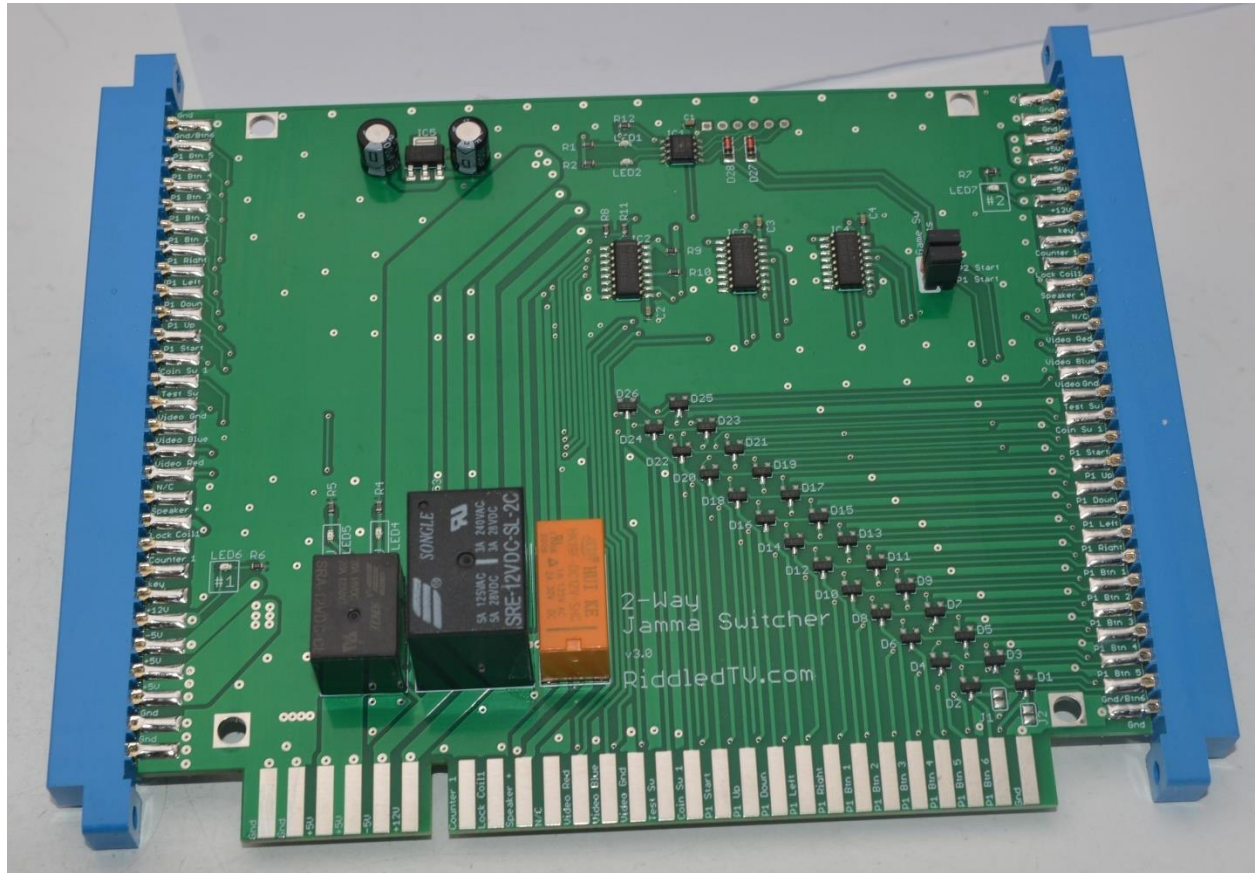


Figure 1. 2-Way JAMMA Switcher

**Each Kit Includes:**

- 2-way Mainboard

**Features:**

- Supports 2 JAMMA game boards
- Only 1 game board is powered at a time.
- No external remotes are required
- Games are switched by holding Player1-Start and Player2-Start for 1.5 seconds, or alternate buttons can be connected.
- Supports 6 button inputs per player
- Supports up to 20 Amps on +5V
- -5V power is switched for each board

