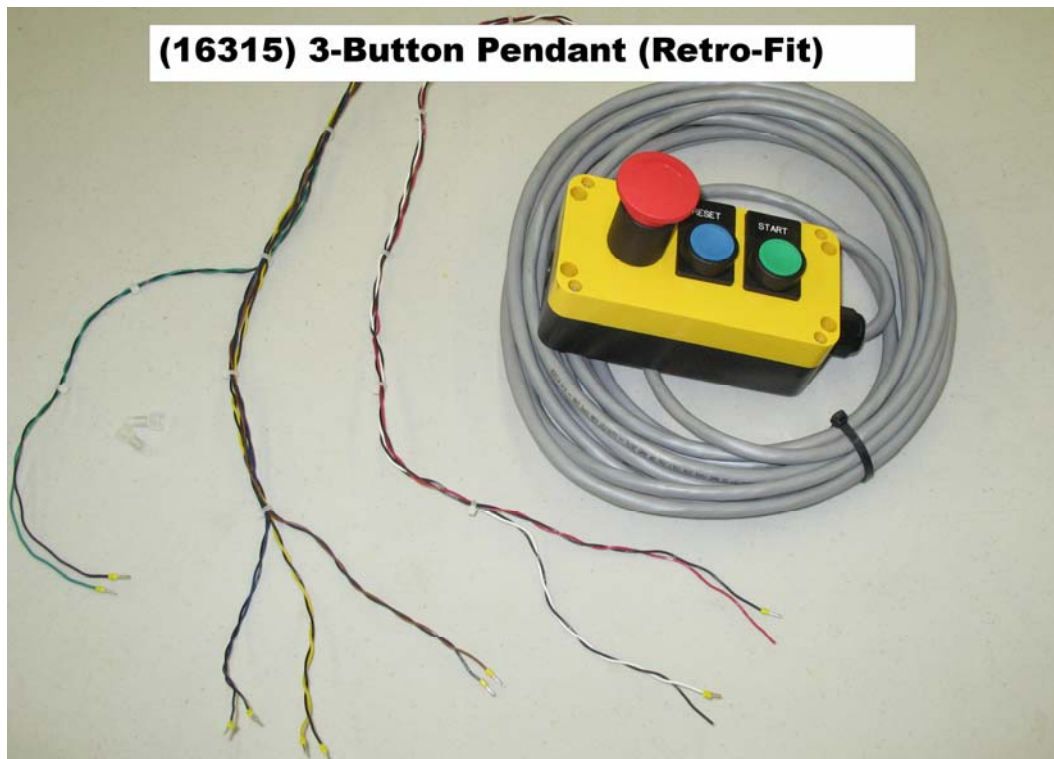


# Instructions for Installing the ShopBot 3-Button Pendant Retrofit for PRT/PRSalphas



The 3-Button Pendant can be added to PRS/PRT alpha ShopBots and can be placed in a convenient location to allow ready access to the Start, Reset and E-Stop. The buttons on this pendant work in addition to the existing Start, Reset and E-Stop. The 30ft cord allows the operator to carry it to virtually any location around the table or it can be mounted near the computer controlling the ShopBot. Only alpha models can use this retrofit.

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## WARNING

### ELECTRIC SHOCK CAN KILL

Use extreme caution when working near live electrical circuits. Dangerous voltages exist inside the control box that can cause serious injury or death. Always use safe practices and good judgment.

## Installation

The 3-button pendant can only be wired into alpha control boxes produced prior to February 2008. The pendant has 6 twisted pairs of colored wires (12 total) that will be used to wire in the device. These twisted pairs will be bundled for 3 areas:

Start Button:

Green / Black twisted pair

Reset Button:

Yellow / Black twisted pair

Brown / Black twisted pair

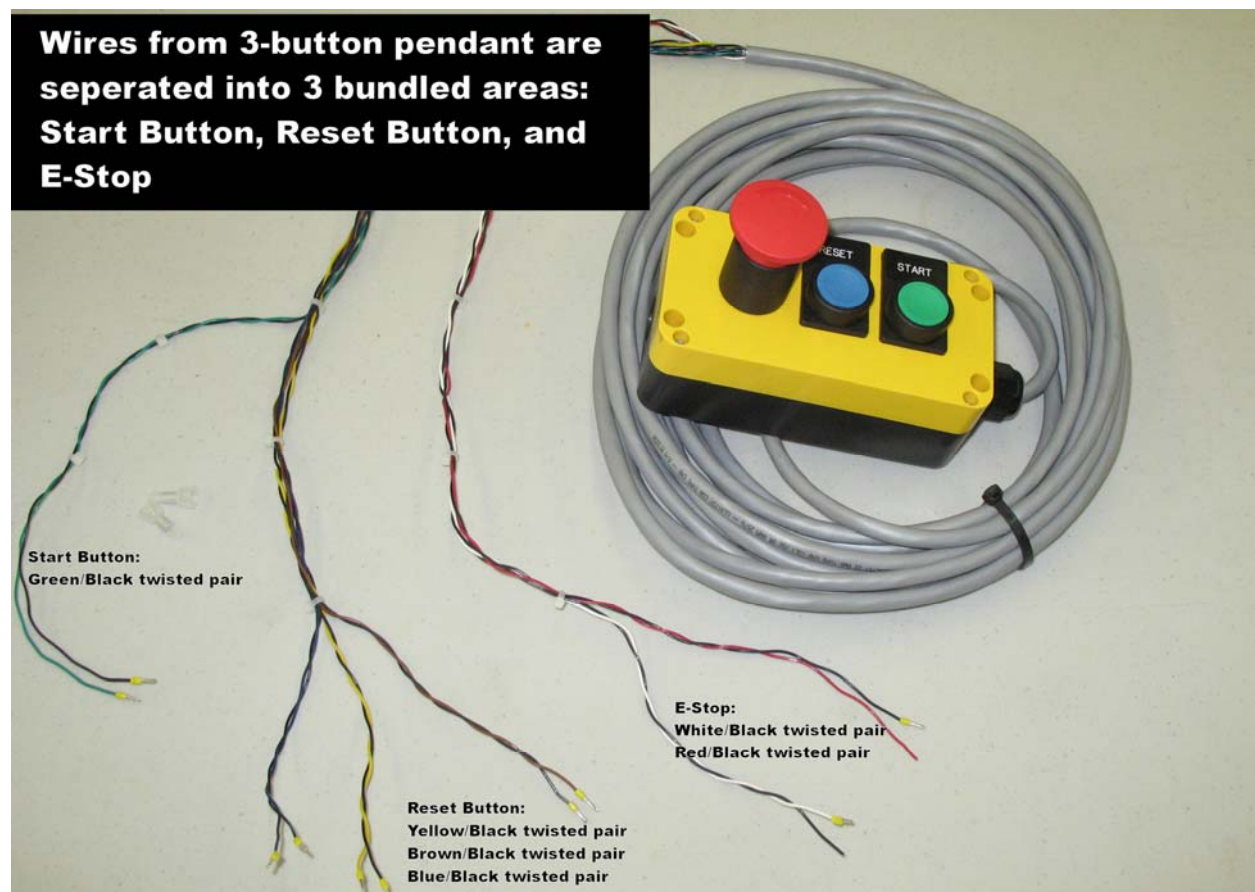
Blue / Black twisted pair

E-Stop:

White / Black twisted pair

Red / Black twisted pair

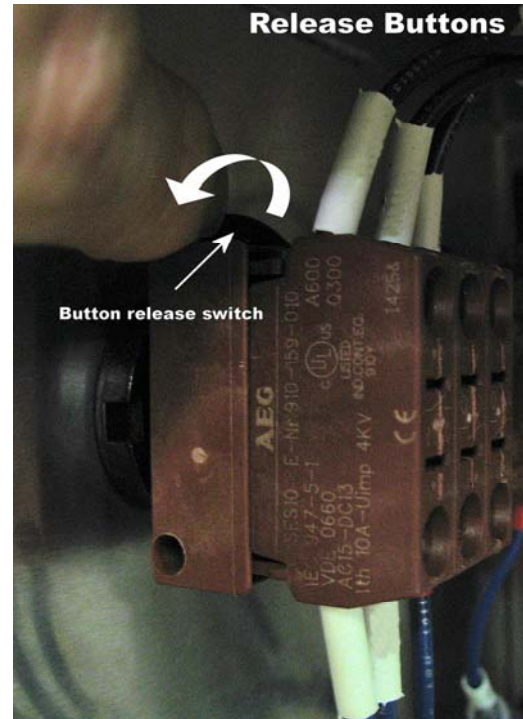
**Wires from 3-button pendant are separated into 3 bundled areas: Start Button, Reset Button, and E-Stop**



