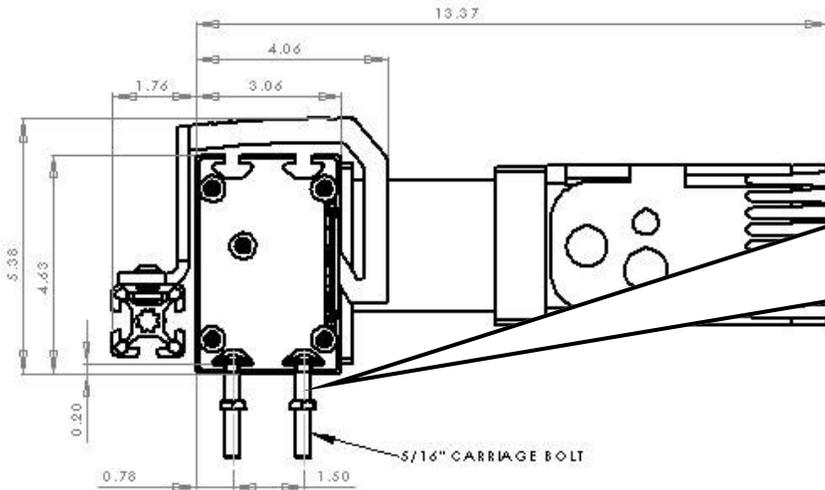


RAZORGAGE

QUICK START GUIDE

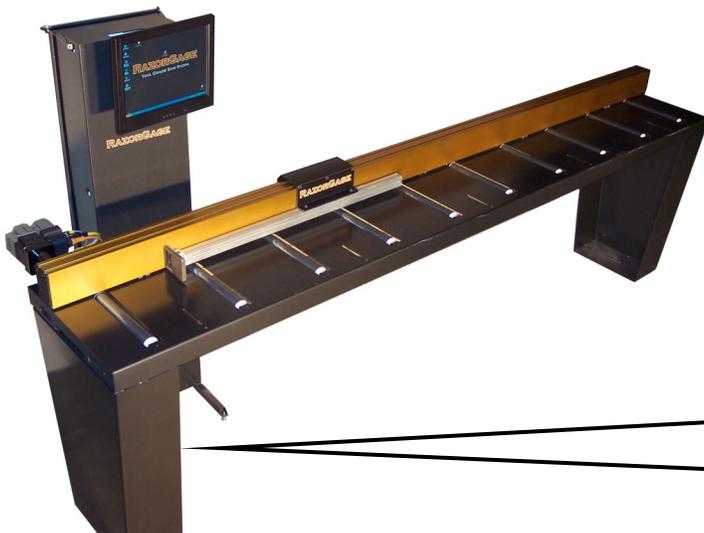
Mount the RazorGage to Your Own Table



If you are mounting the RazorGage ST to your own table, use the dimensions at left to help you plan. You may use the 5/16" carriage bolts provided with the RazorGage to bolt the RazorGage to your table. The head of the carriage bolt fits in the T Slots as shown.

