

# Accu-Finish<sup>®</sup> Series II

## Switch Replacement Kit Instructions & Template

- Unplug the machine from the power socket and remove the fuse from the fuse holder.
- Take off the rear panel by removing the 4 phillips head screws. Next, remove the drive belts and the large drive pulley. Use care removing the drive pulley as there is a series of flat and spring washers behind the drive pulley that control the end play of the spindle shaft. Make a note of how they are positioned and remove them with the pulley. **Note: DO NOT LOOSEN or REMOVE the 3 screws on the front face of the machine that hold the spindle and bearing assembly or you will loose spindle alignment.**



- Tip the machine up to its upright position and support the motor assembly with one hand (or have a helper support it) and remove the four hex head bolts that holds the motor mount in place. Do not remove the motor assembly yet, return the machine to its normal operating position.



- Reach inside the enclosure with needle nose pliers and pull all the wires loose from the back of the switch. Now, remove the green and yellow ground wire loose from the motor assembly and the black wire from the fuse block. **Note: A motor starting capacitor can hold a charge for several days. Discharge capacitor before handling by grounding one of the terminals against the motor mount frame. Do not short directly across the capacitor terminals.**

- With all the wires loose, pull the motor mount assembly straight back and out of the enclosure. The spindle shaft will remain in the machine. Place the motor assembly in a location where you can work on it.



- Note the way in which the wires are gathered up in the wire tie that is screwed down on top of the assembly. You will route these wires again in a similar way after this operation is complete. Remove the screw holding the wire tie in place and snip the tie to release the wires. If you have not already done so, discharge the motor starting capacitor by grounding one of the brown wires to the motor mount frame. Remove the rubber boot from the capacitor, pull the two brown wires off their respective terminals and discard them. Pass the new red and blue wires (included in the switch kit) through the holes in the rubber boot and attach them to the terminals on the capacitor. Locate the red and blue wires from the motor and pass them through the same holes in the rubber boot attach them to the capacitor terminals. You should now have two red wires on one terminal and two blue wires on the other. (It does not matter which terminal on the capacitor the wires are attached to just as long as the colors are paired up) Replace the boot over the capacitor terminals. Attach the new wire tie to the motor assembly using the screw you removed earlier. Gather up the wires in the same fashion as they were originally and secure them with the new wire tie. BE SURE you include the black wire into the wire bundle. (It is not attached to anything right now but needs to be there) Trim the wire tie and set the motor mount assembly aside for now.



- On the motor enclosure, pry up the aluminum face plate and remove the indicator light. Loosen and remove the 2 screws that retain the original switch. The faceplate indicator light and switch can now be discarded.



- Cut out one of the included paper templates for switch clearance and the mounting hole location. (3 identical templates are provided) Position the template over the existing hole and tape it in place.



- Use a marker or other means to transfer the switch clearance area to the face of the machine for removal. Use a center punch to mark the location for the extra mounting hole as indicated by the template.



- Remove the template and cover the spindle shaft with a rag or tape to protect it from chips and grinding debris. Drill a 0.203" (13/64" or 5mm) diameter hole using the center punch mark as a guide. Using a die grinder or dremel type tool with a cutoff wheel or grinding wheel, remove the material indicated by the template. The corners of the cutout out can be square or have a small radius in them. Smooth any sharp edges or corners created by the drilling and cutting process.



- Test fit the new switch face plate and if needed open up the drilled hole enough to allow the plate to fit. Attach the plate with the included nuts. Clean the top of the box for the 'Safety Glasses Required' sticker and the top of the wheel guard for the "Spindle Switch Center Position-Off" sticker and apply them to these surfaces.



- Prep the motor assembly for installation by pulling all the wire ends to the same length and lightly tape them into a small bundle with masking or other light duty tape. This will make it easier to pull the wires through the switch opening when the time comes. **Note: Pull the black wire through the wire tie as much as needed to bring it out to the same length as the other wires. It will be pulled back later when needed.** You may also need to pull the white (or brown on 230v machines) wire from the power cord through the opening for more wire length inside the box. Remove the strain relief bushing that retains the power cord so you can get more wire into the box enclosure. This will allow the white or brown wire to extend out of the switch hole. This excess will be pulled back out later.



