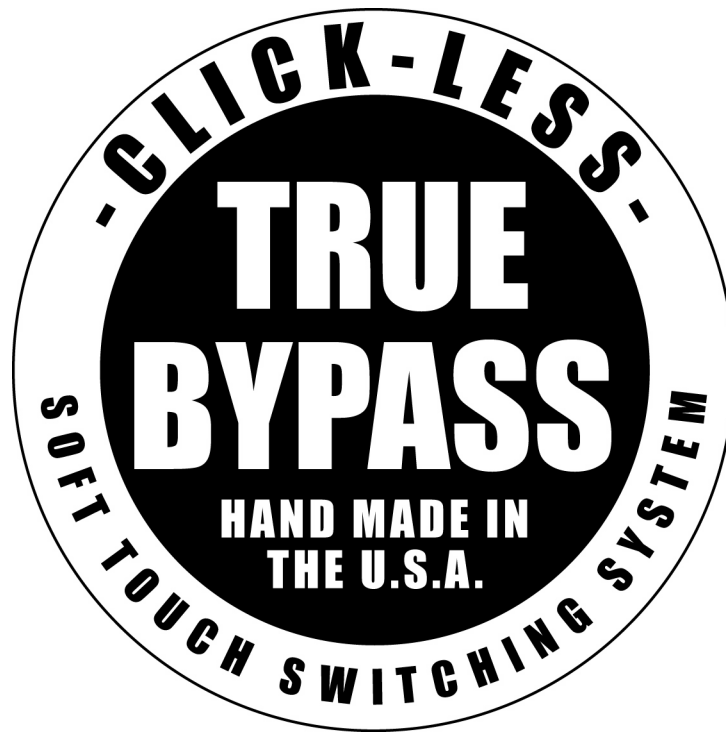


# **Click-Less™ True-Bypass Mechanical Bypass Universal Install Guide**

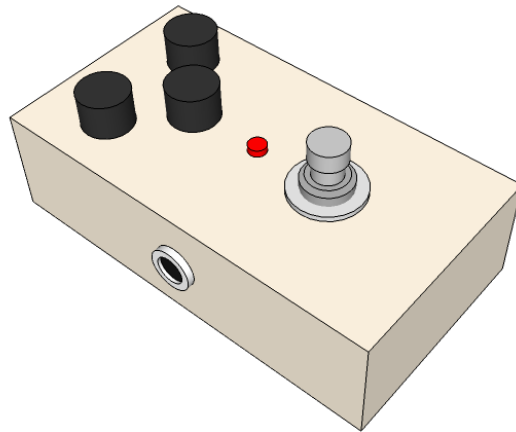
© 2010 Jack Deville Electronics LLC, all rights reserved



## ABOUT THIS MANUAL

This manual covers Click-Less™ True-Bypass installation for three common mechanical bypass circuits.

*It is recommended that you fully read this manual and become familiar with the installation procedure before beginning any work.*



### RECOMMENDED TOOL AND SUPPLY LIST:

- Soldering station (with temperature control/regulation)
- Solder & Flux
- De-soldering braid or solder sucker
- Wire strippers
- Wire cutters
- Phillips head screwdriver
- Double-stick foam tape

## OVERVIEW

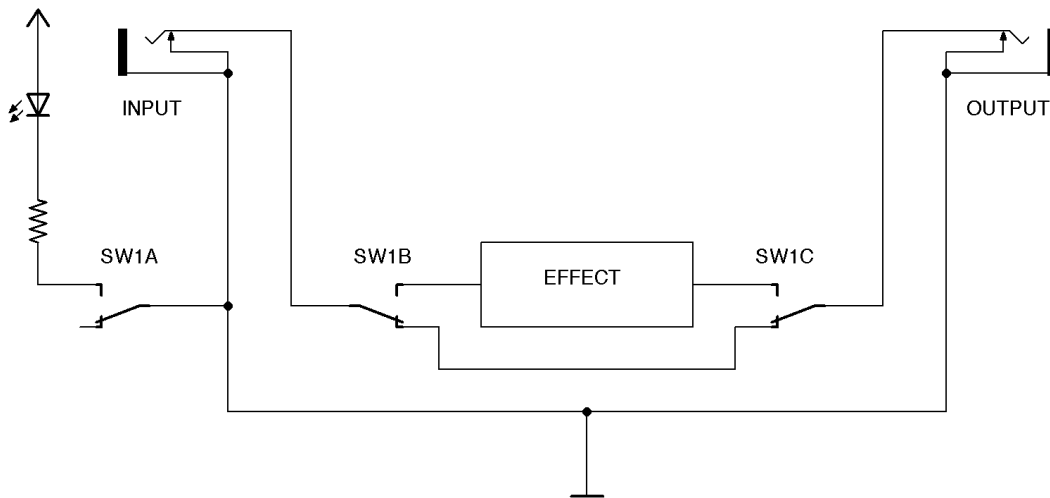
There are many methods of achieving mechanical bypass switching. This manual will address two of the most common:

- True-bypass mechanical switching using a 3PDT switch
- “Vintage-style” mechanical bypass switching using a SPDT switch

Installing Click-Less™ True-Bypass requires that you remove the mechanical stomp switch, replace it with a Click-Less™ switch and re-route the signal path through the Click-Less™ PCB.



