

# DFS/Cutter

Technical Support Bulletin

Setup for Window XP to  
Eliminate E56, E57, E58 Errors

Last Update September 14, 2007

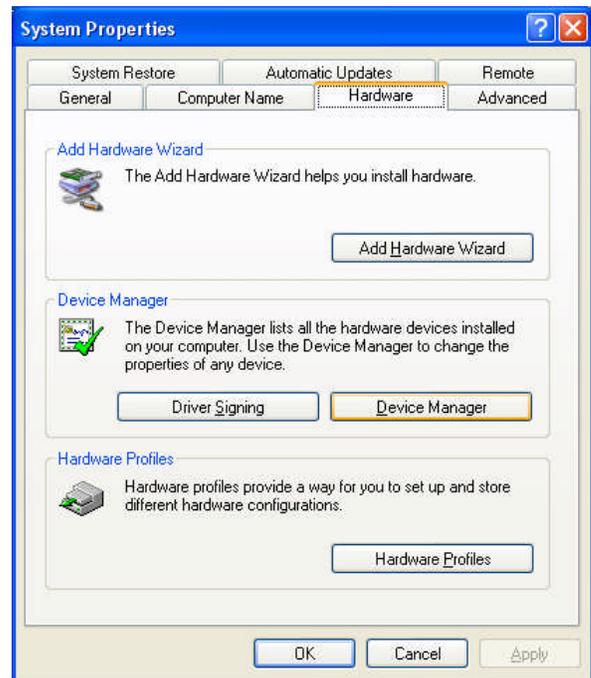
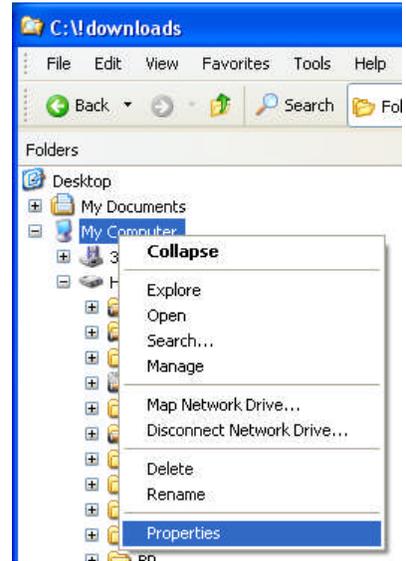
## Initial Setup of XP, Windows 2000, and Vista.

Windows default for communications port connected to cutter causes E56, E57, E58 errors. You need to change this default before cutter will operate properly. This bulletin also gives general trouble shooting tips for diagnosing the cause of system level communication errors.

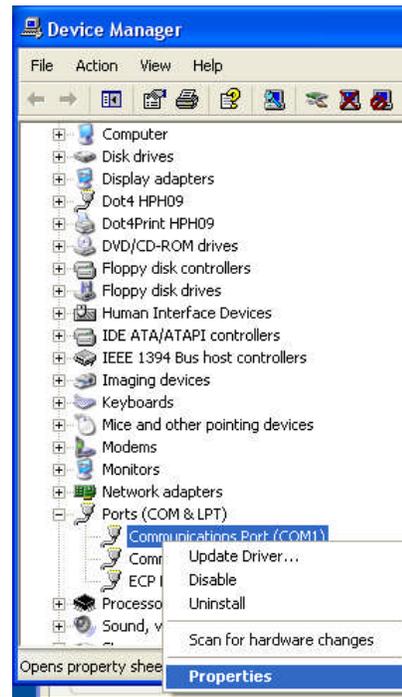
Start Window Explorer

Right click on properties

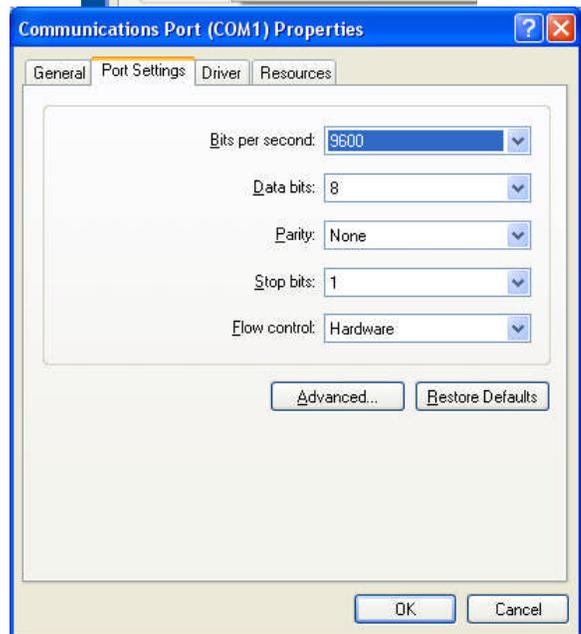
Select Hardware tab and click on Device Manager.



