

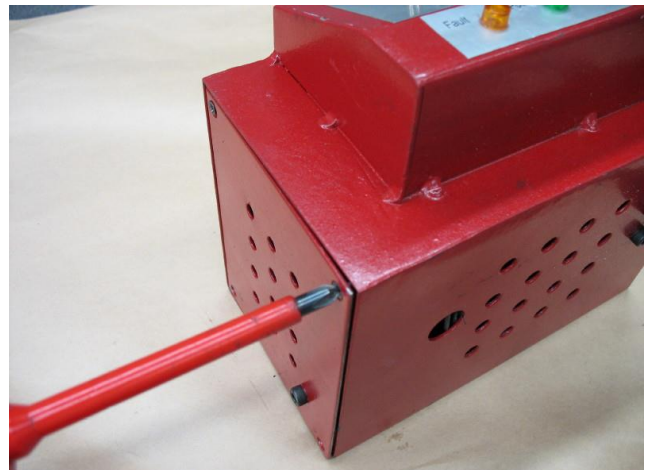
Power Feed for the HiTorque Mini Mill, X3, and Super X3 Mill



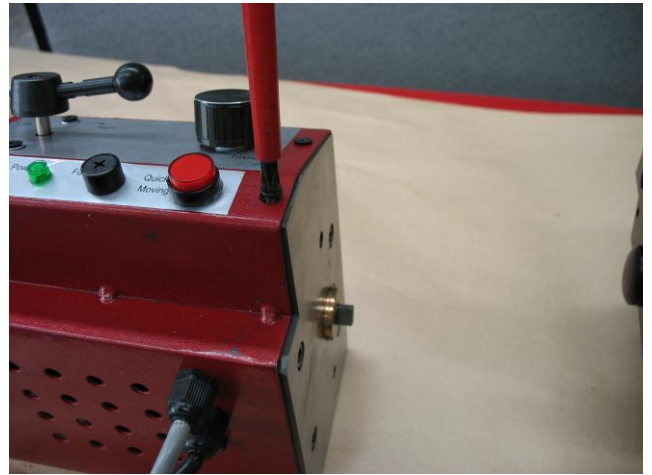
Installing the Power Feed

PLEASE NOTE The power feed moves with the mill table during operation. Be careful to route the wires so that they are not pinched or put under tension by movement of the mill table.

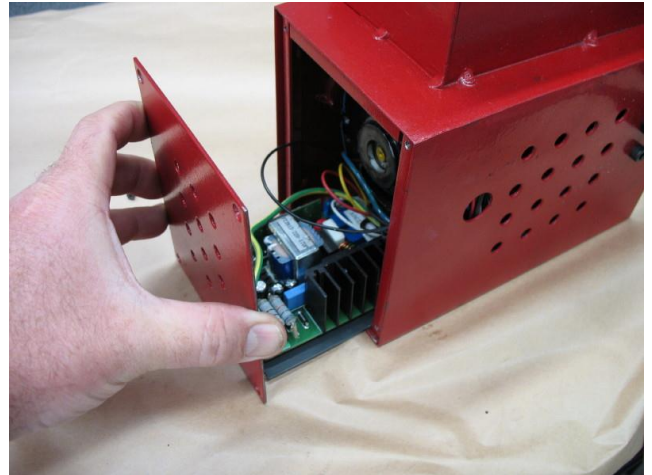
1. Unplug the mill's power cord and ensure that the power feed is not plugged in.
2. Remove the four Phillips head screws that secure the left end cover to the power feed housing.