## Mainboard Components:

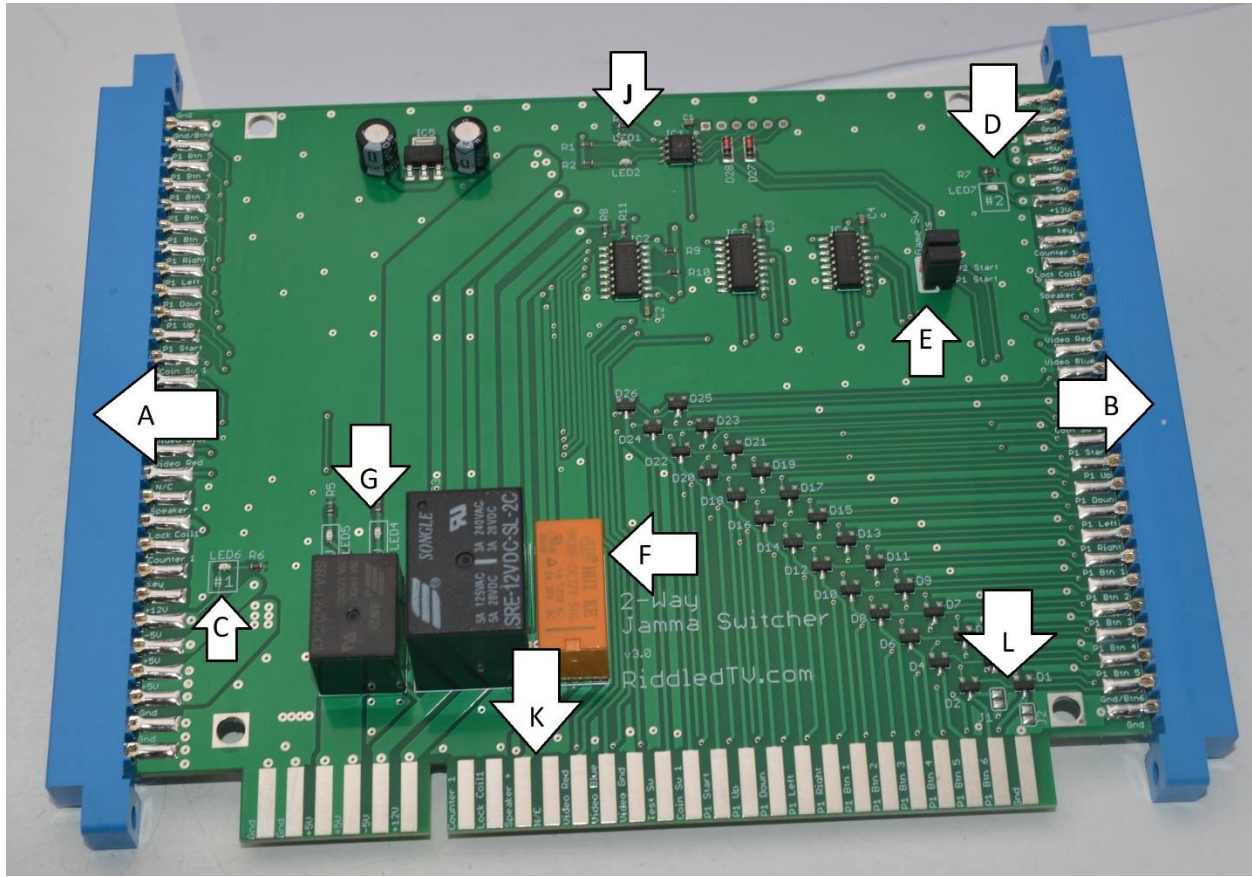


Figure 2 – 2-Way Switcher with Indicator Arrows

- A. JAMMA port for Gameboard #1
- B. JAMMA port for Gameboard #2
- C. Red LED indicating that Gameboard #1 is active
- D. Red LED indicating that Gameboard #2 is active
- E. Game Select Button Inputs. If jumpers are installed (red to red, and black to black), players 1 and 2 start buttons (held for 1.5 sec) will switch to the next game.
- F. 3 Relays for switching of Speaker, 5V, 12V, -5V
- G. Power indicator LEDs: 12V, 5V, -5V (LEDs indicate presence of voltage, not accuracy of voltage levels)
- J. Blue LEDs that illuminate when 1 or both of the game select button inputs are active.
- K. JAMMA harness input from control panel, monitor, speaker, and power supply
- L. Jumpers for JAMMA pins e and 27 on the Jamma Harness. When solder jumpers are connected, those pins are grounded on the Jamma Harness. Use a soldering iron to remove solder jumpers to use pins e and 27 for button inputs.

