

RAZORGAGE

POSITIONERS • SOFTWARE • SYSTEMS

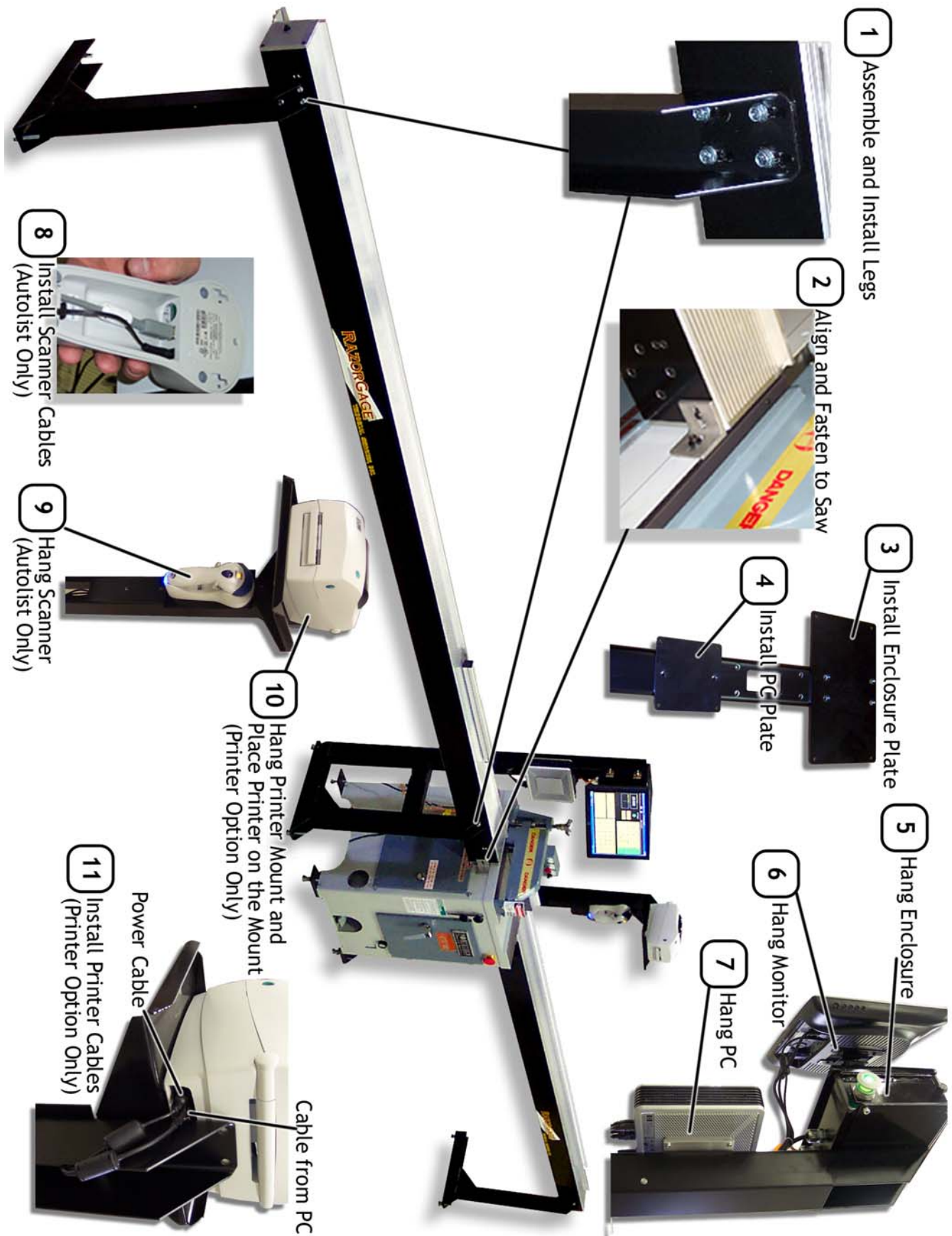
Standard RazorGage Manual



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Assembly



Assembly

12 Connect Cables to PC



13 Route Cables Thru Leg

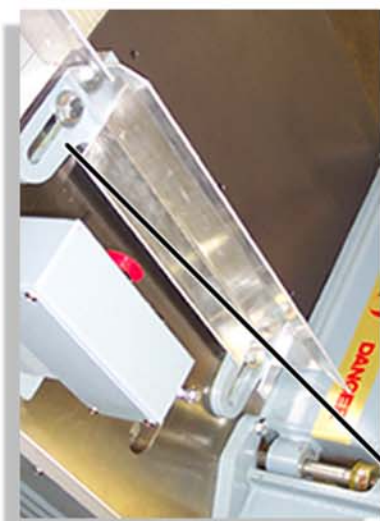


15 Connect PC Cable and AC Power at Motor



14 Install Cable Cover Using the Self-Tapping Screws

16 Autoist Only Modify Short Length of Code Rail to Fit behind Fence on Your Saw. Mount remaining code behind infed table or onto a RazorGage infed table. Use Double Side Foam Tape provided.



17 Autoist Only Apply Bar Code Tape Measure to Code Rail. One end of the strip is labeled 'ZERO'. Put this end closest to the saw but don't worry about aligning 'ZERO' with anything. Calibration will do that. You will need to cut the tape and apply it to other rails on your infed table. Just be sure to keep cut ends adjacent to each other.



