

FLASHCUT CNC

CONTROL MADE SIMPLE

LIMIT SWITCH KIT FOR UNIVERSAL RETROFIT KIT



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Thank You

Thank you for purchasing the FlashCut™ CNC Limit Switch Kit for the Universal Benshtop Retrofit Kit. This kit allows for greater safety and accuracy of the machine with features such as homing and setting machine limits. With this kit, the functionality of your already powerful FlashCut CNC system will be unrivaled. We are dedicated to the excellence and ongoing enhancement of all FlashCut CNC products. Feel free to call us with any comments or questions.

Product Support

We are committed to the full support of FlashCut CNC products. We have many resources devoted to helping you resolve your problems quickly. Please use these resources in the following order:

1. Web Site: www.FlashCutCNC.com

Our website has product specifications, documentation, and a dedicated support section containing Troubleshooting Guides and FAQ's.

2. Dealer Support:

If you purchased FlashCut CNC from a dealer or other machine tool manufacturer, please contact them as they will have the best knowledge of your complete system.

3. E-mail: support@FlashCutCNC.com

E-mail is the most organized way to convey your issues to our support staff. In your e-mail, please state your problem completely. Include your FlashCut version, the processor and speed of your computer, your version of Windows and your signal generator serial number. Attach your setup file (usually found in a folder named c:\FlashCut data) and, when appropriate, the G-Code file with which you are having problems.

4. Phone/Fax Support

In addition to e-mail support, you may call one of our telephone support numbers. We will normally respond to your call within 24 hours.

Phone: (847) 940-9305 (9:00 AM-5:00 PM, CST, M-F)

Fax: (847) 940-9315

Safety and Usage Guidelines

When running an automated machine tool, safety is of utmost importance. For proper and safe use of the FlashCut CNC program and your CNC machine, the following safety guidelines must be followed:

- 1. Never let the machine tool run unattended.**
- 2. Require any person in the same room as a running machine tool to wear safety goggles, and to stay a safe distance from the machine.**
- 3. Allow only trained operators to run the machine tool. Any operator must have:**
 - Knowledge of machine tool operation.**
 - Knowledge of personal computer operation.**
 - Knowledge of Microsoft Windows.**
 - Good common sense.**
- 4. Place safety guards around the machine to prevent injury from flying objects. It is highly recommended that you build a safety shield around the entire tool envelope. If your machine came with a safety hood, ensure that the hood is closed at all times. The machine or spindle should never be on while the hood is open.**
- 5. Never place any part of your body within the tool envelope while the machine is online, since unexpected machine movement can occur at any time.**
- 6. Always keep the tool envelope tidy and free of any loose objects. Clean the machine regularly and remove chips and dust deposits.**
- 7. Be alert for computer crashes at all times.**
- 8. The machine must not be operated in combustible atmosphere.**
- 9. Ensure sufficient ventilation for dust or gas resulting from cutting your parts.**
- 10. Do not use alcohol as coolant (danger of explosion!).**

FlashCut CNC, Inc. is not responsible for the safe installation and use of this product. You and only you are responsible for the safety of yourself and others during the operation of your CNC machine tool. FlashCut CNC supplies this product but has no control over how it is installed or used. Always be careful!

FlashCut CNC, Inc., or its affiliates are not responsible for damage to any equipment or work piece resulting from use of this product. If you do not understand and agree with all of the above, do not use this product.