## JAMMA Switcher Pinouts

Solder Side		Parts Side	
GROUND	A	1	GROUND
GROUND	B	2	GROUND
+5VDC	C	3	+5VDC
+5VDC	D	4	+5VDC
-5VDC	E	5	-5VDC
+12VDC	F	6	+12VDC
KEY SLOT	H	7	KEY SLOT
COUNTER #2 (N/C)	J	8	COUNTER #1 (N/C)
COIL #2 (N/C)	K	9	COIL #1 (N/C)
SPEAKER (-)	L	10	SPEAKER (+)
UNDEFINED	M	11	UNDEFINED
VIDEO GREEN	N	12	VIDEO RED
VIDEO SYNC	P	13	VIDEO BLUE
SERVICE SWITCH	R	14	VIDEO GROUND
TILT (SLAM) SWITCH	S	15	TEST SWITCH
COIN SWITCH #2	T	16	COIN SWITCH #1
PLAYER 2 - START	U	17	PLAYER 1 - START
PLAYER 2 - UP	V	18	PLAYER 1 - UP
PLAYER 2 - DOWN	W	19	PLAYER 1 - DOWN
PLAYER 2 - LEFT	X	20	PLAYER 1 - LEFT
PLAYER 2 - RIGHT	Y	21	PLAYER 1 - RIGHT
PLAYER 2 - BUTTON 1	Z	22	PLAYER 1 - BUTTON 1
PLAYER 2 - BUTTON 2	a	23	PLAYER 1 - BUTTON 2
PLAYER 2 - BUTTON 3	b	24	PLAYER 1 - BUTTON 3
PLAYER 2 - BUTTON 4	c	25	PLAYER 1 - BUTTON 4
PLAYER 2 - BUTTON 5	d	26	PLAYER 1 - BUTTON 5
PLAYER 2 - BUTTON 6/GND	e	27	PLAYER 1 - BUTTON 6/GND
GROUND	f	28	GROUND

Figure 3. JAMMA Switcher Pinouts

## Installation Instructions:

1. Disconnect AC power.
2. Verify your JAMMA harness wiring matches the standard as shown in Figure 3.
3. Plug the Switcher into your existing JAMMA harness and mount in a suitable location.  
Note: Do NOT connect the JAMMA gameboards yet.
4. Double-check all your work.
5. Reconnect AC power, and turn the power on.
6. Verify that the switcher is receiving inputs from your control panel by doing the following:
  - a. Press Player1-Start. Verify that the 1<sup>st</sup> Blue LED on the switcher circuit board illuminates as the Player1-Start button is pressed. Note, If an alternate input button is being used, verify the input from that button in place of Player1-Start.
  - b. Press Player2-Start. Verify that the 2<sup>nd</sup> Blue LED on the switcher circuit board illuminates as the Player2-Start button is pressed. Note, If an alternate input button is being used, verify the input from that button in place of Player2-Start.
7. Turn power switches off, and disconnect AC power
8. Plug the JAMMA gameboards into the right and left side of the JAMMA Switcher. Make certain that all boards are securely mounted and are not contacting other wiring or metal pieces inside your arcade cabinet
9. Reconnect AC power, and turn the power on
10. To advance to the next game hold down both Player1-Start and Player2-Start buttons.
11. You may need to readjust your monitor's color balance levels.

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## Switching Games:

If both jumpers are installed, the mainboard will switch games when buttons Player 1-Start and Player 2-Start are pressed for 1.5 seconds. To use alternate button inputs, remove the 2 jumpers, and connect one or two button inputs of your choice to the two terminals on the left side as shown in Figure 4. If only one input button is desired, connect it to BOTH pins. The Switcher will change games when both inputs are grounded for 1.5 seconds. If both buttons are held down, it will cycle between gameboards in 1.5 second increments.