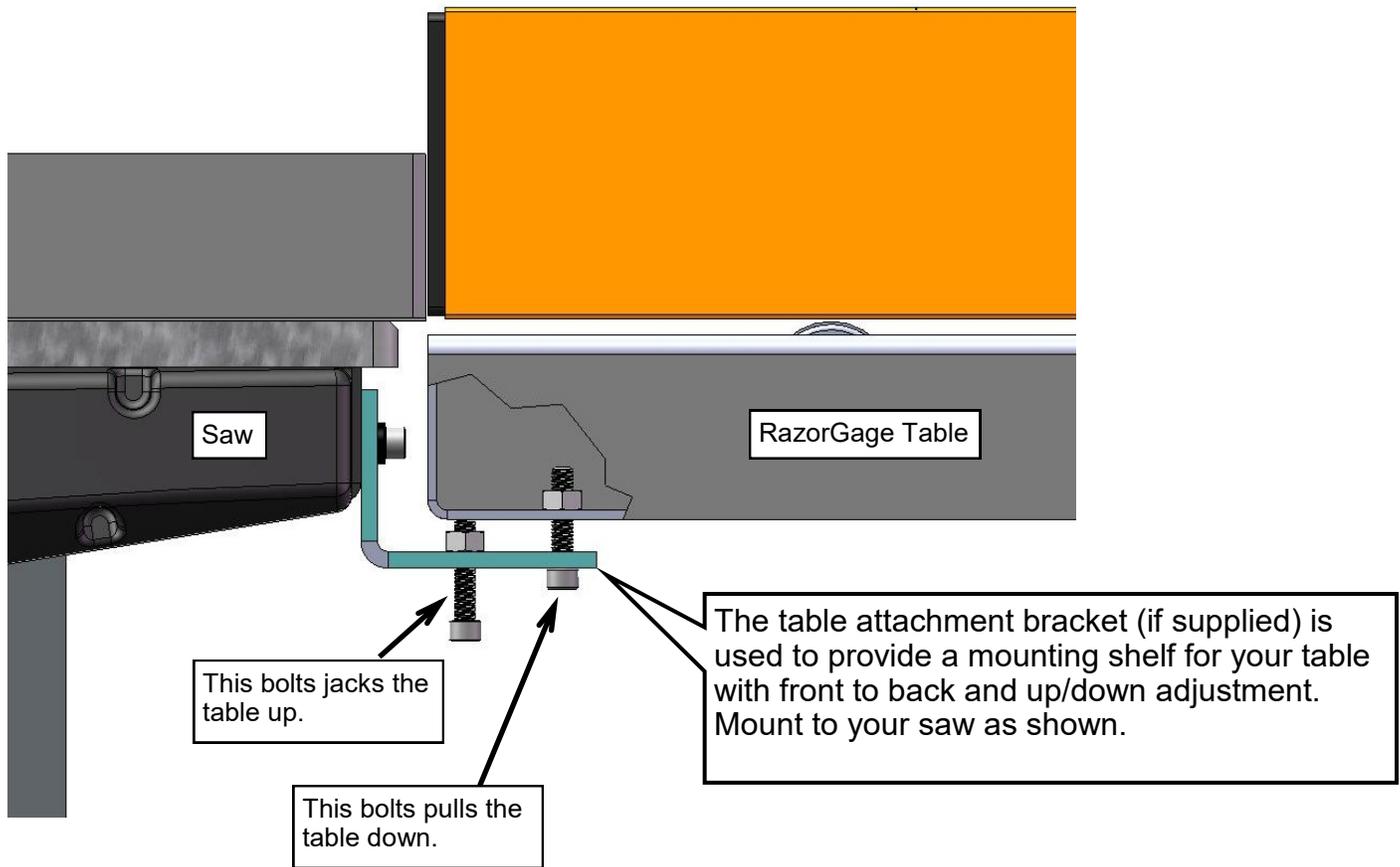
Mount the RazorGage to a Table Provided by RazorGage

Mount the leg(s) to the RazorGage table with the bolts provided then mount the RazorGage to the table with the carriage bolts provided. The RazorGage can mount over the rollers or behind the rollers depending on your application. Use