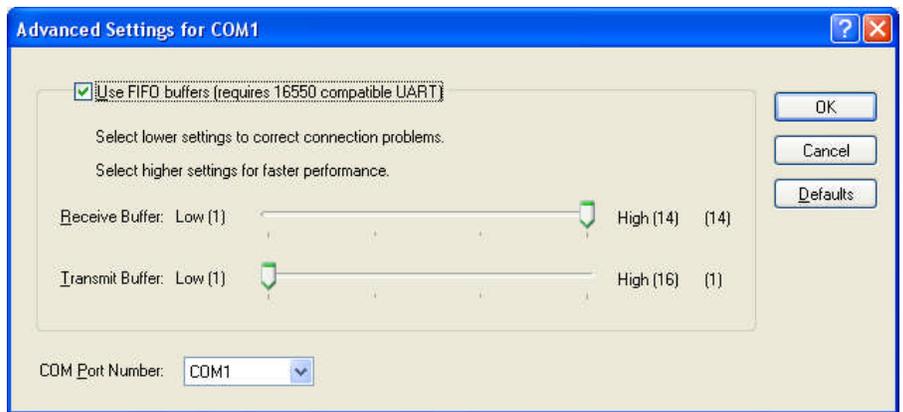
Right click on selected com port you are using to communicate with the cutter.



Select port settings and configure port as shown.



Click on Advanced and configure port as shown.



## **Diagnosis of the System Level Communication Error E56**

The E56 (rs232 device overrun) error indicates that the handshake or flow control is not working correctly. The cutter changes the DTR line (pin 20) of the serial port to stop the computer from sending any more characters until it is ready. If you are getting E56 errors the computer is apparently ignoring this signal from the cutter that it receives on the CTS line (pin 5) and continues to send characters when the cutter is not ready for them. There is a 3-character FIFO (first in, first out) buffer on the serial receiver hardware that is overflowing because the computer is ignoring the signal to stop sending.

There are 3 pieces of hardware than can cause this system level problem: the cutter, the host computer, and/or the cable between them. There is also one software setting in either the operating system (as describe earlier) or the CAS (computer aided sign making) software. The CAS software overrides the operating system setting.

You can check to see if your CAS software has its own COM port setup and verify that the handshake method is set to hardware. You can also verify that the thanks.plt sample can be sent by the remote panel program provided with the cutter using the action, send hpgl, command. The thanks.plt file is in the c:\program files\Allen Datagraph\sample directory. If this file sends correctly the problem is not in the cutter or the cable, or the operating system. It has to be the software application that is sending the job. You should contact the software manufacturer to solve the problem.

The cutter also works with Xon/Xoff handshake method if you only have a 3-wire bi-directional null modem cable. This method ignores the 4<sup>th</sup> handshake wire in the cable and only uses 3 wires (transmit, receive, and ground).

The printer driver (Allen DirectCut) uses a combination of hardware and Xon/Xoff handshaking so the 4 wire of the cable need not be present for it to work. If you are having trouble with E56 errors you could install the printer driver and then instead of using file -> plot or plot from you CAS software you can use file print and select the Allen Direct Cut driver.

### **Work around for E56 Errors:**

You can press the pause button the on cutter, then send the job. After the job has completed sending (the view or pause stops flickering) you can press the pause button again. The reason this works is that the cutter can receive a job without handshaking working if it is not cutting at the same time.

## E58/E57 Error

E57 (rs232 framing error) and E58 (rs232 parity error ) errors are caused by mismatched settings between cutter and host computer. You must run the cutter and the host at the same baud rate, data bits, parity, and stop bits. Diagnostic 4 allows setting the baud rate, data bits, parity, and stop bits on the cutter. The settings above set the communication parameters for the driver. The settings inside your cas (computer aided sign software package) control the communications parameters for your cas software and override the system settings. i-TECH cutters normally communicate at 9600, no parity, 1 stop bit, and 8 data bits. With Hardware or xon/xoff handshaking. Set your software to these values.

