



S2USB485

USB to RS-485 and RS-232 Converter

New Updated Version with OBD and Over-Voltage N2 Protection

Introduction

The S2USB485 is a USB to full-duplex RS-232 and half-duplex RS-485 serial converter integrated into a single device. In essence the S2USB485 is a single USB serial port that has two electrical interfaces available to it (RS-232 and RS-485). Either interface can be used without the need to set jumpers or change dip switch settings.

Johnson Control Users

The S2USB485 can be used as a replacement to the Johnson Controls MM-CVT101 (RS-232 to N2 Bus) converter for those computers or laptops that have a USB interface. In addition to direct support for Johnson Controls software (Metasys, HVAC Pro, etc), the S2USB485 provides the following improved features and functionality:

1. USB interface and so is supported by the latest laptops and operating systems
2. Does not require an external power supply. The device is entirely USB interface powered
3. Incorporates both a RS-232C and N2 (RS-485) bus interface so that multiple converters are not necessary.
4. N2 Bus communication is supported under Windows 2000 and Windows XP directly.
5. Transmit and Receive Indicators
6. N2 Bus flow control internally controlled (i.e. no jumpers or resistors to add/modify)
7. N2 Bus has end of line termination (EOL) enabled or disabled by an internal slide switch
8. Designed and Manufactured in Canada using Industrial rated components
9. ZoneBus Support is not offered at this time.
10. RoHS Compliant
11. New Version (July 2008) now has enhanced over-voltage protection and internal auto reset-able thermal fuses in the event of high voltages present on the RS485 / N2 bus
12. New Version (July 2008) includes enhanced mechanical rigidity of the RS485/N2 bus connector
13. New Version (July 2008) includes OBD (On-Board Diagnostics) of the RS485/N2 Bus. OBD allows our S2N2Scan software to electrically analyze (voltage measuring) the RS485/N2 bus and indicate electrical issues to the user.
14. As of July 2008, the anchored cable version of the S2USB485 (part number S2USB485-JC-C) has been reluctantly discontinued do to the quality issues with our anchored cable manufacturer. Only the S2USB485-JC-B is now offered with or without the required USB cable.
15. Tested and Compatible with JCI's HVACpro and JCI's FX CommPro
16. Vista Tested and Compatible
17. Windows 7 and 8 Tested and Compatible

Windows 7 Users:

Complete Installation and usage documents with HVAC Pro are located on the Device Driver/Documentation CD as well as on our website.

Windows 8 Users:

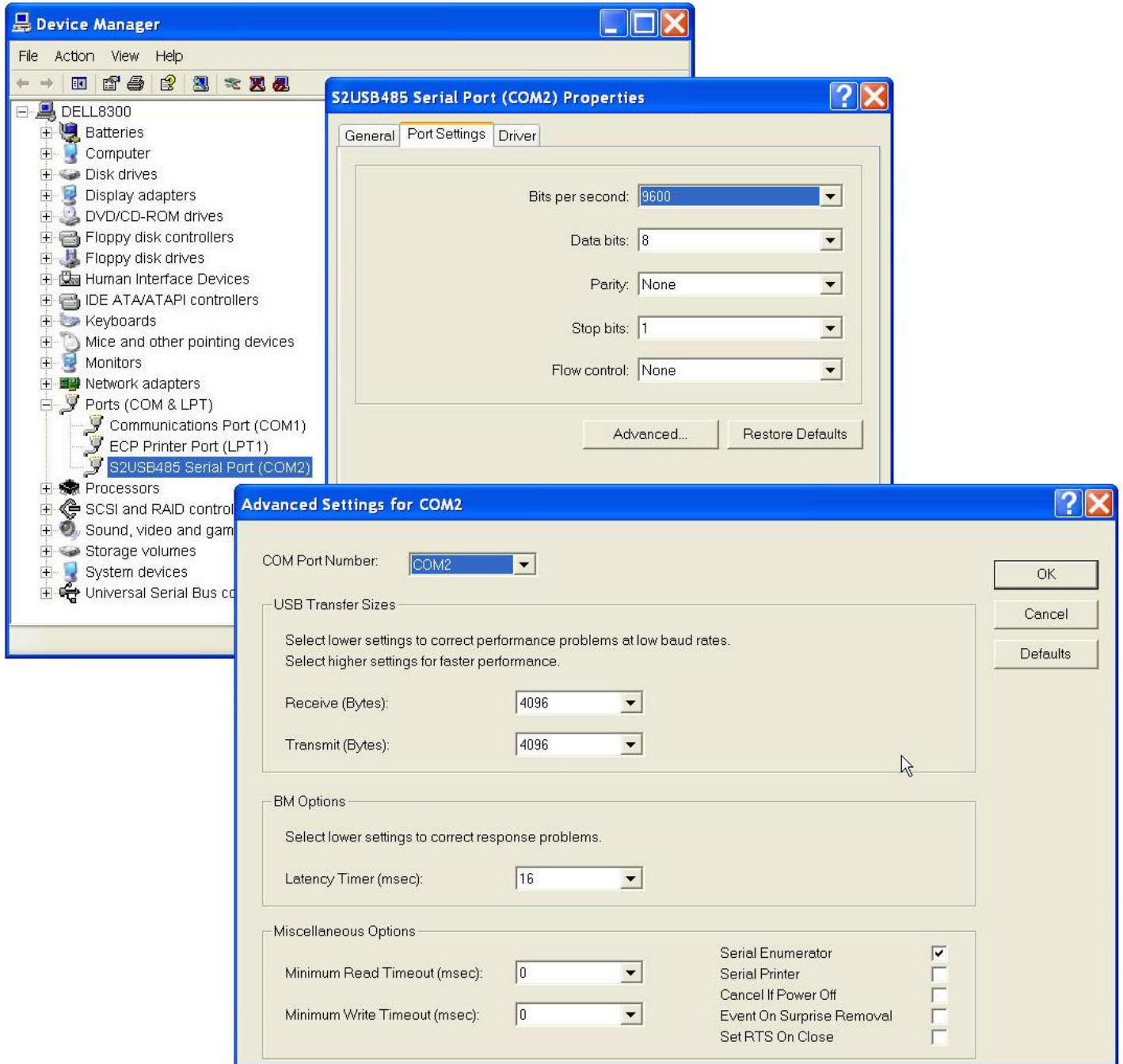
For those needing to use JCI HVACPro under Windows 8 you will need to install a licensed copy of Windows XP into Windows 8 virtualization software (i.e. VirtualBox, VMWare, etc)

S2USB485 Specifications

Orderable Part Numbers:	S2USB485-JC-B USB Type B Receptacle (USB Cable Not Included)
	S2USB485-JC-CB Includes a 2 Meter (6 feet) USB 2.0 Type A to Type B Cable
Required Cable:	USB Version 1.1 (or 2.0) Type A to Type B Cable
Power requirements:	USB Powered. No external power required.
Environment:	
Temperature	0 C to +70 C
Humidity	10 – 95 % RH (non-condensing)
Dimensions:	2.6”L x 2.6”W x 1.1” H (6.6cm L x 6.6cm W x 2.8cm H)
Supported Operating Systems:	Windows Vista, Windows XP, Windows 2000, XP, Win 98
Data Rates:	300 to 230k Baud (RS-232) or 250k Baud (RS-485)
Data Interfaces:	
USB - USB 1.1/2.0 Compatible	USB Type B Receptacle
RS-485 - Half-Duplex, 1/8-unit load	3-Pin Pluggable Connector (JCI N2 Connector compatible) Inputs Protected to 24V AC/DC
RS-232C	DB-9 Male Connector
Data Indicators:	Transmit (Red) and Receive (Green)
End of Line (EOL) Termination:	Internal Slide switch (Enable or Disable)
Options:	
-RTSEON	RTS controlled RS-485 Transmit, RS-485 Receive Always Enabled
-RTSEOFF	RTS controlled RS-485 Transmit and Receive

Johnson Controls Configuration Procedure (HVACPro Example)

1. Connect the S2USB485 to the computer's USB port
2. Install the S2USB485 drivers when prompted (See Installation Procedure Document).
3. Adjust the COM port to either COM1 or COM2 (via device manager)
(See Installation Procedure Document)
4. Run HVACPro and select COM1 or COM2
5. Way you go!



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