CARPATHIA
GRAPHIX INTERFACE

Users Reference Guide

Xenetech Laser Trouble Shooting

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Xenetech Laser Trouble Shooting

Engraving Quality

Focus

Any time there is an issue with engraving quality, first check the table/material focus.

First check the Z axis value on the touch screen. I should be between 0 and .125”
If the value is a negative number, table reset will be required. If the values are normal either auto focus or manual focus will work.

Before using auto focus, or table reset check the plunger to make sure that it is functional. Push the pin up to see that it blocks the red dot beam going from the left side to the right side. To further test, on the touch screen, select the “service” tab, then the “check limits” button. Now push up on the plunger, and the light for Z plunger should activate when pressed. If this is not working, call Dan 225-278-1692.

TABLE RESET: (If your Z value is not negative you can skip this step and go straight to auto focus and manual focus.) Jog the head out from the corner so the plunger will not hit a ruler. On the touch screen, select the “Service” tab, then the “Table Home” button. Select “Reset Table” then “Yes”. The table should lift till it touches the plunger, then drop to the proper 0 location.

MATERIAL FOCUS: If the Z value is not negative, and the plunger is working, jog the head out over the material away from the rulers, then press the “Focus” button on the touchscreen, then “Focus”. The table should lift until the material touches the plunger, then drop the proper distance. If the auto focus is not working, but the Z value is not negative, then you can use a ruler or a 2.5” tall measuring device to manually raise or lower the table to the proper 2.5” from the material to the center of the lens holder.

Cleaning Optics

Check the lens and mirror #4 above the lens regularly. Clean with a lint free cloth and if necessary, a lens cleaning solution. If one is really bad you can use warm soapy water but make absolutely certain that it completely dry before using it. Any moisture left on the optic when hit with the laser beam can cause it to crack. If the lens and #4 are clean but the engraving is still poor or weak, work back to #3 on the right side of the bridge, #2 at the back right corner of the machine, the collimating lens directly under #2, then at the bottom right rear in the small door, check and clean the combiner mirror, then below it mirror #1. If any mirror other than #4 is changed a beam alignment will be required.

Beam alignment

Check the beam alignment with tape on the hole in the head in front of mirror #4 to see if a beam alignment is required. Check with the head at the back right then front left. It should be hitting near the center of the hole. If the beam alignment is off, see the “XLT Beam Alignment” document.

Engraving in Wrong Location

Setting/Adjusting Temp Home in Carpathia EDI

After opening a job and pressing F1 the job is shown in the Engraving Device Interface or EDI where speed power etc. is set. At the top of the page the suitcase is the temp home tool. To see where it is set, right click not left click to see the values. Positive numbers in the X axis move the job to the right on the table, positive values in the Y axis move the job down on the table. After clicking “Okay” those values will be remembered until changed.

Setting Machine Home Postion

If the firmware has been updated, or the machine has had a glitch the X,Y home position may be off. If the red dot pointer is functional, go to the touch screen, select the “Service” tab, then the “Permanent XY” button. Jog the head until the red dot is in the top left corner of the rulers at the 0,0 position, then “Set X,Y”.

If the red dot pointer is not working then you will have to “eyeball” as best you can, then run a test with a small square on some material or tape to see if it is correct.

Setting Intermaterial Offset in Carpathia

In Carpathia, click on the “Master” button. It is the first box on the left side tool bar. This will open the “Master Material Settings” dialog. You can have offsets saved in the job if for example you always want a grid cut to be away from the top and left ruler.

Job does not show up at machine

Viper Communication Suite

Right click the VCS icon on the lower right of the home screen and select “connection manager”. You should see the machine ip address, then if the machine is online, then if the machine is connected. If you do not have both showing yes then re-boot both the computer and the laser. If there is still no connection call Ben for tech support.

Setting File Path in Carpathia

When the “Run Job” button is pressed in the setting dialog or the green play button at the top of the page is clicked a .lsr file is generated and sent to the Xenetech laser inbox.

To make sure it set correctly, send a job to the EDI and in the settings dialog there is a “LSR Outbox” field. You can select the “Browse” button, then go to C drive, X files, and select the “Laser Inbox” folder and click “Select Folder” at the bottom right of the window. This will ensure that .lsr file is going to the folder that VCS is watching.

Machine Errors

Note:

With any of these issues a good place to start is a full re-boot of the laser and the computer.

Out of Bounds Error

This error occurs when VCS detects that part of the job is being asked to engrave off of the table which is impossible for the machine to accomplish hence the error message.

In Carpathia, check to make sure the job plate (white) is inside the table area (red). If somehow an incorrect temp home (in the suitcase) or an incorrect layout setting (big R at the top with the red dot to indicate origin) is set then it can trigger this error. To see what VCS is seeing, right click the VCS icon on the lower right of the home screen, then select “Job Console” There will a black screen with the job that was sent over. You can see the job in relation to the home position and the table.

Machine Not Initializing/Booting Up

If it is a system using virtual pendant, make sure that virtual pendant is running before turning on the laser. On some systems after boot up is complete the virtual pendant may not look proper. You try closing the virtual pendant and re-opening it to see if opens correctly.

If a system that still uses the touch screen only has a “rolling” screen with no information the touch screen might be dead, and virtual pendant be set up.

Encoder Error or Motor Stall Error

Turn off the machine, clean the X axis rails, belt, etc. then turn on machine and try job again. If the error persists the bridge will likely need to be repaired.

Carpathia work flow
sending files to Xenetech Laser