XL
Operating System
Win XP / 2000
Win 2000 has not been thoroughly tested.

Connectivity
Ethernet only, if connecting to a PC you must use a switch.

When connected to a network, the customer has the option of using a fixed IP address (user enters IP address manually) or a dynamic IP address using DHCP (the network server assigns the IP address). These settings can be configured in the SYSTEM OPTIONS MENU by pressing ⓧ then press✓.

Power Up
Reset the breakers located on the left rear of the XL Series.
Press the SILVER on button located in the top left corner of the XL Series.

Changing Job Parameters
From the main screen (preview screen) press the ✓ button to open the PARAMETERS MENU.
To save parameters press the ✓ button again.
Any parameter changes are permanently saved with the job.

Manual Motion
Press ⓧ button to access manual motion.
Press ⓧ again to toggle between XY and Z motion.
Use the arrow buttons ✛ to move the selected axis.

Main Screen (job preview screen)
File Name
Copies Engraved
Cycle Time
Interlock Status

While in the Main Screen you can only access 2 menus. System Options Menu by pressing ⓧ then ✓ and the Job Parameters Menu by pressing✓.

Interlocks
An open interlock will be indicated by a RED DOT on the progress bar.

E-Stops
After hitting the E-Stop, 1st release the E-Stop by twisting and pulling upward. Next reset breakers on left rear of the XL Series.

Air Assist
Customer supplied air should be 50 to 60 PSI adjustable. Customer supplied air should be dry and free of oil. A particulate filter and desiccant filter are mandatory.

System Options Menu
To access the SYSTEM OPTIONS MENU press ⊗ then ✓ buttons.

Lens Type
Not selectable, all lens types are detected automatically; all must be calibrated in the Set Lens Focus section of the System Options Menu..

Camera
To access the camera, press ⊙ 1 time. Motion will be disabled when camera is activated allowing the user to move the motion system around by hand for precise alignment.

Display Buttons
▷ START Job
❚❚ PAUSE, press PAUSE again to continue from the point of where you paused
✓ OK
⊗ Toggle to MANUAL MOTION
✥ Move Selected Axis
⊙ CAMERA
↩ RETURN

System Options Menu

About
SW: Software Version V1.17
FW: Firmware Version V1.31
HW: Hardware Version V0.08

Language
English
Espanol
Francais
Deutsch
Italiano

Units
Inches
Metric

Connection
IP: Fixed IP Address Input.
DHCP: Network Assigned IP Address.

Auto Z
   On / Off: Allows Z height to be programmed in the printer driver.
   1. Enable the Z Axis in the printer driver.
   2. Using the slide scale in the printer driver set material thickness.
   3. Press set in the printer driver.
   4. Table will lower to the edited Z height before mark starts.

Red Dot Pointer
On / Off: This option is used for test marking, when active the diode pointer is on, laser beam will not be emitted. All doors must be closed before motion will move.

Len Type
Not selectable, all lens types are detected automatically; all must be calibrated in the Set Lens Focus section of the System Options Menu.

Cutting Table (Optional)

Installed Yes / No: Used for calibration of an optional cutting table.

1. Home Z axis.
2. Press ⊗ to enter the motion menu.
3. Press ⊗ again until Z axis is highlighted.
4. Press ✓ to accept.
5. SYSTEMS OPTIONS MENU will appear.
6. Scroll down to the CUTTING TABLE INSTALLED.
7. Press ✓ to enter.
8. Press ✓ again to toggle CUTTING TABLE INSTALLED.
9. Press ✓ to accept.
10. Press the DOWN SCROLL ARROW ⊙ too choose CALIBRATE.
11. Press ✓ to open CALIBRATE MENU, using the focus tool, focus to the top of the cutting table by pressing either the up or down arrow ⊙.
12. Press ↺, you will be prompted to save new Z position, choose yes or no.
13. You have now completed focus to the CUTTING TABLE.

Traveling Exhaust (Optional)

On / Off: Activates optional traveling exhaust blower.

Tuning

Used for raster engraving only. Shifts right to left and left to right raster lines for better quality engraving. Set automatically through print driver or manually at display.

Alignment Mode

Used for performing beam alignment and to test for max power.

1. Remove the lens kit from the focus carriage by removing thumb screws.
2. Using masking tape, tape over the beam entrance hole on left side of carriage.
3. Press ⊗ then ✓ to access the System Options Menu.
4. Scroll down to Alignment Mode, press ✓ to select.
5. A screen will appear with defaults of 5% power and 2 KHz and Both for laser option.
6. If changes need to be made to the default settings, press ⊗ to edit, then using the arrow keys ⊙ select which setting you wish to edit. Press ✓ to confirm.
7. Press ↺ to return to the previous window.
8. Using the arrow keys ⊙, move the carriage to the upper left corner.
9. Press ✓ to fire the laser, press again to stop firing the laser. Fire the laser only long enough to discolor the tape.
10. Using the arrow keys ⊙, move the carriage to the lower right corner.
11. Press ✓ to fire the laser, press again to stop firing the laser. Fire the laser only long enough to discolor the tape.
12. Both burns should be overlapping and in the center of the tape.
13. If not, make adjustment to the #2 mirror assembly until 2nd burn covers the 1st.
14. Press ↺ to quit. Motion will return home.

Print Job Cache

System will store up to 100 jobs.

Jobs downloaded to system are permanently stored on the internal hard drive; jobs can be accessed from the main screen (job preview screen).

Clear Cache

Yes / No: Permanently deletes stored jobs from system hard drive.

Screen Saver

Sets delay in screen saver on time.

Align Camera (Optional)

Used for calibrating offset from center of focus lens to center of camera.

1. Focus on material.
2. Press ⊗ / ✓ / Align Camera /✓.
3. Place material in lower right corner.
4. Press ✓ OK, a cross hair will be engraved. DO NOT MOVE MATERIAL.
5. After cross hair appears scroll down to ALIGN CROSS HAIR, press✓.
6. Wait 5 seconds then move arm by hand. Align cross hair over marked cross hair.
7. Press ✓ to save.
8. Offset will appear.
9. Press ⊃ to quit.

Home XY Axis

Homes motion in both the X and Y axis.

Home Z Axis

Homes Z table by lowering table to the bottom sensor.

Detect Collision

No/Yes: When enabled anything protruding above the focal plane will cause collision sensors to stop motion.

Allow Auto Focus

Yes / No: Allows the use of sensor to set focal height.

1. Press ⊕ focus mode.
2. Wait 10 seconds.
3. Move carriage over object to be engraved using your hand.
4. Press ⊕ focus a 2nd time.
5. You will be asked if you would like to SET FOCUS, press ✓ for yes.

Set Lens Focus

Set Z height for use with Auto Z.

1. Remove all objects from underneath the Z axis table.
2. Scroll down to Home Z Axis, then press✓. Z table will lower to bottom sensor.
3. Press↩ to return to the motion menu, press ⓧⓨⓩ again to toggle to Z Axis.
4. Using the arrow keys ⊕ focus to the top of the table using the appropriate focus tool.
5. Scroll down to SET LENS FOCUS, choose yes.
6. Z axis will now read 0 on the display.

Diagnostics (This section used for service only)