

TIP 56 — Adding a Switched Power Outlet to Control the Lathe Power Feed/ Larry Kombrink

Long-time machinist and Sherline customer Larry Kombrink notes that when using the power feed to put a nice finish on a part he sometimes forgets to turn off the feed motor when he turns off the spindle motor to measure or inspect the part. All his life he was used to mechanically driven feeds on larger lathes stopping automatically when the motor is turned off. The in-line switch for the power feed was not as accessible as he would like, so he solved the problem by installing a power outlet plug on his motor speed control that is powered only when the main spindle motor toggle switch is in the “ON” position. The power feed power cord is then plugged into that switched outlet instead of directly into the wall. Now, when he hits the power switch to turn off his spindle motor to check his part, it also turns off the power feed motor at the same time in case he forgot.

Larry purchased a set of standard male and female extension cord plugs at a local hardware store to make his modification. The front part of the female connector is attached to the speed control housing, and the rear portion is not used. Only 3 holes are required. The black wire from the speed control On/Off toggle switch has an additional lead running from the switch to the plug connection for the narrow power cord blade. The white wire from the board runs to the connector for the wide blade. A green Ground wire is connected to the ground terminal on the connector from the ground wire in the speed control housing. When the main spindle motor toggle switch is ON, power goes to both the DC motor control AND to the outlet. Turning off the switch kills power to both the motor and the outlet, stopping the power feed drive at the same time as the spindle motor.

In addition, Larry has installed a single pole, single throw switch directly on the power feed motor housing that does the same job as the in-line switch but is easier for him to locate quickly to stop the power feed while still running the spindle motor.

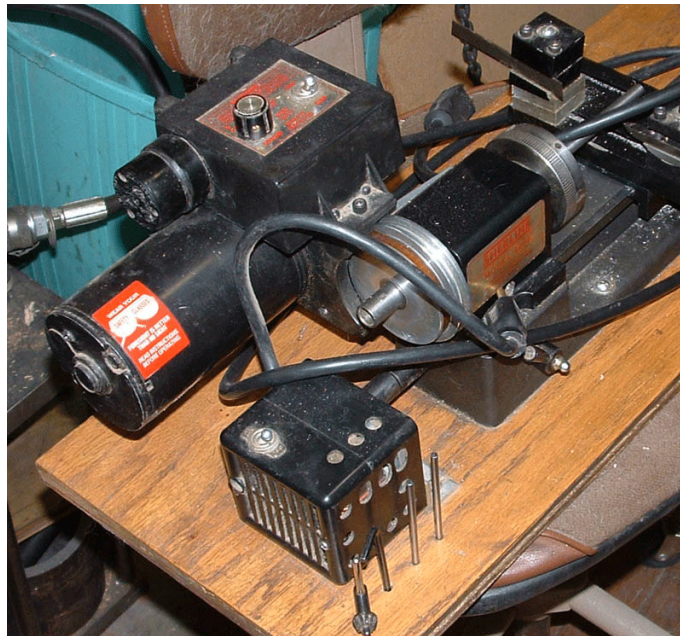


Photo 1—Shows Larry’s lathe with the power feed attached.



Photo 2—Shows the female plug he added to the speed control housing so that when power to the motor is switched off, power to the power feed is cut at the same time. The power cord is not plugged in for this photo to show the connector more clearly.