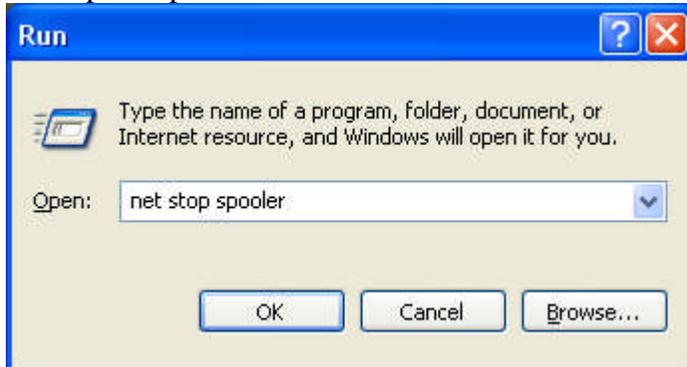
Revision 2.0 or later DirectCut printer driver

The additional problems causing E57/E58 have been fixed with this later version of the printer driver. You can still get into trouble if you have modified the port setting on the ports page of the printer driver properties. To fix this, delete the Allen DirectCut driver and reinstall using the Start -> all programs -> Allen Datagraph -> cutter driver -> enable printer driver.

**The rest of this document applies only to printer driver with version less than 2.0. It can be ignored if you are using 2.0 or later direct cut printer driver.**

A second cause of E58 errors in Windows 2000/XP is caused by a print job being stuck in the print queue while using an older version of the printer driver . To open the print queue Click on Start -> [Settings] -> Control Panel -> Printers and Faxes. Double click on the printer driver to open the queue. The standard method of clearing the queue would be to Click on the Printer Menu -> Cancel All Documents. If the job does not clear from the queue you will have to stop the spooler and restart the spooler.

To stop the spooler click on Start -> Run and enter the command:

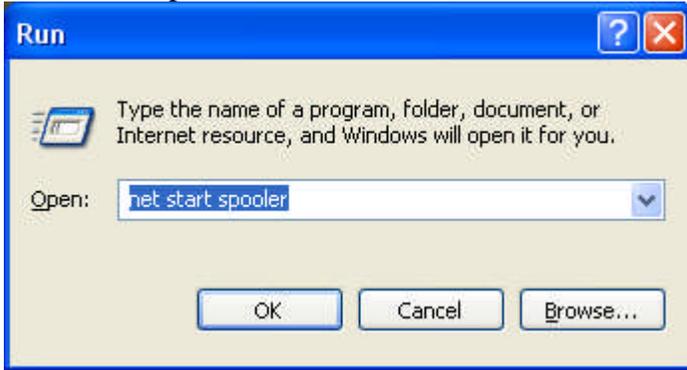


At this point the com port is now closed. Start up the Allen Remote Panel by clicking on start -> programs -> Allen Datagraph -> xxx Remote Panel. Type the command:

OI

(output identification) command into the blue screen. The cutter should respond with Allen Datagraph Model xxxx PL-xxx vxxx. This will initialize the com port with the correct parameters. You can also bring up the Main menu (Setup -> Main Menu).

After you verify correct communications close the remote panel, and start the spooler. To start the spooler click on Start -> Run and enter the command:

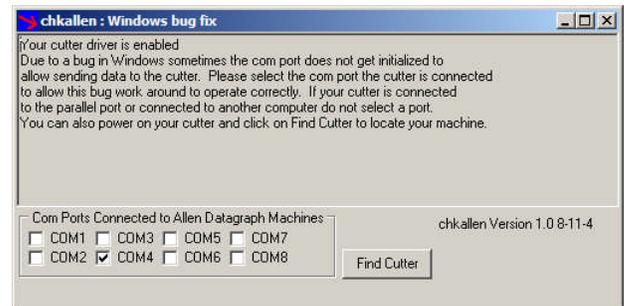


The print queue should now be empty.

A third cause of E56/E58 errors when printing through the direct cut printer driver is that Windows does not always initialize the com port on power up. To fix this windows bug the printer driver comes with a port initialization program that runs when you restart your computer. If you have the wrong port set for the init com port program you may run into this problem.

