

05. MACHINE - SWITCH ON AND SWITCH OFF

05.1 MACHINE SWITCH ON

Step 1: Turn the main switch located on the front of the machine from the OFF position to the ON Position.

Off

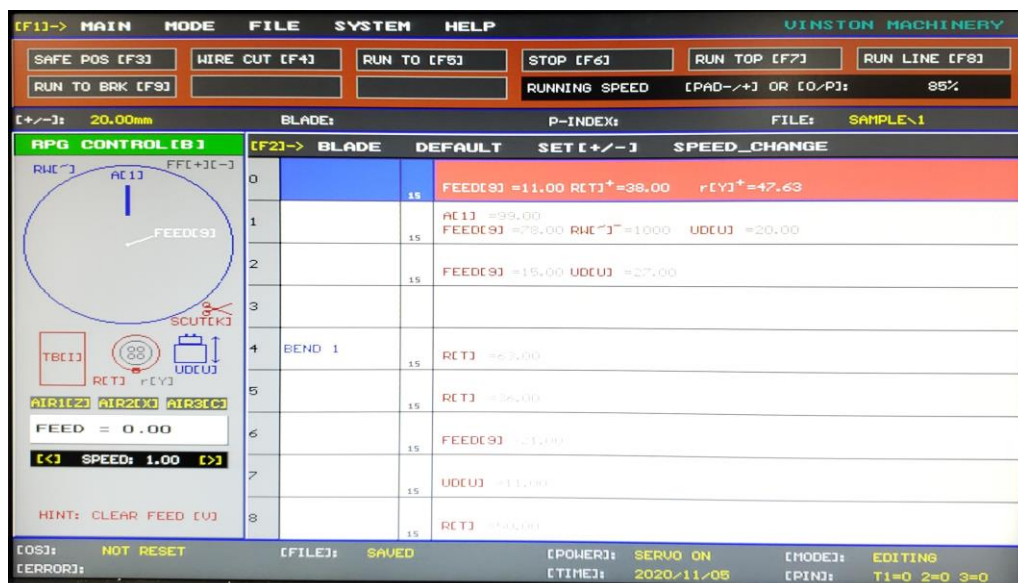
On



Step 2: Turn the POWER ON knob clockwise.



The machine will initiate its boot up sequence. Once boot up is complete, the system will load the program last used prior to shutdown.



Step 3: On the top left hand corner of the figure below, you see [OS]: NOT RESET, which indicates that the system needs to reset itself. The bottom left hand corner (“[ERROR]”) prompts for any error messages from each axis such as A, B, RQ, etc. The primary reason that the errors show up after start-up is the servo motors are not turned on.

[OS]:	NOT RESET	[FILE]:	SAVED	[POWER]:	SERVO OFF	[MODE]:	EDITING
[ERROR]:	A,B,C,D,E,F,G,X,RQ,FEED,	[TIME]:	2013/05/20	[PIN]:	T1=0 2=0 3=0		

Press the green button SERVO ON, which is located on the control panel.



A pop up window will indicate that the servo motors have been powered up and all the axes after [ERROR] should be cleared.



05.2 CALIBRATION AND ZERO POSITION OF AXES

After turning on the machine and servo motors, the user must reset the system so that each axis can identify its zero position.

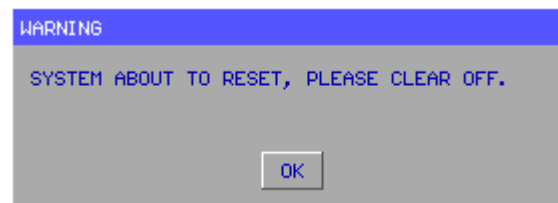
```
[OS]:    HOMED      [FILE]:  SAVED      [POWER]:  SERVO ON    [MODE]:  EDITING
[ERROR]:                               [TIME]:  2013/07/02  [PIN]:   T1=0 2=0 3=0
```