**IF YOU DO NOT UNDERSTAND AND AGREE WITH ALL OF THE ABOVE,
DO NOT USE THIS PRODUCT.**

Shipment Details

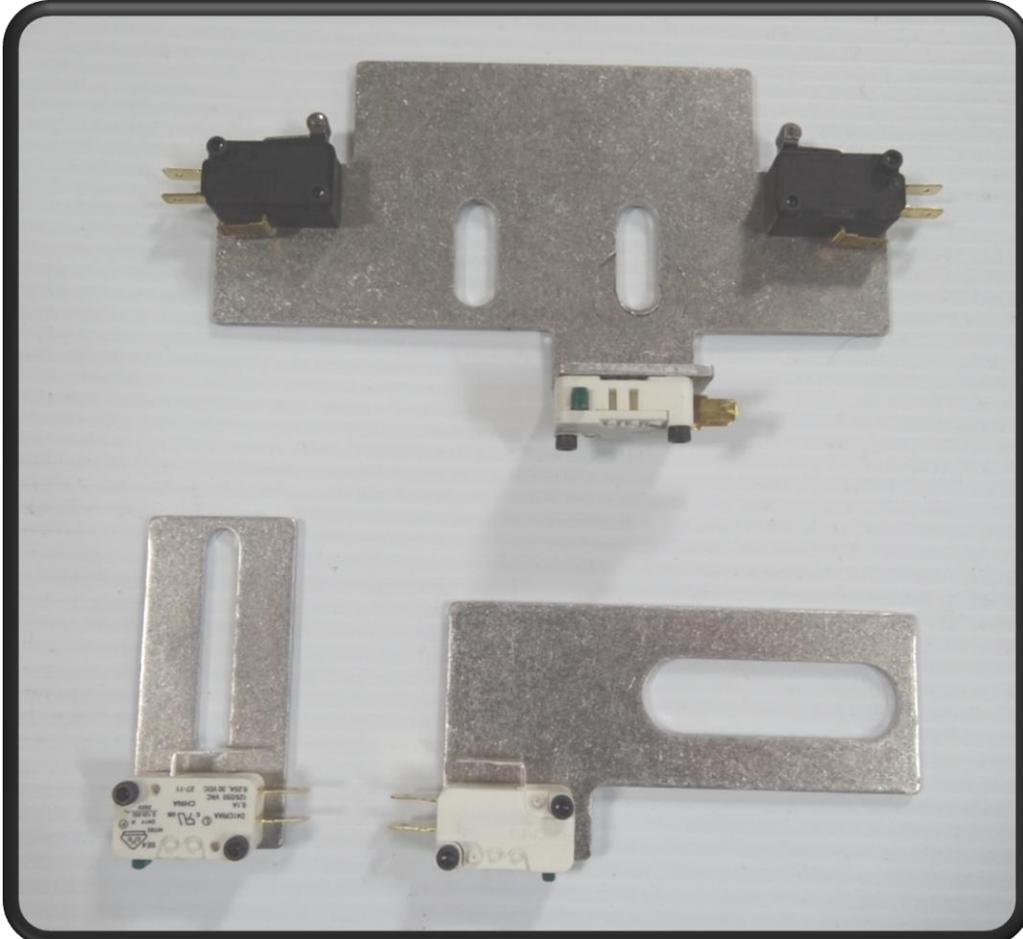
Limit Switch Kits Include:

- (1) X+, X-, Y+ Limit Switch Bracket
- (1) Y- Limit Switch Bracket
- (1) Z+ Limit Switch Bracket
- (1) Z+ Limit Switch Strike Plate
- (3) Limit Switches (Button Only)
- (2) Limit Switches (With Roller Lever)
- (10) 4-40 x ½ Socket Head Cap Screws
- (4) 5/16 Steel Washers
- (1) 10' Limit Switch Cable

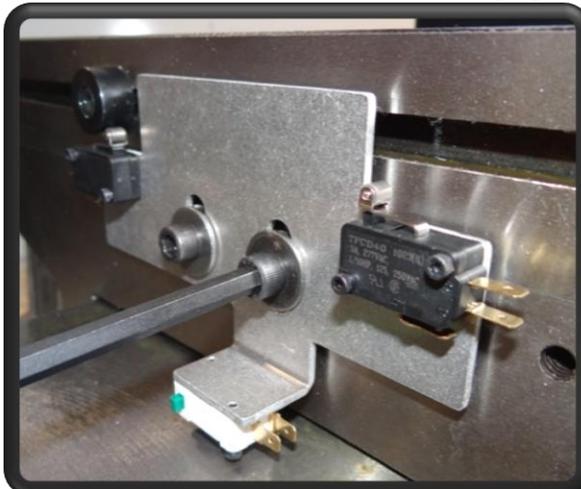
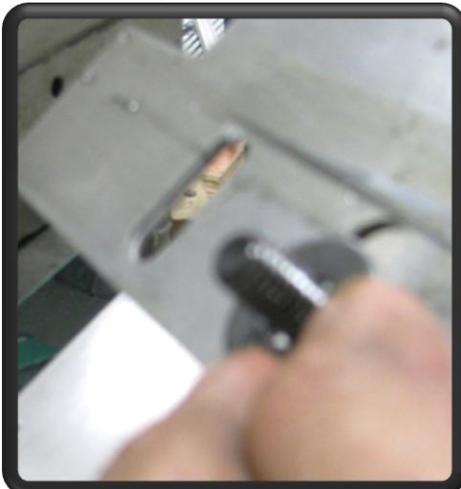


