

RX-200 USER'S MANUAL



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RX-200 SET-UP

- Check that all plastic air lines are connected.
- Connect the two M12 cable connectors to the sockets under the air regulator. The connectors are different and will only fit the proper socket. Align the pins in the socket with the groove in the connector; press in and tighten. **(PHOTO 1)**
- Connect the main power cable to the main power socket on the front of the machine and connect the air pressure to the quick connector. **(PHOTO 2)** Use only the three pronged GROUNDED power supply cord supplied. DO NOT OPERATE this machine with the incorrect voltage, power cord or with an extension cord.
- For HOT KNIFE models, connect the auxiliary power cord on the cutting module to either one of the power sockets on the side of the machine. **(PHOTO 3)**
- The required air pressure is 80 - 120 psi. according to the gauge on the back of the machine. To set the pressure, pull and rotate the knob on the Air Regulator until it displays the required operating air pressure after connecting the air supply. **(PHOTO 4)**



RX-200 SET-UP

- Set the webbing into the Reel Holder. **(PHOTO 5)**



- The roller spring tension is set with the ball-chain and chain clips. NOTE: changing the spring tension after setting the cut length can change the length of the cut pieces. **(PHOTO 6)**



- Feed the webbing through the center of the rollers and adjust the magnetic guides. Move and lock the Material Sensor over the center of the material with the thumbscrew as shown. **(PHOTO 7)** The red sensor light should be on the material and the yellow light marked "OUT" on the sensor should be OFF. Sensors are adjusted during manufacturing and should not need further adjustment. However, these sensors are sensitive to contrast and may need further adjustment. (See Appendix 8 for more details on adjusted the Material Sensor)



- Push the webbing into the machine until it touches the Feed Rollers. Turn on the main power switch.

RX-200 QUICKSTART

OPERATION

- Turn on the main power switch located on the front panel of the machine. **(PHOTO 8)**

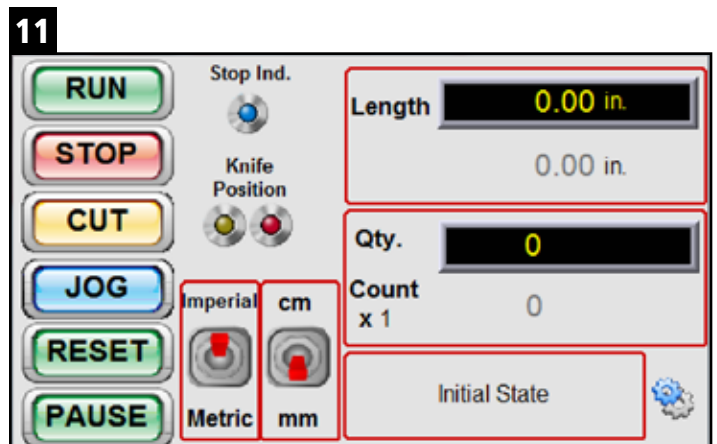
For hot knife cutting modules, connect the auxiliary power supply plug to either one of the two Auxiliary Sockets **(PHOTO 9)** and turn on the heater power switch.

Allow several minutes for the operating system to start and for the hot knife to reach the operating temperature. **(PHOTO 10)**

The hot knife temperature is set by pressing the up or down arrows on the heat controller. Ensure the fan is running before connecting an exhaust hose to the fan housing.

The Main Screen should be visible when the system is ready. **(PHOTO 11)**

- Set the feed roller pressure by pulling the ball-chain over the slotted catch on the arm. Maintain enough feed roller pressure to prevent the material from slipping. Changing the roller tension before setting the length since overall cut lengths can change with different roller pressures.
- Press and hold the blue JOG button. The webbing should feed through the rollers and into the Cutting Module. When the end of the webbing has exited the Cutting Module, press and hold the yellow CUT button to cut. When the material cuts cleanly, the machine is ready to be programmed for automatic operation.



RX-200 OPERATION

PROGRAMMING

Toggle between US units (inches) and Metric units (millimeters) by touching the Toggle Switch. You may freely toggle between these two systems without losing any entered data.

To set the required length, press the black LENGTH display. Enter the length in the popup numerical keypad. For inches, enter lengths to the nearest hundredths of an inch (2 decimals). (Since the system operates in millimeters, it will automatically round all INCH length settings to the nearest millimeter). For metric, enter the lengths to the nearest millimeter. Press enter (ENT) when finished.

To set the required quantity, press the black QTY display box. Enter the required number of cut pieces into the pop-up numerical keypad. Press enter enter (ENT) when finished.

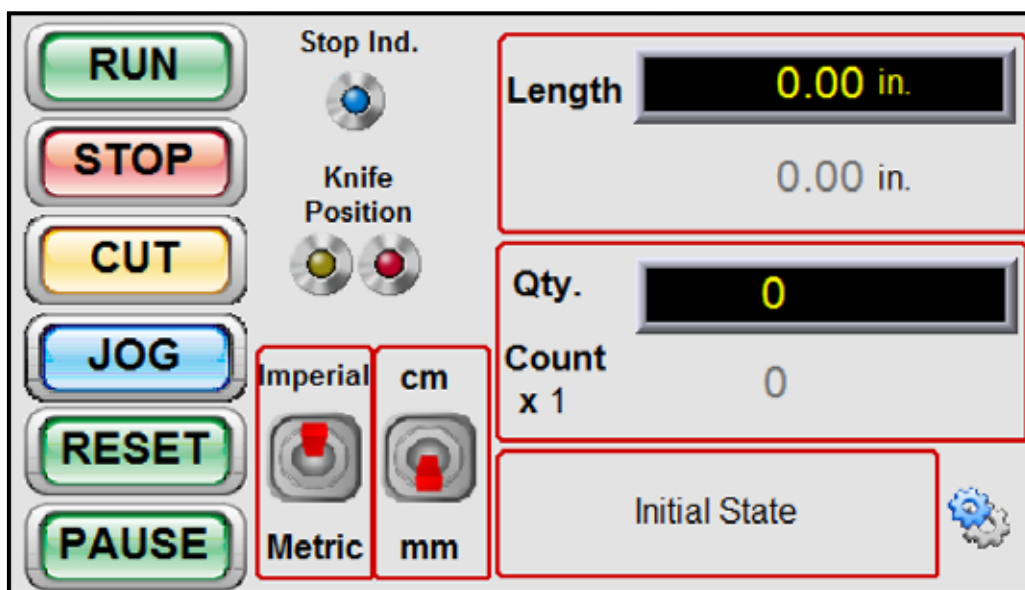
Run a few test pieces to ensure that the program settings are correct. To do this, press the green RUN button. The machine should now measure and cut

automatically. Press the red STOP button at any time to immediately stop the program. (Pressing the green PAUSE button will stop the measuring cycle without losing the length setting).