Power Up

When you power up the RazorGage pull the green “Power” button, then turn on the LCD Touch Screen Monitor, then finally power up the PC. When Windows XPe starts up touch the Start button in the lower left hand corner of the screen, touch the Programs button on the Start Menu, then look for RazorGage and press that. When this process is complete the PC will display the Home Screen. Press **OK** to Home. When homing is complete, this screen will appear:

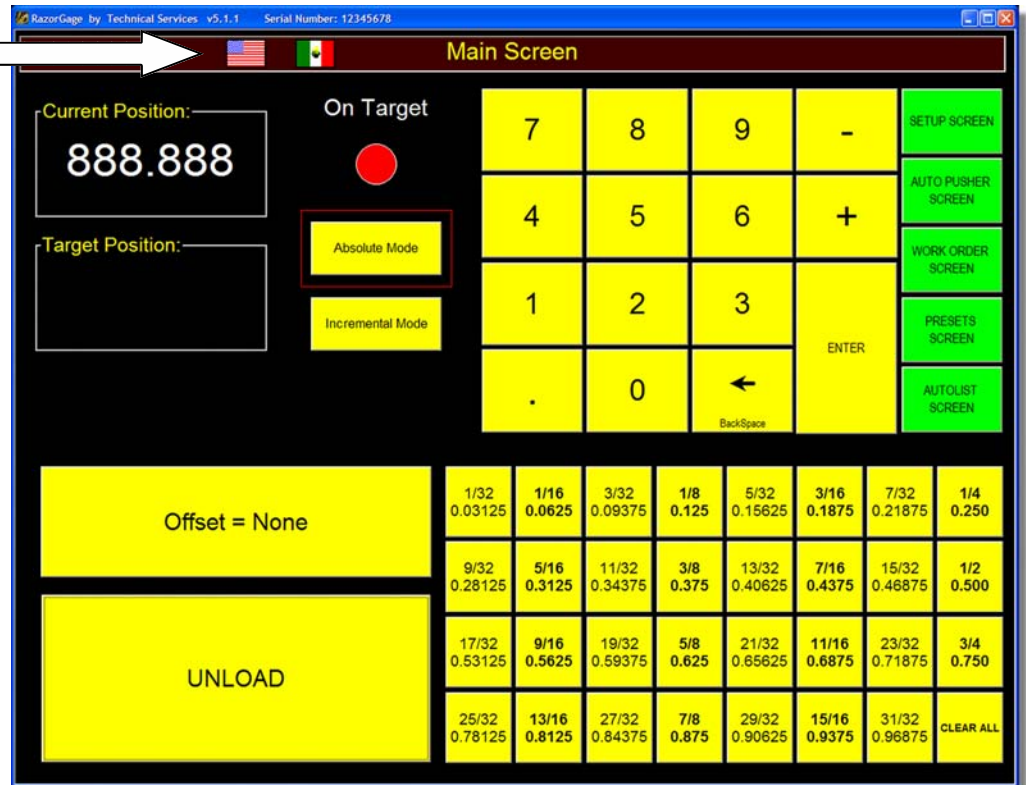
Language Selection

For English display text, press the American Flag.

For Spanish display text, press the Mexican Flag

Para el ingles exhiba el texto, seleccionan la banderia americana.

Para el espanol exhiba el texto, seleccionan la banderia mexicana.



Basic Operation

To position the stop just punch in a number, press **Enter** and the stop will go to that position. If you wish to use the fraction hot keys, just enter the whole number followed by pressing the desired fraction and the stop will immediately go to that position without pressing **Enter**

The **Unload** button makes the RazorGage stop back up for unloading small parts. Once the stop is back a screen comes up that, when touched, makes the stop move back to the previous position. Before **Unload** works, an UNLOAD DISTANCE must be entered in the SETUP screen.

Offset Calibration

Offset Calculator Screen

Current Pos: 10.000 ON Target ●

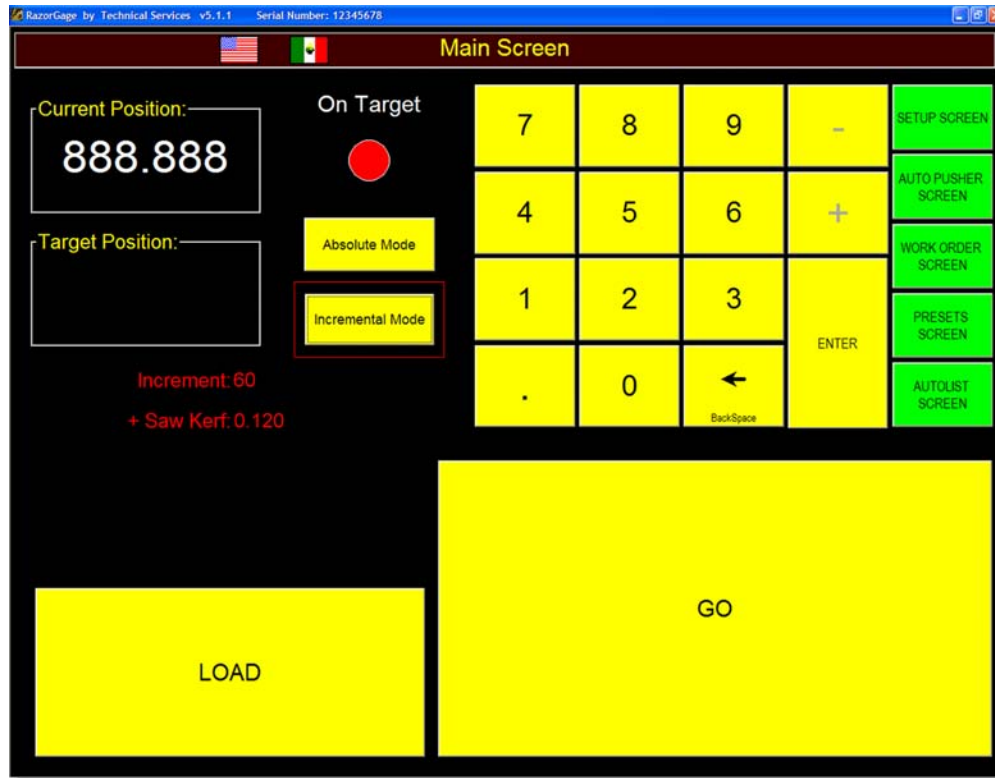
Target Position:

