

Configuring your Plotter or Cutter in Sign Wizard and Neon Wizard

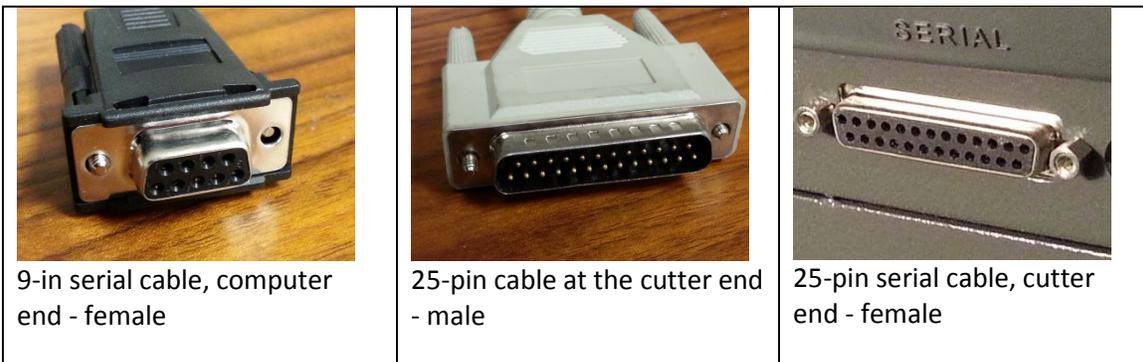
Troubleshooting cutting issues is pretty straightforward if all the factors are considered. The first thing that needs to be determined is how the cutter is physically connected. It can be one of the following:

1. Serial (COM)
2. Parallel (LPT)
3. USB
4. USB with serial adaptor

Each of the above will be covered separately.

Serial

Serial or COM connections can be the most problematic to get right, due to the various options available. Serial connections typically have a 25-pin connection at the cutter, but can also be 9-pin. Usually at the computer end it's a 9-pin connection, and rarely can be 25-pin.



If your cutter only has a serial connection, but your computer only has USB, you will need to use a USB to Serial adapter, available at most computer stores. We've had good success with the Aluratek brand, but most any brand should work.

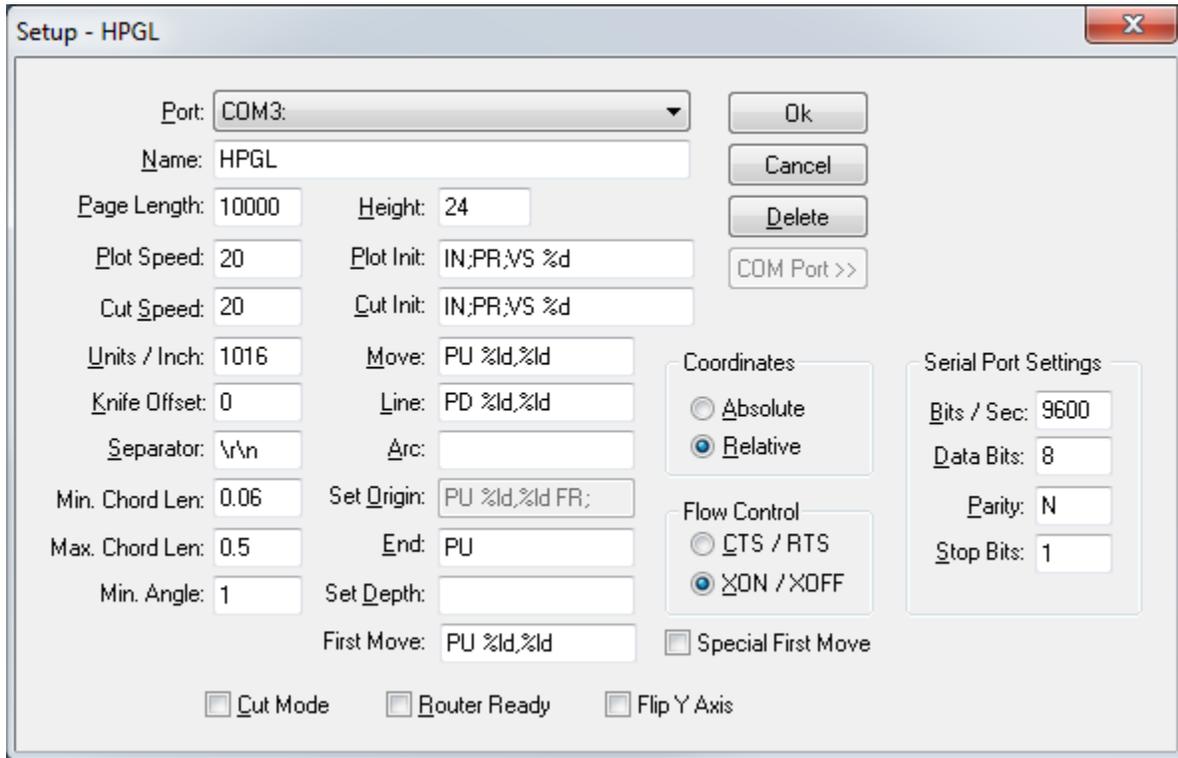
Once the serial cable is connected properly, we can get into the driver configuration.

Settings Specific to Serial Cables

The image below shows the standard serial port settings that most cutters have as the default: 9600 bits per second, 8 data bits, no parity, and 1 stop bit, or 9600,8,N,1. You should confirm that these are the settings the cutter is using.

Note also the **Flow Control** setting as XON/XOFF. This is preferred, since the other option, CTS/RTS, requires a cable with the correct wiring, and that's not always available. The flow control setting **MUST**

match what the cutter is using, otherwise you can get random errors when cutting, because the cutter is not able to tell the computer to stop sending cutting commands when the cutter's buffer is full.