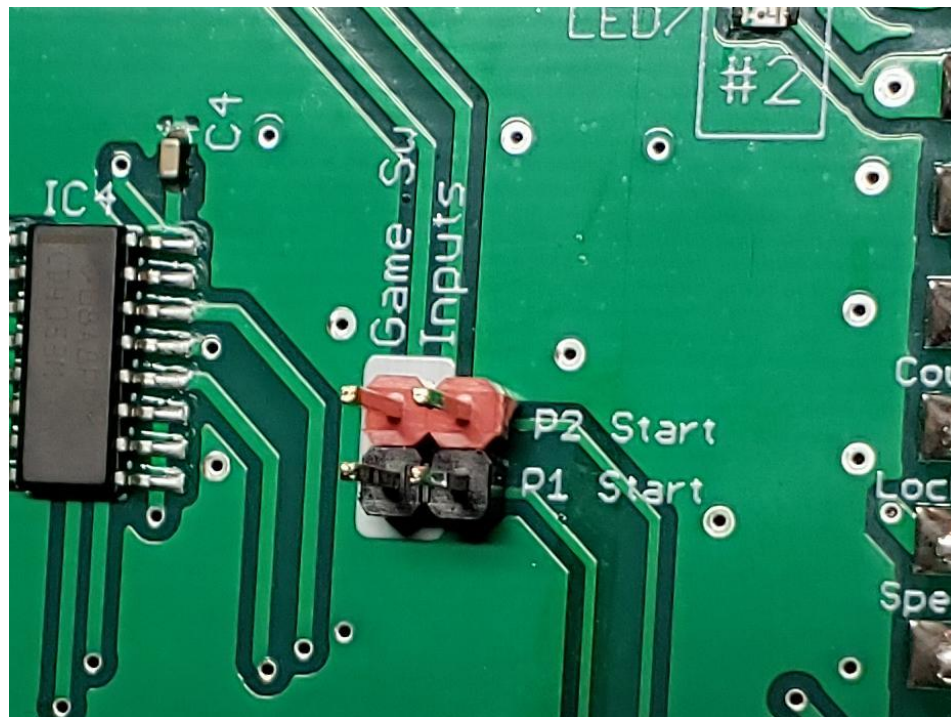


Figure 4. Button Inputs for Game Selection

## Indicator lights

The mainboard has 7 indicator LED lights:

- 2 Red LEDs to indicate which gameboard is active
- 3 Power Supply indicator LEDs. Red, Green, and Yellow LEDs indicate that “some” voltage is present on the 5V, -5V, and 12V power supplies. Please note: LED lights do not indicate the accuracy of those voltages. Please check your voltage levels with gameboards active.
- 2 Blue LEDs indicate that the switcher detects one or both of the Game Switch Inputs are pressed.



## Grounding of JAMMA pins 27, e:

Refer to the Figure 3 for JAMMA pinouts. The initial JAMMA standard indicated that these pins were signal grounds. However, many gameboards have repurposed these pins as 6<sup>th</sup> button inputs. When you receive your switcher, pins “27” and “e” will be connected to Ground via 2 solder jumpers. To use those pins as button inputs, use a soldering iron to remove the 2 solder jumpers marked “J1” and “J2” to match as shown below. It is recommended to leave the jumpers in place if the 6<sup>th</sup> button inputs are not needed.

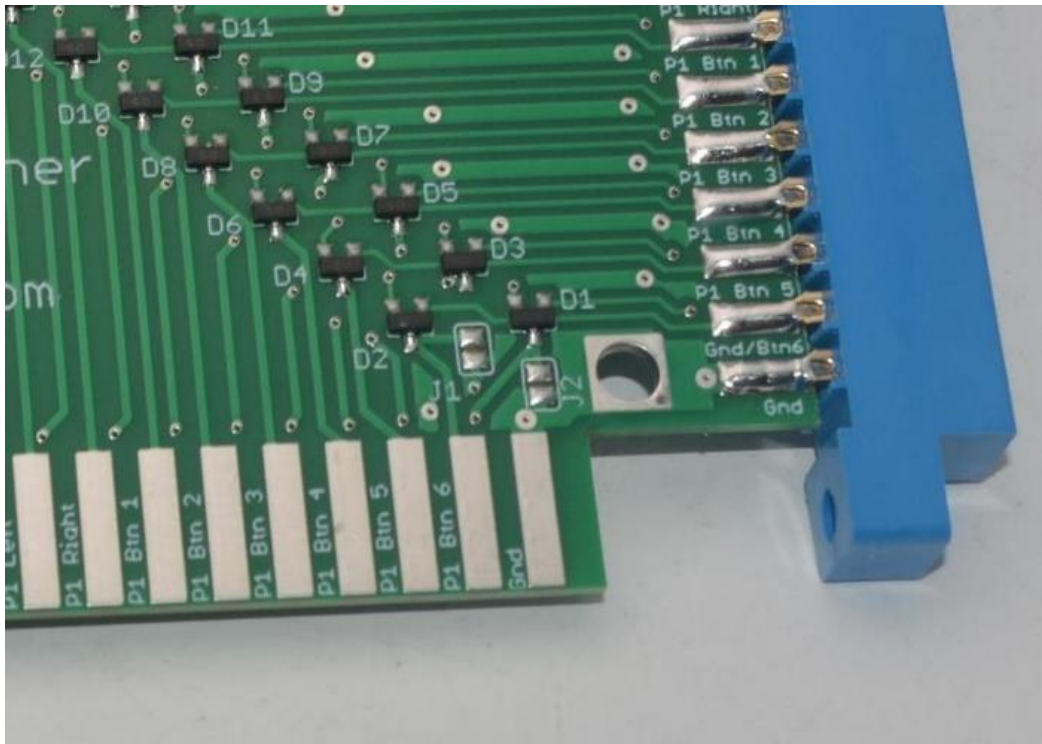


Figure 5. JAMMA Pins “27” and “e” Selection, shown with solder jumpers removed

## Additional Support:

For questions not answered in this installation guide, please contact [support@RiddledTV.com](mailto:support@RiddledTV.com)