Check that the measured lengths correct. If not, add or subtract a small amount to the length setting. For problems with length setting or length variation, see Troubleshooting.

A clean cut is achieved by the correct balance of air pressure, cutting dwell time, and knife temperature. For cutting dwell time adjustments, see the section on TOUCHSCREENS. For problems in cutting, see Troubleshooting.

Once the length is set correctly and the cutting adjustments are acceptable, the machine is ready to run automatically. Press the RESET COUNT button to set the count to zero. Press the STOP button to clear the last length.



RX-200 COMPONENTS

OVERALL

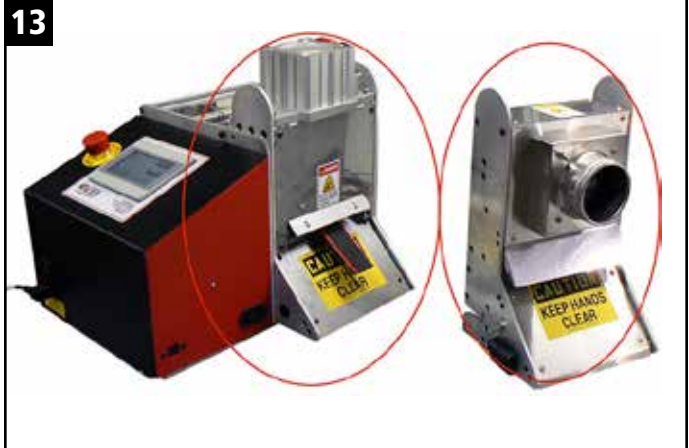
Refer to the images shown for the location of the machine components described below. Due to the many models available, not all machines will look identical.

TOUCHSCREEN

There are several user screens available for operation, settings and saving programs. The HOME or MAIN screen will appear upon startup and from where most user settings are made. The touchscreen may be activated by finger or stylus.

INDEXER

The Indexer (**PHOTO 12**) is the main part of the machine that contains the controls and measures the webbing. It consists of the red & black chassis, internal control circuits (controller, drivers and power supplies), length motor, feed rollers, and end sensor, air regulator and air valves, emergency stop button, and external connections and communications ports (USB and/or Ethernet). Indexer Modules are configured during manufacturing to operate from either left-to-right or right-to-left. Do not attempt to change the feed direction of the indexer. The Index also houses the interchangeable Cutting Module.



CUTTING MODULE

The interchangeable Cutting Module (**PHOTO 13**) is the aluminum-framed unit that contains the knife assembly, each with its own model suffix. There are several common types, such as:

- SCL 5"/130mm hot knife
- GSL 6"/150mm guillotine
- USL 5"/125mm ultrasonic,
- AS3 3"/76mm alternating angle hot knife
- S3L 5"/125mm fixed angle hot knife
- ASL 5"/130mm alternating angle hot knife
- G33 2.5"/60mm fixed angle guillotine
- GAL 6"/150mm alternating angle guillotine
(many other types are also available)

The Cutting Module typically consists of the knife, air cylinder(s), knife position sensors, as well as optional components such as rotating actuators, air assist nozzles and valves, special sensors, and pneumatic speed regulators. The cutting module can be a standard type or one that has been custom designed for a special application. Cutting modules are easily interchangeable and additional cutting modules can be used to expand the capacity and functionality of the cutting machine.

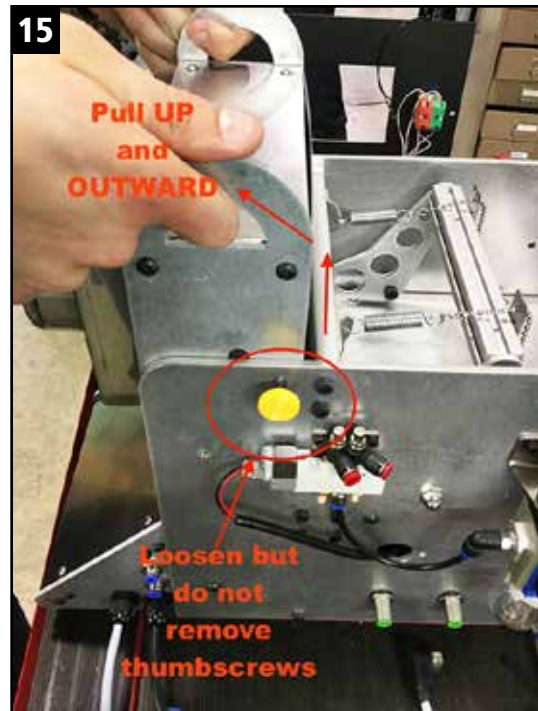
RX-200 COMPONENTS

Removing the Cutting Module: Disconnect the power and data cables. Loosen the lock screws on either side.

(PHOTO 14)

Pull the cutting module UP and outward to remove.

(PHOTO 15)



REEL HOLDER

The Reel Holder **(PHOTO 16)** is a stand-alone device designed to hold material on the most commonly sized spools and rolls. Custom and oversized holders are also available if needed.

