



PRATIX



**Standard Operating Procedures
v1.0 by rpierce and hhenry 3/15/2012**

Pratix S – Turning On the Vacuum Pump

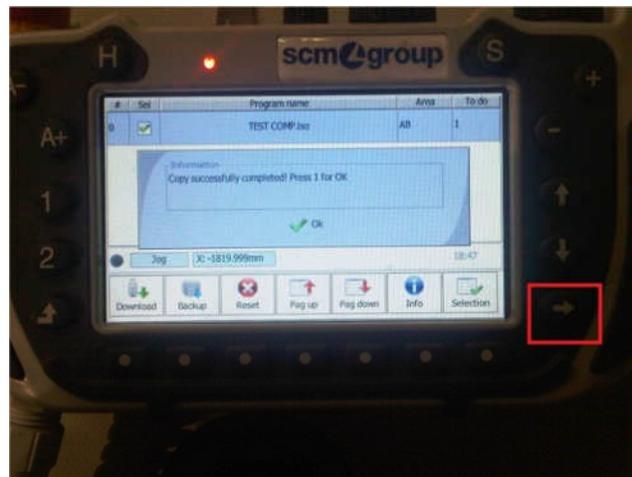
To begin running a program, the machine must be have CONTROL POWER. If the machine is not powered (i.e. “out of emergency”) please see the procedure to restore control power.

If control power is available, the following steps will be required to execute a program:

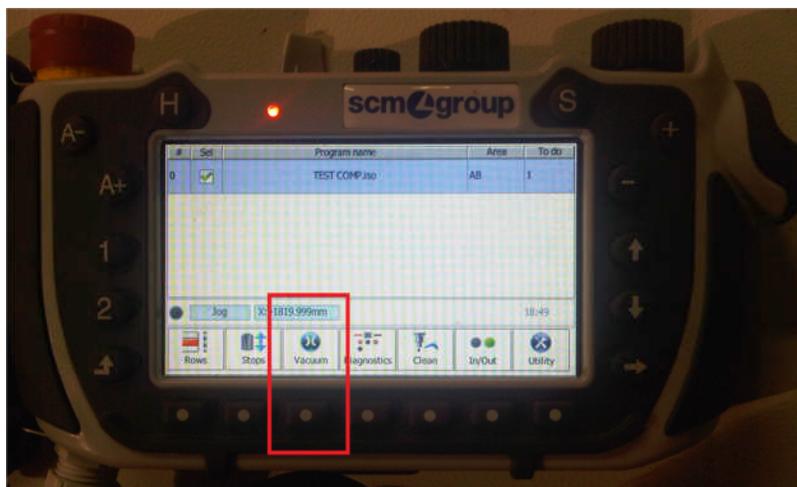
1. Turn on Vacuum Pump:
 - a. From the Main Menu, hit Execute on the Sintesi Device:



- b. Hit the arrow to the bottom-right on the Sintesi Device:



- c. Push the Vacuum button to toggle it ON/OFF:

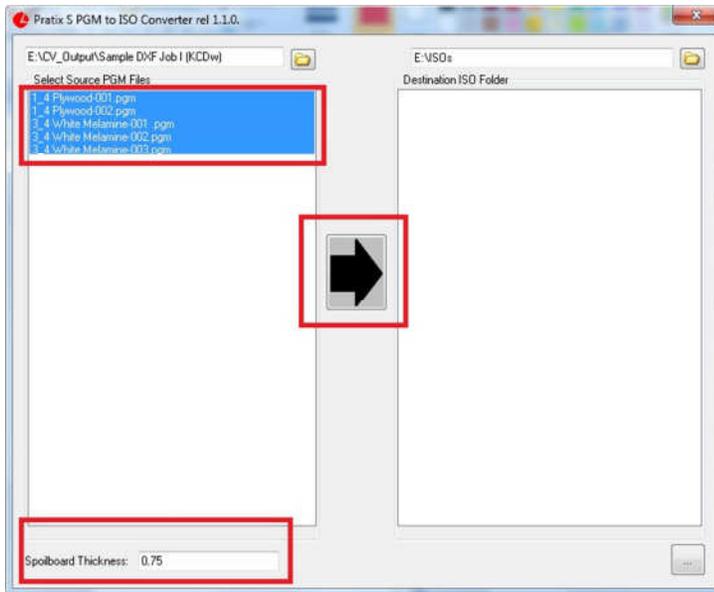


Pratix S - Loading and running a Program

In order to run a program, a properly formatted XXL/PGM File must be created beforehand. For guidance on how to create a program, please contact SCM Group directly.