***Before installing the 3-button pendant, make sure all power has been disconnected going into the ShopBot control box and to the spindle/router.***

## ***Removing the Existing Reset and Start Button Switch Housings***

- Removing the switch housings makes it easier to install the wiring.
- Open the control box door. Look into the upper left corner of the box and find the switch housings for the Reset and Start buttons. These have a snap-in connector that is released by moving the release switch towards the front of the box.
- With the release switch depressed to the front, the switch housing will pull out toward the interior of the control box. Remove both the Reset (front of box) and Start (back of box) button switch housings.



## ***Routing the Cable from the Pendant into the Control Box***

- On the right side of the control box is the Roxtech cable management system. Using a screw driver in the upper hole of this system, rotate the block upward to release the cam tension of the block.
- Route the cable from the 3-button pendant into the control box. Leave the Roxtech system open until everything has been wired in.

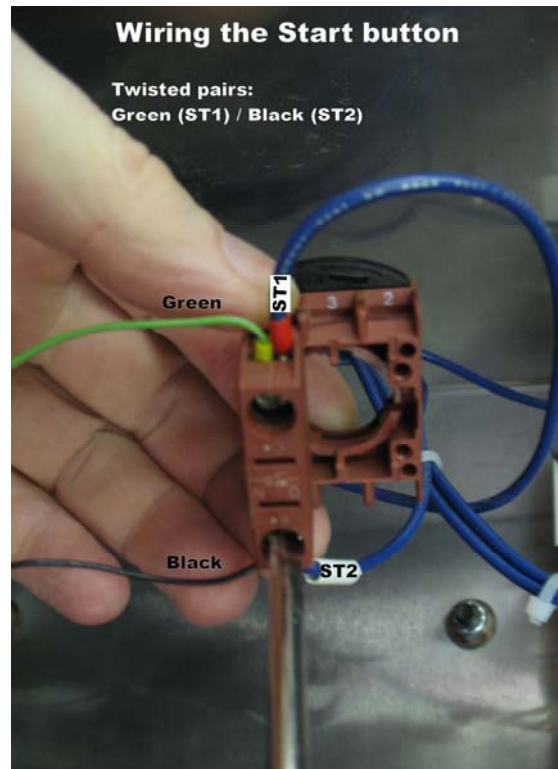


## Connecting the Wires from the Pendant

In most instances it is not necessary to remove the preexisting wires from the Start and Reset buttons. If these are removed, be careful not to lose the white labeling tags that mark these wires.

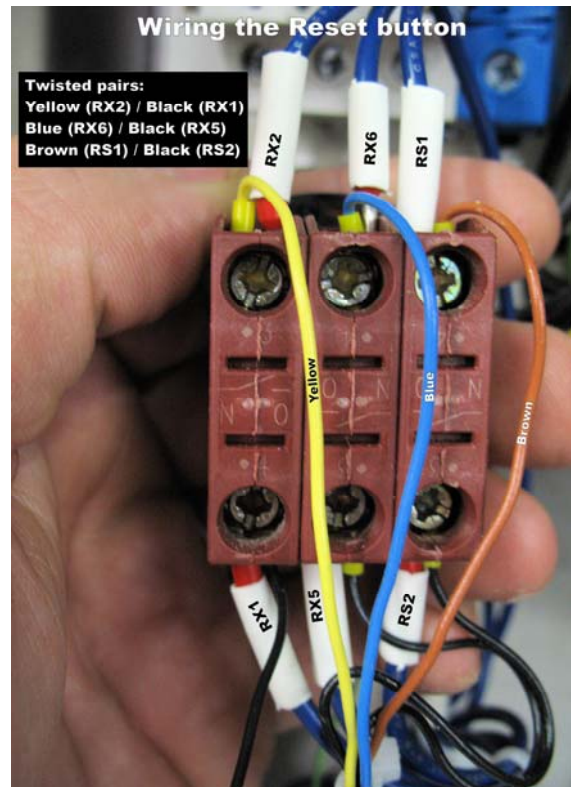
### Wiring into the existing start button

- Locate the Start button bundle: Green / Black twisted pair from the 3-button pendant and Start button (closest to back of control box).
- With a screw driver, loosen the terminal on the top of the button. Insert the Green wire from the Green/Black twisted pair into the terminal. Both the Green wire and ST1 will be shared in this terminal. Tighten securely.
- Loosen the terminal on the bottom of the button. Insert the Black wire from Green/Black twisted pair into the terminal. Both the Black wire and ST2 will share this terminal. Tighten securely.
- Refer to wiring diagram on last page if needed.