Part Measurement:

1. Enter how long you want the test part to be in the 'Target Position' box.
2. Press 'Move to Target'.
3. Cut the part, and measure with calipers.
4. Enter the measured length in the 'Part Measurement' box.
5. Press SAVE.

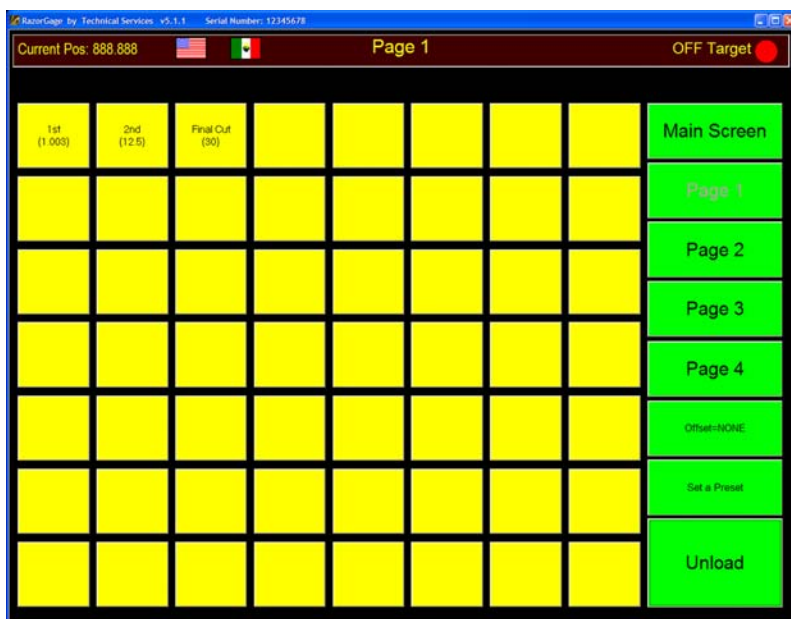
- 1 From the main screen, press **Setup Screen**
- 2 Enter the user password 90210
- 3 Press **Run Offset Calculator**
- 4 Enter how long you want your test part to be in the Target Position box
- 5 Press **Move to Target**
- 6 Cut the part, and measure with calipers
- 7 Enter the measured length in the Part Measurement box
- 8 Press **Save and Exit** Your RazorGage offset is now calibrated.

Incremental Mode



In incremental mode the RazorGage advances the stop incrementally by the amount entered rather than going to the Absolute position you enter. In the screen above note that the increment is 60 and the saw kerf is .120. That means that when the operator presses **GO** the stop will advance 60.12 inches.