Before the reset on the line [OS]: NOT RESET

After the reset on the line [OS]: HOMED



To perform a reset pressing the F1 key on the keyboard. Press the ▼ arrow once so that “SYSTEM RESET ...” is highlighted. Press the ENTER key on the keyboard (To exit out of the menu at any time, press the ESC key). The following message will appear after you select a system reset:



At this time, make sure there are no obstructions or debris on each axis to block their movement. Press the ENTER key to continue or the ESC key to stop the reset procedure and return to the program. If necessary, move the axes manually to clear any obstructions or debris. See section “5.3 Manual movement of axis” for additional instructions on manual movements.

Once the user confirms the reset procedure, the program make all adjustments automatically emergency stop will be available at this time. After the system reset, all commands and functions will be available and system indicators should appear as:

[OS]:	HOMED	[FILE]:	SAVED	[POWER]:	SERVO ON	[MODE]:	EDITING
[ERROR]:		[TIME]:	2013/07/02	[PIN]:	T1=0 Z=0 3=0		

[OS]: HOMED - indicates that the reset has been completed without errors
[ERROR] - indicates any active errors

Should the user try to reset the system without turning on the servo motors, the following message will be displayed. The user, at this time, should turn on the servo motors.

ERROR
\$MOTOR ALARM: #A,B,C,D,E,F,G,X,RQ,FEED,

05.3 MANUAL MOVEMENT OF AXES

The most common situations that require manual movement of the axes are:

1. Resetting the system can cause collisions among the axes
2. Setups
3. Tool inspections

To perform manual movements by utilizing the RPG dial, press F1 on the keyboard to access the main menu. Use the ▼ arrow key to highlight “SET MANUAL RPG ...” and press ENTER.



Select the axis to be moved. Use the numeric keys (the ones above the letters, not from the keypad) 1 thru 8 for the front slides, 9 for wire feed, 0 for the quill, ~ for RW (Rotating Wire) and Q for the X-Y blade. Movement of the selected axis is now controlled by the RPG dial on the control panel. When the axes have been adjusted, press the F3 key to return the machine back to EDIT mode.

IMPORTANT NOTE: If several question marks follow the highlighted axis (A=??????), it indicates that the system has not been reset.

05.4 TURNING OFF SERVO DRIVES

Press the red button labelled “SERVO OFF” located on the control panel.



Check the bottom left corner of the screen. All Servos should be listed under the ERROR section.

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[ERROR]: A,B,C,D,E,F,H,X,SP1,SP2,RQ,RW,FEED,
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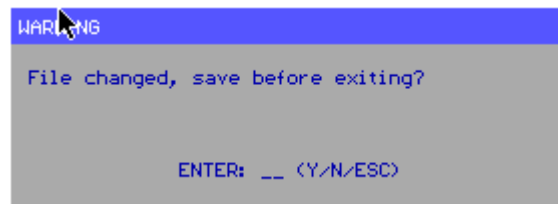
05.5 EXIT PROGRAM AND SHUTDOWN SYSTEM

Shutting down the system will prompt the user to save any outstanding changes since the last save operation. There are two methods to shutdown the system. One method is to use the macro keys CTRL + Q. The second method is to press the F1 key displays the following screen:

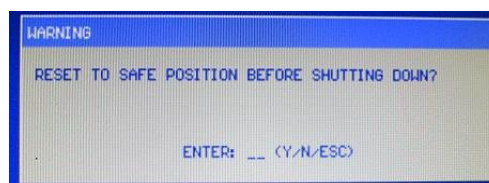


Press the ▼ arrow key twice until “SHUT DOWN (CTRL - Q)” is highlighted and press the ENTER key.