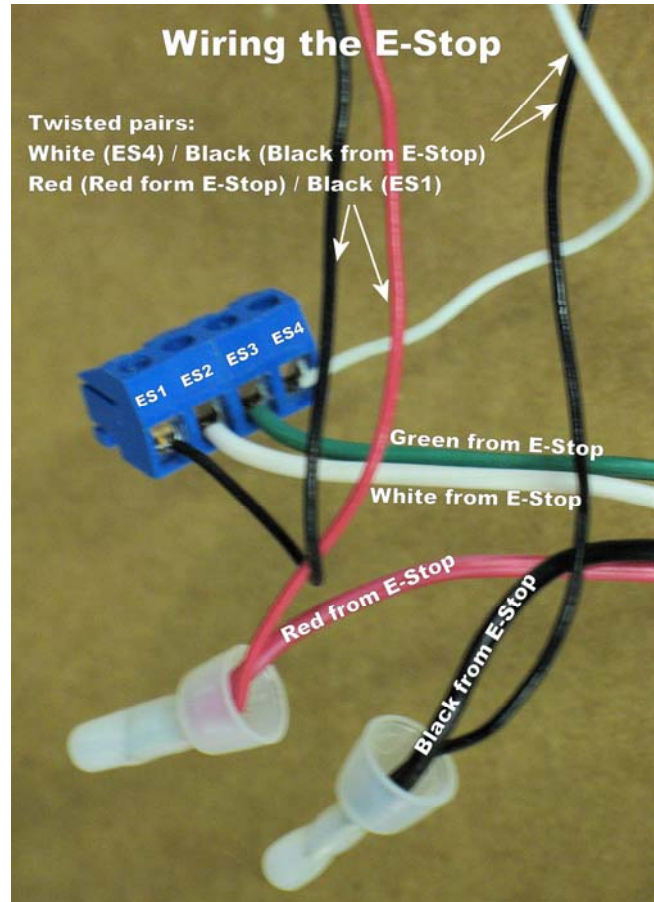
## Wiring into the existing Reset Button

- Locate the reset button bundle (Yellow/Black twisted pair, Brown/Black twisted pair, and Blue/Black twisted pair) from the 3-button pendant and Reset button (closest to front of control box).
- With a screw driver, loosen the terminal on the top left of the button. Insert the Yellow wire from the Yellow/Black twisted pair into the terminal. Both the Yellow wire and RX2 will share this terminal. Tighten securely.
- Loosen the terminal on the bottom left of the button. Insert the Black wire from Yellow/Black twisted pair into the terminal. Both the Black wire and RX1 will share this terminal. Tighten securely.
- With a screw driver, loosen the terminal in the top middle of the button. Insert the Blue wire from the Blue Black twisted pair into the terminal. Both the Blue wire and RX6 will share this terminal. Tighten securely.
- Loosen the terminal in the bottom middle of the button. Insert the Black wire from Blue/Black twisted pair into the terminal. Both the Black wire and RX5 will share this terminal. Tighten securely.
- With a screw driver, loosen the terminal on the top right of the button. Insert the Brown wire from the Brown/Black twisted pair into the terminal. Both the Brown wire and RS1 will share this terminal. Tighten securely.
- Loosen the terminal on the bottom right of the button. Insert the Black wire from Brown/Black twisted pair into the terminal. Both the Black wire and RS2 will share this terminal. Tighten securely.
- Refer to wiring diagram on last page if needed.