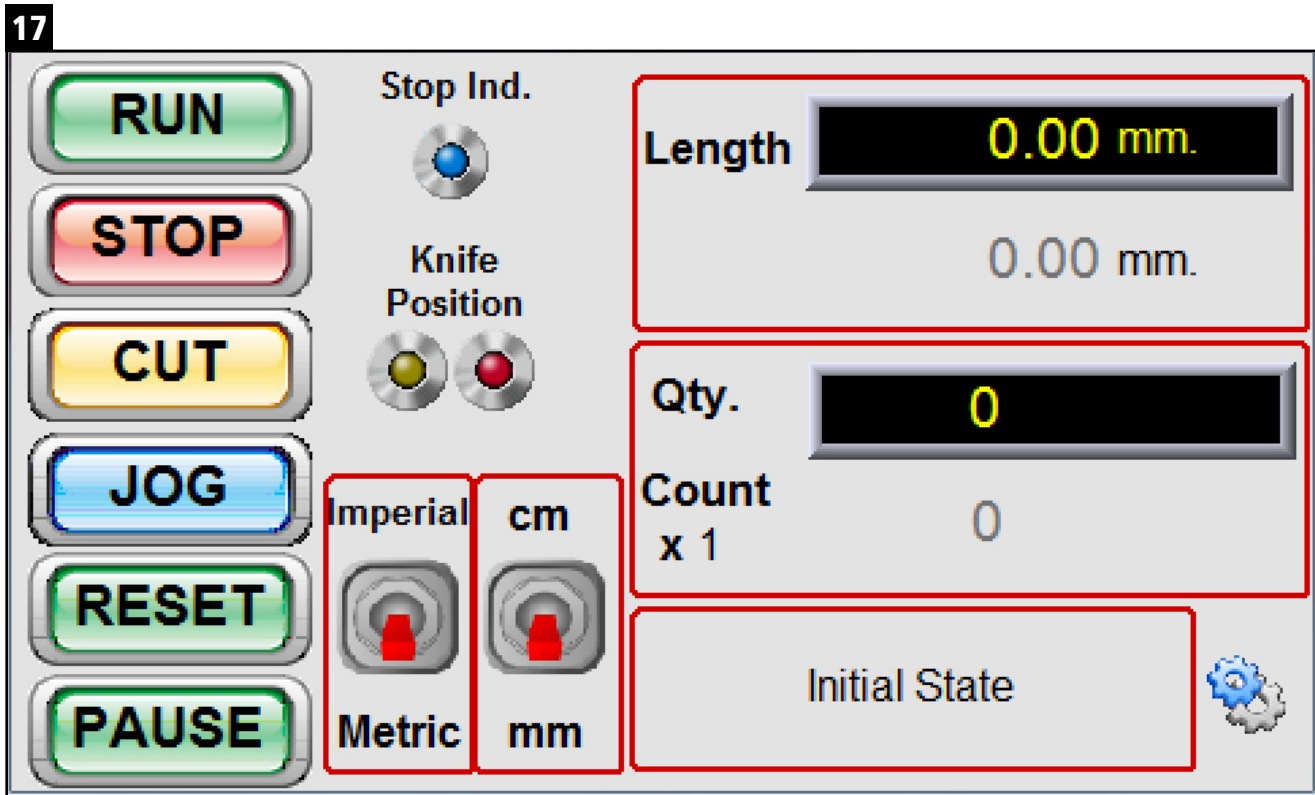


RX-200 TOUCHSCREENS















MAIN SCREEN

The first screen you will see upon starting (PHOTO 17).

The Main Screen contains the following screen elements and function descriptions:



RX-200 TOUCHSCREENS

RUN: Cut Cycle		Initiates the automatic cutting cycle based on the settings entered.
STOP: Cut Cycle		Stops automatic cutting cycle and clears the measured length.
CUT:		Press and hold to activate the pneumatic knife.
JOG:		Press and hold to feed the material into the machine.
RESET:		Resets the quantity count.
PAUSE:		Pauses the length motor during the measuring cycle WITHOUT LOSS OF LENGTH. Pressing Pause again resumes the measured length.
Units Metric (---> Inches:		Touch the toggle switch to shift from inches (0.01") to metric (mm).
LENGTH setting:		Press the black display box to enter the desired length. (Inch units will be automatically rounded to the nearest millimeter)
Length status:		Under the Length setting display. Actively displays the length as it is being measured. Pressing STOP will reset to 0.00; pressing PAUSE will retain the active length.
QTY:		Press the black display box to enter the TOTAL desired quantity.
Count:		Under the COUNT display. Actively displays the quantity of pieces that have been cut. (Note: count multiplier will double or triple the count based on the advanced multiples setting)
Initial State: Status		Actively displays the current operation and status of the machine.
Stop Ind.:		When lighted, the blue lamp indicates that the machine has run out of material, or that a wired safety guard or cover has opened.
Knife Position:		Indicates the position of the knife. Yellow indicates the knife is in the home position; red indicates the knife is in the cut position. At least one of these should always be lighted.
Gears:		Pressing the gears enters the Advanced Settings Screen.

RX-200 TOUCHSCREENS

ADVANCED SETTINGS SCREEN

The Advanced Setting screen (**PHOTO 18**) is used for changing dwell settings, motor ramp and jog speeds, air assist settings (when equipped), motor auto reverse, and program saving. The Advanced Settings Screen contains the following elements and function descriptions:

Index Speed (%): Sets the maximum length motor speed in percent (1% - 100%).

Cut Dwell (sec): Sets the cutting dwell time (in seconds) for cutting through the material. Light materials require less time than heavy materials.

Index Dwell (sec): Sets the dwell time (in seconds) between from the end of the cut cycle to the measuring of the next length. This setting allows a melted end to cool.

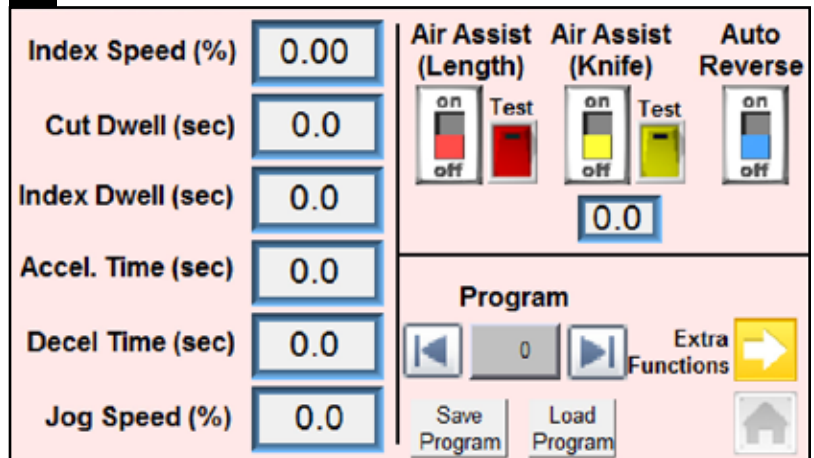
Accel. Time (sec): Sets the time (in seconds) for the motor to accelerate to full speed. A longer Accel Time will allow the length motor to accelerate more slowly and minimize roller slip, to improve length accuracy, especially on heavy rolls or with elastic materials.

