

INSTRUCTIONS -

CASICA TECH MODIFIED SHAPING PLANER

MAKITA® MODEL KP0810



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IMPORTANT NOTES:

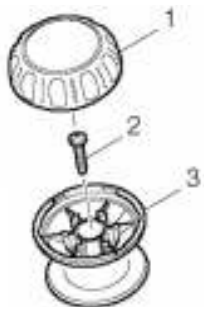
- Please read the Makita instruction manual before using this tool. All original safety warnings and precautions apply. Maintenance instructions for belt, brushes, and blades per manual should be followed exactly.
- Please read these conversion instructions thoroughly before starting.
- Makita 1 year warranty is void after this conversion as the tool has been altered.
- Casica Tech assumes no responsibility for any injury or damage caused by conversion of this tool. The conversion design does not significantly change the basic operation of this tool nor alter electrical safety features (i.e. double insulation). It is the users responsibility to follow all conversion instructions especially on the electrical procedures as stated. If you cannot properly perform these, have them done by a qualified electrical technician.

OPERATING NOTES:

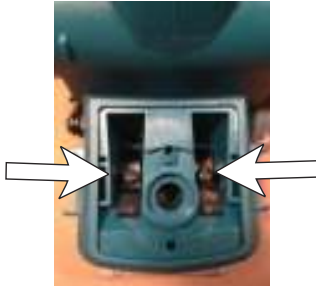
- This planer uses a cam / follower design which moves the shoe both upwards and forward and the same time. A characteristic of this design is that the cam is only engaged when turning. Since the cam is attached to the depth knob, this will seem like there is slight slop or play in the control (about 10°) when not turning (i.e. fixed depth cutting). To minimize this, part of the original clicker is used which will significantly reduce this play.

TOOLS NEEDED:

- Dremel or other rotary tool with wood cutting and sanding bits. Small hand saws, files, chisels, hand sanding can also be used, but it's faster with a rotary tool. Some of the cuts in the photos were done on a bandsaw and finished with a bench-top 1" belt sander.
- Phillips and flat screwdrivers, Torx-drive screwdrivers, 2 - 24" (60cm) quick-clamps, electrical terminal crimping tool and/or soldering iron, big pliers or channel-locks. A good type of epoxy putty; the kind for metal repairs, not the crap used for plumbing leaks. Small orbital sander will also make things go faster.
- Protect the blades at all times, they chip very easily. Remove them first or work on a piece of carpet and rotate the cutter so they're not exposed.



1. Remove front knob: Pry off cap (1) from (3). There's a small notch under (1) to fit a small screwdriver. Remove screw (2) and pull off knob (3). Remove clicker balls and springs (use magnet) from holes in housing under knob. Remove plate printed with depth scale. Keep screw and plate, and one set of the clicker ball and spring.



2. Remove these 2 screws, pull out the flat springs underneath. Pull the shoe out from under the housing and push out the cam. Keep screws, shoe and flat springs, cam is not reused.



3. Remove the 5 handle screws and pull off vacuum port plug. One side of the handle will pull off, the other is snapped into the housing at rear. Pry the snap lock with a flat screw driver (photo) while tapping the side of the handle off. Doesn't matter if you break it, just don't tear up the housing getting this off.



4. Remove the wires from the switch and remove cord clamp. There should be nothing left attached to the planer just the white & black wires coming out of the motor. Keep the cord with the rubber boot, nothing else will be reused here.



5. Your Makita came with a fence like this. Remove the thumbscrew shown and put aside. This is the longer of the two screws and may have an O-ring holding it, just cut it off.