Installation

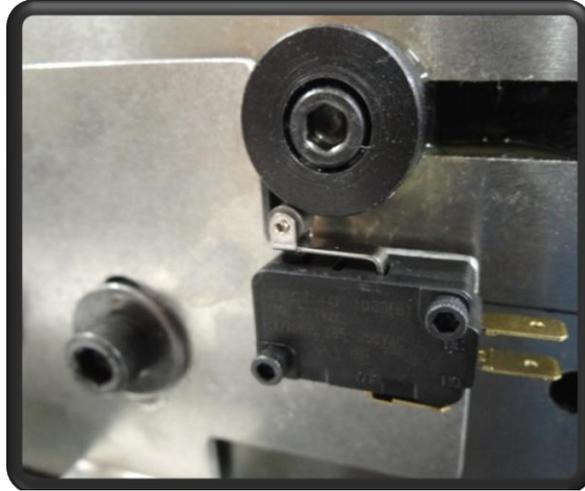
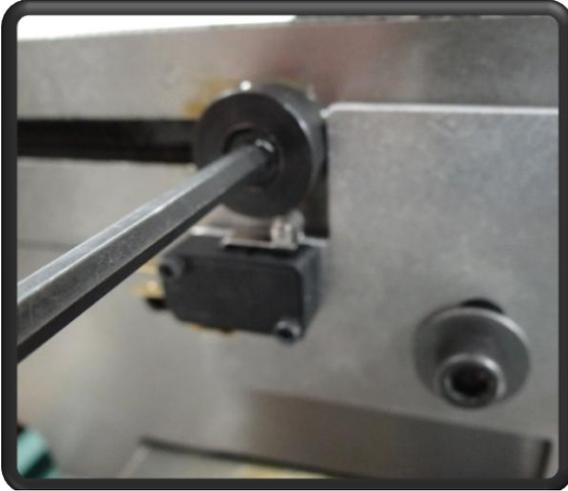
1. First install the limit switches on the brackets as shown using the 4-40 screws.



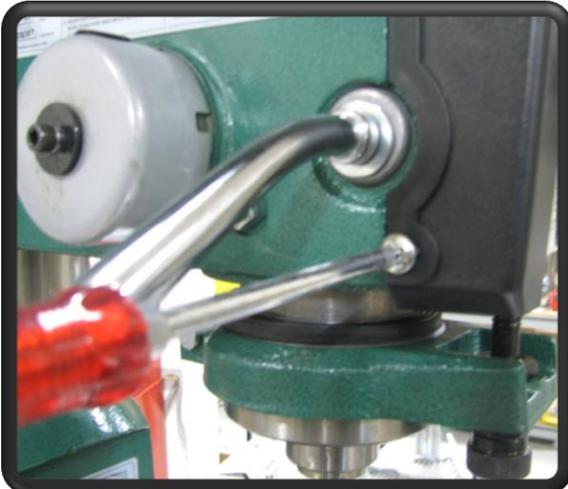
2. To install the X+, X-, Y+ axis limit switch bracket first remove the T-shaped X axis stopper.
3. Place 2 of the 5/16 steel washers on the back face of the bracket using the same screws from the T-Stop and install the bracket with the X+ and X- limit switches facing up.



- Adjust the two round stoppers so that they trigger the switches at each end of travel. Note that the switch should trigger before the round stopper hits the bracket.



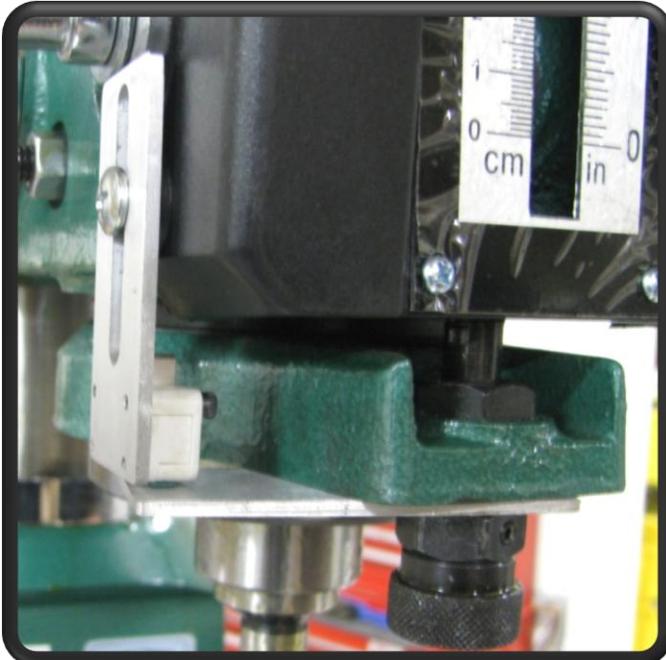
- Remove the screw on the bottom left side of the Z axis bezel with a Philips screwdriver. Place the Z+ Limit Switch bracket onto the side of the machine with the orientation as shown and install using the same screw.