the 1/4" shims provided to space the unit above the rollers.



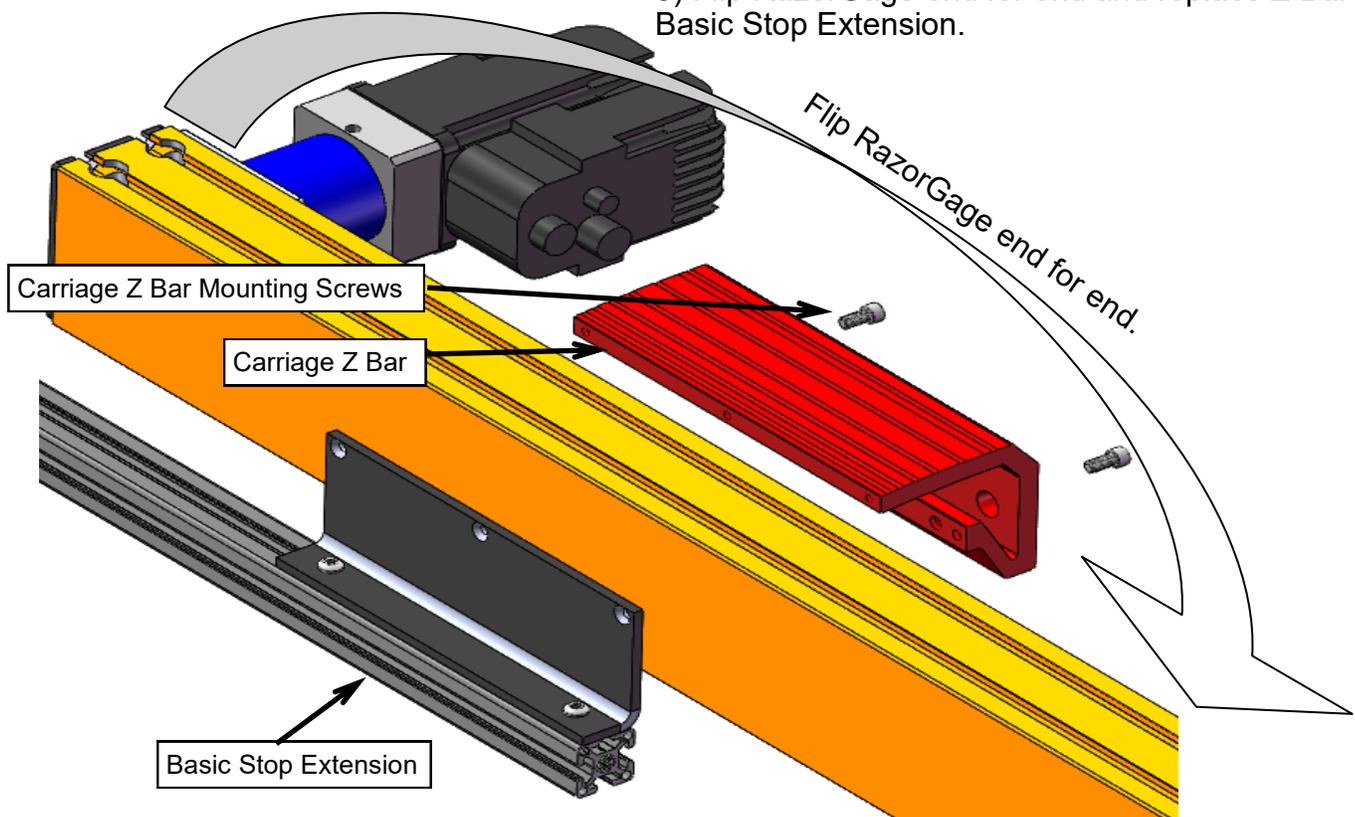
The table shown here is freestanding but unless you specifically ordered an extra leg, your RazorGage will only have one leg per table. The motor end is usually attached to the saw as shown on the next page.