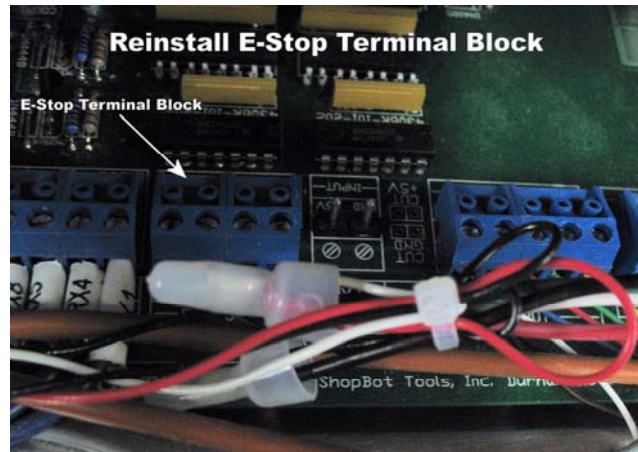
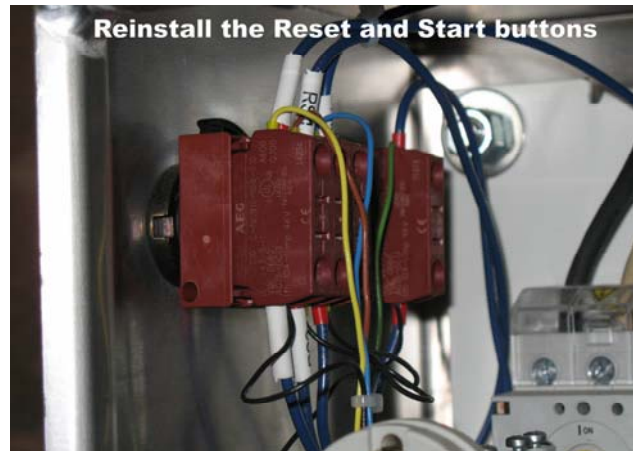
## Wiring into the existing E-Stop

- Locate the E-Stop bundle (White/Black twisted pair and Red/Black twisted pair) from the 3-button pendant and the blue E-Stop terminal block which is found on the control board.
- Remove the Blue terminal block from the control board. Orient the wires from the E-Stop so that the White wire is in the 2nd terminal from the left (ES2) and the Green wire is in the 3rd terminal from the left (ES3). Remove the Red and Black wires from the terminal block.
- Place the Black wire from the Red/Black twisted pair into the 1st terminal on the left (ES1). Place the White wire from the White/Black twisted pair in to the last terminal from the left (ES4).
- Crimp together the remaining Red wires and then the remaining Black wires.
- Refer to wiring diagram on last page if needed.



## Reinstalling the Existing Buttons and E-Stop

- Reinstall the Reset and Start buttons in the upper left corner of the ShopBot control box.
- Reinstall the E-Stop's blue terminal block back onto the control board.



## Securing the Cabling

Make sure that there is adequate amount of slack left inside the control box for the 3-button pendant. This will mean that no connection is under any strain; use wire ties if needed. Secure the cable from the 3-button pendant in the Roxtech cable management system (See **Routing the Cable**). Using a screw driver in the upper hole of this system, rotate the block downward to apply pressure on the spacers.

## Testing the 3-Button Pendant

Now that the 3-button pendant is wired, it is now time to test the button system. Both the newly installed 3-button pendant and the existing buttons and E-Stop need to be tested to ensure all connections are working properly.

### ***Test the buttons on the new pendant***

- Close the ShopBot control box and reconnect the power to the control box and spindle/router.
- Turn on the switch on the front face of the control box.
- Press the Reset button on the pendant and listen for the contactors in the control box to engage.
- Type K (Keypad) in the ShopBot control software and turn on output #1. Press the Start button on the pendant. The spindle should come on.
- Hit the E-Stop on the 3-button pendant. This should kill power to the control box.
- If any of these procedures failed, recheck the wiring diagram on page 6.

### ***Test the existing buttons***

- Close the ShopBot control box and reconnect the power to the control box and spindle / router.
- Turn on the switch on the front face of the control box.
- Press the Reset button on the side of the control box and listen for the contactors inside to engage.
- Type K (Keypad) in the ShopBot control software and turn on output #1. Press the Start button on the side of the control box. The spindle should come on.
- Hit the E-Stop previously installed. This should kill power to the control box.
- If any of these procedures failed, recheck the following wiring diagram.