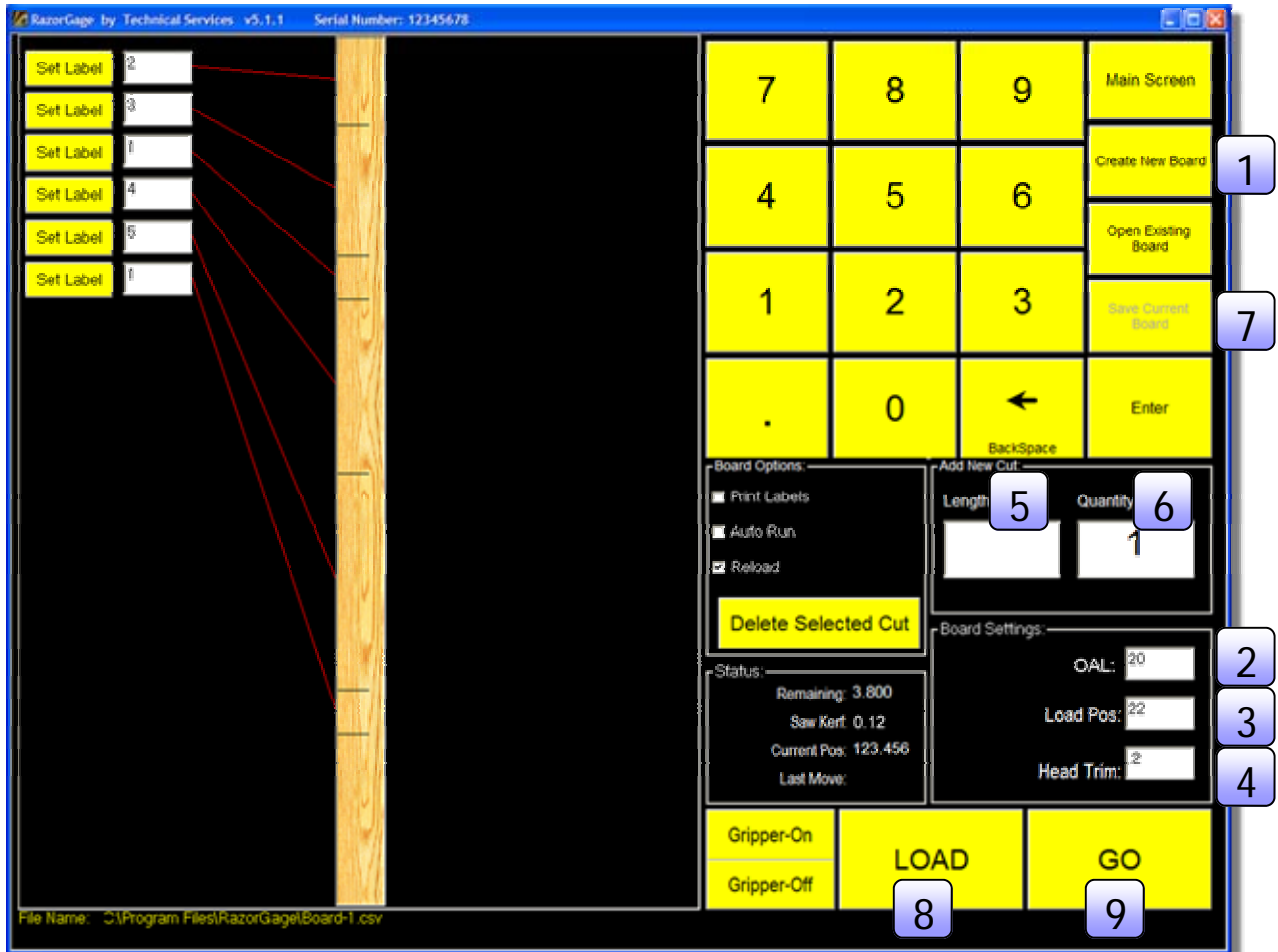
Preset Screen



The RazorGage ships with 4 preset screens like the one shown at left. Each screen has 56 programmable hot keys that may be labeled with a description and the length. To define a Hot Key just press the **Set A Preset** button. The screen background will turn red to show that you're in key definition mode. Press the key you wish to define and a keypad will appear in which you may enter length and label.

Auto Pusher Screen

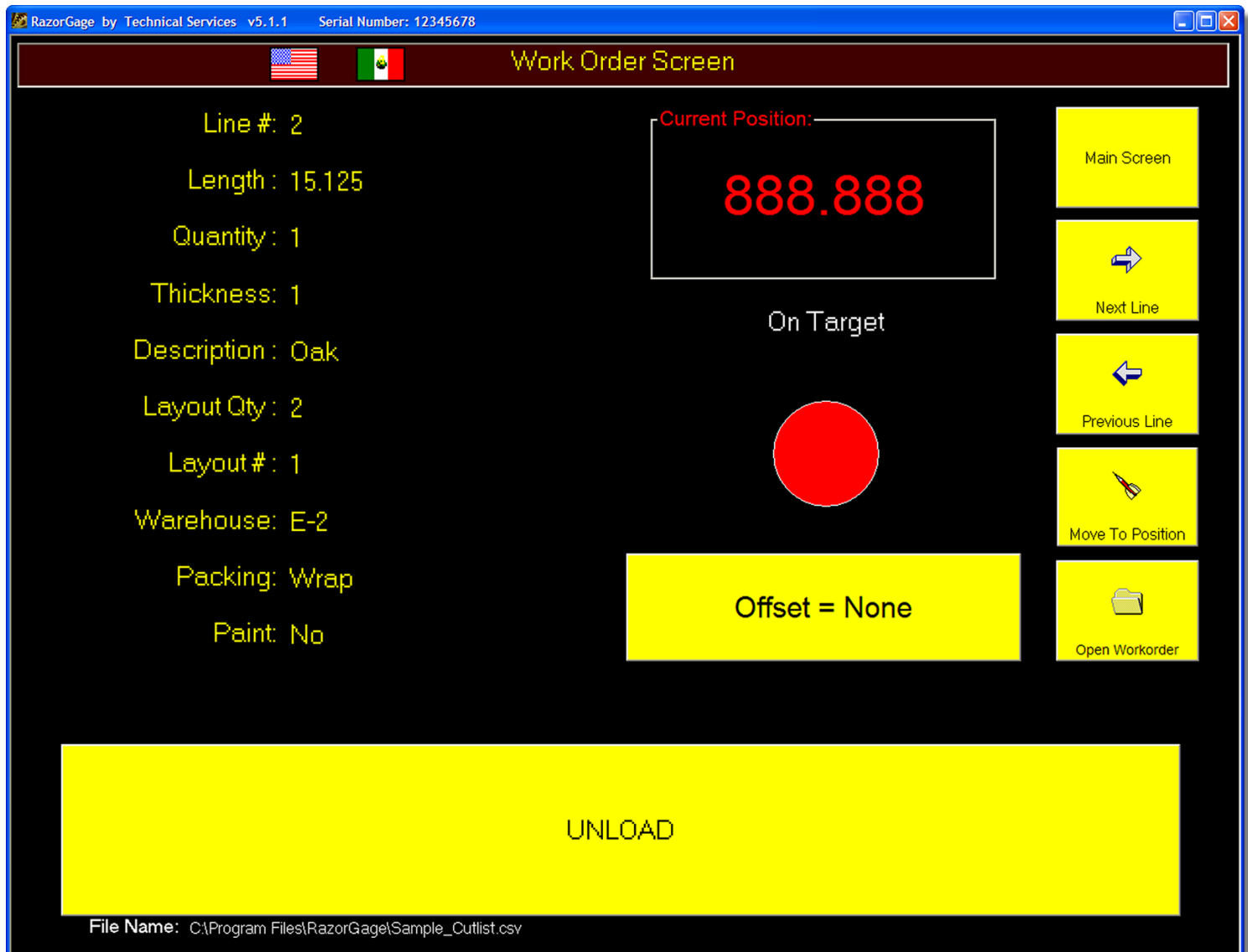
The Auto Pusher Screen allows you to define cut routines for specific board lengths and save them to the hard drive. The number of routines one can save is virtually unlimited. See the steps below for defining a cut routine:



- 1 Press **Create New Board**
- 2 Punch in overall length of stock
- 3 Punch in the desired position you wish the stop to go for loading the stock
- 4 Punch in the leading edge trim amount
- 5 Enter the length of the first part you want to cut
- 6 Enter the quantity of parts of that length
- 7 Repeat steps 5 & 6 until done and press **Save Current Board**
- 8 Once a board is saved, press **Load** and the pusher will retract to the load position defined in the routine
- 9 When the pusher is in load position, place a board against the fence and against the pusher and press **GO**. The routine will run its pattern. If you check Auto Run and have the appropriate options, your RazorGage will cycle clamps, saw, and advance automatically.

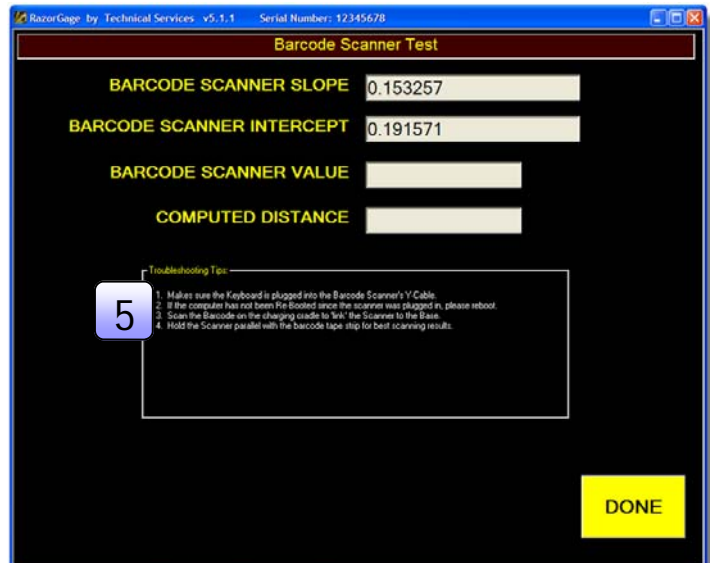
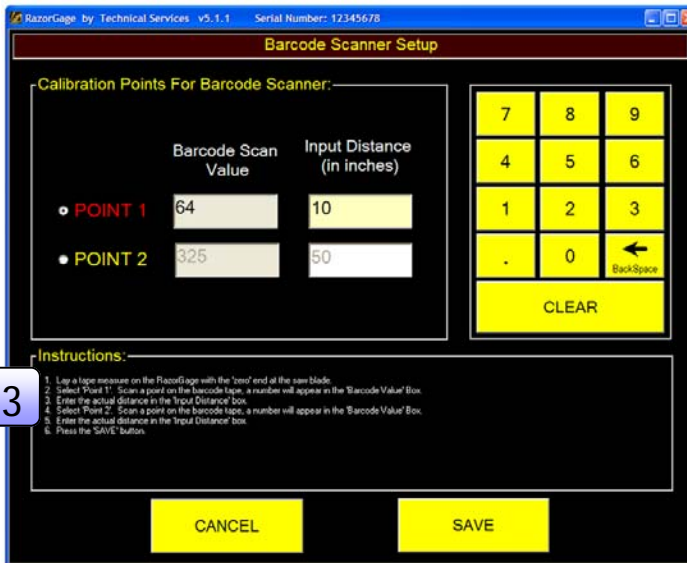
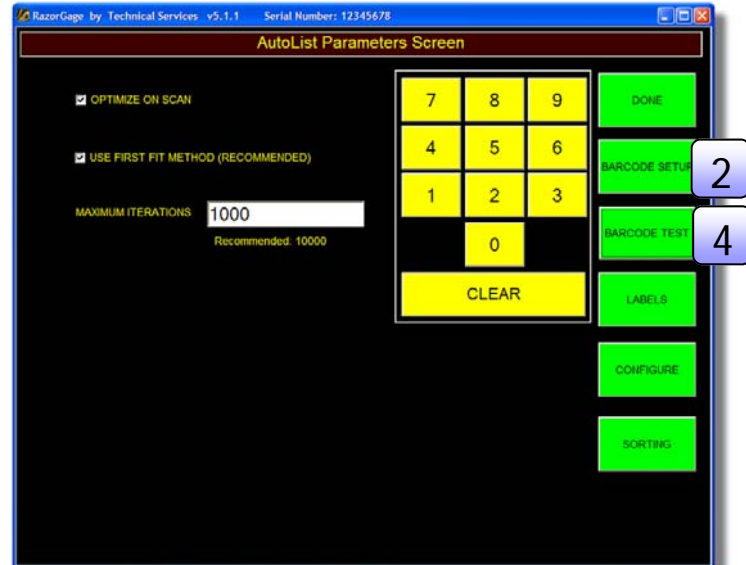
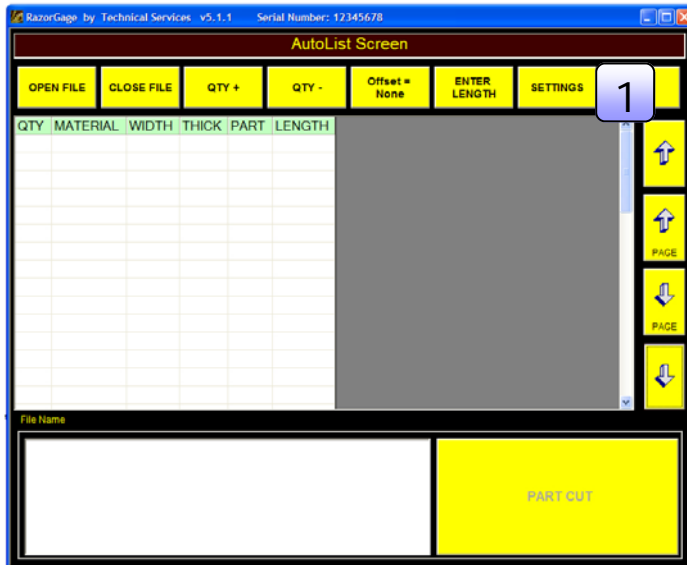
Work Order Screen