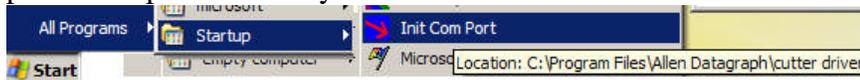
#### Revision 1.13 DirectCut Driver

In build 1.13 and later Direct Cut Driver the Driver now supports more than 1 cutter connected to the computer on separate communication ports. To verify the communication port where the cutter is attached start the Enable Printer Driver program from the Start menu. (Start -> All Programs -> Allen Datagraph -> Enable Printer Driver)



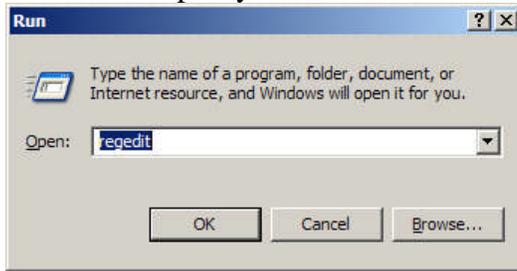
If you know where you cutter is attached you can select the com ports that have a cutter attached and click on the x at the top of the window to close the program. If you do not know which port the cutter is attached you can click on Find Cutter with the Cutter Connected and power on and the program will locate the cutter on you computer. When complete click on the x at the top of the window to close the program.

To initialize the port(s). This program runs each time you reboot your computer. Its normal operating mode is to flash on the screen and exit. If it cannot open the port it complains and stays on the screen.



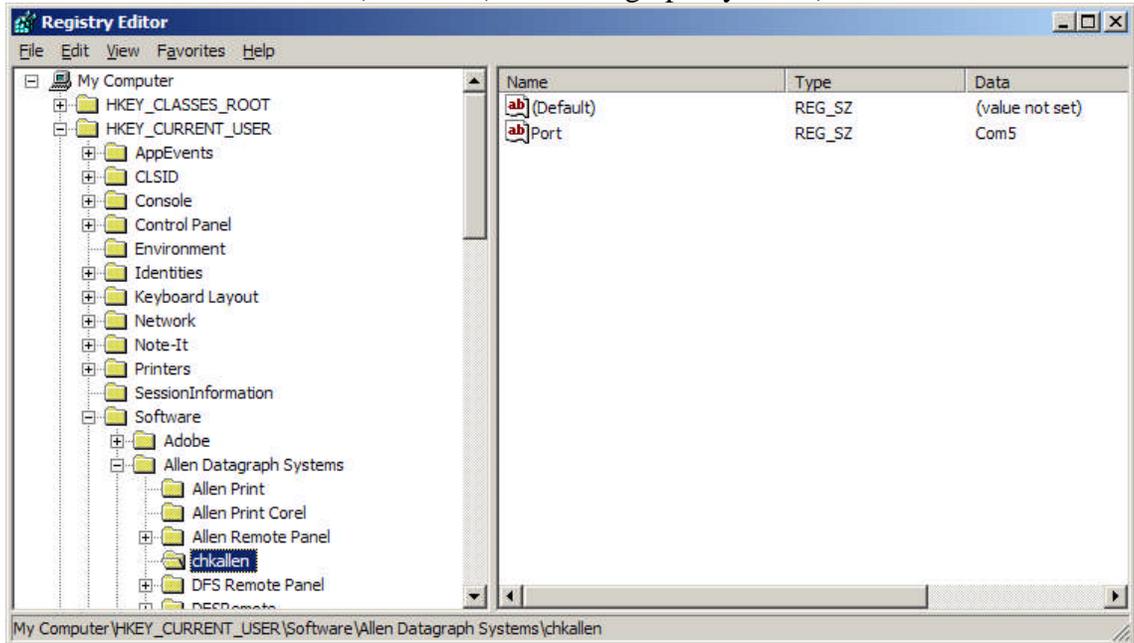
#### Revision 1.12 and earlier Direct Cut Driver

To check the port you have initialized start the regedit program with start -> run

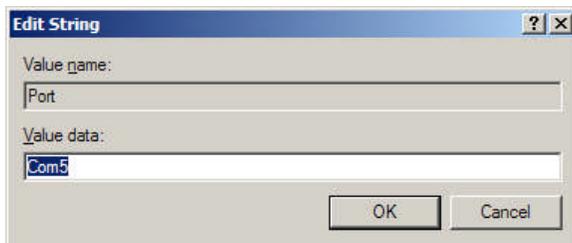


enter regedit in the open box and click on OK.

The program works like the explorer in windows. Open the directory:  
HKEY\_CURRENT\_USER\Software\Allen Datagraph Systems\chkallen



The figure above shows com5 to be initialized. If you have the wrong port initialized by init com port you can changed it by clicking on the word Port in the right window and pressing the enter key.



Enter the correct com port and click on OK.  
Exit regedit.

To initialize the port. This program runs each time you reboot your computer. Its normal operating mode is to flash on the screen and exit. If it cannot open the port it complains and stays on the screen.