Decel. Time (sec): Sets the time (in seconds) for the motor to decelerate before cutting. A longer Decel Time will minimize material overfeed of heavy or stiff materials.

Jog Speed (%): Sets the motor speed when the JOG button is pressed on the main screen.

Air Assist (Length): (red switch & test button) An optional function that uses compressed air to assist the measuring of very lightweight and flimsy materials. When equipped with an air assist valve the air nozzle will emit a blast of air through the knife to prevent jamming and sticking of the material. Pressing the red Test button will momentarily activate the air assist valve.

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Air Assist (Knife): (yellow switch & test button) An optional function that uses compressed air to assist the removal of cut material from the knife or anvil. When equipped with an air assist valve the air nozzle will emit a blast of air off the knife. This function has a dwell time setting below the yellow switch. Pressing the yellow Test button will momentarily activate the air assist valve.

Auto Reverse: (blue switch) When activated, this function will cause the feed roller to reverse briefly before measuring. This allows the motor to remove material that might have adhered to the anvil. If the machine experiences jamming in the knife area, turn this function on.

Program: (with left and right arrows) Program (recipe) settings may be saved by pressing the gray Save Program button. To run a previously saved program (recipe), toggle to the program number using the arrows and press Load Program. Programs are saved by number only. For detailed instructions, see the Appendix.

Home: (gray house) - Press the home button to return to the main screen.

Extra Functions: (yellow arrow) advances to the Additional Functions Screen

ADDITIONAL FUNCTIONS SCREEN

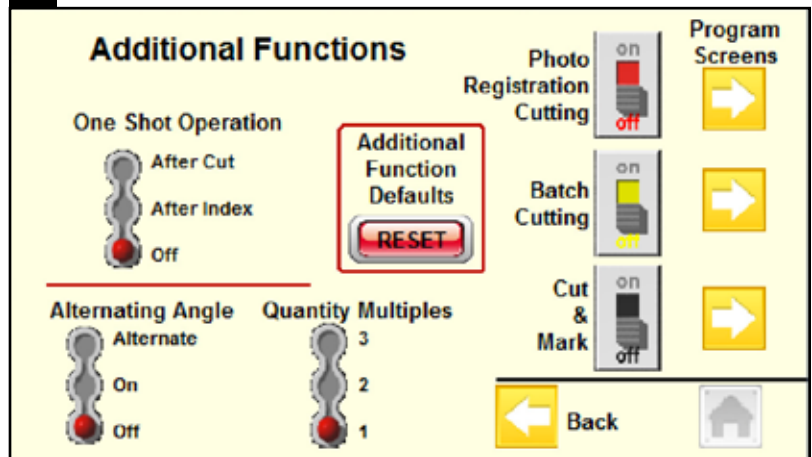
The Additional Functions screen (**PHOTO 19**) is used for activating some standard functions such as One Shot and Quantity Multiples. When equipped, this screen activates optional machine functions such as Alternating Angle Cutting, Registration cutting (using a photocell), Batch Cutting, and Marking. The Additional Functions Screen contains the following elements and Standard Function descriptions (for Optional Functions, please see the appendix).

One Shot Operation: (red three-way switch) -

When equipped with a One Shot Switch (foot pedal or button) and activated, this function will allow the user to measure and cut one piece at a time on demand. The machine will stop after cutting (After Cut) or after measuring (After Index). The default value is OFF.

Quantity Multiples: (red three-way switch) - This setting multiplies the COUNT and QTY display on the main screen to double or triple the count and quantity when cutting more than one piece of material at a time. Note: When used in multiples, the quantity setting must be in multiples of either 2 or 3. For example, when running 3 pieces at a time, the quantity setting must be 3, 6, 9, 12, etc. The machine will then display the total number of pieces cut. The default value is 1.

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Alternating Angle: (red three-way switch) - For alternating angle models only. See Appendix 5 for details on the operation of this function.

The Photo Registration, Batch Cutting and Cut & Mark Functions activated from this screen. The default values are OFF. Press the yellow arrow to the right of each function switch to enter the programming screen for that function. Each of these screens have their own instructions for operation.

Press the Additional Function Defaults RESET button to reset these to default values.

OPERATING PRINCIPLE

This cutting machine is designed to measure and cut to length various types of narrow fabrics, film, metal strip, cord, wire, tubing, braids, and similar materials. Measuring is accomplished by pinching the material through two rollers held together tightly by adjustable springs. The bottom roller is driven via flexible belt by a powerful computer-controlled stepping motor. After leaving the rollers, the material enters a cutting module containing the knife, usually driven by an air cylinder and compressed air. Upon cutting, the material should fall away freely.

Virtually all functions of the motor and knife are adjustable, such as speed, acceleration, deceleration, dwell times, roller pressure, knife pressure and assist devices, such as air nozzles, and are all centrally controlled by a small computer (PLC). The PLC is connected directly to the touchscreen. In some cases, the computer may be connected directly to an outside network for

remote control or monitoring via an Ethernet socket. **(PHOTO 20)** For details on configuring the machine to a network, see the Appendix.