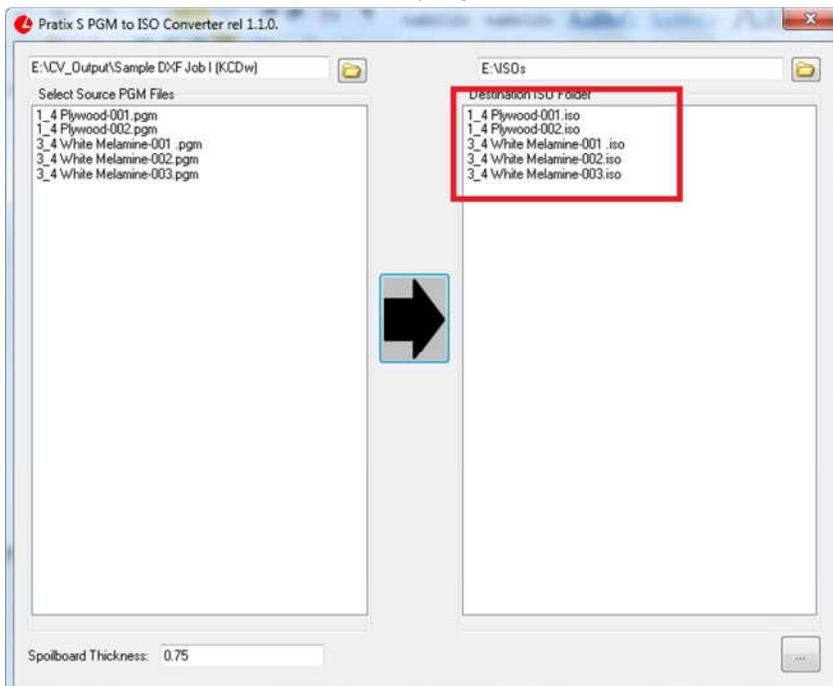
If a successful program has been created, the following steps will allow you to execute it on the machine:

1. Approach the Operating PC and Select the desired XXL File to run from the left-hand side of the Application. Then hit the transfer arrow. Please make sure your spoil board thickness is correct:



TIP: You can select many files at the same time, not just one!

2. If the conversion is successful, the programs will be converted into machine-ready ISO files:

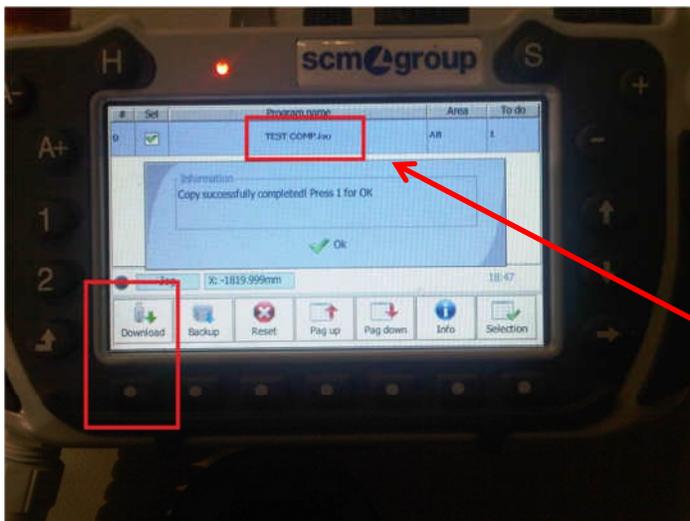


Note: The machine will execute the programs IN THE SAME ORDER AS THIS LIST, beginning with the TOP Program.

- After the ISOs have been generated, go to the Sintesi Device and hit the “Execute” button from the main menu:



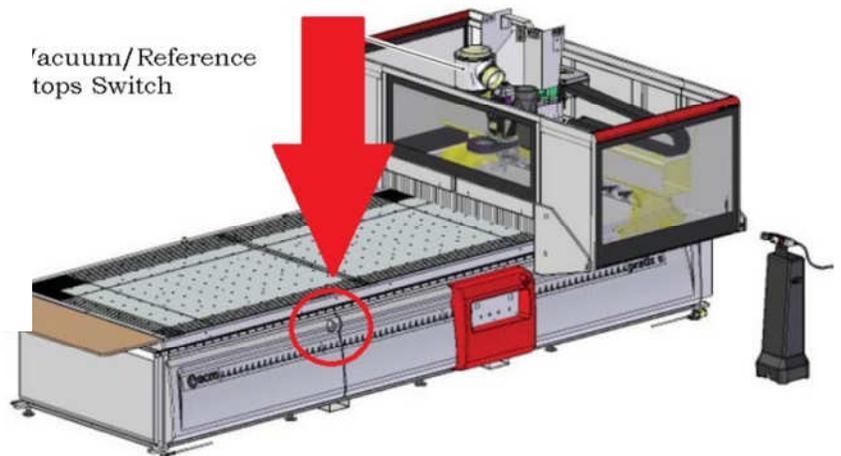
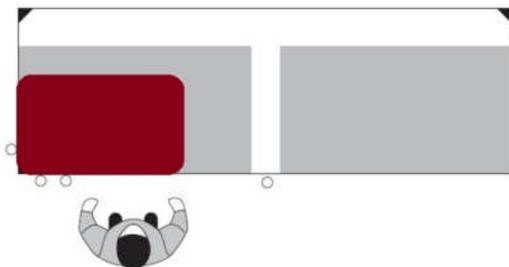
- Hit the “DOWNLOAD” button to “grab” the top program from the ISO list on the PC:



Note: You will get a message confirming to **OVERWRITE** the file. **ALWAYS SAY “YES”**. Then confirm the copy as seen here.

Also, notice the top of the screen now shows the new program name.

- Position your part on the Machine Table, at the desired corner, and engage the vacuum switch(es). The reference stops must go up first, before you can load a part. After you engage the switch, if there is sufficient vacuum, the stops will drop:

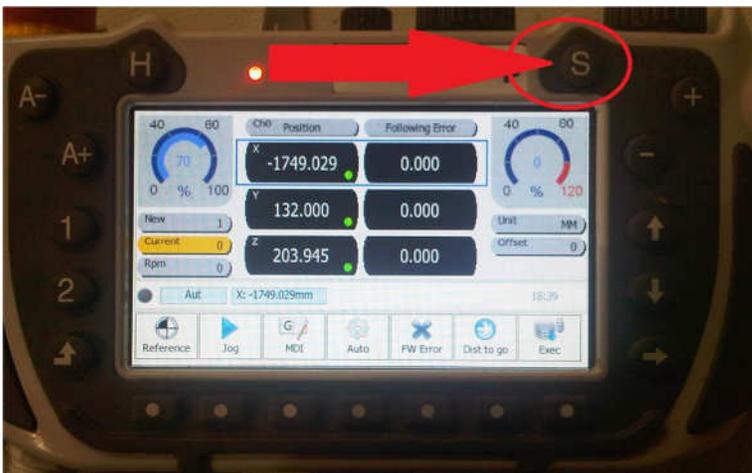


6. Once the part is securely held in place by the vacuum on the table, go back to the MAN MENU on the Sintesi Device and ensure that the Device is in AUTOMATIC MODE:

TIP: To go back to Automatic, you can press this button.



7. Press the START CYCLE button on the Sintesi Device to start the machine operation:



TIP: If the machine does not seem to run you can check:

- Are your feed pots open?
- Does the machine have CONTROL POWER?
- Do you have at least one "To do" program in the DOWNLOAD screen?

8. When the program finishes, the machine will park back at the HOME position (if the N command is written at the bottom of the program).

Pratix S – Checking PLC Alarms

If a condition arises which would prevent your machine from operating, a message will be shown in the Alarms screen. This is a great place to begin troubleshooting any potential problems. To get to the PLC Alarms screen, follow these steps:

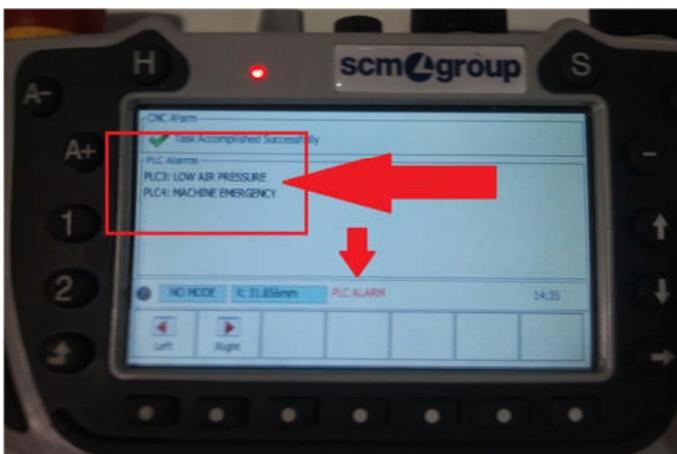
1. Go to the Main Menu on the Sintesi Device and press the Right Arrow (bottom right):



2. Hit the Alarms button:



3. You can now see what is afflicting the machine and take steps to correct the problem:



Note: Remember that clearing the condition for the Alarm is not enough (i.e. turning ON the air pressure); you must hit the RESET button on the Front Panel to make the “PLC ALARM” message go away!

