

RESURFACER UPGRADE INSTRUCTIONS

Congratulations! Your resurfacing machine is about to work much better. Your new control unit uses simple push-button operation and sophisticated solid-state motor control electronics, resulting in a device that operates better, with less babysitting, fiddling or hassle.

In addition to these instructions, please find the following items included in this kit:

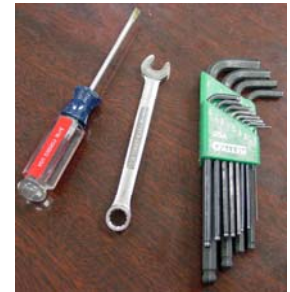


Control Unit

Fasteners

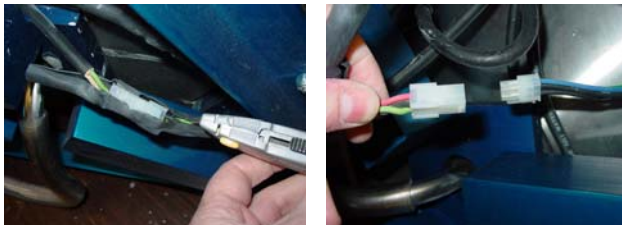
Mounting Bracket

Power Cord

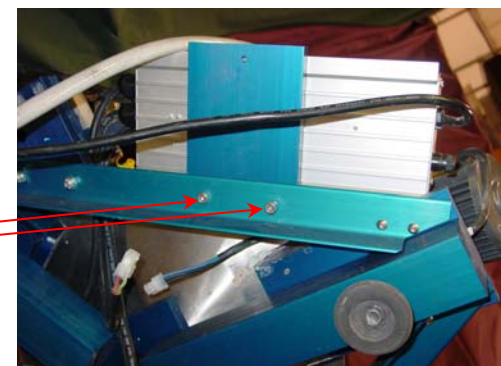


You will need to find a good place to work and some tools: a flat-head screwdriver, a 7/16" open-end wrench, a set of allen keys (inches), and a razor blade or exacto knife.

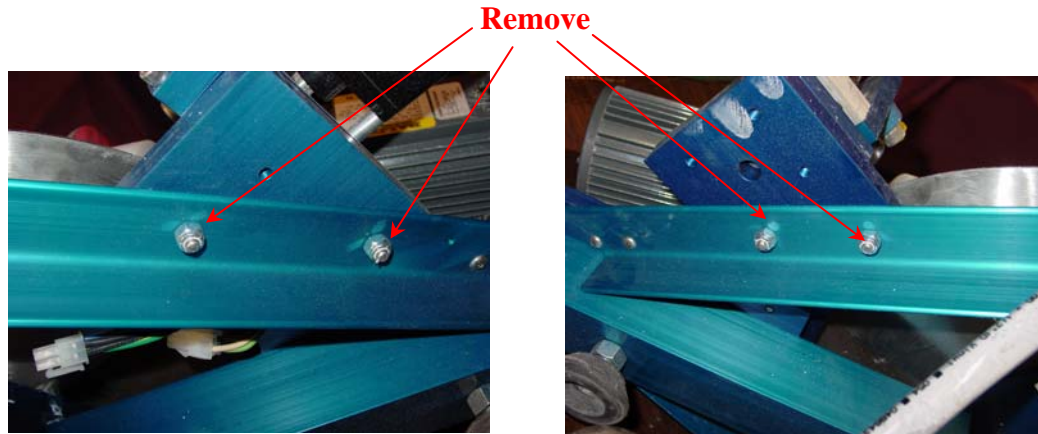
- 1) Start by **tipping the unit up** so you can work on the underside of the unit.
- 2) **Disconnect the motor control wires**. You will need to cut away the heat-shrink insulation to expose the connectors between the control unit and the motors.



- 3) Remove the old control unit and its mounting bracket by removing the two allen-head screws.



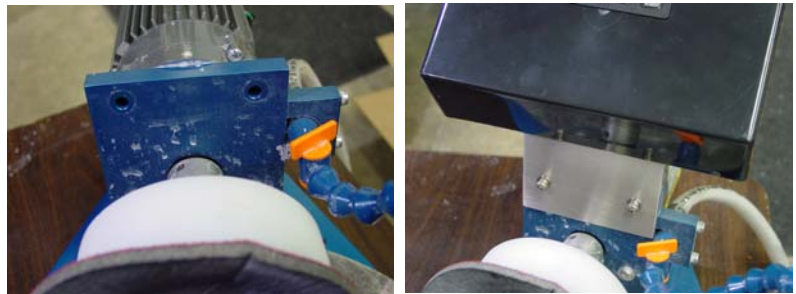
- 4) Using the open-end wrench, remove both sides of the rotor assembly by removing four nuts.



- 5) Remove any screws necessary to gain access to the rotor assembly, and **remove the entire assembly.** *You don't need it anymore.*



- 6) After you have the rotor assembly off, place the entire unit upright again. Remove the top two screws holding the back rotation motor, and install the mounting bracket provided with the screws and washers provided. Attach the control unit using the Velcro strips located on the mounting bracket.



- 7) Clean the rails on each side of the unit with some alcohol, let them dry, then affix the cable mounts provided as shown.