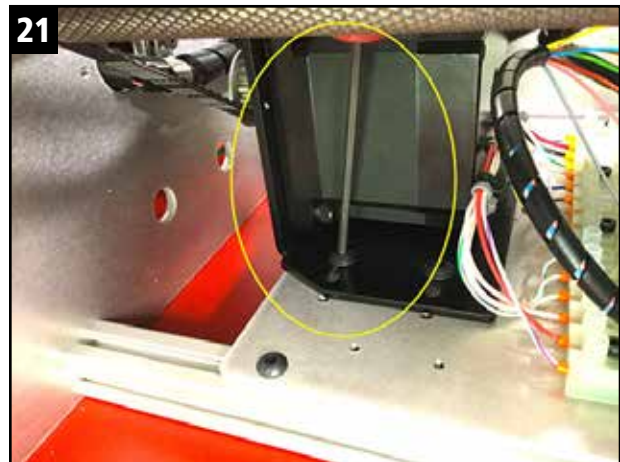
Data that is entered by the user to run the machine is referred to as a "recipe" or "program." Both terms may be used interchangeably. User recipes may be saved in the internal memory for future use. For applications that may require a large quantity of recipes, such as automatic marking, additional memory may be accessed from an external USB drive via an optional external USB port. **(PHOTO 20)** For details on using USB memory, see the Appendix.



MAINTENANCE

The following should be checked periodically or as needed following troubleshooting:

- **Drive Belt:** A belt too loose will produce variation in lengths. To tighten, remove the magnetic Feed Plate and locate the stepping Drive Motor. Loosen the four hex head screws on the Motor Bracket and pull back gently on the motor to tighten the belt. **(PHOTO 21)**
- **Drive Rollers:** keeping the drive rollers clean and free of material debris will ensure accurate lengths. Clean the lower (steel knurled) roller with a small brass wire brush to remove material from the roller grooves. Clean the lower (aluminum sandpaper) roller by replacing the black adhesive sandpaper cover when it becomes too worn. The roller may not need to be removed to change the covering. Clean the upper (rubber) roller with rubbing alcohol or mild solvent. If the top roller does not turn freely, apply light oil or remove the roller and clean the bronze bearings.
- **Hot Knife and Anvil** (hot knife models only): Clean the anvil when residue buildup causes material to adhere to the anvil which can result in jamming. Hot Knives generally need no maintenance or cleaning as a properly set and tuned hot knife will burn away excess residue between cut cycles. For auto-tune details and anvil cleaning refer to the separate instructions supplied for the Hot Knife Cut Module being used.



For guillotine models, periodic cleaning may be required to remove adhesive or other residue from the material being cut. For cleaning and resharping, refer to the separate instructions supplied for the Guillotine Module being used.

- **Loose fasteners:** periodically check for loose or missing fasteners to ensure the proper running of the machine. Unusual noise may be the result of misalignment of parts due to loose or missing fasteners. Virtually all fasteners are metric.

TROUBLE SHOOTING

The most common fault is typically associated with lengths or length variation. It is important to know that these machines are designed to measure and cut a wide variety of materials.

NOTE: Length variation should not be confused with Incorrect Length. You should become familiar with this difference before making any adjustments or repairs to the machine.

LENGTH VARIATION

Length variation is the inconsistency of the cut lengths of the same material running under the same recipe settings. Variation can be caused by material that stretches or slips between the feed rollers resulting from high inertia created by pulling from a very heavy roll too quickly, for example. As with every industrial process, a certain amount of variation is normal. Normal variation typically falls in the range of 0.5% to 1% of the overall length, depending on many variables such as material characteristics, roll size, friction, and machine wear for example. Normal variation may still be reduced further by changing machine settings or by using additional equipment such as a Prefeed Device which eliminates most inertial variation.

To find out if the variation is normal, first test the machine without material. Set an index length of 500mm. Remove the cutting module (but keep it connected to the air and M12 cable) and make a mark in an observable location the lower roller and bearing mount. **(PHOTO 22)** Allow the machine to run a few length cycles. The mark should return to the same location. If not, check the belt tension as described below.

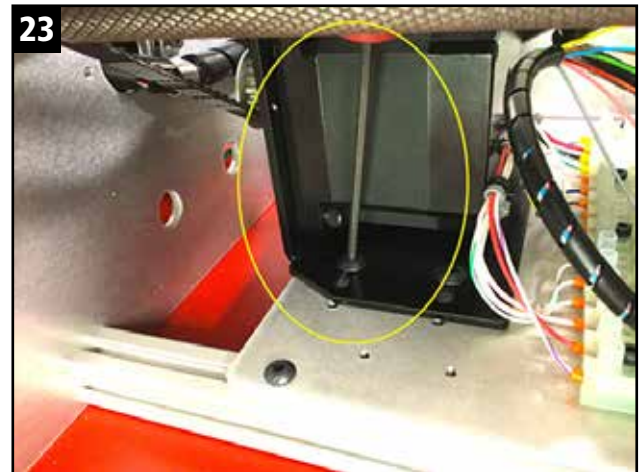
If the machine is measuring properly from this test, run a few short pieces with the material under minimal tension. If



this process reduces the variation then go to the Advanced Settings Screen and increase the Acceleration Time to allow the length motor to accelerate more slowly, or reduce the Index Speed. This may correct the problem. Additionally, the problem can be corrected and the machine can be operated at higher speeds with the use of a Prefeed Device.

If variation persists with consistent material tension, then check the following:

- Drive belt tension should be snug, not loose. Remove the Infeed Plate and adjust the belt tension by loosening the adjustment screws and moving the motor assembly. **(PHOTO 23)** Retighten the screws.



- Incorrect spring tension can also cause variation in lengths. Ensure that the spring tension holding the rollers is sufficient and even. Adjust roller tension evenly by moving the chain settings on the left & right roller tensioners. NOTE: Changing roller tension may also change the cut length.
- Roller Jamming or Binding can also cause length variation. Lift the feed roller lever and rotate the top roller to ensure it turns freely.
- With the power switch off, rotate the lower steel drive roller by hand to ensure it turns freely. Check that feed plates are not touching the steel roller.

TROUBLE SHOOTING

- The material should flow easily from the Reel Holder through the end sensor and material guides. Check that there is no binding or jamming of the material by pulling it through the machine by hand. Adjust the magnetic material guides so that there is a little clearance between the material and the guides.

STOP INDICATOR LIGHT

The Stop Indicator Light on the Main Touchscreen will indicate when a stop fault has occurred. Stop Faults can occur when the Material Sensor has not detected material, or any other device (such as optional jam detector, door switch, etc). has been tripped. The Blue Stop Indicator will stay lighted whenever any of these conditions occur. Pressing Stop or Run will reset the Indicator.