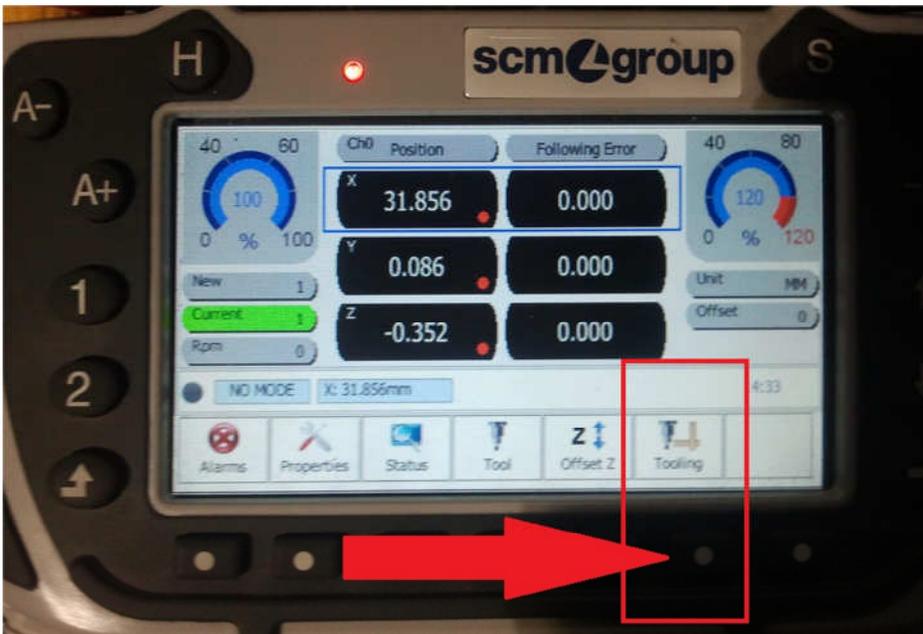


Pratix S – Measuring a Tool with the Automatic Probe

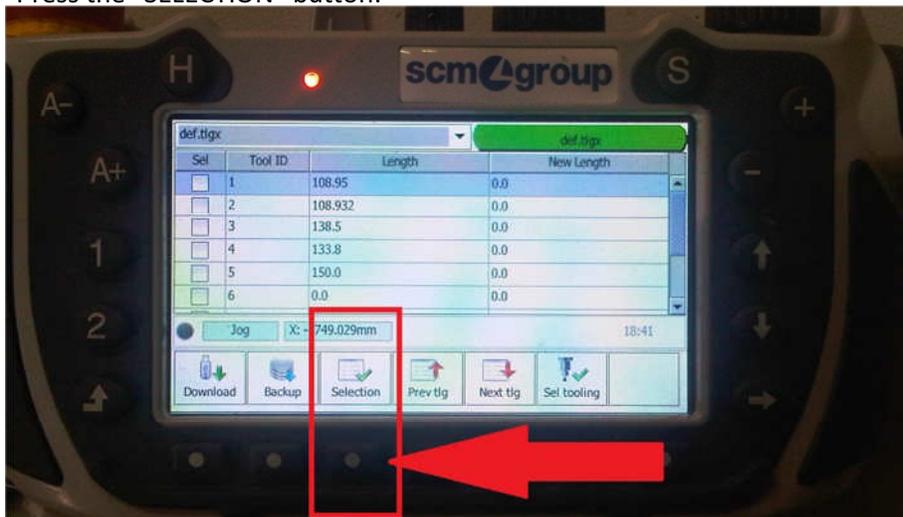
1. Starting at the Main Menu, make sure the Device is in AUTO Mode and hit the Right Arrow:



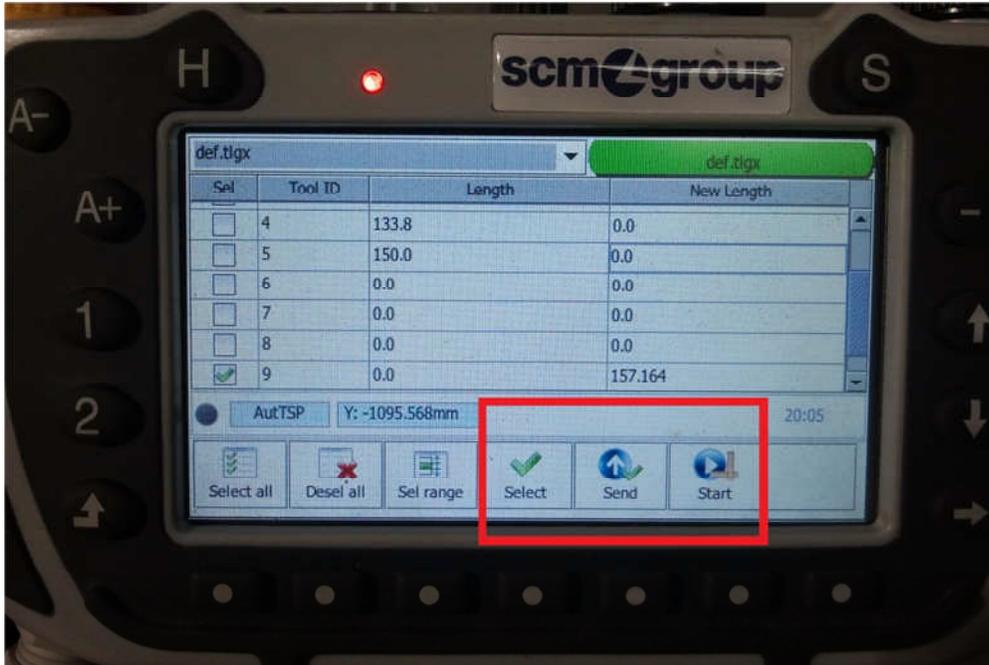
2. Press the TOOLING button:



