



## Serial communication with an Alicat Scientific mass flow device

**The items you will need for to connect your Alicat device with your computer serial port:**

1. Your Alicat device
2. A computer with a serial port and an active internet connection
3. A serial communications cable called a MD8DB9
4. An AC to DC power supply, such as Alicat's PVPS24U.
5. RS-232 to USB converter (as needed)

**How to connect your Alicat device to your computer's serial port:**

*Note: Many computers these days don't come with serial ports. In their place, an RS-232 to USB converter can be used, such as the Belkin F5U409.*

First, plug in your power supply to the AC wall outlet.

Now place the power plug into the top of your Alicat device.

Next, let's verify the communication settings by using the front panel buttons navigate to the Comm. RS232 menu.

Verify the following parameters: the UnitID, the Baud rate, and the data rate.

Press the button labeled MAIN to return to the main screen.

Using your MD8DB9 cable, plug the D-Sub side of the cable into an available serial port on the back of your computer. (If your computer is not equipped with a serial port, you can use the USB to Serial adapter to make the connection.

1. First, plug the USB side of it your computer.
2. At this point you may need to install drivers to support the USB adapter.
3. Now, take the other end of the adapter and plug in your MD8DB9 cable on the D-Sub side.
4. Secure it using the two screws.
5. Finally, take the 8-pin mini-din side of the cable, and plug it into the top of your Alicat.

Now that all the physical connections are made between your Alicat device and your computer, we need to download the appropriate communications software from the Alicat website.

1. Navigate to [www.Alicat.com](http://www.Alicat.com).
2. Once there, click on the Support link.
3. Then, scroll down and click on the software link.
4. Now, download the serial terminal program to your computer.

With the serial terminal program unzipped to the location of your choice, execute the file, and note first that the file will ask you for the COM Port number that is being used by this connection.

Type in this number, followed by the enter key.



Because we have already confirmed our identifier as being the letter A for this unit, simply type the letter A followed by the enter key. You can now repeat these keystrokes and receive a line of data each time A Enter is typed.

*If you are unable to locate a functioning COM Port on your computer, you can download a simple program to help diagnose the problem. Navigate once more to Alicat's software page, and click on the download link for the COM Port Troubleshooter.*

#### **Basic functions in the serial terminal program:**

Once executed, you will be presented with a listing of available ports by number.

Enter which port number you'd like to test, the unit ID of the Alicat device and a wait time in milliseconds. 100 milliseconds is a good starting point.

Continue testing each port until you receive back a line of data from your Alicat device.

Note which port had a successful communication, and use this number for your serial terminal setup, as described earlier in this video.