The most common cause for the Stop Fault is the Material Sensor. To determine if the sensor is creating a Stop Fault, disconnect the sensor by removing the sensor plug (PHOTO 24) and run the machine. If the machine runs with the Sensor disconnected, consult Appendix 8 - NO MATERIAL SENSOR ADJUSTMENT.



If you machine is equipped with any additional Stop Fault sensors, check to be sure they are functioning properly. Consult the manufacturer with Serial # and Model # for more information on how your machine is equipped.

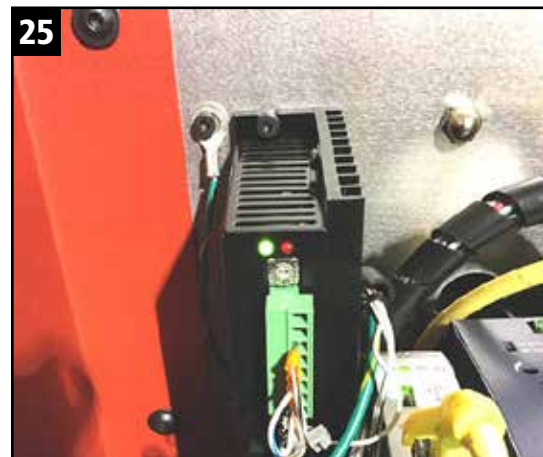
INCORRECT LENGTH

Incorrect length is a significant difference in cut length from the programmed length. This is normal as different types of materials can have vastly different characteristics, such as material elasticity, compression, slippage, flatness, inertia,

and even from unseen inconsistencies in the material itself. This can be corrected by changing some of the internal machine settings. Be sure to save your recipe settings for materials that are used regularly.

LENGTH MOTOR STOPS WORKING

If there is power to the touchscreen but the length motor will not advance when pressing JOG, remove the main cover screws and open the cover. Check first that the Stepping Motor Driver has power by observing the power lamp shown. (PHOTO 25) If the Driver has power, check the Motor Fuse in the gray fuse holder mounted on the DIN rail below the Driver. (PHOTO 26) If the fuse is good, contact the manufacturer for further assistance.

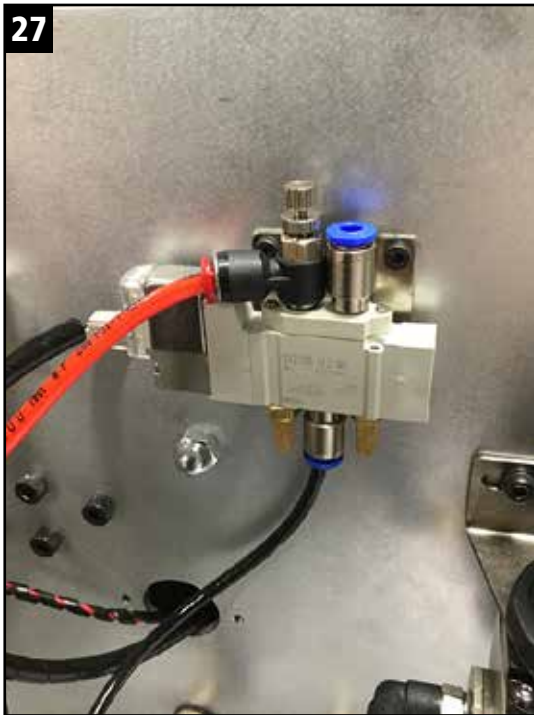


TROUBLE SHOOTING

MATERIAL JAMMING

Some materials may not feed through the machine well due to elasticity, curl, flimsiness, etc. The RX-200 Series can be equipped with an OPTIONAL Air Assist function to help move lightweight and flimsy material from the feed rollers through the cutting area.

The Air Assist is toggled ON or OFF through the Advanced Setting Window. If the machine is equipped with an Air Assist Valve, ensure that the Air Assist function is turned ON and that sufficient air pressure is present during the measure to length cycle. Press the red Air Assist Test button to test the valve; you should hear the blowing of air while the button is held. The Air Assist pressure is controlled with the small flow control valve as shown. **(PHOTO 27)**



KNIFE NOT MOVING

The knife is operated by an air cylinder controlled by an air valve. If the knife will not move when pressing the CUT button on the main screen, check the following:

- The yellow Knife Position indicator on the Main Touchscreen should be ON; the red Knife Position indicator should be OFF.
- There should be sufficient air pressure to the machine (80psi minimum).
- Press the CUT button and observe if indicator light on the air valve lights while holding the button
- Check that the Knife Speed Flow Control valves are not closed **(PHOTO 27)**
- Ensure that the air cylinder is not binding. Turn the power off to the machine and manually activate the air valve by pressing the Valve Override button. **(PHOTO 28)**



TROUBLE SHOOTING

NO DISPLAY ON TOUCHSCREEN

The touchscreen is inactivated when the Emergency Stop knob is pressed. To release, twist the Red knob as shown by the arrows on the label.

- Check that the power supply plug is connected to the touchscreen inside the main cover.
- Check that the 24V power supply is not faulty. The green "DC ON" light should be lighted with the power on (**PHOTO 29**)
- Check the main fuse on the front of the machine (see next item)



NO POWER TO MACHINE

- Check that the main fuse. The main fuse is located in the power inlet module on the front of the machine. Use a small screwdriver to remove the fuse drawer. (**PHOTO 30**) Replace with an identical fuse.
- Check the Emergency Stop switch by rotating it in the direction of the arrow.



CUTTING PROBLEMS

Cutting problems can vary with the type of cutting module installed in the machine. For problems relating to cutting, please refer to the Cutting Module User Manual for your machine supplied separately as an addendum to this manual.

OTHER FAILURES

For problems not covered, contact the manufacturer for technical service. The machine may need to be returned for service of serious failures or repairs.

Appendix 1: Saving & Recalling Program Recipes

Program recipes can be saved to internal (or external) memory for future recall. Program recipes are saved numerically for reasons to be outlined later. Internal memory allows up to 60 recipes to be saved. Additional recipes may be saved to a memory stick via the optional external USB port when equipped. (see Appendix 7 for more details)

SAVING A PROGRAM

- To save a current program go to the Advanced Settings Screen from the Main Screen by pressing the small gears icon.
- Pressing the gray Save Program at the bottom of the screen will save all the program recipe data in the memory location numbered under Program.

