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Technical Document

File name: TD_10046 Integrated E-Stop Installation Kit Instructions

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Product Identification: Installation Instructions

Background:

This document is intended to be used for installing the Integrated W-stop Kit p/n 30785 commonly used with the Tormach Duality Lathe.

Parts List:

Your kit should look like the photo below. It comes with a contact block (30783), a feedback block (30786) a flanged connector (30773) with 4 wires coming out; 2 red and 2 orange. Not shown are 4 spade connectors, 4 M3 screws and nuts.



Tools Required:

Measuring tape or ruler
Hand Drill
Uni-bit or hole saw up to 3/4" dia.
1/8" diameter drill bit
#2 Phillips screw driver
1/8" flat blade screw driver
Wire stripper and crimper

Install Procedure:

WARNING!!

Be sure that the power is turned off and the machine unplugged prior to installing this kit.

1. Drill holes for connector (note some newer machines come with this already completed):

Select a location on the side of the main cabinet, somewhere below the main power switch. Be sure to select a location that will not interfere with any existing wires, and is far enough from the side walls of the cabinet. Drill the center hole (3/4-7/8") 1st. If you have a 4th axis installed, then drill the center hole about 1.25" below the bottom edge of the 4th axis connector.



NOTE: It is recommended to lay down a cover on the inside bottom of the cabinet to keep metal chips from landing on electrical components.

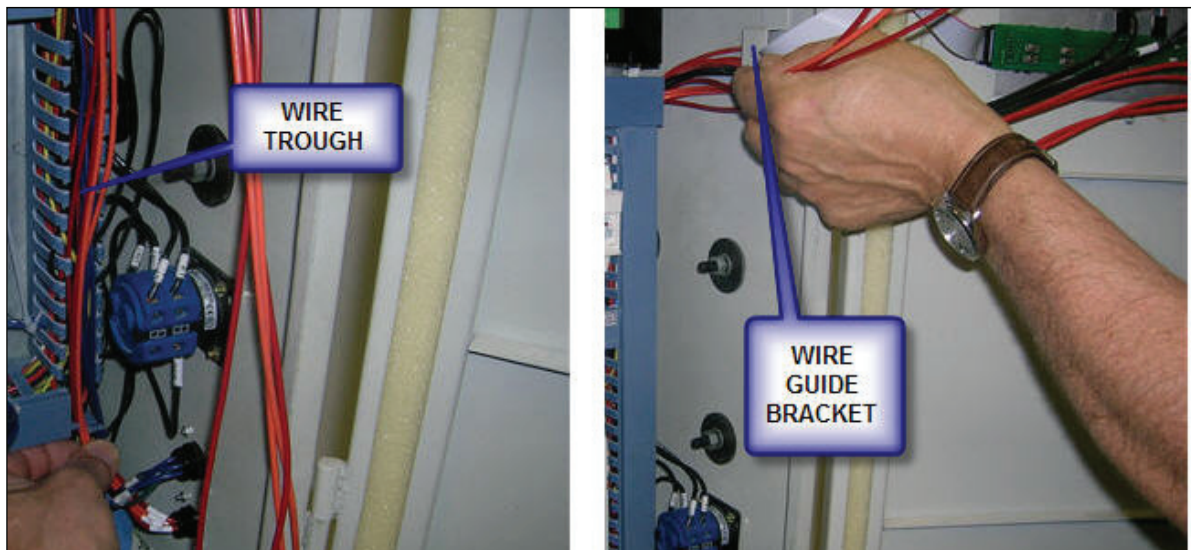
2. String the E-stop wire harness through the new hole and, using the connector as a template, drill 1 screw hole (1/8" dia.), then install one screw and nut. Drill a second screw hole as shown and install the second mounting screw and nut. Repeat in a similar manner to install the 3 and 4 mounting screws.



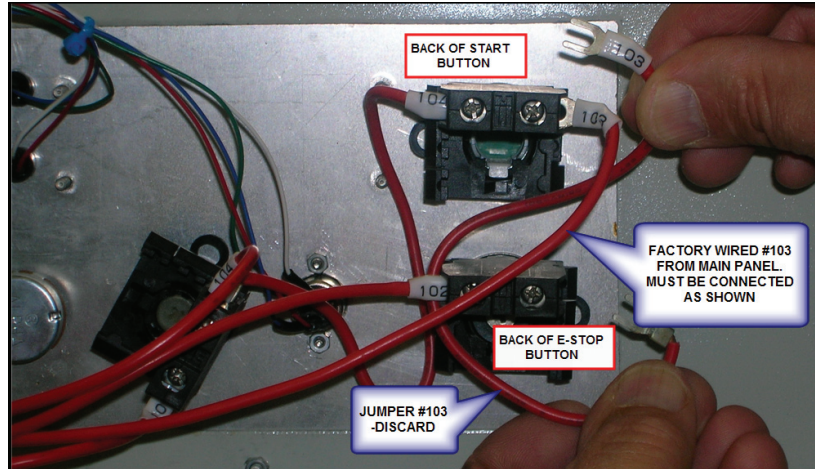
- Unwrap and remove the white wire wrap from around the user panel wires and remove the far right vertical wire trough cover. It should be noted here that the kit will come without wire labels and or crimped connectors on the switch end of the wires (these are included in the kit, but are not attached to the wire). This is to allow the user to cut the wires to length at install. Be sure to leave enough length to allow unimpeded motion of the cabinet door. The user is responsible for attaching the included wire labels and crimping on the fork connectors. Care should be taken to get the right wire label on the correct wire. Wire labels should be already mounted to the wires at the connector end for the user's reference.



