



TECH NOTE:	06-005
TITLE:	SpreadSmart/Dual Spread AVL output verification
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Using a laptop to verify AVL output

The SpreadSmart Rx, SpreadSmart RDS, and DualSpread systems are capable of serial output to AVL systems capable of reading standard serial communications. The following document describes how to easily verify that the AVL output is functional using a Windows laptop with a serial port or USB to serial adapter.

The software that will be used to verify output is installed with every copy of Windows so it is already loaded on the computer. This document describes how to verify what COM port number a USB to serial adapter is assigned to, and how to set up HyperTerminal to read the serial input.

Determining the COM port number to use

If you are using a laptop with a built in serial port, the COM port number is usually COM1. You can skip this section if this is the case. If you are using a USB adapter, you will need to determine which COM port number the adapter is bound to. The COM port number is assigned after the adapter is plugged in, and will vary depending on which USB port is used and may change depending on other connected hardware. Follow these steps to determine the COM port number:

- 1) From the START button, select SETTINGS
- 2) Select the CONTROL PANEL
- 3) If not set to “Classic View”, switch the control panel to “Classic View”
- 4) Select SYSTEM
- 5) Select the HARDWARE tab
- 6) Press the DEVICE MANAGER button
- 7) Select PORTS (COM & LPT) and expand the node
- 8) Look for a USB-to-Serial adapter entry and note the COM port number in parenthesis (for example COM9)

This is the number of the COM port and will be required in the next section for setting up the COM port.

Making the connection

Connect the laptop to the spreader using a straight through (NOT a null-modem) 9 pin serial cable. One end of this cable is plugged into the port on the spreader labeled “PC PORT” and the other end is connected either to the USB-to-serial adapter or the built in serial port.

Starting the HyperTerminal program

Using the START menu, go to Programs|Accessories|Communications and start HyperTerminal. Follow these steps:

- 1) Select a name for the connection. For example, “Verify AVL output”
- 2) At the bottom of the next screen, at the “Connect Using:” list, select the COM port of the USB-to-Serial adapter, or COM1 if using the built in serial port.
- 3) The next screen will ask for Port Settings: Enter the following information:
 - Bits Per Second: 9600
 - Data Bits: 8
 - Parity: None
 - Stop Bits: 1
 - Flow Control: None
- 4) Press OK to start monitoring the COM port

Power up the spreader control, and you should see something like this:

```
(C) 2005 Cirus Controls LLC.  
P,10/27/06,10:00:36,SPREADRX v4.11 Rx,  
C,10/27/06,10:00:36,0 SALT,0 BRINE,0 KC12  
E,10/27/06,10:00:36,52376  
O,10/27/06,10:00:36,MENU  
D,10/27/06,10:00:36,0.0,0.0,0.0,0.0,0.0,0.0  
B,10/27/06,10:00:36,0,0.0,0.0
```

You are now monitoring the output of the spreader. Enter Automatic Mode and every 60 seconds or so an additional 2-5 lines (depending on attached equipment) should appear similar to this:

```
B,10/27/06,10:01:37,0,0.0,0.0  
R,10/27/06,10:01:37,0,1.0,0.0,0,0
```

Congratulations! You have verified the correct functioning of the AVL output of the spreader control.