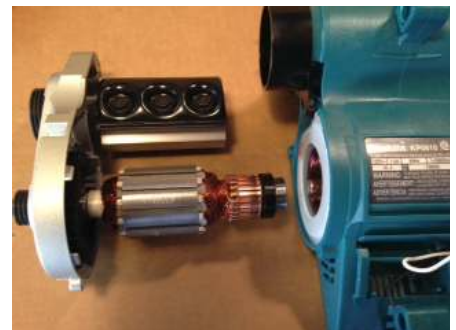
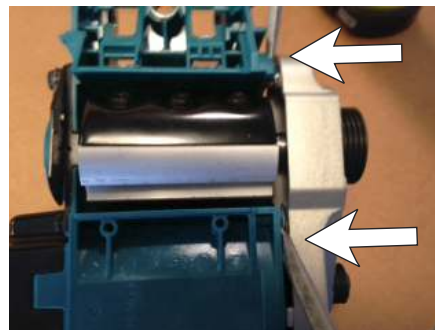
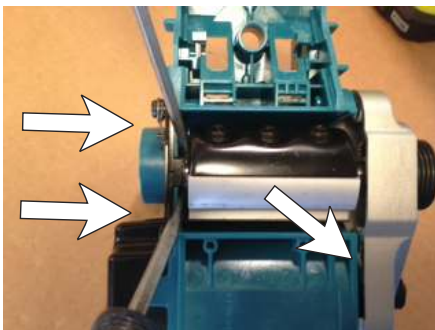
6. Remove the 4 screws attaching the base and remove. Remove the little kick-stand and spring at the rear and discard. Keep the base plate and screws.



7. Remove the belt cover (1 screw). Remove the belt by prying with a flat screwdriver as shown and rotating the left pulley until the belt winds off.



8. Remove the 4 screws attaching the aluminum cover. Remove the 2 screws on the motor cover on the opposite side. Pry out the brushes and holders with a small screwdriver. Note how the wires were routed in the slots.

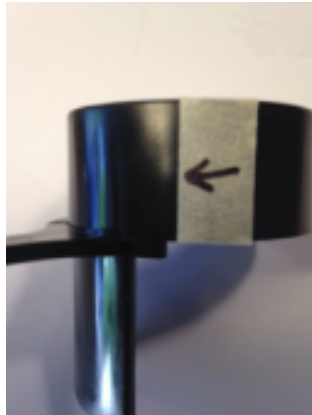


9. Insert 2 flat screwdrivers between the cutter and the housing, away from the blades. Pry gently until you see a small gap form between the metal cover and housing (right arrow).

Put the screwdrivers in the gap at the cover and wiggle it until it comes off. The motor armature and cutter will go with it. Wrap the cutter in bubble wrap, paper, etc. to protect the blades.



10. Pull out the black plastic adapter from the vacuum port.

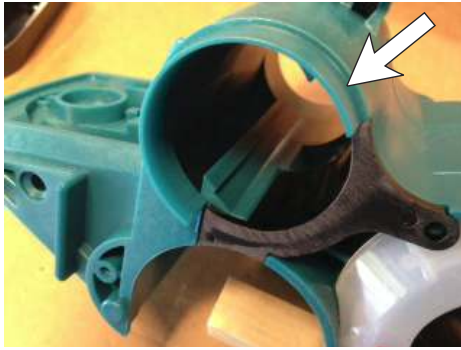


11. The adapter will be cut along the edge of the tape marked with the arrows (2 cuts). There are notches (steps) in the part where the cuts will finally be, but put the tape 1/16" (1.6 mm) away from these features as allowance for the rough cut. Part will be sanded / filed to final edge later.

Will look like this when rough cut:



12. The next cut is right at this inside corner, tape 1/16" away as before and rough cut. Sand / file this cut until flush and the previous 2 also



- 13.** Fit the adapter back into the housing. The housing must be trimmed along this inside corner at the arrow flush with adapter; rough cut then sand smooth.
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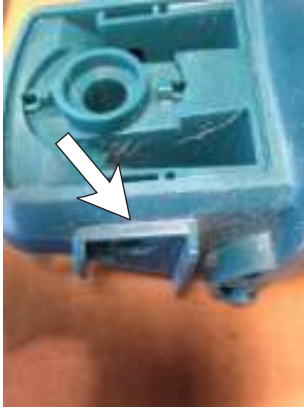


- 14.** There is a raised feature inside the port, measure in from the edge 5/8" (16mm) and mark. Grind this down so that the opening is circular. There's another one directly above, grind that one down also. No need to be pretty, leave rough.
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- 15.** In the rear, there's a big tab and 3 small ones which must be removed. The big one can be grabbed with pliers and twisted until most is broken away, then grind out with whatever dremel bit will fit. Alternately, you can use a sharp chisel and carve them out. Leave rough, this will be covered.





