

Advantages of Upgrading to the RBK Control System



Introduction

This document will outline some of the main reasons why we at ShopBot recommend this product to owners of PRT and early PRS standard machines, especially when the machine is used in an educational or multi-user setting.

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Safety

- The emergency stop switch cuts power and stops both the tool's movement and the cutter.
- The stop button provides a computer controlled stop.
- Key lockout of spindle/router power during tool changes is built-in.
- Spindle start messages require user to be at the keyboard to start the spindle/router.
- The spindle/router is powered up and down automatically with software. This eliminates the need for the operator to be near the tool during file start or end to power on or off tool.
- Reduced dust damage/hazard with sealed control box design.
- Sealed control box prevents accidental contact with electronics or power supplies.
- Wiring management is neater. This keeps wires closer to the machine and lessens the chance of tripping, getting caught on objects, and of damage through wear or abrasion.
- The control box mounted to the machine provides a built-in frame/machine ground.
- Industrial power switch handles use better and have a more solid feel than the prior switch.
- Provides a safer instructional environment.

Features

- Allows use of our current advanced post processors.
- Compatible with current CAD/CAM software.
- Adds spindle speed control and automatic on/off.
- Increases power by allowing a higher amperage output to motors.
- Increases resolution, which results in smoother cuts.
- Enables an upgrade to more powerful motors if desired.
- Driver modules are not soldered to the board so they are easier to replace.
- Compatible with both PRT and PRS style proximity switches.
- Allows you to toolpath using the manual tool change (MTC) system that can include multiple bit changes in a single cutting file, with only a bit rezero required between each cutting segment.
- Opto-isolation reduces ground and static problem associated with dust collection systems.
- Allows the use of most newer accessories:
 - Proximity switches for X, Y, and Z axes.
 - Z zero plate.
 - Probe.
 - Relay board for I/O control of up to 8 additional devices.
 - Automatic spindle warmup.

Production support enrollees can purchase the RBK control box and other ShopBot parts or accessories at a discount during the year of their enrollment. We can also arrange to have the system installed and tuned to your machine by factory trained personnel.