Table Attachment Bracket



Changing the Hand of Your RazorGage

- 1) Remove Basic Stop Extension
- 2) Lift upper dust seal and extend allen wrench through holes in carriage Z-Bar to remove two screws as shown. Remove Z Bar.
- 3) Flip RazorGage end for end and replace Z-Bar and Basic Stop Extension.



Mount the Enclosure

Disregard this step if you have the freestanding Tower Enclosure.

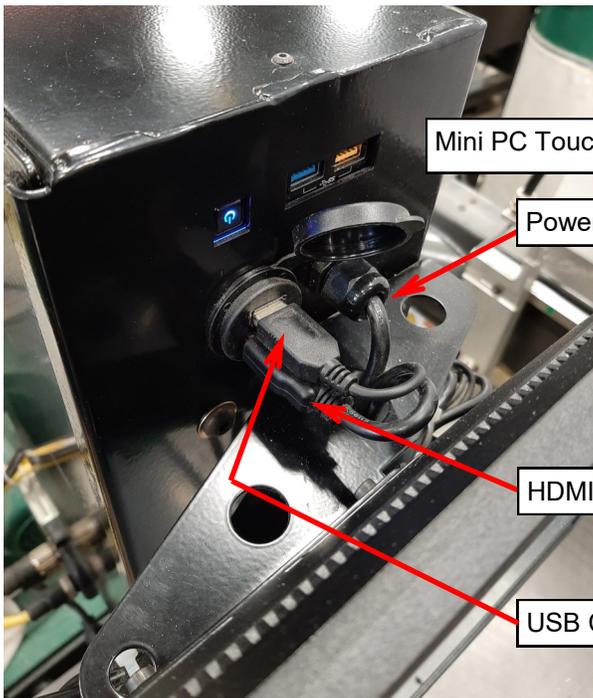


The Mini Enclosure MUST be flush with this edge when mounted to the RazorGage extrusion. Otherwise the carriage could hit the enclosure during homing.

Use the cap screws and T-Slot nuts provided to mount the enclosure to the RazorGage beam.

Touch Screen Monitor Connections

The Android tablet only requires the power cable. Communication is accomplished via Bluetooth.



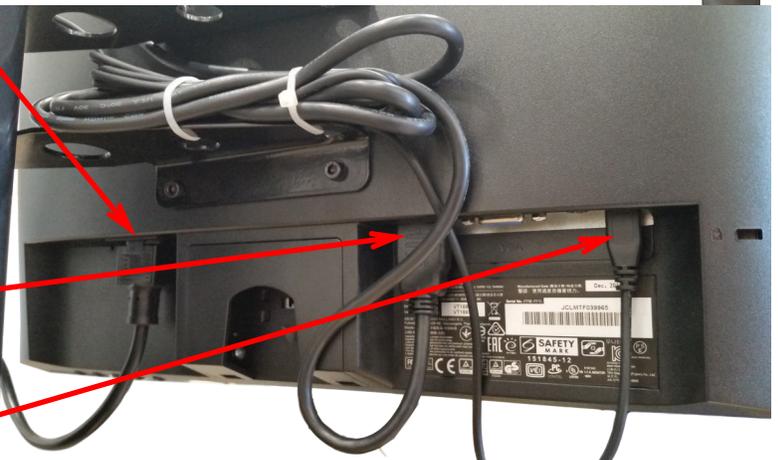
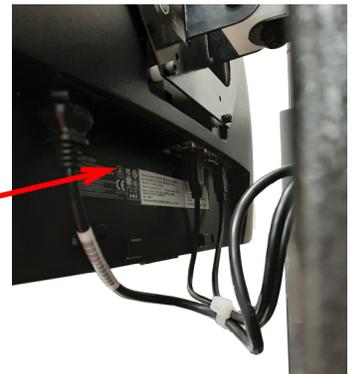
Mini PC Touch Screen Cables