RECALLING A PROGRAM

- To recall a program go to the Advanced Settings Screen from the Main Screen by pressing the small gears icon.
- Previously saved programs are numbered inside the gray box under Program. Toggle through all saved programs by pressing the LEFT ← or RIGHT → arrow buttons on each side of the Program Number box.
- Select the program to be recalled.
- Press “Load Program” and the program is now ready to run. Press the Home button to return to the Main Screen and run the recalled program.

Appendix 2: Photo Registration Cutting

Photo Registration Cutting allows the machine to cut directly on a mark, or at a point relative to a mark on the material. Machine accuracy is now limited to the accuracy of the printing. YOUR MACHINE MUST BE FITTED WITH AN OPTIONAL REGISTRATION CONTRAST or PHOTO-SENSOR IN PLACE OF THE END-OF-MATERIAL SENSOR SUPPLIED. The Photo-Sensor connects in place of the End-Of-Material Sensor using the 4-pin connector socket. When programmed correctly, the photo-sensor will search the webbing as it is

being measured for the required cut registration mark. Upon locating the mark, the machine will stop and cut, or continue to index further according to the user settings.

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Refer to the illustration (**PHOTO 32**). The programming sequence is as follows from the Photo Registration Settings screen:

Index Length: Overall length between Registration Marks minus approx. 1/2 of the Search Window length. The Sensor will ignore any detections, such as logos, marks, color changes, etc. in this distance.

Search Window: Search distance clear of any contrast marks that might confuse the sensor. Allow a setting that allows for a reasonable variation in registration mark location. If the registration mark is not found within this window, the machine will stop and return a Photo Reg Error on the touchscreen. A window too small or too large can result in Registration errors.

Offset Length: Once the registration mark has been located, the machine will measure this additional distance to position the mark under the knife.

Search Speed: This is a percentage (%) of the maximum motor speed when running in the Search Window setting. A slower speed setting (10-15%) will reduce the likelihood of detection errors. Increase this speed as needed.

Jog Speed: This is a percentage (%) of the maximum motor speed when the JOG button is pressed.

Sensor Signal: This indicator lamp will light when the sensor has detected the mark and is creating an output signal to the machine.

Teach In: Press this button to activate the “Teaching” function of the installed sensor, if applicable. See the operating instructions supplied by the sensor manufacturer for the correct procedure for teaching the sensor.

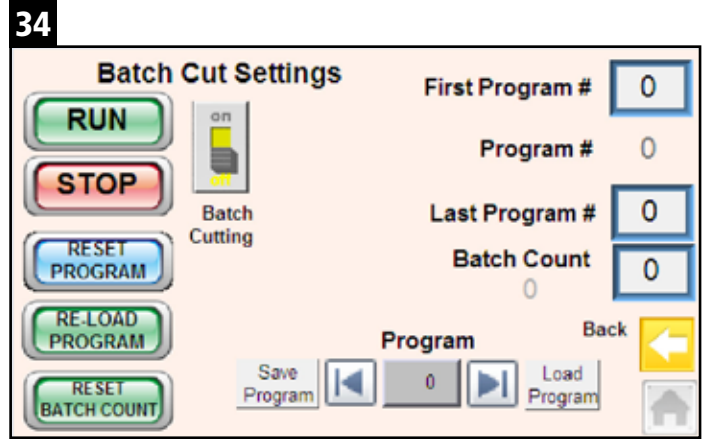
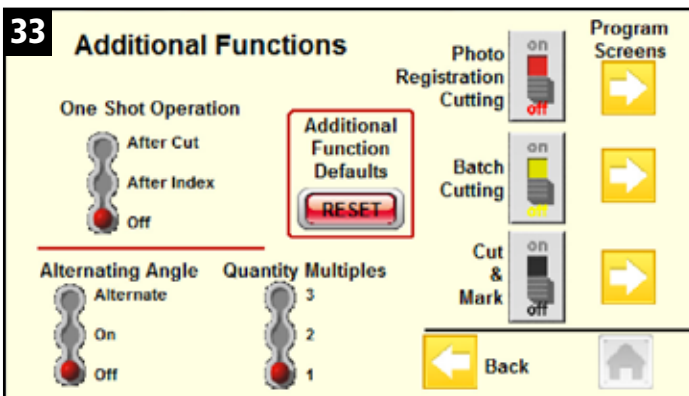
Once these length parameters have been set, align the registration or cut mark under the knife and press the CUT button. The machine is now ready to operate under Photo Registration Mode. The machine should perform the following operation sequence:

- 1) Measure Index Length
- 2) Slow to the search speed while searching for the registration mark
- 3) When the registration mark is detected, the machine will index the programmed Offset Length and stop. If the registration mark is not detected, the machine will return a “Photo Reg Not Found” error.

For details on how to select, wire, install and use the correct photo-sensor, contact the manufacturer for additional instructions and technical assistance.

Appendix 3: Batch Cutting

Batch Cutting mode is a process the machine uses to measure and cut different length and quantity combinations sequentially, which can maximize utilization of a limited material supply or color batch, for example. The Batch Mode setting is activated from the yellow Batch Cutting button on the Additional Functions screen. (PHOTO 33) When operating in Batch Cutting mode, the machine will run a string of consecutive program recipes in a continuous loop.



With Batch Cutting turned ON, navigate to the Batch Cutting Settings screen (PHOTO 34) to select the string of SEQUENTIAL program recipes to run. Function descriptions for Batch Cutting mode are as follows:

- First Program #: enter the number of the first program recipe in the batch sequence
- Last Program #: enter the number of the last program recipe in the sequence
- Batch Count: enter the number of loops, or batch cycles to run.

For example, if a product requires 5 pieces of webbing cut at 20”, 5 pieces cut at 6.5”, and 20 pieces at 50”, the program number for these three program recipes must be saved and numbered sequentially. The Batch Count would be the total number of material batches to be cut.