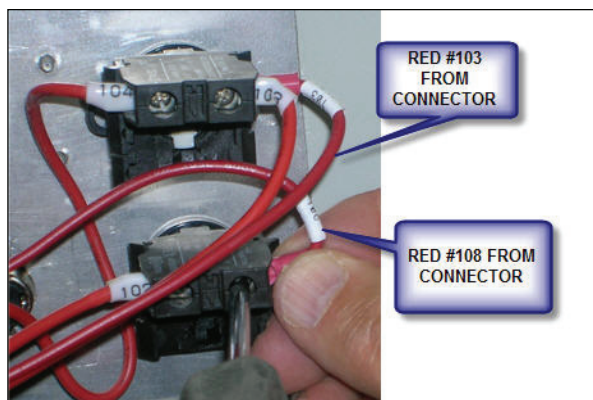
- Run the 4 new wires from connector up through the wire trough and through the wire guide bracket. Replace the wire trough cover and re-wrap the wire harness with the wire protector. Be sure that the wire wrap extends through the wire guide bracket.



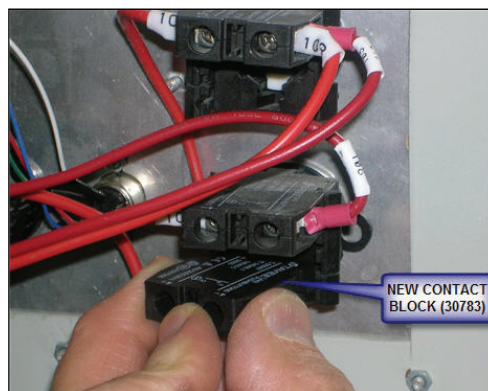
5. Wiring Connections: Remove the short wire #103 that goes between the green start button and the E-stop contact block and discard. Some machines will have wire 103 from the main panel connected to the E-stop. If this is the case, move this wire to connect to the start button as shown in the photo below. See wiring diagram for complete wiring guide.



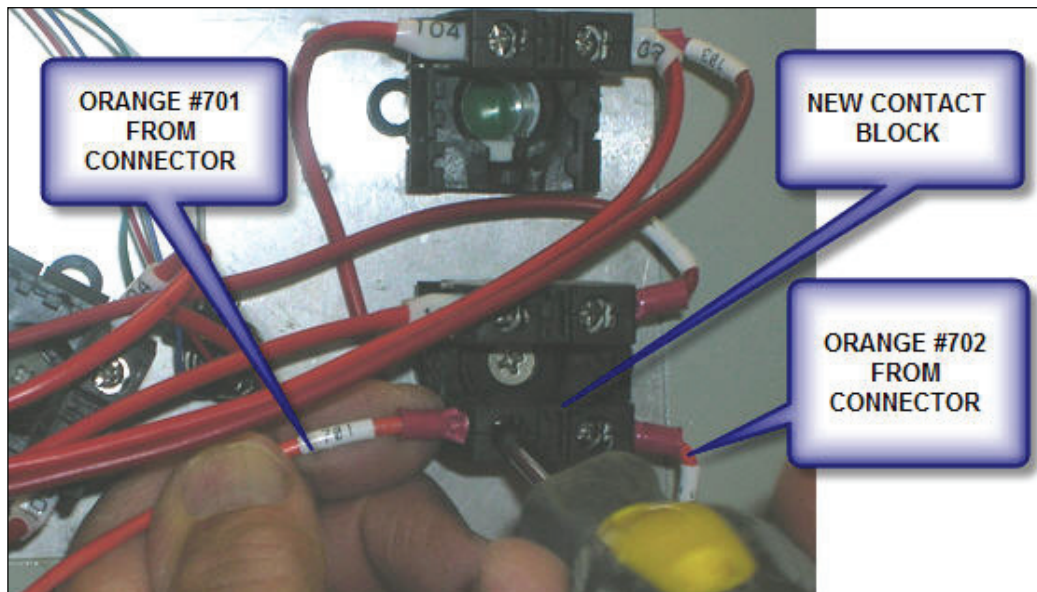
6. From the new connector, attach red wire #103 to the Green start button contact block. (NOTE: there should already be a #103 going to this position as shown; leave this in place). Then attach red wire #108 to the open terminal on the E-stop button.