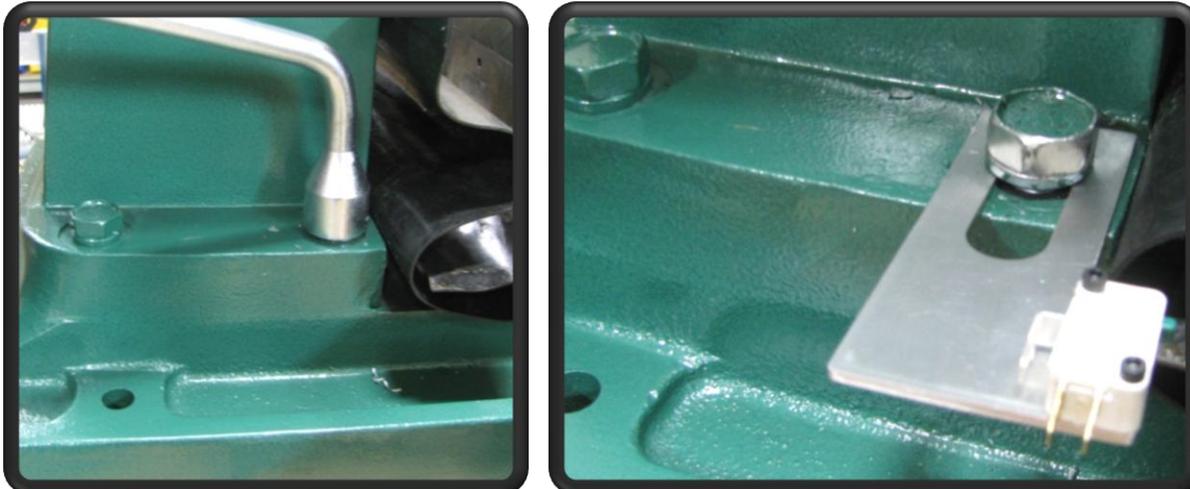
6. Loosen the two set screws on the side of the Z travel adjustment knob and remove the knob. Place the Z+ strike plate on the knob as shown, replace the knob back in its original position and tighten the set screws.



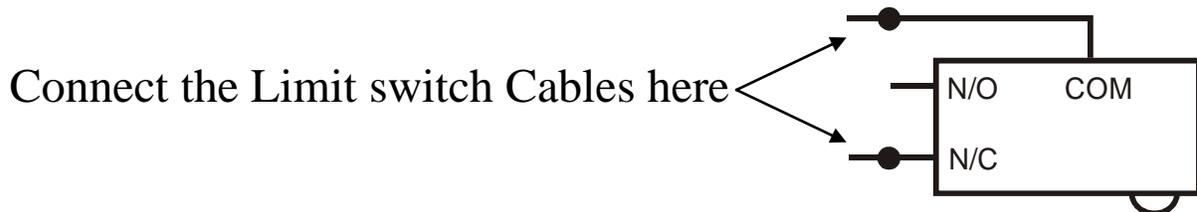
7. Adjust the position of the limit switch bracket so that it triggers the switch against the strike plate just before the top limit of Z travel.



8. Y- switch: Unbolt the front left spindle column bolt. Place the Y- limit switch bracket under the washer as shown and tighten the spindle column bolt back into place.



9. Connect the limit switch wires to each switch as ro COM and N/C shown below with the suggested mapping: 1 = X- , 2 = X+, 3 = Y-, 4 = Y+, 5 = Z+. There is no polarity on the wire pairs so it does not make a difference which wire goes to COM or N/C.



10. Consult with the FlashCut CNC User's Guide for proper software setup of the switches.
11. Congratulations! You have completed the installation of the limit switches.

Revision History

Revision	Date	Description of Revision
-	12-15-10	Draft
A	10-28-11	Manual Released
B	12-16-11	Added X+, X-, Y+ Bracket
C	3-7-12	Added Roller Lever Switches for X+ and X-