You may download workorders to your PC RazorGage with the Workorder Screen. Press the **Open Workorder** button to find the file you wish to open whether it is on the RazorGage PC or on a shared network drive. Once you select a file and press **OK** and the headings in that file will be displayed on the left hand column of the screen and the values on the first line of the list will be placed next to their corresponding heading. If you have an existing file format you wish to use, just email it to RazorGage and we'll set up the Workorder screen to accept it. If you wish to create a file in Microsoft Excel, you just create a cut list with Line #, Lenth, and Quantity as the first three columms, then populate up to seven more columns with whatever information you want. The headings will be displayed as shown below with the data for that column next to the heading.



Autolist Screen

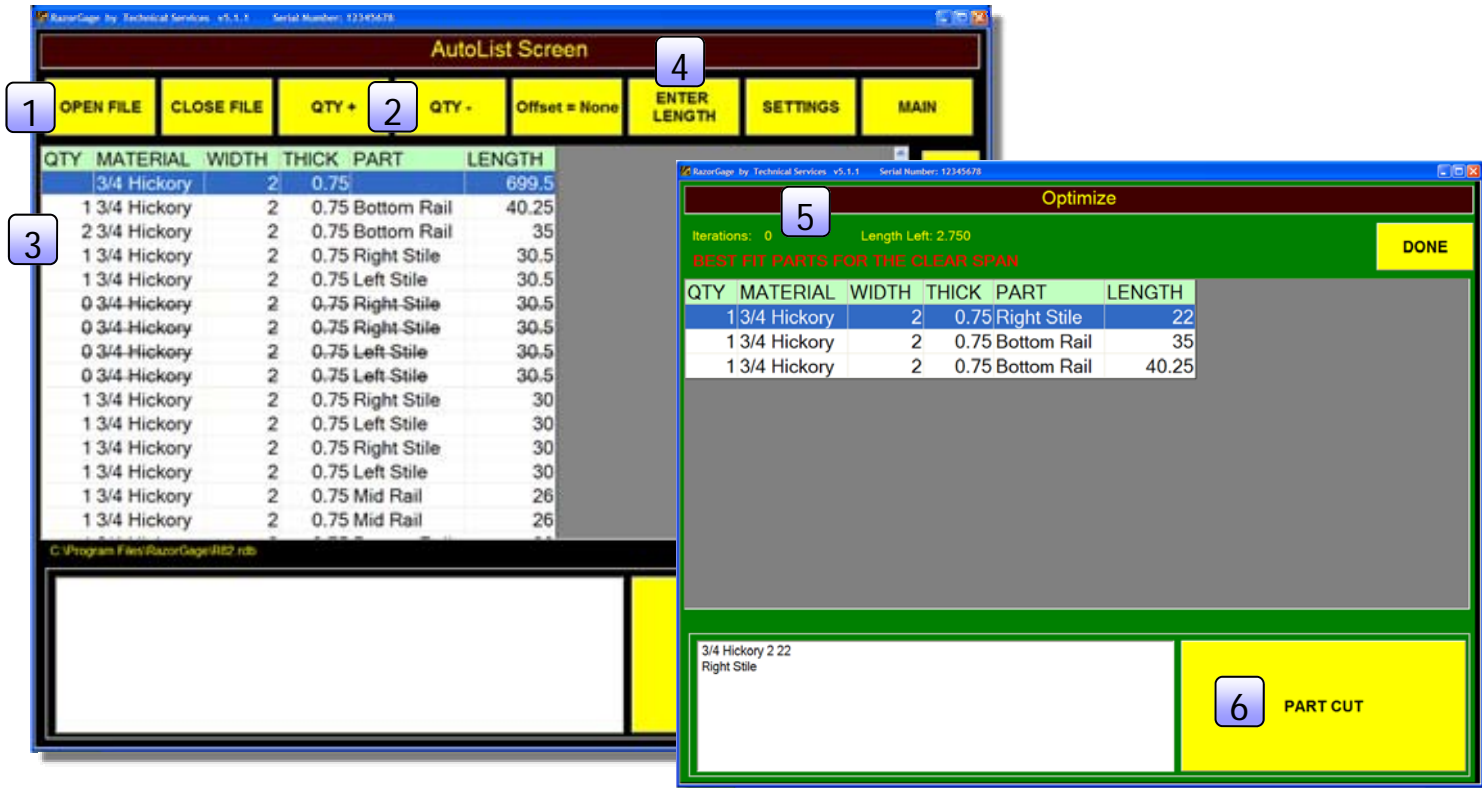
If your system has the optional Barcode Scanner, you need to calibrate it before using your Autolist system.



