Please note that although the following procedures can be used as general guidelines, it is strongly recommended that you consult your computer or operating system manufacturer directly for assistance on the proper procedure for configuring settings.

## How do I connect via Serial to a Scanivalve device?

The following procedures require that a physical serial connection is made from the Scanivalve (SV) device to the host computer. This typically requires a RS232 Null Modem cable, a RS323 COM port the host computer (whether direct hardware, PCI card, or USB to RS232 adaptor), and sometimes an RS232 adaptor cable for you Scanivalve device. Types of Scanivalve "SV device to RS232 serial" adaptors include:

DSA5000 Series: 156147 cable, 156153 cable, or power mating connector.
MPS4200 Series: MPSPDM4100, MPSPDM4500 (*port 1 only*), 155011-02 cable, or mating power connector.
DSA-PTP, DSA3200, DTS and ECM series: 155829-01 cable, or serial/trigger mating connector.
RAD series: 156023 cable
ENCL or DSM series: N/A (*RS232 port provided on module*)

When using mating connectors, please see the product manual for the specific product for connector part numbers or pin-out diagrams. All cables and products above provide a direct RS232 connection.

## **Terminal Emulators for Serial Connections**

## <u>puTTY</u>

puTTY is a free SSN and Telnet client for the Windows Platform. puTTY also allowed for serial or raw connections as well. It can be downloaded here: <u>https://www.putty.org/</u> This procedure assumes that puTTY has been installed on the host computer.

- 1. Open puTTY. The default window will appear.
- 2. In the main "Session" window, click the "Serial" radio button.

RuTTY Configuration		?	$\times$
Category:			
Session     Logging     Session     Keyboard     Keyboard     Bell     Features     Window     Appearance     Behaviour     Translation     Selection     Connection     Data     Proxy     Telnet     Rlogin     SSH     Serial	Basic options for your PuTT Specify the destination you want to co Serial line COM1 Connection type: Raw O Telnet O Rlogin O Load, save or delete a stored session Saved Sessions Default Settings Close window on exit: Always O Never O Only of	Y session nnnect to Speed 9600 SSH  S Loa Sav Dele	d te
About Help	Open	Cano	el

3. Fly out the "Connection" category on the left side of the screen. Once expanded, you will see an option for "Serial" – click this.



- 4. Enter the following configuration settings for serial:
  - a. Speed (baud) = 9600
  - b. Data bits = 8
  - c. Stop bits = 1
  - d. Parity = None
  - e. Flow Control = None

For the "Serial line to connect to", enter the COM port that the SV device is connected to. If you are unsure what com port you are connected to, you can usually find the different COM options on your computer in Device Manager (see later procedure for finding your com port). In this example, we are connected to COM5.

🕵 PuTTY Configuration		? >	<
Category:			
Sesion     Logging     Logging     Ferminal     Keyboard     Bel     Features     Window     Appearance     Behaviour     Translation     Selection     Colours     Connection     Data     Proxy     Tehnet     Rlogin     SSH     Serial	Options controlling Select a serial line Serial line to connect to Configure the serial line Speed (baud) Data bits Stop bits Parity Riow control	local serial lines COM5 9600 8 1 None ~ None ~	
About Help	0	pen Cancel	

5. [Optional] Most SV devices have an Echo setting, but some may not be enabled. Sometimes it is easier to force local echo on so you can see what you are typing. If echo is already on the device, you may see

duplicate. If this is the case, you can disable this setting after you have made you connection or you can choose to simply skip this step.

a. Click on the "Terminal" category on the left side and then set Local Echo and Line Editing to "Force On".

🕵 PuTTY Configuration		?	×
PUTIY Configuration Category:      Category:      Logging     Logging     Ferminal     Keyboard     Bela     Features     Window     Appearance     Behaviour     Translation     Selection     Colours     Connection     Pota     Proxy     Telnet     Rlogin     SSH     Serial	Options controlling the terminal end         Set various terminal options         Auto wrap mode initially on         DEC Origin Mode initially on         Implicit CR in every LF         Implicit LF in every CR         Use background colour to erase screet         Enable blinking text         Answerback to ^E:         PuTTY         Line discipline options         Local echo:         Auto         O Force on         Local line editing:         Auto         Printer to send ANSI printer output to:	? mulation en ) Force off ) Force off	×
About Help	Open	Cano	el

- 6. Click "Open" at the bottom and terminal will open.
- If your device is on, you can attempt to issue a command to the device to find the response. Hitting the enter key or issuing the command VER<ENTER> will usually invoke a response from a ready and operating device.

In other cases, it is usually recommended that the unit is powered off and back on (or powered on once the terminal is running). This will allow you to monitor the Boot Process of the SV device. This generally lets us know if the device is powering on and booting properly.

Below is an example of a DSAENCL4000 boot process. The ">" is output when the DSAENCL is ready. The "ver" command was issued to ensure a response from the device:

COM5 - PuTTY	-	х
Scanivalve DSP Boot Loader		^
DSAENCL 4000 5.26.802		
VER		
VERSION: 5.26.802		
		~

Actual response may vary. Response will vary between different series (DSA3200, DSAPTP, MPS, ENCL all output different boot messages). Please allow at least 15-30 seconds for a module to fully boot and response.

- 8. If you are unable to warrant a response from a device, or do not see boot information after the module is powered on, you can perform the following checks:
  - a. If you have another serial capable device that you know is functional, try this device with the same open terminal. If this device does responds after power up, then the other device may be defective or non-functioning. Re-test the other device.
  - Remove the RS232 connection from the SV device and use a paper clip to short the serial cables TX and RX connections (pin 2 and 3). Type letters on the screen and hit enter. If the cable and terminal settings are correct, you should get an echo of what you typed. If you do not, you may have a problem with your cable, port, or com selection.
     *Note: if local echo is forced on, you may see double characters and must use the enter key to echo.*

If you do not get a response, test the RS232 connection directly at the computer (or nearest to the computer). If this does not work, then your COM port may be incorrect or defective.

9. [Optional] If your terminal session is open and you want to make any changes, such as turning off the local echo, right click on the top bar of the Terminal window and click "Change Settings."



The initial setting window will appear, and you can make any necessary changes.

## **Device Manager**

- 1. Open "Device Manager" in Control Panel, or search for it in the Windows Search bar.
- 2. Locate the Port (COM & LPT) and click the arrow to fly out the options in this category.



3. All available COM ports will be shown.