## TRUE-BYPASS SWITCHING USING A 3PDT\* SWITCH (SCHEME B: FLOATING EFFECT INPUT)



### OPERATION:

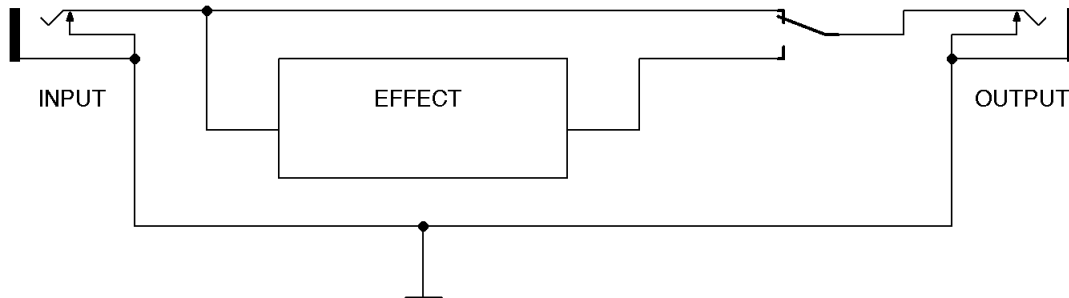
- If the switch (SW1) contacts are in the DOWN position BYPASS mode is selected (shown above).
- If the switch contacts are in the UP position EFFECT mode is selected.

### ACTION:

In BYPASS mode (shown above) the LED circuit is open preventing the LED from illuminating, the input jack is directly connected to the output jack, and the effect circuit input and output are disconnected from the signal path. In EFFECT mode the LED circuit is closed illuminating the LED, the input jack is connected to the effect circuit input, and the output jack is connected to the effect circuit output.

*\*A 3PDT (Triple Pole Dual Throw) switch is comprised of three Single Pole Dual Throw switches sharing a common actuator. Poles indicate the number of individual switches in the assembly, throws indicates the number of positions the switch is capable of resting in. A 3PDT switch allows three changes to occur simultaneously when the switch actuator is toggled (stomped).*

## "VINTAGE STYLE" MECHANICAL BYPASS USING A SPDT\* SWITCH



### OPERATION:

- If the switch contact is in the UP position BYPASS mode is selected (shown above).
- If the switch contact is in the DOWN position EFFECT mode is selected.

### ACTION:

In BYPASS mode (shown above) the output jack is connected to the input jack and to the effect circuit input. In EFFECT mode the output jack is connected to the effect circuit output and the input jack is connected to the effect circuit input.

*\*SINGLE POLE DUAL THROW.*

### TECHNICAL NOTE:

*THE INPUT JACK REMAINS CONNECTED TO THE EFFECT CIRCUIT INPUT AT ALL TIMES. THIS CAN CAUSE LOADING OF THE INPUT SIGNAL AND PRODUCE "TONE SUCK."*

## REMOVING THE STOMP SWITCH (TRUE-BYPASS SWITCHING)

In order to install Click-Less™ True-Bypass, the original stomp switch must be replaced with a Click-Less™ switch and the signal path must be re-routed through the Click-Less™ PCB.

You will need to disconnect the following wires connected to the stomp switch in order to replace the original stomp switch with a Click-Less™ switch and re-route signal flow through the Click-Less™ PCB:

- The input jack wire
- The output jack wire
- The two LED leads
- The effect circuit send/input wire
- The effect circuit return/output wire
- Ground wire(s) at the stomp switch

De-solder the input jack wire from the stomp switch. Label the wire with a small piece of tape and repeat the procedure for the output jack wire, effect circuit send/input wire, effect circuit return/output wire, LED wires and ground wire(s) at the stomp switch.

Once all wires connected to the original stomp switch's terminals have been disconnected, remove the original stomp switch from the chassis.

## REMOVING THE STOMP SWITCH ("VINTAGE STYLE" SWITCHING)

In order to install Click-Less™ True-Bypass, the original stomp switch must be replaced with a Click-Less™ switch and the signal path must be re-routed through the Click-Less™ PCB.

You will need to disconnect the following wires connected to the stomp switch in order to replace the original stomp switch with a Click-Less™ switch and re-route signal flow through the Click-Less™ PCB:

- The input jack wire
- The output jack wire
- The effect circuit send/input wire
- The effect circuit return/output wire

De-solder the input jack wire from the stomp switch. Label the wire with a small piece of tape and repeat the procedure for the output jack wire, and effect circuit send/input wire, effect circuit return/output wire.

Once all wires connected to the original stomp switch's terminals have been disconnected, remove the original stomp switch from the chassis.