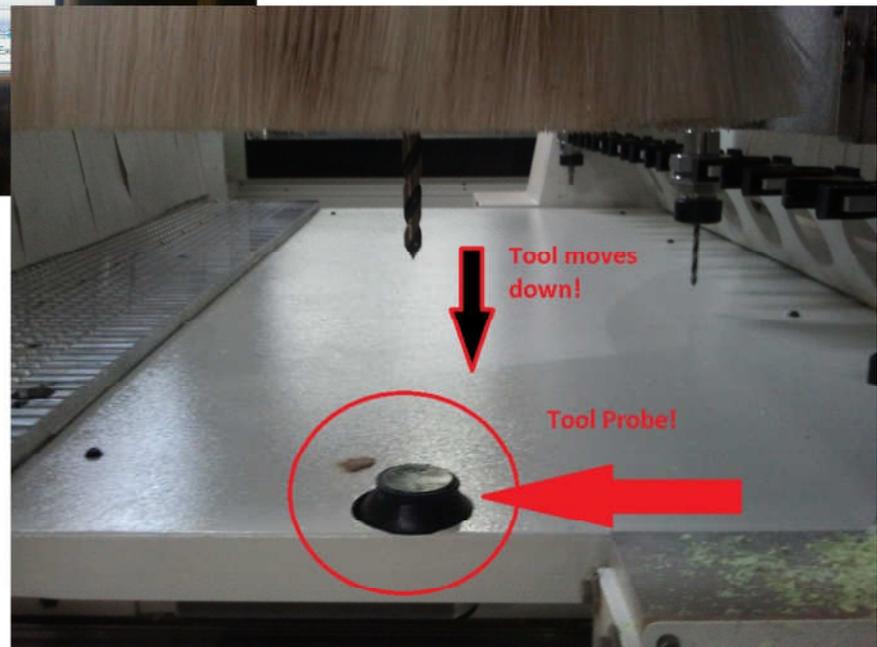
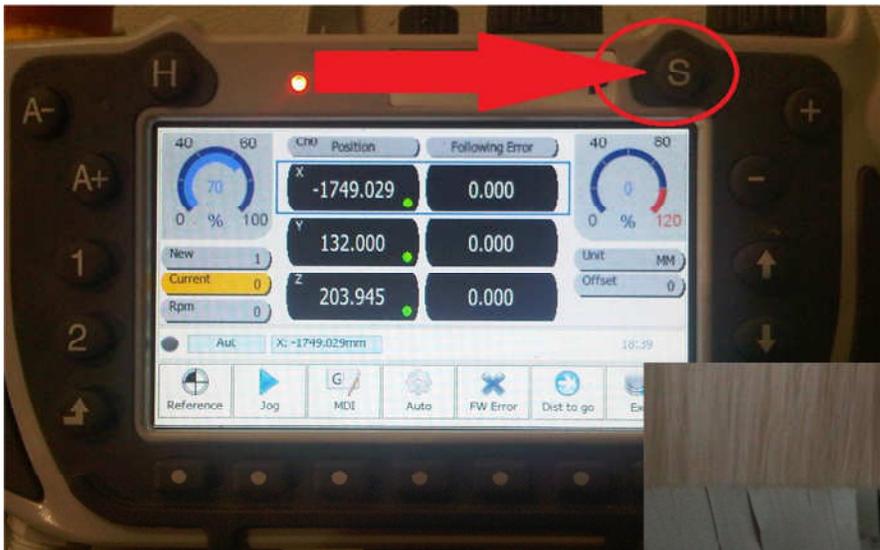
3. Press the "SELECTION" button:



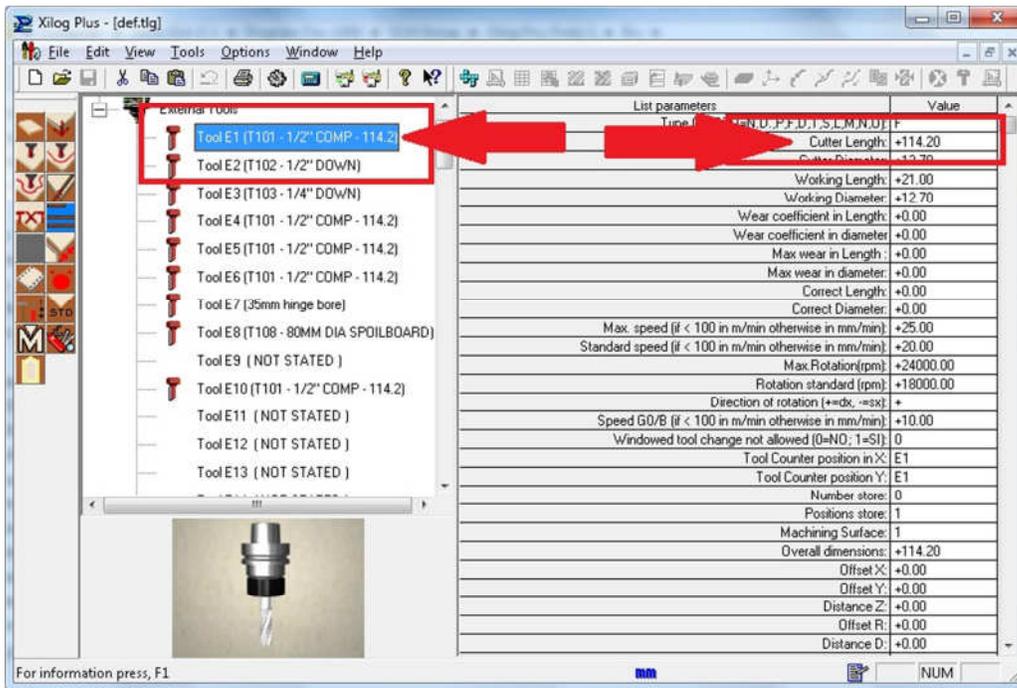
4. Use the UP and DOWN ARROWS (on the far right of the controller) to move to the tool you want to measure, then click on the SELECT button, then press the SEND button and finally the START button:



5. Press the START CYCLE BUTTON ("S") to have the machine measure your tools:



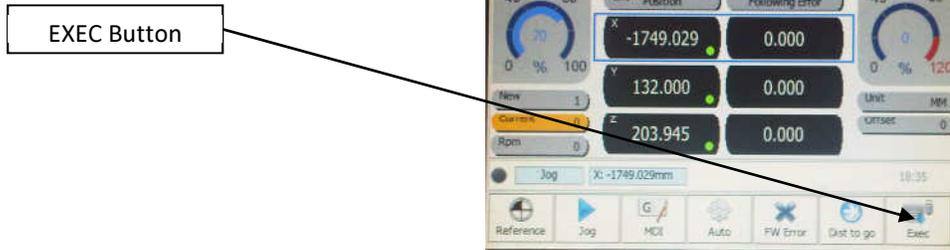
6. When the tool measurement is done, the NEW length will be displayed on the screen. You must take this new value and input it to the proper tool in the XILOG PLUS def.tlg file:



Note: If your Xilog Plus software is in INCHES, you must divide the result from the probe by 25.4 before inputting it into the def.tlg file. At the time of writing, the device only reports MM.

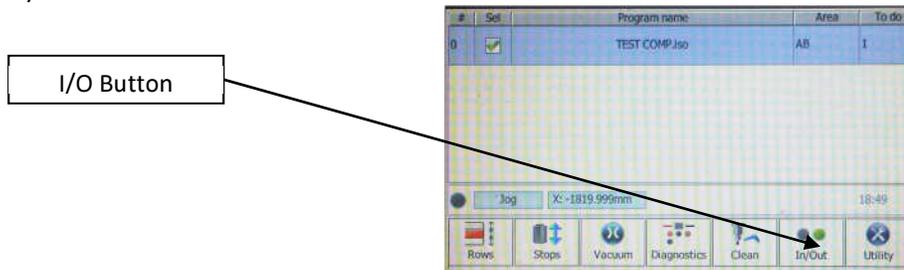
Viewing the I/O Display on the Hand Held Control