- 8) Connect each of the motors to the control unit, tuck the motor wires under the edges of the frame, and attach them to the frame using the enclosed zip-ties.



9) Plug the re-circulating pump power into the power outlet provided.



Pump Power

10) **First**, verify that everything else is plugged in:

- a. All three motor connectors;
- b. The re-circulating pump;

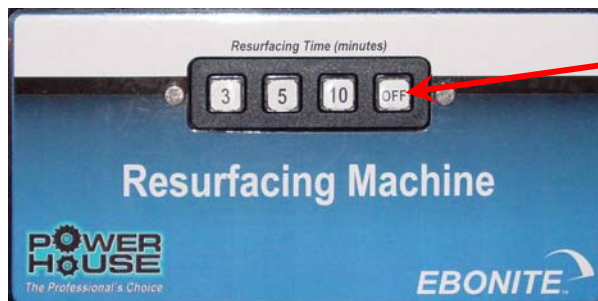
11) **Then**, plug the unit into 110 vac power using the power cord provided. (The use of power which includes a ground-fault interrupt circuit is strongly recommended, since the unit comes into contact with water.)



Power Input

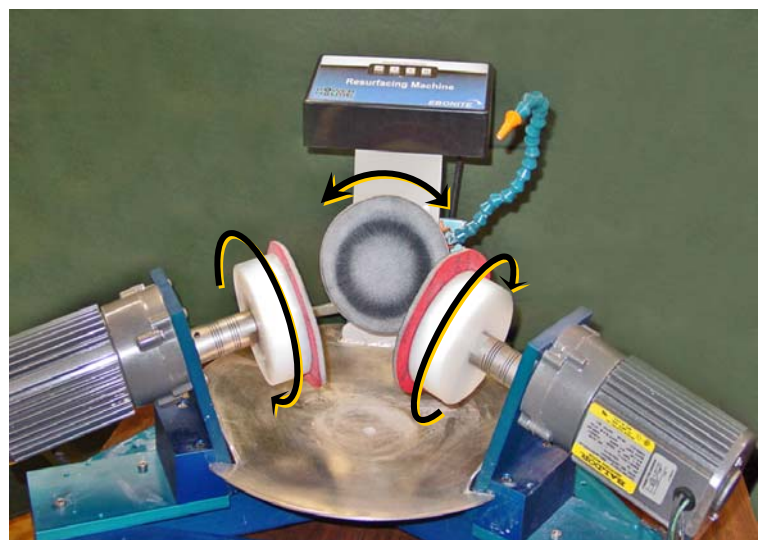
12) Now, test that the unit is working properly:

- a. Hold the “OFF” button of the control unit to operate the re-circulating pump. (This handy feature is useful for priming the polishing pads during normal use.)
- b. Press the “3,” “5,” or “10” button of the control unit to run the three resurfacing motors for 3, 5 or 10 minutes, respectively. To stop a re-surfacing cycle in progress, simply press the “OFF” button.



Press and hold the “OFF” button to to operate the recirculating pump

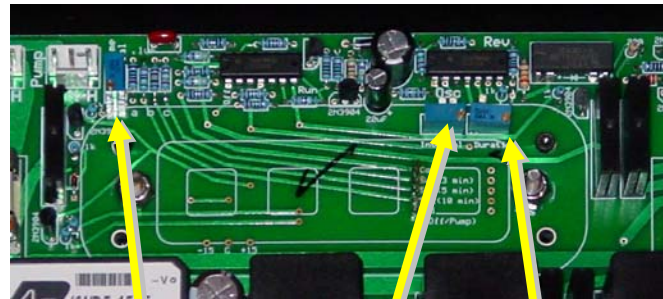
- c. If the unit is operating properly, each of the motors will rotate clockwise (as viewed from behind each motor), except that the back motor will occasionally reverse direction to scramble the position of the ball relative to the polishing pads.
- d. Don't be alarmed if the time periods are not precisely 3, 5 and 10 minutes. Under normal conditions the times should be within five or ten seconds of the selected time.



- e. The control unit has been calibrated at the factory such that the reversing motor (the one located closest to the control unit) will oscillate every $5 \frac{2}{3}$ seconds, reversing for a duration of about $1 \frac{1}{3}$ seconds each oscillation. If you are not satisfied with the polishing pattern these times produce, the times can be changed.

To change the oscillation times, first disconnect the power. Then, remove the cover by removing the four screws using a Phillips screwdriver.

You will be adjusting the trimming potentiometers labeled “interval” and “duration,” where the interval adjusts the length of time between reversals, and the duration adjusts the fraction of the interval time that the motor is reversed. (Turning the interval adjustment clockwise increases the time between reversals, and turning the duration adjustment clockwise decreases the fraction of time spent in the reverse direction.)



Timer Cal

Interval

Duration

- f. If you want longer or shorter run times than the 3, 5 and 10 minute settings provided, all three times can be adjusted longer or shorter by adjusting the trimming potentiometer labeled “Timer Cal.”

- g. Your control unit **is not water-proof**, but it is water-resistant. Therefore, do not submerge the unit under water. When cleaning, simply wipe with a damp rag.

If you're having trouble making the upgrade, and/or would like technical assistance, please don't hesitate to contact us!

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