Parallel

Parallel or LPT connections are easy to use. There is one type of cable, a “Centronics” connector at the cutter end, and a 25-pin connector at the computer end.



Centronics connector at the cutter end



25-pin parallel connector at the computer end

There are no flow control options for parallel (LPT) connections.

We have NOT had success with parallel to USB adapters and do not recommend them, but they can be tried.

USB

USB to USB connections are supported for certain cutter makes and models. We support Graphtec, Summagraphics, Mimaki, Roland and GCC.

In some cases with USB, a driver is supplied by the manufacturer and it creates a virtual serial port, so that Windows will show a COM1, COM2, etc, being in the system, and these can be used as regular serial ports.

USB with USB to Serial adaptor

If you have a USB cutter that does not provide a driver with serial port emulation, you can use a USB to Serial adaptor, such as that show below. You will know this is the case if either no driver was provided, or when you install a provided driver, you don't see COM ports appearing in Windows.

Pictured below is a USB to Serial adaptor. The USB end plugs into the computer and the 9-pin serial end plugs into a standard 9-pin to 25-pin serial cable that would have come with your cutter.

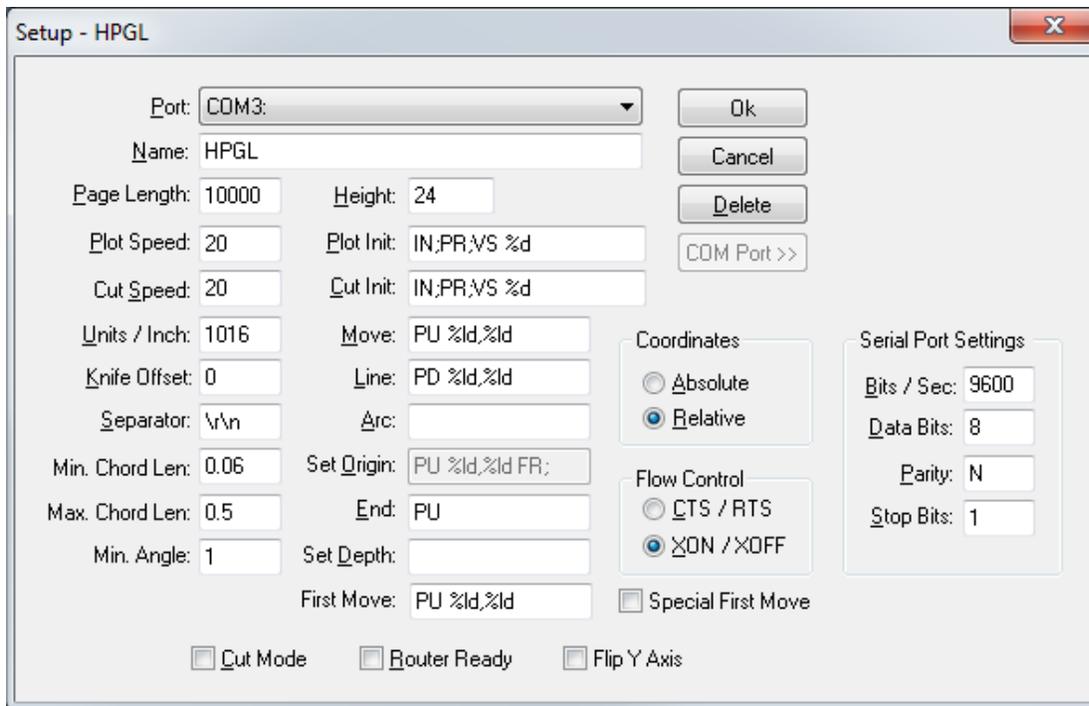


Aluratek USB to Serial adaptor

Driver Settings

In most cases, the HPGL driver will work as is and can be used if your cutter model is not listed. If you want to give it a custom name, simply select **Device | Setup** in Plot Manager, enter a new name and press OK.

The image below shows the recommended configuration when using HPGL as the cutter language.



Coordinates

Under **Plot Init** and **Cut Init**, note the use of “PR;”, which sets Relative mode. When PR is set, make sure **Relative** is set under **Coordinates**. If those are not matched, you will have major problems in cutting. If you have Absolute is set, make sure “PA;” is set in **Plot Init** and **Cut Init**, instead of “PR;”.

The Setup dialog will look slightly different in older versions of the software.

Troubleshooting Cutting Problems

Many cutting problems can be resolved by using the WPD mode for a port. For information about configuring WPD ports, see our How To document at <http://signwizard.com/support/WPDPorts.pdf>.

Below are some common scenarios:

The cut does not complete

1. Try WPD mode for this problem.

There is no communication at all with the cutter – the cutter head doesn’t move

1. Make sure the cutter is online and ready to accept commands
2. Make sure the cutter’s language matches the driver language, which is usually HPGL. Graphtec cutters can be set to GPDF and others might use DMPL.
3. The port selected in Plot Manager doesn’t match the physical port connected to the cutter. Sometimes you need to try other COM or LPT ports. For USB ports, it generally doesn’t matter

which port is used, but make sure the port being used is functioning correctly by trying another USB device on that port. You can also try switching to a different USB port.

The cutter is working but there are random errors

1. This is usually a Flow Control problem and usually only happens with serial connections. Make sure the Flow Control setting is the same for both Sign Wizard and the cutter. When using WPD, go into Windows and check the Flow Control option for the port that Windows manages.
2. The cable itself could be faulty.