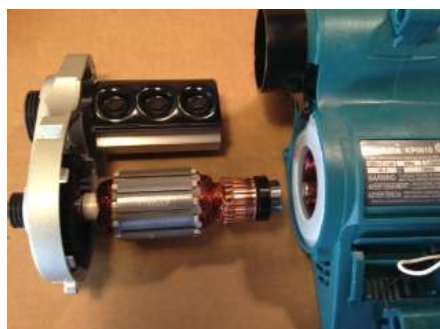
- 16.** These 2 raised features at the front of the housing have to go so that they won't interfere with holding the planer with the new knob. Grind / cut down, sand smooth.



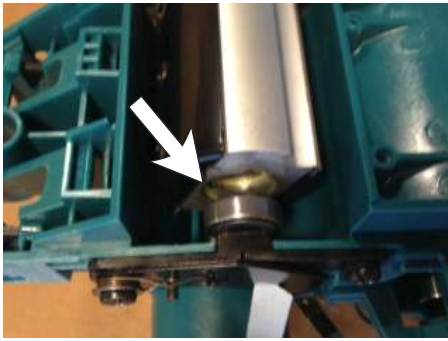
- 17.** NO MORE CUTTING / GRINDING! Blow all the dust inside and outside off the planer. Be thorough in the motor area. Install the black adapter and push in the plug from the kit.



- 18.** Well, I didn't say there would be no more sanding. Fill the grooves in the shoe with epoxy putty and sand smooth. You may have to do it twice.



- 19.** Put the cover plate with the cutter and armature partially into the housing and turn it over.

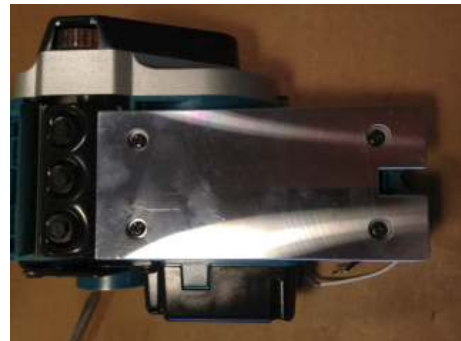


- 20.** Push in further and make sure that the bearing is aligned with the hole in the cutter or else it will jam. The motor will pretty much align itself.

Put 2 quick-clamps on as shown and alternately tighten until the cover is on. If it jams, check that cutter bearing. You may need to adjust the clamps from the pulleys to the cover. Once on spin the motor and cutter and check for free movement.



- 21.** Reinstall the screws into the cover then reset the brushes on the opposite side. Angle them in as shown, then push them flat as the brushes retract into the holders. You may need to fully push the holders down with a screw driver. Second photo shows fully seated.



- 22.** Take the 2 wires from the motor out of the plastic guide on top. Re-route them through the hole below as shown. Pull them tight. Then replace the motor cover (2 screws) and the base plate (4 screws).



- 23.** Install the new white cam from underneath, red dot should be angled forward. Install the shoe with the cam in the follower-recess. Secure the shoe with the flat springs and screws. Make sure that the hole in the spring is towards front and that both are straight after tightening the screws.

Install the cover plate as shown.



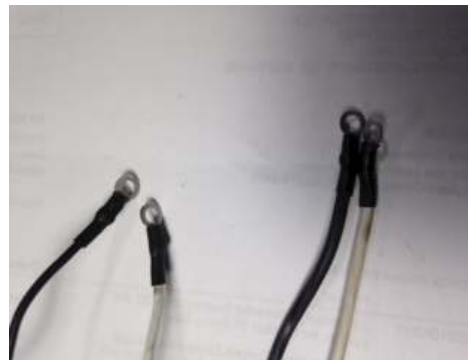
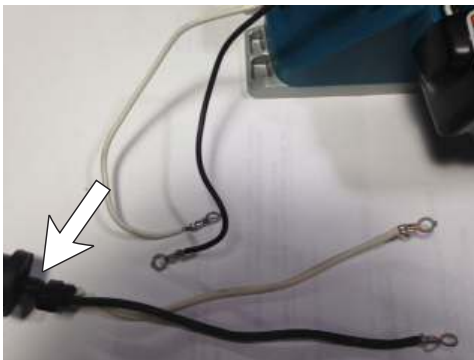
- 24.** Orient the cam as shown. Drop in the clicker spring in the rear hole, then the ball. Put the small washer (only one in kit) over the hole on the cam. You can use a bit of grease or tacky glue to hold this washer, no fun if it falls down into the shoe. Hold the lower knob so that the pointer is on the left. Now look under it and orient the flat sides of the hole to the cam. Push it over the cam and check that the washer is still there. Then install the original cam screw. If the washer fell down, remove the shoe to find it and go back to step 23.