1. On the Hand Held Control Press the EXEC button.



2. Press the → button to go to the next screen.

3. Press the In/Out

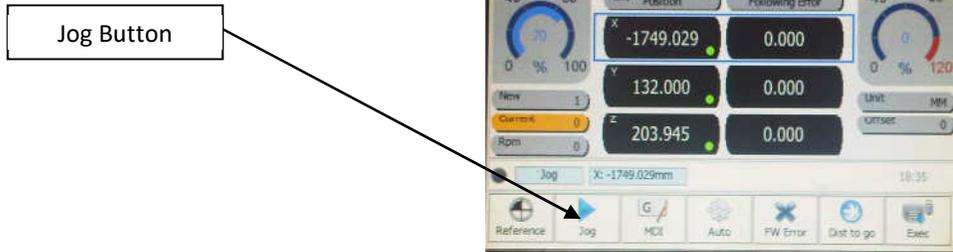


Input/Output Display:

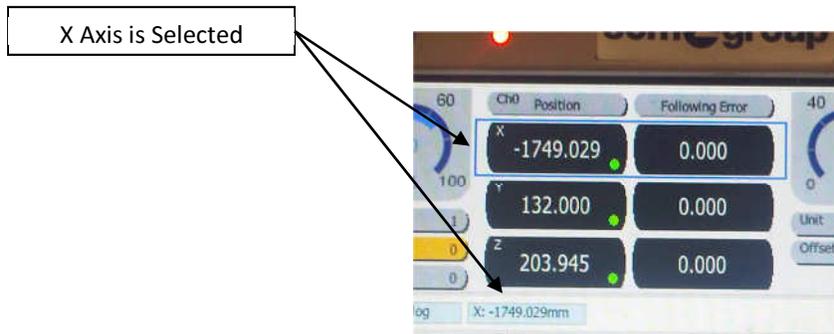


Manual Movements (Jog)

1. On the Hand Held Control Press the Jog button.



2. Press the A and A+ Buttons to Select the Axis to Jog.



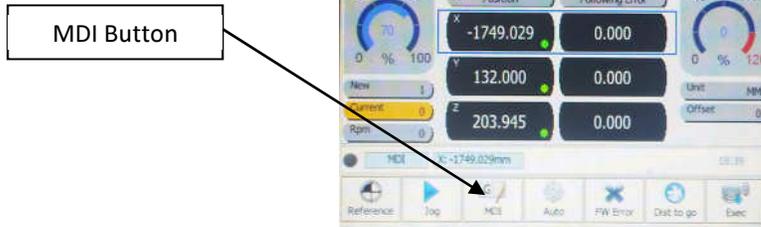
3. Press the + and – Buttons to jog the machine in the positive or negative direction.



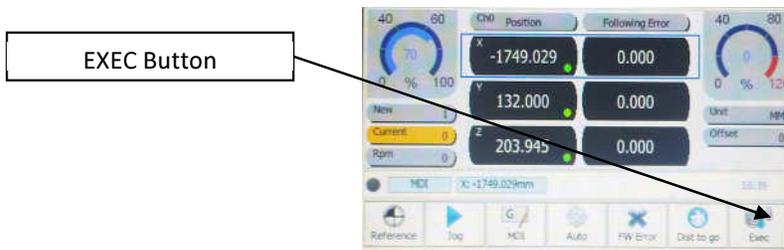
Note: The Rapid Potentiometer controls the jog speed. Select Continuous or incremental Jog with the bottom buttons.

Run Spindle Manually

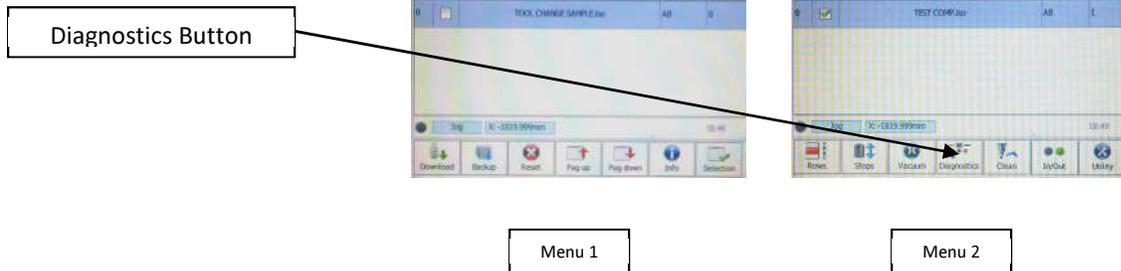
1. On the Hand Held Control Press the Jog button.