Power Cable

HDMI Cable

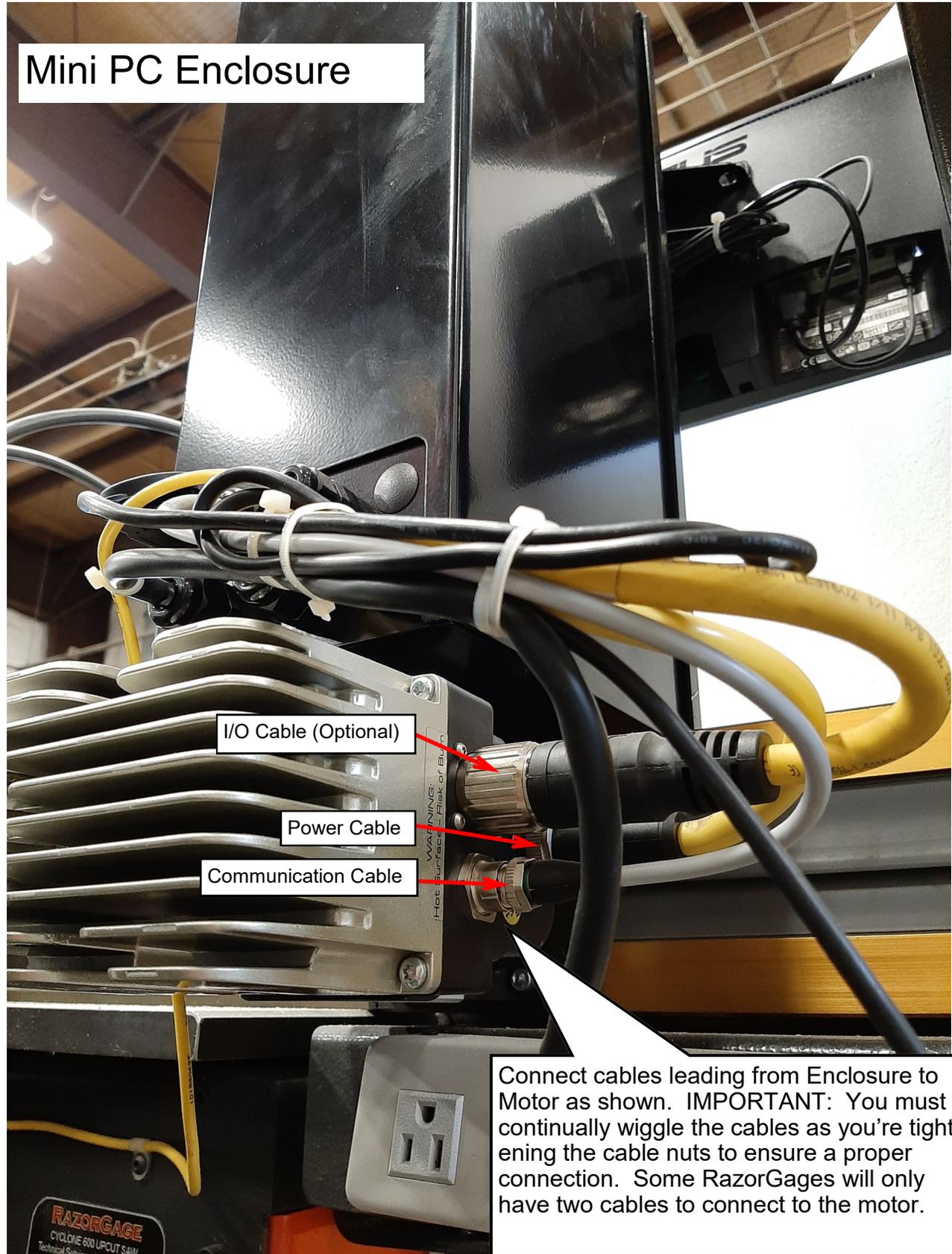
USB Cable

Tower Touch Screen Cables



Motor Cable Connections

Mini PC Enclosure



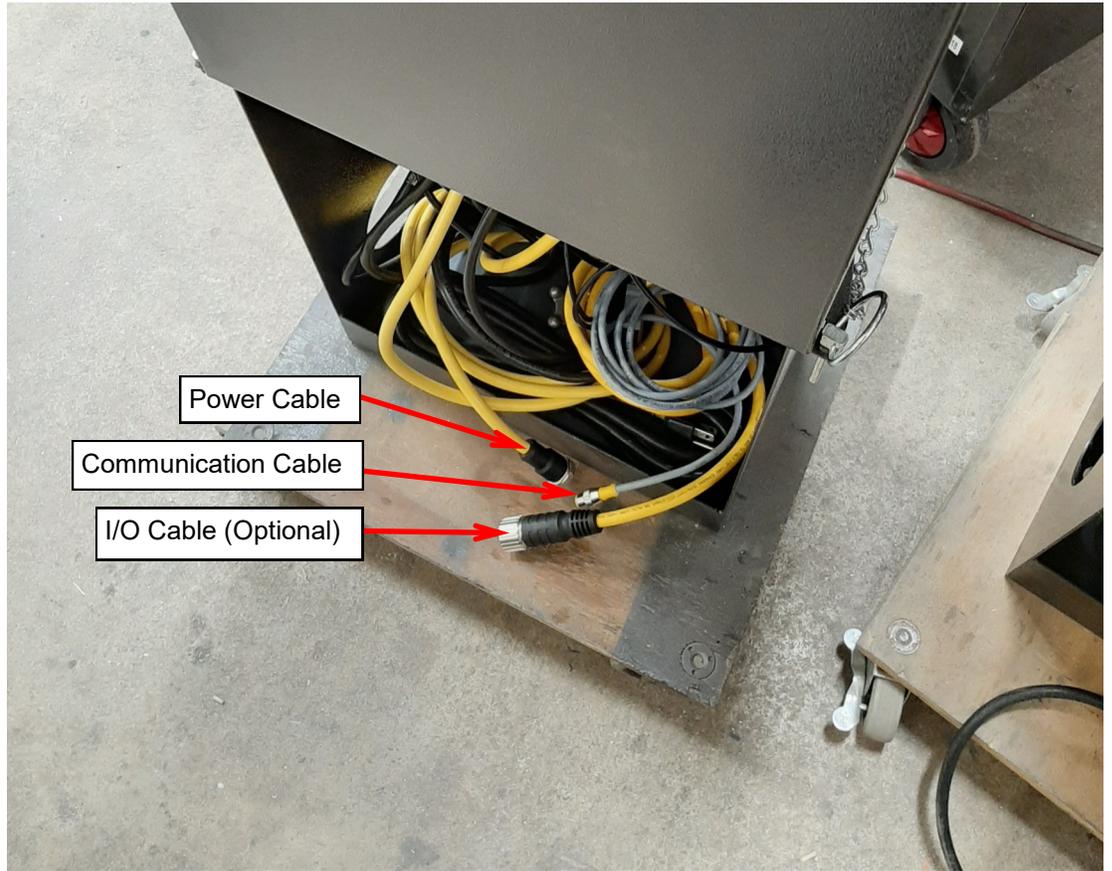
I/O Cable (Optional)

Power Cable

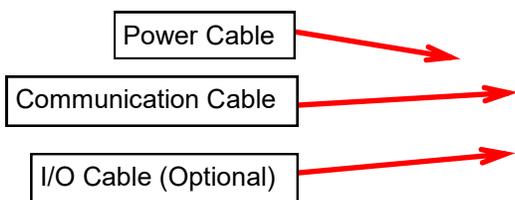
Communication Cable

Connect cables leading from Enclosure to Motor as shown. **IMPORTANT:** You must continually wiggle the cables as you're tightening the cable nuts to ensure a proper connection. Some RazorGages will only have two cables to connect to the motor.