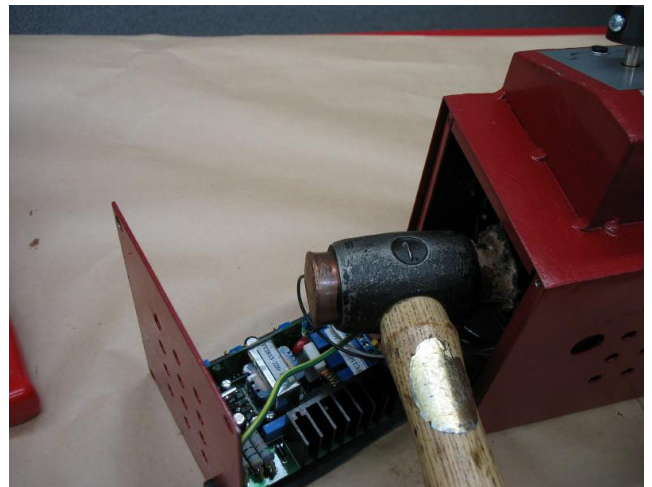
3. Remove the four Phillips head screws that retain the right side of the power feed housing.



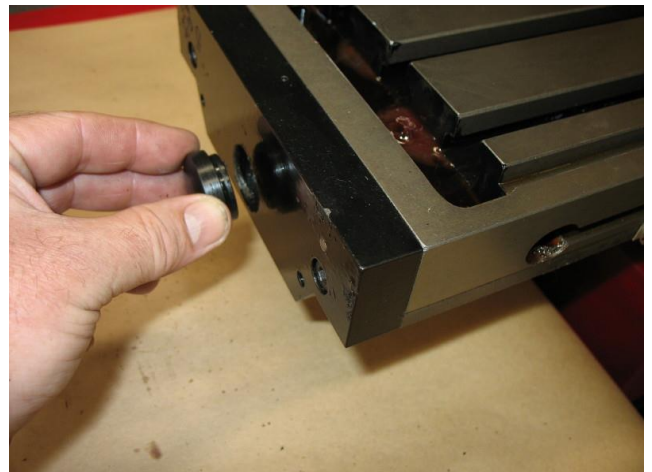
4. Carefully pull out the left end cover and the electronic control board that is attached to it.



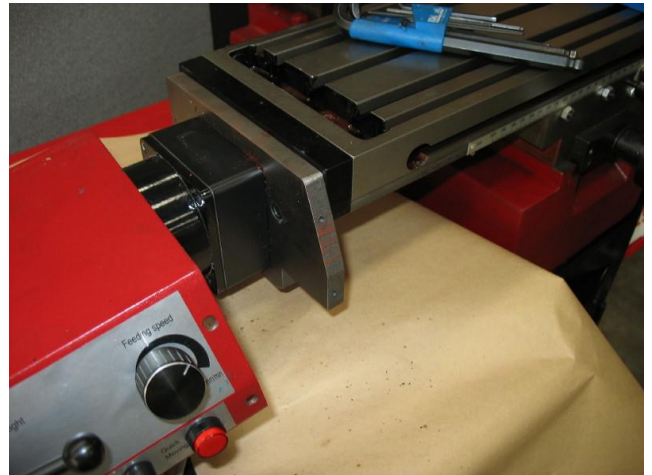
5. Remove the right hand mounting plate assembly complete with motor. This might be a tight fit. If so, gently tap the motor end cover from the left end as shown.



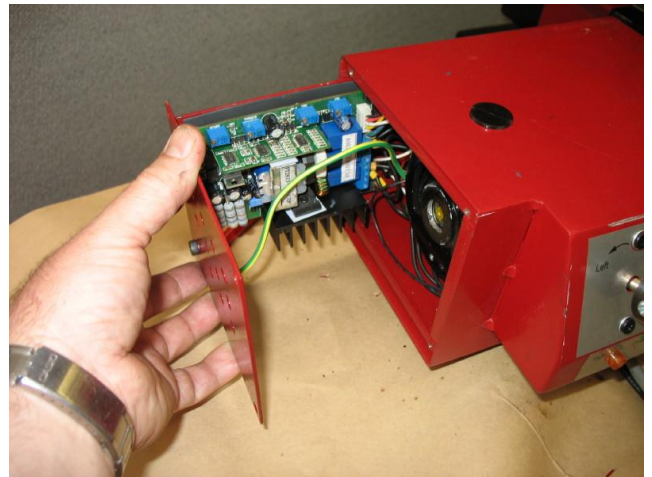
6. Remove the plug at the left end of the lead screw. Use a deburring tool to remove any paint or debris from the opening.



