

Operational Instructions for AutoCAD 2000i, 2002 and 2004 Windows XP

Please note that AutoCAD version 2000 is not compatible with ULS laser systems and will have complex errors when used. However, versions 2000i, 2002 and 2004 are fully compatible with all ULS laser systems. **For driver upgrades, please see detailed instructions at the end of these instructions.**

It will be necessary to install the ULS printer driver prior to setting up AutoCAD. Please follow the driver installation instructions in the readme file included with the print driver.

Setting up AutoCAD

Once the driver has been installed, AutoCAD must be configured to print to the driver properly. It is very important that the following procedure be followed exactly step by step. Failure to do so will most likely cause errors in the printing process.

Plotter Configuration Setup

With a drawing open, select File, then Plotter Manager, then double-click on the Add a Plotter Wizard. If the Autodesk Hardcopy System window appears, select the version of AutoCAD you are using, then click Continue, at which time the Add Plotter – Introduction Page will appear. Click Next> to start the Wizard. At the Add Plotter – Begin window, select System Printer, then click on Next>. Select the appropriate ULS print driver from the list (example – VL200), then click on Next>. Do not import a PC2 or PC3 file, so click Next> again. Specify a plotter name (example – VL200), then click Next>. Click on Edit Plotter Configuration, which should open the Plotter Configuration Editor window. Click on Custom Properties in the Device and Document Settings Tab window and then click on the Custom Properties button to access the ULS printer driver. The drivers page size should match the maximum field size of the driver (example – 16 x 12 inches. Click on OK to exit the driver. Click on Modify Standard Paper Sizes (Printable Area) in the Device and Document Settings Tab window, then click on the Modify button. Change ALL margins to 0.00, then click on Next>. Specify a PMP file name (example – VL200) then click Next> and then Finish. Click OK to exit the Plotter Configuration Editor window and then click Finish to exit the Add Plotter – Finish window. This has set up a new plotter named VL200.pc3 which can be selected via the AutoCAD main menu File>Plot>Plot Device tab. When selecting this plotter, you may receive a warning window Paper Size not found – in which case select Use Default Paper Size and click on OK.

DO NOT SELECT THE VL200 DRIVER WHEN PLOTTING, ONLY USE THE VL200.PC3. SELECTING THE VL200 DRIVER IN THE PLOT DEVICE PAGE WILL CAUSE A PAGE SIZE ERROR WHEN PRINTING.

Plot style table (pen assignments) Setup

It is now necessary to change the pen widths in the Plot Style Table to allow for proper vector output to the ULS print driver. As a default, the ULS driver will send vector information to the laser machine if the pen widths are set to 0.001 inches (0.025 mm). If the pen widths are set between 0.002 – 0.008 inches (0.050 – 0.20 mm), then the ULS print driver may or may not convert the lines to raster images – this will depend on the image being plotted. Therefore it is recommended that for colors requiring vector output, pen widths be set to 0.001 inches (0.025 mm), and for colors requiring raster output, pen widths be set to greater than 0.008 inches (0.20 mm).

To set the pen widths – it is necessary to create a New Plot style table. Near the middle of the Plot window (which should still be open from the previous procedure – if not, select File, then Plot from the main menu), click on New... which will open a window named Add Color-Dependent Plot Style Table – Begin. Select Start from scratch, then click on Next >. In the field provided, enter a name (example – Laser1) then click on Next >. Near the middle of the window that appears, click on Plot Style Table Editor... which will open a window of that same title. On the “form view” page (default) there is a list of colors (pens). AutoCAD can only plot the Black,

Red and Blue colors to the Versalaser. Any other colors (pens) plotted to the ULS print driver will most likely cause printing errors. Near the bottom of this window click on Edit Lineweights... and make a selection for the units to be used (in or mm). It is necessary to add a lineweight of 0.001 inches (0.025 mm) to the Value column. This is done by clicking on Edit Lineweight. Type in 0.001 (or 0.025 for metric settings), then click on OK to close the window. For this example, we will set Red and Blue colors to output vector lineweights. At this point, the form view page on the plot style table editor should be showing and Color 1 should be highlighted. Hold down the Ctrl key and click on the Red and Blue pens, then near the middle right side of the window find the Lineweight: selection box and click on the down arrow, then select the 0.0010 lineweight. Now, click on Save & Close. You have now created a Plot Style Table that can be called upon at any time in the Plot style table selection box. The file should be named Laser1.ctb.

Plot Area Setup

The final portion of this setup is to create a plotting area that matches the laser engraving field size. Select the Plot Settings page of the Plot window. Below the selected plot device (the VL200.pc3), the Printable area should be listed as the full field size of the laser system (Example – 16 x 12, for the VL200) and the Paper size should be listed as User-Defined LANDSCAPE. The Plot Scale should be set to 1:1. If it is not, or if you prefer to plot a different scale, set the scale at this time. Near the bottom of the page, select Window < at which time you should type in 0,0 then hit the space bar, then type in the full laser field dimensions (Example – 16,12) then press the Enter key. The Plot window should now reappear. To verify the correct settings, click on Partial Preview... and check that the Paper size Printable area are as you have chosen (Example 16 x 12). The Effective area only applies to the drawing that you have open. It may or may not fill the entire preview page. Click on OK to exit the preview. If the settings are correct, please review the above procedure to correct the problem. Note that all graphics to be printed must be located within the 0,0 and (in this example) 16,12 coordinates in the actual drawing. It is always recommended that the Full preview be used to verify correct plot output prior to plotting to the laser.

Simple Plotting Instructions

Select File/Plot and choose plot device (VL200.pc3) and pen table (laser1.ctb). Click on Full Preview to verify placement and click on OK.

Driver Upgrade Procedure

It is important to follow the installation instructions below EXACTLY as written.

1. Close all open programs and delete all ULS drivers from the Printers (Printers and Faxes) folder.
2. With the Printers folder still open, select File, then Server Properties. Click on the Drivers tab and Remove all ULS printer drivers from the list.
3. Run a search for all files and folders with *.pc3 at the file name, then delete all ULS Printer pc3 files (ex: VL200.pc3).
4. Run another search with *.pmp as the file name and delete all ULS Printer pmp files (ex: VL200.pmp).
5. Reboot the PC.
6. Unzip the Driver onto your desktop or a floppy disk.
7. Install the driver software using the Versalaser First-Time Installation executable file by double-clicking on the "ulsinst.exe" file (this may show only as "ulsinst" on some computers).
8. Open AutoCAD and set up the print driver per the above setup instructions.