Tower PC



Android



Calibrating your RazorGage to the Machine

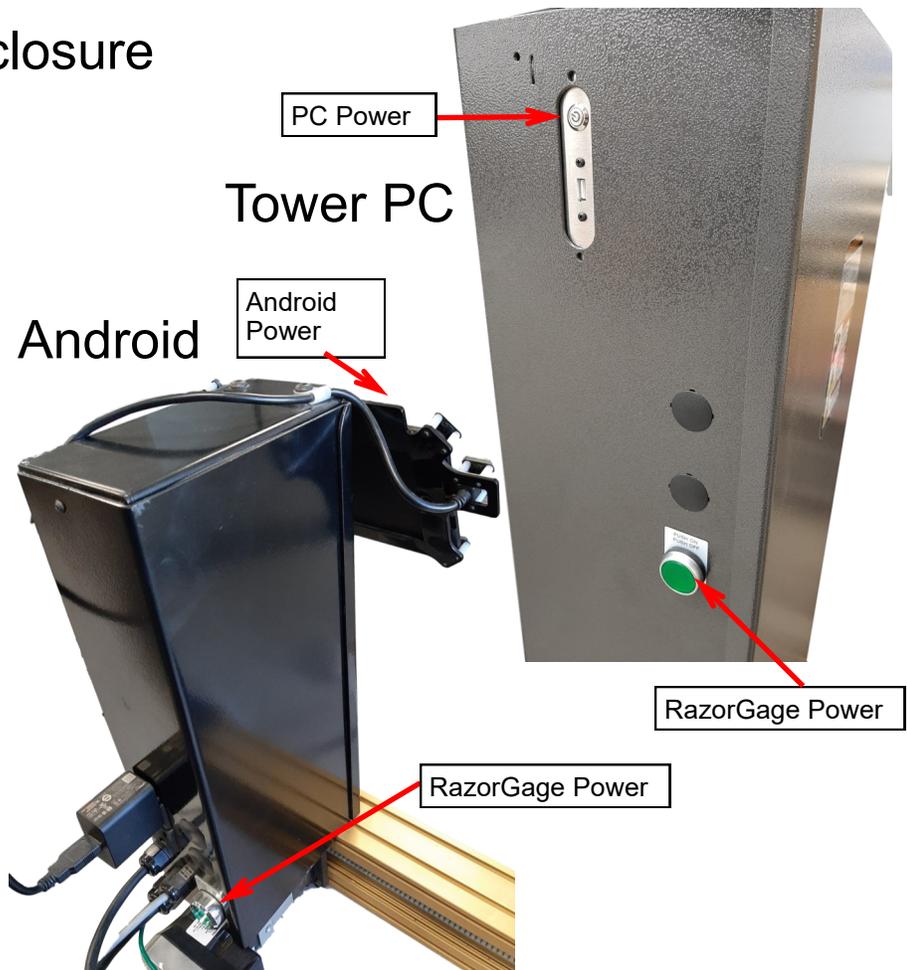
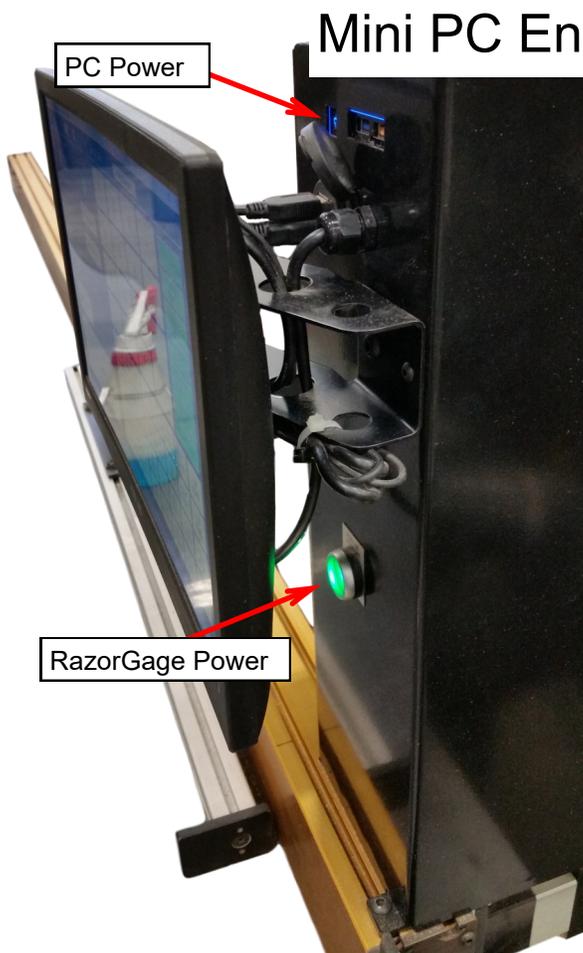
First adjust the stop extension.

Once your RazorGage is securely mounted to your machine you begin the first-time calibration process by first adjusting the stop extension. Loosen the mounting screws on the Stop Extension and slide it away from the saw so that it won't hit your saw when you Home the machine. With the power off, push the moving carriage toward the motor end of the RazorGage until the carriage hits the internal hard stop. Now extend the stop extension toward the saw blade until it is as close as you want it to be. If you're using the RazorGage as a pusher you will want the stop extension to reach almost all the way to the blade so that your final trim cut doesn't result in much waste. If you're using the RazorGage as a stop then adjust the stop extension so that the distance from the cut to the stop face is less than the shortest part you want to be able to cut. Tighten the stop extension screws.



Next power up your RazorGage.

It is very important to note that there are TWO things that must be turned on: The RazorGage AND the PC (or Android)



Calibrating your RazorGage to the Machine (cont.)