- 1 Press **Settings** on the Autolist screen
- 2 Press **Barcode Setup**
- 3 Follow the on-screen instructions to calibrate your barcode scanner
- 4 After you have calibrated your scanner, press **Barcode Test** to test your setup
- 5 Follow the on-screen instructions to test the calibration of your scanner

Autolist Screen

The Autolist feature uses cutlists that have been run through the Parts List Processor (See Parts List Processor Manual). The list is arranged first by material, then width, thickness, and lastly by length from longest to shortest. This is the default sorting arrangement and can be changed to fit your needs.



- 1 Press **Open File** Select the cutlist you wish to process.
- 2 If quantities need to be changed, select the appropriate row, and press **Qty +** or **Qty -** to raise or lower the quantity.
- 3 Select a row that matches your stock width, material, and thickness. When the row is selected, the RazorGage will move to that position.
- 4 Press **Enter Length** and enter the length of clear board you have. This can also be done using the optional scanner. The Autolist software will generate a list of parts for the maximum use of materials.
- 5 An optimized list of parts will appear. The RazorGage will move to the length of the first part in the list. When the optimized list is cut, the Autolist screen will return to where you left off.
- 6 Press **Part Cut** and the quantity of that part will decrement. When the quantity reaches zero, the part will be crossed out.
- 7 Repeat steps 3-6 for additional stock lengths.

Setup Screen

The setup screen is password protected. System parameters are protected by a different password than User Parameters.

System Parameters Password: 5239

User Parameters Password: 90210

The screenshot shows the 'RazorGage Setup Screen' window. At the top, it displays 'RazorGage by Technical Services v5.1.1' and 'Serial Number: 12345678'. The interface is divided into several sections:

- System Parameters:** Includes 'Scale: 0.000' and 'Stroke: 0.000', each with a yellow input field. A 'Metric' checkbox is present.
- User Parameters:** Includes 'Speed: 0.000', 'Unload: 0.000', 'Load Pos.: 0.000', 'Saw Kerf: 0.000', and 'Offset: 0.000', each with a yellow input field. A 'Run Offset Calculator' button is at the bottom.
- Saw Parameters:** Includes 'Timer 1 = 0ms', 'Timer 2 = 0ms', and 'Timer 3 = 0ms', each with a yellow input field.
- Navigation Grid:** A 4x4 grid of yellow buttons containing numbers 0-9, a decimal point, a backspace arrow, and labels: 'Return to Main', 'Help', 'PC Software Manual', and 'ENTER'.
- Legend:** A list of 7 items: 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.
- Home: (Zero):** Includes radio buttons for 'Left' and 'Right', and four yellow buttons: 'Break-In', 'Move to Lower Limit', 'Home', and 'Run Lazer Routine'.
- Password:** A large yellow input field for the password.
- Save Changes:** A large yellow button.

Routine Maintenance

Greasing

Your RazorGage is greased before shipping. The bearing rail is a one-time grease rail, so no periodic greasing is required.

Replacement Parts

Part

Part No

Mechanical

Bearing Rail	RG10028
Drive Belt	RG10108
Drive Pulley	RG10037
M-Drive Rotary Encoder	RG10984
M-Drive Linear Encoder	RG10985
Gearbox	RG10978
Linear Encoder Reader Head	RG10091
Linear Encoder Tape	RG10109
Idler Pulley	RG10031
Idler Block	RG10030
Dust Seal	RG10123