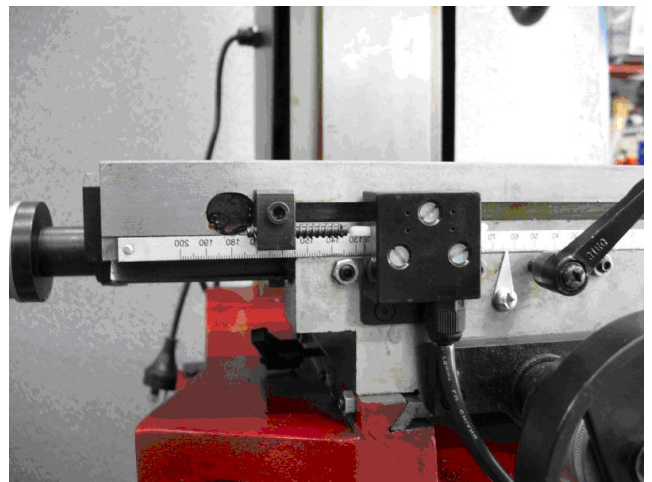
7. Ensure the end plate is clean and that no screws or dowel pins are protruding. If the dowel pins are protruding from the surface, use a small hammer to tap them down flush.
8. Being careful to support the power feed box and electronics board; place the motor plate assembly against the end of the mill table. Turn the lead screw to align the machined slot in the end of the lead screw with that on the motor shaft before fitting them together.



9. Secure the motor plate assembly to the mill table with the two socket head cap screws supplied with power feed unit.
10. Position the power feed housing over the motor and mounting plate and replace the four Phillips head screws.
11. Carefully replace the left end cover and circuit board. As you replace the cover, be sure that no wires are pinched or are under the lower motor brush retainer. Secure the cover with four Phillips head screws.



12. Insert the round nut of the left sliding stop block into the round hole at the left end of the front of the mill table. Slide the stop block to the right an inch or so and tighten the socket head cap screw.



13. Insert the round nut of the right sliding stop block into the round hole at the right end of the front of the mill table. Slide the stop block to the left an inch or so and tighten the socket head cap screw.
14. Remove the three screws holding the cover on the micro switch unit. Remove the cover.
15. Attach the base of the micro switch unit to the two holes on the left side of the saddle using the two flat head screws. Drill and tap the mounting holes if they are not provided.
16. Replace the cover on the micro switch unit and replace the three screws.

17. Ensure that the spring-loaded pins on the sliding stop blocks align with the pins projecting from the sides of the micro switch unit. If they don't align you might have the left and right sliding stop blocks exchanged.
18. Check to ensure that the installation is complete and that the wires are not in a position to get pinched or put under tension by movement of the mill table.
19. Carefully move the mill table to the extreme left. Adjust the right sliding stop block to trip the limit switch at this position.
20. Carefully move the mill table to the extreme right. Adjust the left sliding stop block to trip the limit switch at this position.
21. Plug the power feed power cord and the milling machine power cord.

The power feed is now ready to use.

It is good practice to fit a fixed mechanical stop such as a roll pin or machine screw outside of each sliding block to limit its travel to the safe maximum travel position. This will help avoid accidental over-travel of the table.

Operating the Power Feed Unit



Control	Function
Left – Right	Controls the direction of travel. Move the lever to the right to move the table to the right. Move the lever to the middle upright position to stop the table and trip the interlock.
Feeding Speed	Controls the speed of table motion. Turn clockwise to increase the table speed. Turn all the way counterclockwise to reset the interlock and start the table moving.
Fault	Indicates that the interlock is tripped. Turn the Feeding Speed knob all the way counterclockwise to reset the interlock.
Power	Indicates that the power feed is plugged in and power is on. We recommend that you unplug the power feed when not using it.
Fuse	The fuse for 120V models is a 5 amp 5 mm x 20 mm fuse. The fuse for 230V models is a 3 amp 5 mm x 20 mm fuse.
Quick Moving	Press this button for fast traverse. It moves the table at a high rate of speed in the current direction. The table does not stop when you release this button. Use the Left – Right lever to stop the table.