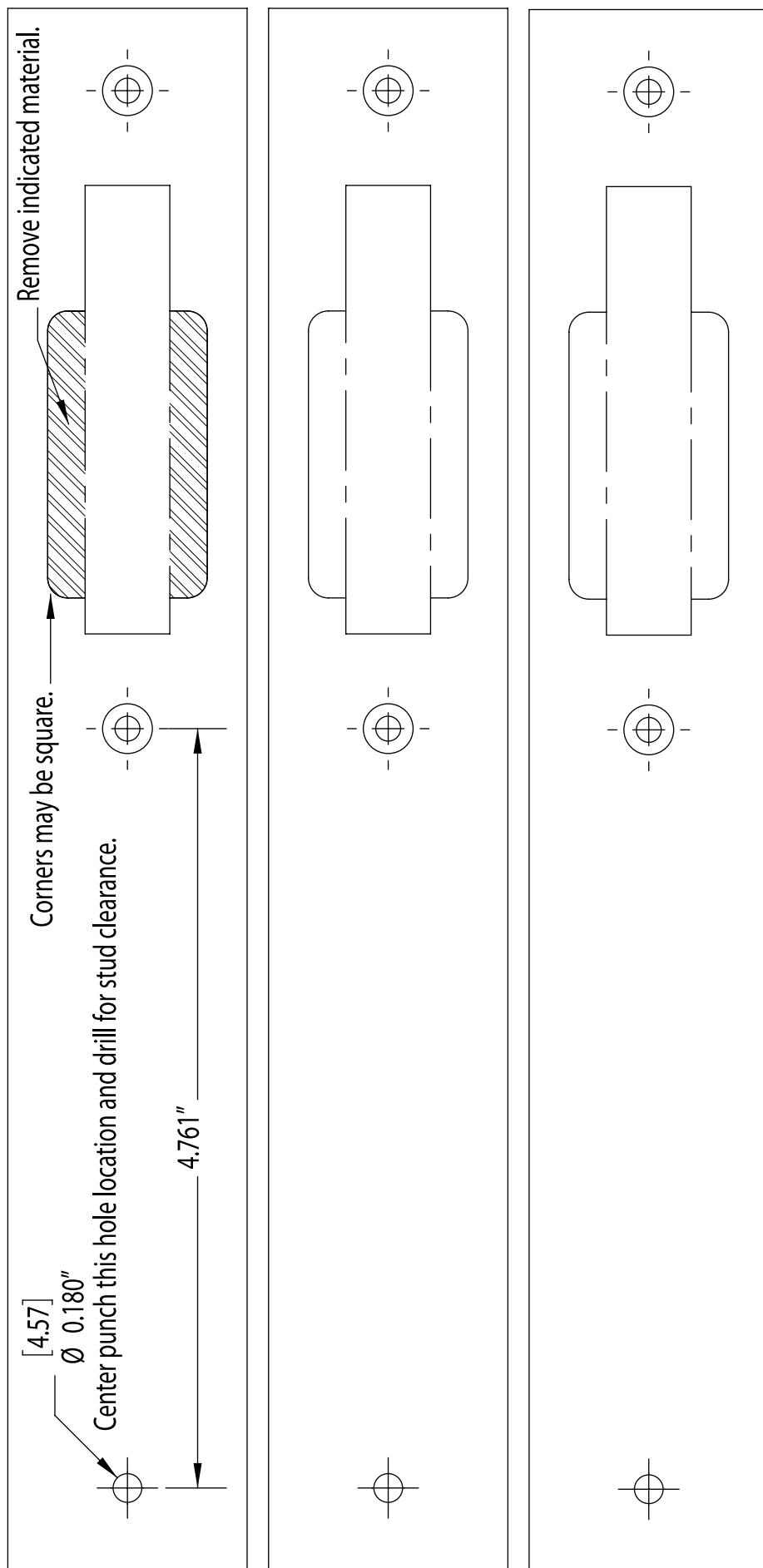
- Remove the protection you placed over the spindle shaft and install the motor assembly back into the enclosure sliding the spindle shaft through the access hole and out the bearing in the back. Use one hand to secure the motor (or have a helper do this) and tilt the machine to its upright position and use the 4 hex head bolts you removed earlier to fasten the motor assembly into the enclosure. Return the enclosure to its normal operating position. Bring the wire bundle through the switch opening. You will also need to pull the white (or brown on 230v machines) wire from the power cord through the opening. Remove the tape from the bundle and attach all wires per the wiring diagram. The yellow jumper wire has been attached for you, the remaining wires attach per the diagram relative to the yellow wire. Once the wires are attached push the switch half way into the mounting hole. Don't push it all the way in until rotation direction is verified. If you removed the strain relief and pushed

extra wire into the enclosure, carefully pull it back out and attach the strain relief to the enclosure.



- From the back of the machine attach the green and yellow ground wire to the motor assembly and pull the black wire back to you and attach it to the fuse holder.
- Replace the washers and pulley on the spindle shaft just as they came off. The pulley must be pushed in against the spring washer, gently compressing it before tightening the set screw. You may need to enlist a helper for this. This preload is needed for proper spindle operation. Put the drive belts back on the machine. Put the fuse back in the holder verify the switch is in the center position and plug the machine in. Turn the machine on and verify that the rotation is correct for the switch position. If the rotation is wrong, unplug the power cord and pull the switch out enough to swap the red and blue wires and test it again. Once rotation is correct push the switch in all the way to lock it in place and replace the back cover with the 4 screws you removed earlier.

## Switch Replacement Kit Template



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