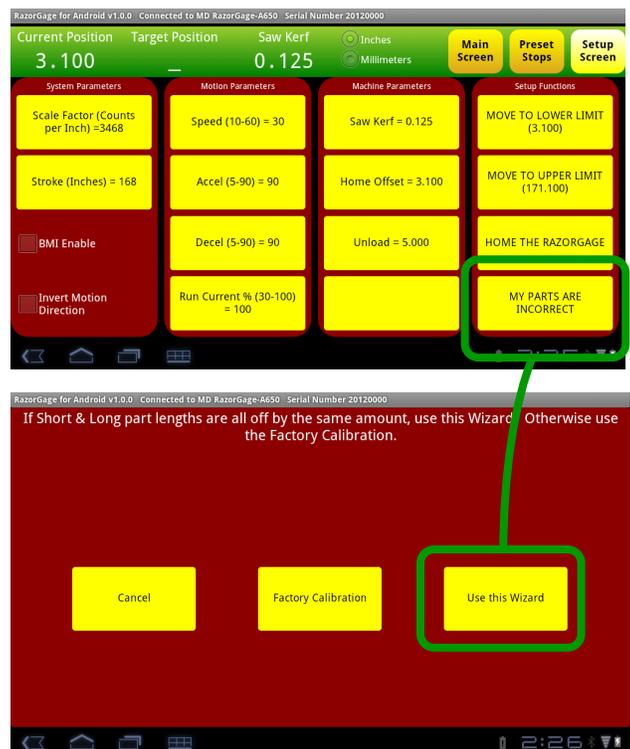
Once Windows or Android has booted, find the RazorGage icon on the touch screen and, on Windows, double click, on Android, single click. The RazorGage software will start and prompt you to press OK to home. After homing is complete the MAIN SCREEN will appear as shown below. Now you may calibrate the RazorGage to your saw. Before you start make sure that, with the RazorGage in HOME position, the stop extension is positioned close enough to the saw blade to cut the shortest part you need to cut. If you're using the RazorGage as a pusher, make sure that the stop extension is close enough to make your desired end trim cut. If you want to slide the stop extension closer or further from the blade, loosen the stop extension screws and adjust it now. When you're done press the button that says SETUP SCREEN, enter the password 90210, then press the CALIBRATE HOME OFFSET button. Follow the on screen instructions for setting the home offset. To watch a video of this procedure go to www.razorgage.com, click the YouTube button, and choose the RazorGage Calibration Demonstration Video.



Saw Kerf: When using the RazorGage as a pusher the Home Offset will only affect the accuracy of the first trim cut. Part length accuracy is a factor of the scale factor and the kerf. If all parts are equally inaccurate simply adjust the kerf. If short parts are accurate and long parts are not or vice versa then adjust the scale factor in step two of the Calibration Wizard accessed from the Calibrate Home Offset button. Step 2 password is 5239

Android Tablet

To reference a RazorGage with the Android interface first turn on the RazorGage Power and turn on the Android tablet. Start the RazorGage software by clicking the RazorGage icon on the Android desktop. Press OK to home the RazorGage. When homing is complete use the RazorGage as a stop to cut a part or if it is impractical to cut a part with the RazorGage in home position enter the smallest length possible and use the RazorGage as a stop to cut a part. Measure the part with calipers if you have them. Otherwise take the best measurement you can with what you have. Be sure to note the intended length you entered on the screen as well as the length you measured on the part. Next press the Setup Screen button in the upper right corner of the Android software. When the Setup Screen appears press the button labeled "My Parts are Incorrect". For the initial calibration press the "Use This Wizard" button and follow the instructions on each screen that follows.