- 25.** Assemble the upper knob as shown, tighten the big screw. Then install the thumbscrew (step 5) using the spacer and flat washer. Do not tighten yet, check that it doesn't protrude into the big hole of the collar. If so, back it out. Same with both of the setscrews.



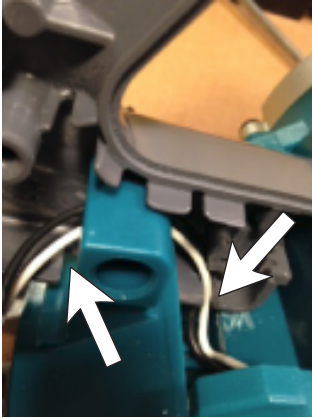
- 26.** Make sure that lower knob (with pointer) is turned all the way left and is hitting the zero stop. Align the spacer on the thumbscrew so that it's directly above the corner of the housing as shown. Apply downward pressure on the round knob and tighten the setscrews (alternate tightening). You can also use a quick-clamp between the top of the knob and shoe. Tighten the thumbscrew. To get the knob vertical, tighten it more using padded pliers. Move the lever to max depth as shown; it should stop on the opposite corner of the housing. (See note on page 1 about cam engagement)



- 27.** Now is the time to shorten your cord if running up a vac hose. Crimp the terminals on the wires from the cord and the motor. If you don't have the proper crimp tool, solder them. Put the cable tie on the cord (arrow), pull tight and trim. Put the heat-shrink tubing over the terminals as shown. Shrink down with a heat gun / lighter / matches / candle or whatever your habits acquire. Just don't burn the house down.



- 28.** Remove the switch from the handle (black screw) and remove the terminal screws (Torx). Attach the wires as shown to the switch (trigger at bottom of photo): Left – motor wires, right – cord wires. Ignore the handle in the photo, that'll be installed next step.



29. Position the left half of the handle with the wires, you'll feel it fit in. You may need to do this again and rearrange the wires. There is a slot (right arrow) which the wires go in. Push them down as they go into the slot so they don't interfere with the other handle half. Then the wires pass under the lug in the housing (left arrow). There is a recess there, make sure the wires go there and not pitched between the handle and lug.

Push the longer threaded standoff in the hole of the lug as shown in step 29. Install the screw as shown but do not tighten.



30. Position the switch and dress the wires EXACTLY as shown. There are slots in the handle that separate the cord and motor wires. Screw the switch down. Make sure the cable tie (arrow) is positioned correct and that the rubber cord boot is in the handle groove. The handle half may wobble and some of the wires can pop out of place, just push them back in position and try and stabilize everything. Use a flat screwdriver to jam them in place if needed.

Refer to the first photo in step 30. Look into the recessed area at the front of the handle where the other half will go. Make sure that the motor wires are dressed straight down from the hole and along the bottom then going up the the slot (U-shape). This will help fitting the other handle half in place without rearranging the wires again.



31. Fit the other half of the handle in place and make sure the wires are still in place. Secure the handle halves with 3 self-tapping black screws and tighten. Then install the screw opposite the one from step 30, use the same washer sequence but do not tighten yet.



- 32.** Get the right side handle bracket from the kit and attach the threaded standoff (shorter one) using the same screw and washers as the handle. Tighten the screw and push the standoff in the hole of the housing lug.



- 33.** Attach the other handle bracket the same way but don't tighten that side yet.

Swing the brackets up to align with the handle holes. Flex the brackets if necessary to align. Use the longer threaded screws and same washer sequence and thread in but do not tighten yet.

Look over the whole handle arrangement and make sure everything is straight. Then tighten all of the screws (6).

- 34.** Reinstall the blades if you removed them per the instructions in the Makita manual. Put the drive belt back on and make sure it's in the first groove of each pulley. Put on the belt cover. Push in the optional vacuum elbow and adapter. Clean up your mess and put the tools away, we're done.....