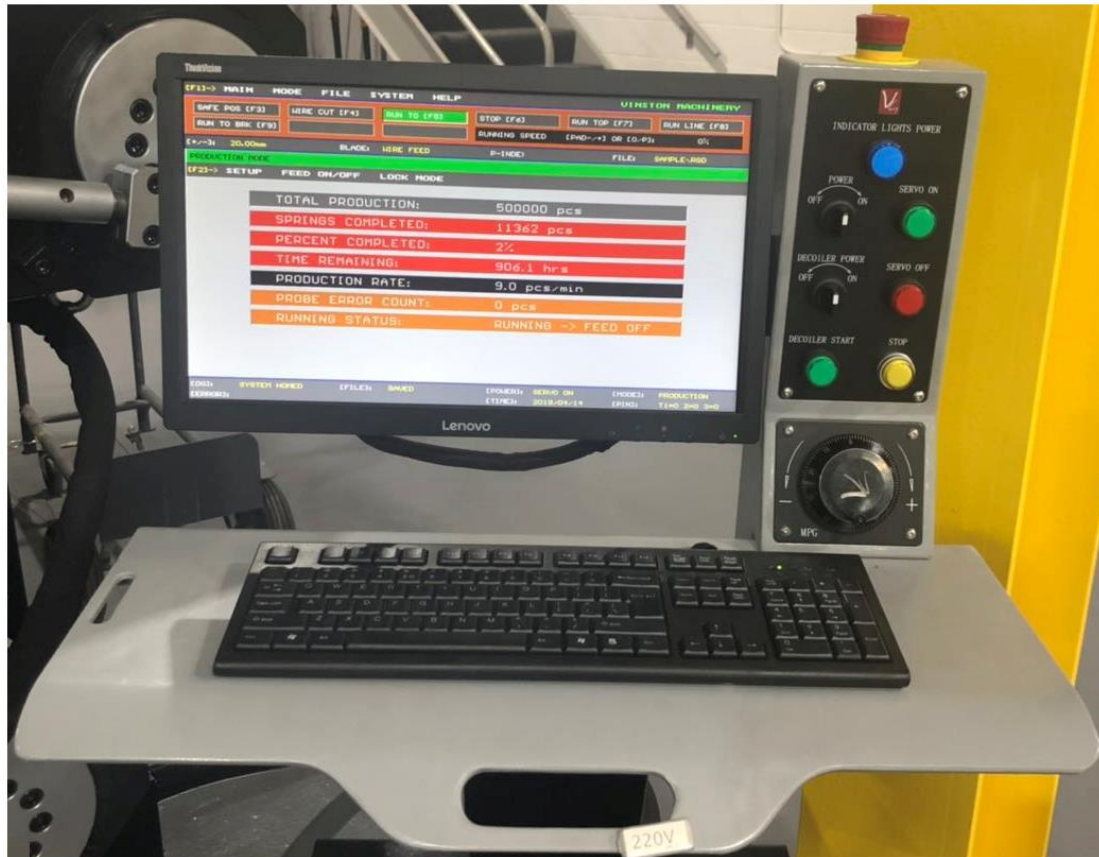
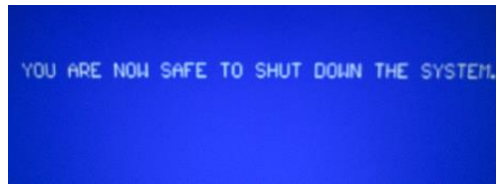
In either method, the user will be prompted to save any modifications since the program was last saved prior to executing the shutdown sequence.



Press Y to save changes to the current program. Press N to skip saving changes to the program and continue with the shutdown process. Press the ESC button to cancel the shutdown process. Next, the user will be prompted to reset the system prior to shutdown.



Press Y on the keyboard to perform the reset. Press N on the keyboard skip the reset prior to shutdown. Press the ESC key cancel the shutdown process. Should the user proceed beyond this point, the operating system will completely shut off.



At this point, flip the machine power source to the OFF position. This switch works as the machines disconnect and all power is cut off from the machine.

On

Off