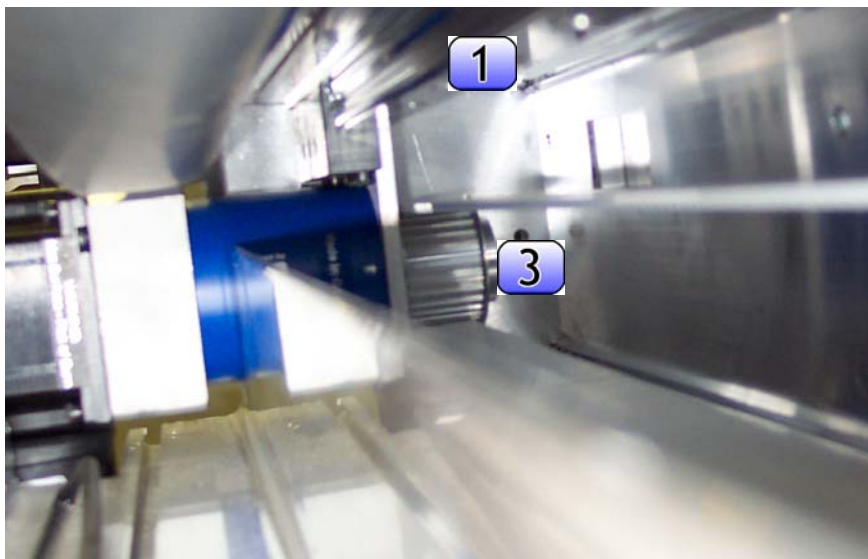
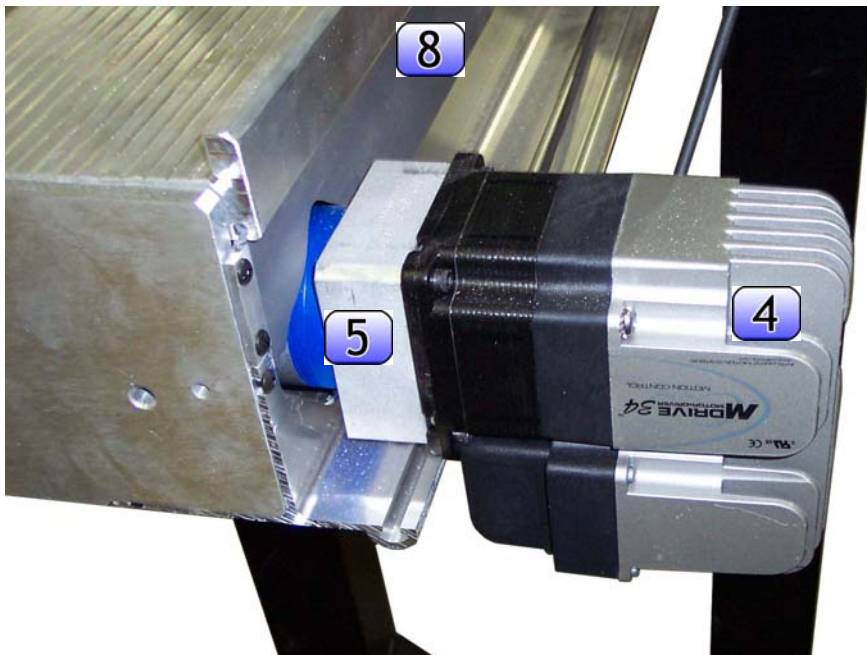
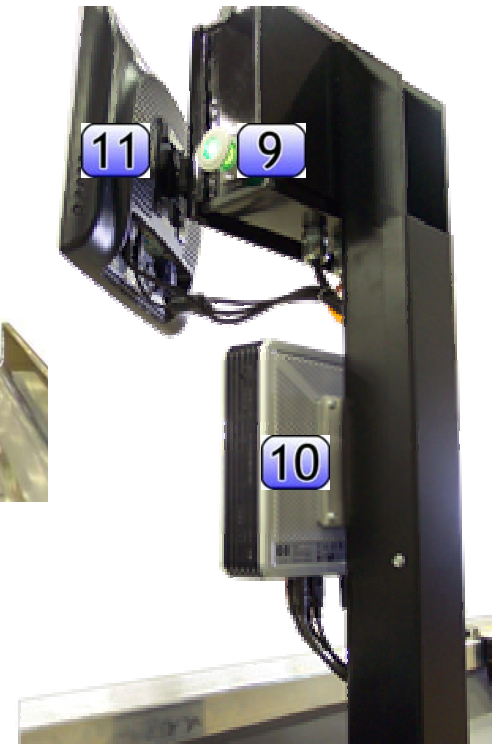
Electrical

Power Switch	RG11016
Solid-State PC	RG10973
Touch Screen Monitor	RG10740

Miscellaneous

Motor Cable (2 Meter)	RG10672
Extension Cable (USB)	RG10610
Power Cable (M-Drive)	RG10988
I/O Cable (M-Drive)	RG10987
Communications Cable (M-Drive)	RG10986
Crayons (Box of 50)	RG10844
Joystick Laser w/ Power Cord	RG10180
Flex Rated Cable for Joystick	RG10181
Ink (Black Porous) Box of 6 (Cart #4500)	RG10952
Ink (Black Non-Porous) (Cart #4600)	RG10957
Inkjet Printer	RG10951
Drills	RG10816
Drill Holder	RG10889
Drill Drive Belt (Short)	RG10936
Drill Drive Belt (Long)	RG10937

Replacement Parts



- 1 Bearing Rail
- 2 Drive Belt
- 3 Drive Pulley
- 4 Motor
- 5 Gearbox
- 6 Idler Pulley
- 7 Idler Block
- 8 Dust Seal
- 9 Power Switch
- 10 Solid-State PC
- 11 Touch Screen Monitor

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