7. Install the second contact block to the back of the E-stop button.



8. Connect orange wires (#701 & 702) to the new contact block.



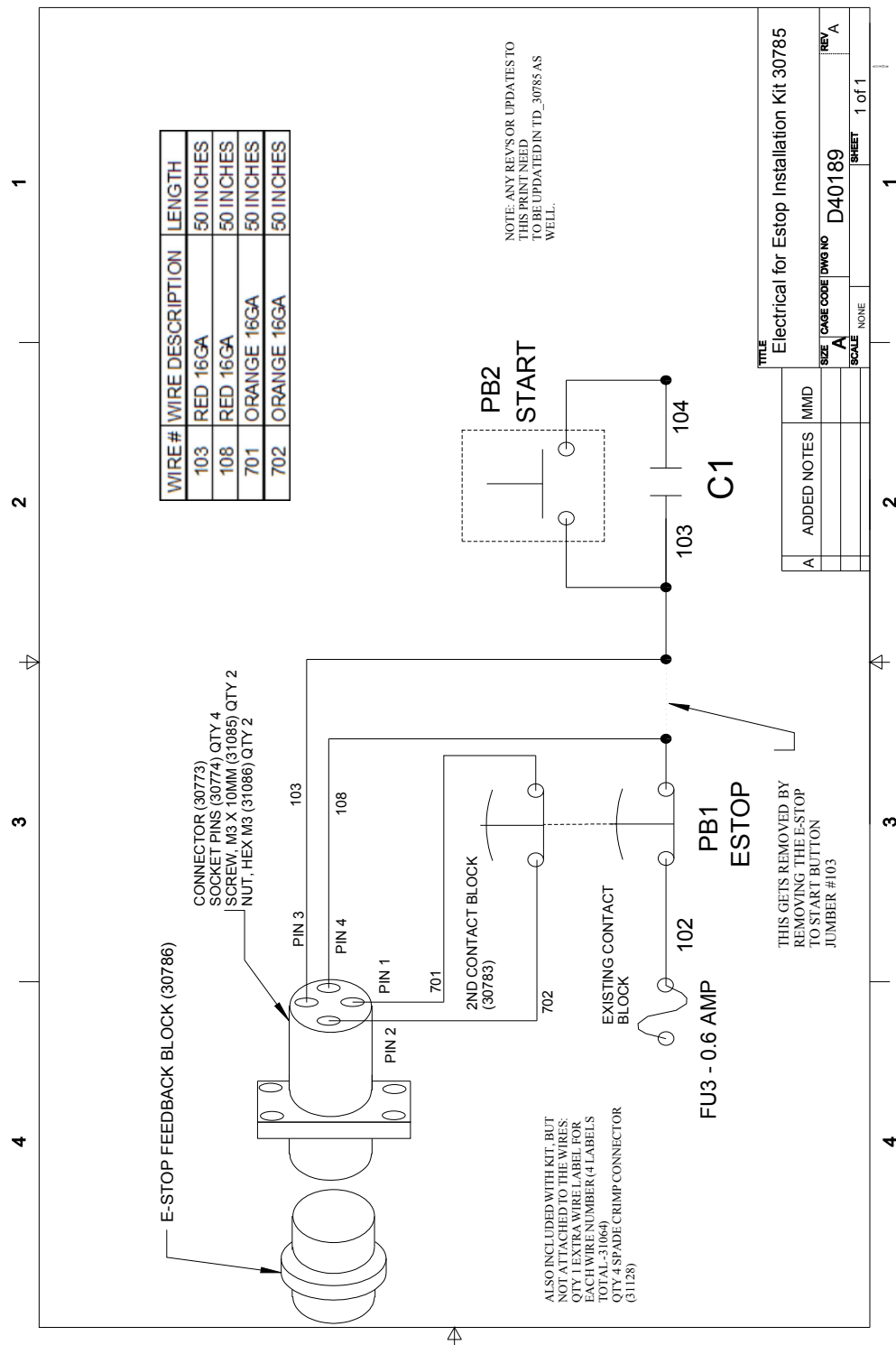
9. Test your system. Verify that e-stops on both the mill and the lathe (if applicable) are functional. Please note that after this installation is complete, you will need to have either the secondary device attached to this connector, or use the E-Stop Feedback Block (30786) in place in order to run the PCNC. Note: if you are installing this with a Duality Lathe, then an additional Feedback Block is included to be used on the lathe when not used on the PCNC.





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Integrated E-stop wiring diagram