Note: Program recipes may also be recalled from an external memory device via an external USB stick when the machine is so equipped. For more details, see Appendix 7: Accessing Additional Memory via USB Port.

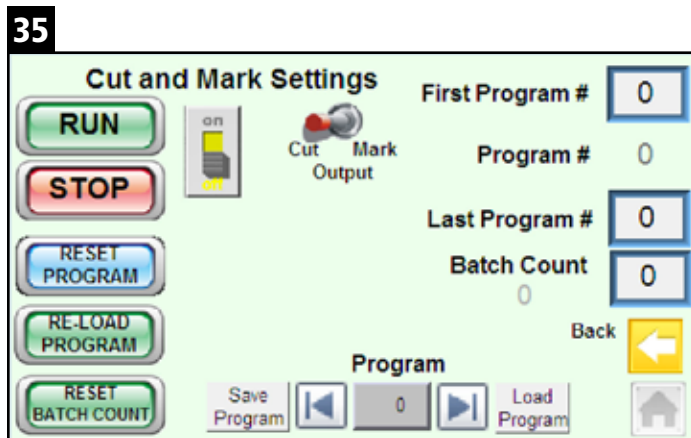
Appendix 4: Cutting & Marking

When equipped with an optional Marking Device, the machine is capable of measuring, marking and cutting to length. The Cut and Mark process uses the Batch Cutting function to run a series of sequential programmed recipes, one stored recipe for each mark and one stored recipe for the cut. Each stored "Mark" recipe will measure a programmed length and then mark, followed by the last recipe where the material is measured and cut. The cycle is then repeated for a programmed number of 'loops' or marked pieces.

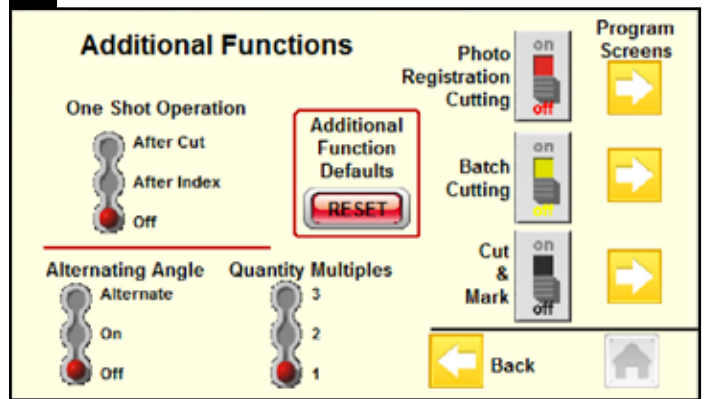
To set up the machine to Cut & Mark, go to the Additional Functions Screen, slide the black Cut & Mark switch to ON. Then navigate to the Cut & Mark Settings screen (**PHOTO 35**) to select the string of program recipes to run. Function descriptions for Batch Cutting mode are as follows:

- First Program #: enter the number of the first program recipe in the mark sequence.
- Last Program #: enter the number of the last program recipe in the mark sequence.
- Batch Count: enter the number of loops or batch cycles to run.

NOTE: These lengths MUST incorporate the length offset value from the marking device to the knife. Contact the manufacturer for a special Windows WebMarker V.1 program which is used to calculate these lengths accurately.



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Appendix 5: Alternating Angle Cutting

Alternating Angle: Red three-way switch. (**PHOTO 36**) An alternating angle knife rotates between lengths to produce opposite-angled ends. When equipped with an alternating angle knife module (such as the -ASL or -AS3), this function will allow the user to lock the knife to right (On), to the left (Off), or to alternate every other length (Alternate). The default value is OFF. When cutting lengths with opposing angles, it is important to ensure the material is in the center of the knife so that the alternating cut pieces will be the same length.

Appendix 6: Network Connection via Ethernet

An external Ethernet port is required to connect your machine to a computer or network. The external port is internally connected directly to the controller and can be used for remote control, remote troubleshooting, or connecting to an integrated system. In some cases dual external Ethernet ports may be used to provide access to both the controller and the touchscreen for special network applications.

Appendix 7: Accessing Additional Memory via USB Port

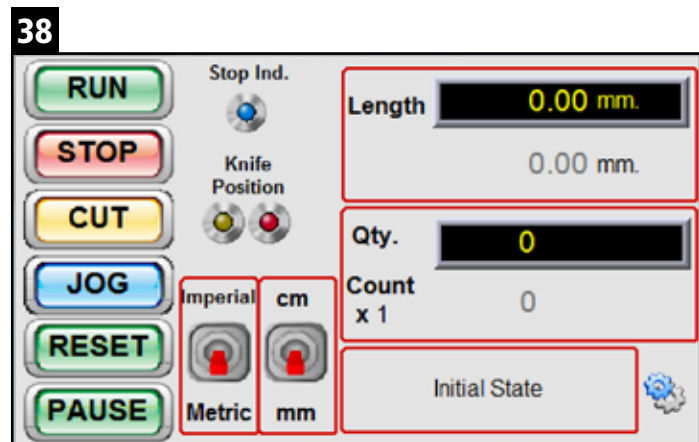
An external USB port is required to access additional memory from a computer, or USB memory stick, for example. The external port is internally connected directly to either the touchscreen or the controller, depending on the required need. In some cases dual external USB ports may be used to provide access to both the controller and the touchscreen for special applications.

Appendix 8: “No-Material” Sensor Adjustment

The standard No-Material sensor (PHOTO 37) is a “reflective sensor” designed to detect the presence of webbing and is adjusted during final assembly and should not usually need

adjustment. However, changes in material color may require that the user adjust the sensitivity of the sensor to work properly. To adjust the sensor, use a small screwdriver to rotate the larger white dial marked “SENS” for sensitive adjustment. The yellow light should be OFF when webbing is present, and ON when the material is not detected by the sensor. The small white dial should be turned to D (dark). When the yellow “OUT” light is on, it will be indicated on the main touchscreen by the BLUE light (PHOTO 38).

If the Yellow sensor light is ON when material is present, use a small screwdriver to adjust the sensitivity until the light is OFF. Be sure the material is within the sensing distance of 200mm (8”).



For problems not listed here or for further technical assistance, please contact the manufacturer:

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