2. Press the EXEC Button.



3. Press the → Button Twice.

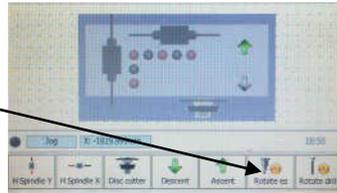


4. Press the Diagnostics Button, press the → Button.



5. Press the + Rotate ES Button. Confirm the Mode on the Hand Held Control displays MDI_ESP

Rotate ES Button

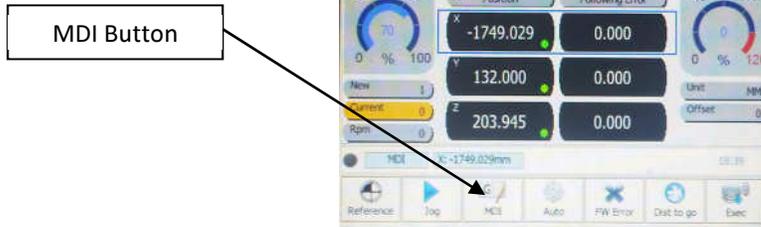


6. Press the S button to turn on the spindle.
7. Press the H button to turn off the spindle.

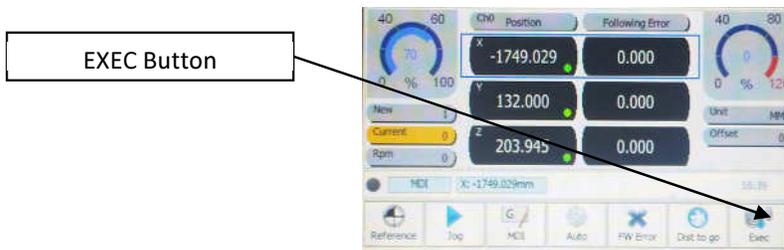
Note: The Spindle turns on at 6000 rpm.

Run Spindle Manually

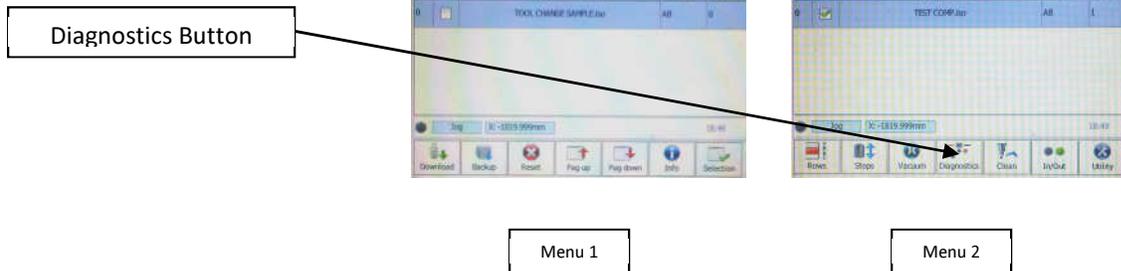
1. On the Hand Held Control Press the Jog button.



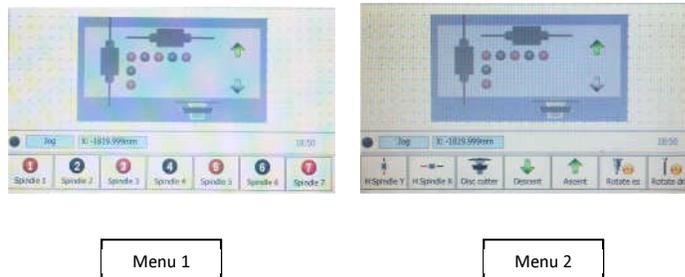
2. Press the EXEC Button.



3. Press the → Button Twice.

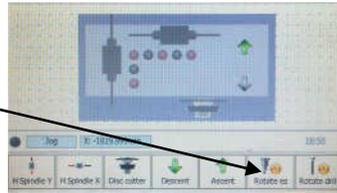


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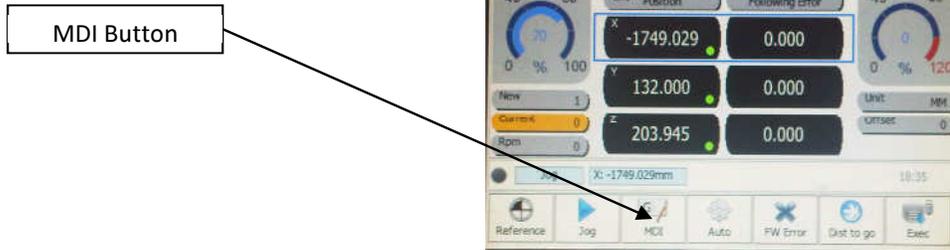


6. Press the S button to turn on the spindle.
7. Press the H button to turn off the spindle.

Note: The Spindle turns on at 6000 rpm.

Automatic Tool Unload

1. On the Hand Held Control Press the MDI button.



2. Press the S button on the Hand Held Control to Start the unload cycle.
3. Allow the the machine to unload the tool and reset the Z axis.
4. Press the S button on the Hand Held Control again to park the machine at its home position.