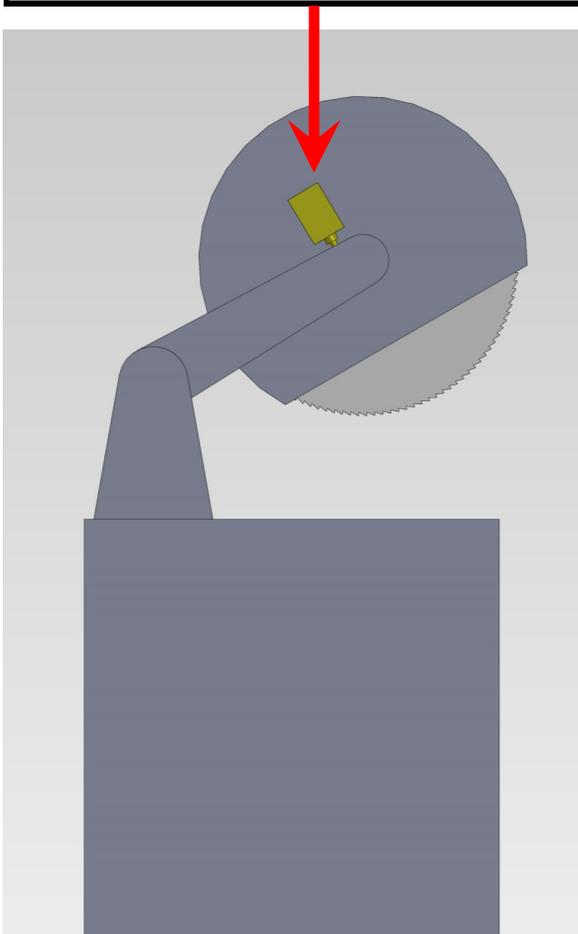


Tool Safe Sensor

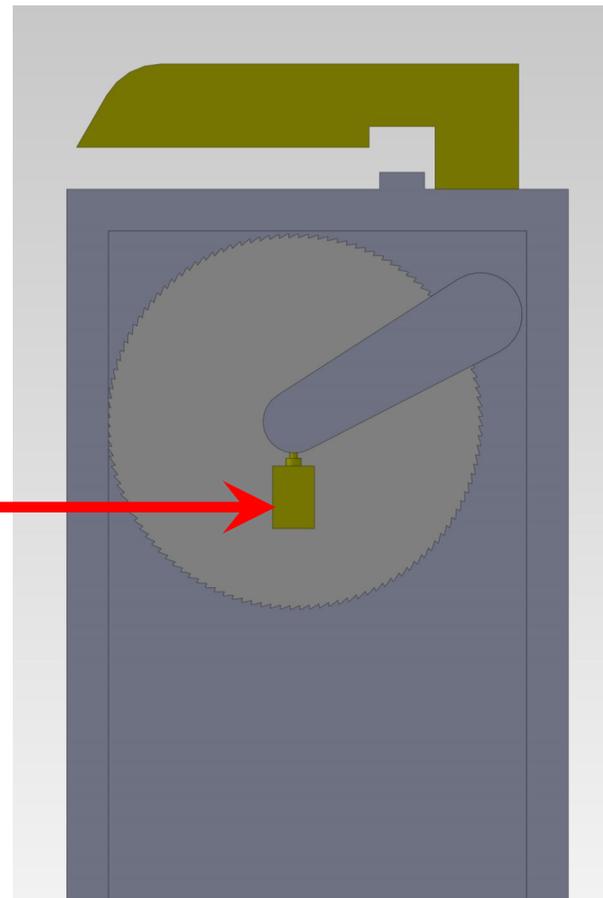
The Tool Safe Sensor is a limit switch to be installed on the user's saw, drill press, punch press, or whatever the processing tool may be, that, when depressed, indicates to the RazorGage software that the processing tooling is not in a position that favors movement of the pusher. The software then prohibits motion of the positioning carriage. The Tool Safe Sensor is also used to detect that the tool has completed a cycle. In certain software screens that allow semi-automatic to fully automatic operation, the RazorGage will automatically move to the next position after sensing that the Tool Safe Sensor has opened and closed within a certain timeframe. Since the RazorGage control is simply looking for a set of contacts to close, you may use a relay on your machine instead of the limit switch. The diagram on the next page shows how you can test the tool safe sensor. Contact the factory for more details.



Down Cut Saw - Switch detects that saw is up.



Up Cut Saw - Switch detects that saw is down.



From the RazorGage Setup Screen, press CONTROLS TEST to check to see if the controller is receiving the signals from the switches.

System Parameters
Stroke: 48.000
Scale: 3488.000
Metric

User Parameters
Speed: 25.000 Unload: 5.000
Accel: 30.000 Load: 5.000
Decel: 30.000 Saw Kerf: 0.162
100% Offset: 0.000
Calibrate

Board
Com1 Com2 Com3
Com5 Test Com

1. Clamp Valve - ON
2. Timer 1 - Delay
3. Saw Valve - ON
4. Timer 2 - Delay
5. Saw Valve - OFF
6. Timer 3 - Delay
7. Clamp Valve - OFF
Generate Event Log

Home: (Zero)
Left Right ST Extrusion

Move to Lower Limit Move to Upper Limit Home The Positioner Run Laser Routine Enter Setup

Controls Test

Return to Main Help PC Software Manual ENTER Backspace

Save Changes

Controls Test Screen

USB Saw Cycle Button 1 'Defect' Input
USB Saw Cycle Button 2 'RG Enable' Input
USB Next Button 'Saw Up' Input

Analog Position =

DONE

Tool Safe Input (Saw Retracted)

Saw Extended Input

Go to www.razorgage.com and click **DOWNLOADS** for the ever growing library of help documents. Click on the You Tube button to see helpful tutorial videos. You will also find help files on the RazorGage Support Files folder on the Windows desktop on your RazorGage PC.

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