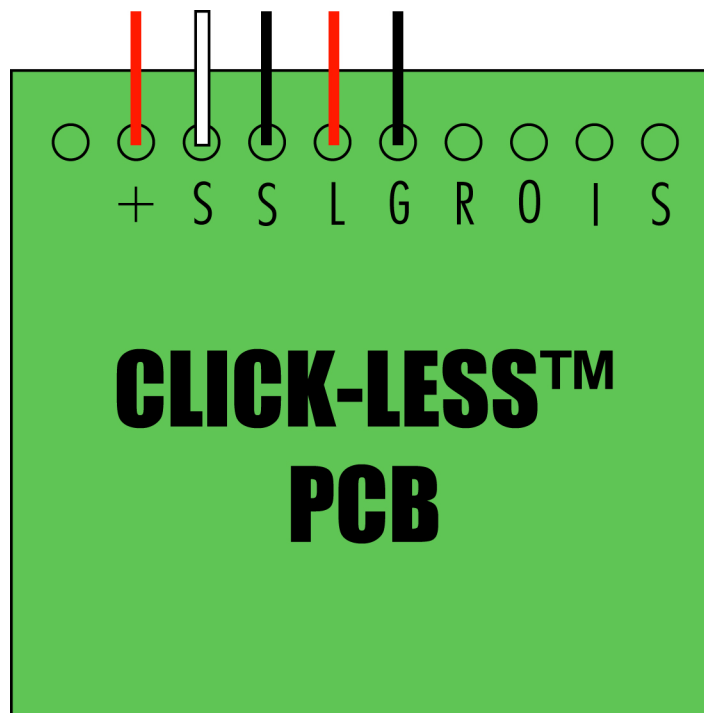
### *TECHNICAL NOTE:*

*THE CLICK-LESS™ SYSTEM INCLUDES SUPPORT FOR AN LED INDICATOR. IF AN LED INDICATOR IS DESIRED, FIND A SUITABLE LOCATION ON THE CHASIS AND MOUNT AN LED IN THE DESIRED FASHION.*

## RE-ROUTING SIGNAL FLOW (3PDT & SPDT)

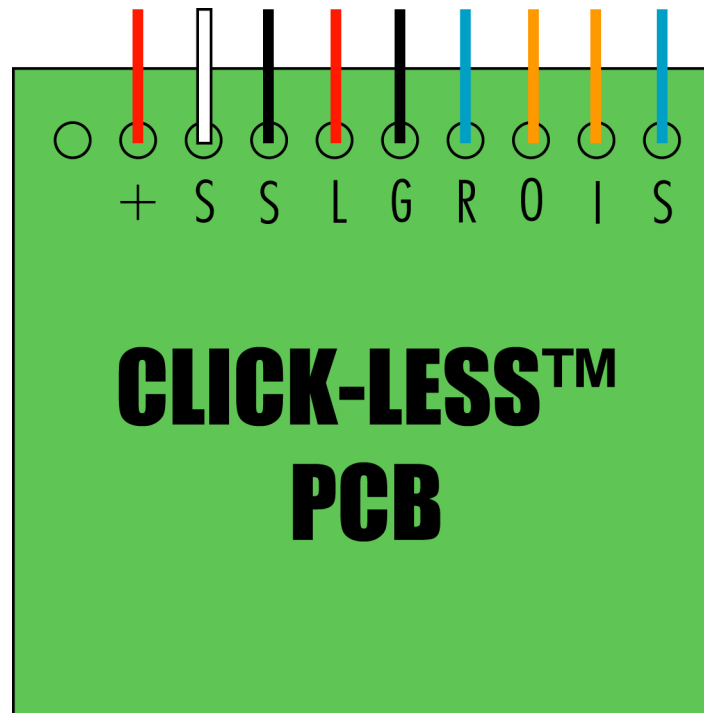
Solder five of the provided wires to the Click-Less™ PCB following the diagram below:

*NOTE: Wire color employed may vary. Colors indicated below are provided for reference only.*



- **+** power pad. (Red wire shown)
- **S** switch pad. (White wire shown)
- **S** switch pad. (Black wire shown)
- **L** LED pad\*\*. (Red wire shown)
- **G** ground pad. (Black wire shown)

Solder the ten wires to the Click-Less™ PCB pads, LED leads and to circuit ground as shown below:



- **+** wire to 9V source
- **S** wires on the left side of the Click-Less™ PCB to the Click-Less™ switch (non-polar leads)
- **L** wire to the LED anode (+ lead)\*\*
- **G** wire to circuit ground
- LED cathode (- lead) to circuit ground\*\*
- **R** pad on the Click-Less™ PCB to the effect circuit return/output wire
- **O** pad on the Click-Less™ PCB to the output jack
- **I** pad on the Click-Less™ PCB to the input jack
- **S** pad on the Click-Less™ PCB to the effect circuit send/input wire

\*\*If LED indicator is employed

## COMPLETING THE JOB

Install the Click-Less™ switch into the hole where the original stomp switch was. Apply double stick foam tape to the back of the Click-Less™ PCB and secure it to the chassis in a location where it will not interfere with or touch any other components or parts of the circuit. Take care to ensure that no leads are poking through the double stick tape– this will prevent short circuits.

Congratulations! Your pedal has been converted to Click-Less™ True-Bypass.