

## USB to Serial Adapters

### Description

USB to Serial adapters are increasingly being used by field technicians to connect AP-Ware and G-Ware to ClearOne/Gentner boxes. This is happening because many newer laptops do not have a built-in serial port available.

### Introduction

This document lists the results of testing of several USB to Serial adapters, makes a recommendation based on compatibility and offers guidelines and cautions in the use of the adapters.

### Methodology

Five different adapters were used in testing. Each was tested on both a Windows 98 SE machine and on a Windows XP Professional machine. Each was tested on both G-Ware and AP-Ware, at all available baud rates and with Flow Control set to both None/Off and Hardware/On. The results are listed in the two tables below. The yellow shading indicates there were problems but the device was still useable. The red shading means the device was not useable.

### Test results

		Windows 98/98SE/ME				
		KeySpan USA-19QW	Belkin F5U109	Belkin F5U409	Radio Shack 26-183	IOGear GUC232A
G-Ware	Flow Control: Off	All baud rates, <b>DSR Error, then connects</b>	All baud rates <b>except 19200, No errors, then connects</b>	All baud rates <b>except 57600, No errors, then connects</b>	All baud rates, <b>No errors, then connects</b>	All baud rates, <b>No errors, then connects</b>
	Flow Control: Hardware, On	All baud rates, <b>DSR Error, then connects</b>	All baud rates, <b>No errors, then connects</b>	All baud rates, <b>No errors, then connects</b>	All baud rates, <b>No errors, then connects</b>	All baud rates, <b>Does not connect</b>
AP-Ware	Flow Control: Off	All baud rates, <b>No errors, then connects</b>	All baud rates, <b>No errors, then connects</b>	All baud rates, <b>No errors, then connects</b>	All baud rates, <b>No errors, then connects</b>	All baud rates, <b>No errors, then connects</b>
	Flow Control: Hardware, On	All baud rates, <b>DSR Error, then connects</b>	All baud rates, <b>No errors, then connects</b>	All baud rates, <b>No errors, then connects</b>	All baud rates, <b>No errors, then connects</b>	All baud rates, <b>No errors, then connects</b>

		Windows 2000/XP				
		KeySpan USA-19QW	Belkin F5U109	Belkin F5U409	Radio Shack 26-183	IOGear GUC232A
G-Ware	Flow Control: Off	Computer Reboots	All baud rates, DSR Error, then connects	All baud rates, DSR Error, then connects	All baud rates, No errors, then connects	Computer Reboots
	Flow Control: Hardware, On	Computer Reboots	All baud rates, DSR Error, then connects	All baud rates, DSR Error, then connects	All baud rates, No errors, Then connects	Computer Reboots
AP-Ware	Flow Control: Off	All baud rates, No errors, then connects	All baud rates, No errors, then connects	All baud rates, No errors, then connects	All baud rates, No errors, then connects	All baud rates, No errors, then connects
	Flow Control: Hardware, On	All baud rates, No errors, then connects	All baud rates, No errors, then connects	All baud rates, No errors, then connects	All baud rates, No errors, then connects	All baud rates, No errors, then connects

**Conclusions**

The results of the testing clearly indicate that the Radio Shack model 26-183 USB to Serial adapter performed the best and most consistently. ClearOne Communications recommends using this adapter, whenever possible. Furthermore, it is apparent that USB to Serial adapters frequently cause problems. Therefore, please exercise care when installing and attempting to use them. Note that sometimes an adapter will assign an address of COM5: or higher; this may cause incompatibility. As always, when connecting to AP or XAP audio conferencing equipment, it is necessary to use a straight-through, 9-pin serial cable.

**Disclaimer**

This document should be considered a guide only. There are many, many, variables that we have no control over, such as, type of cable, number and type of serial ports on your computer, etc. Please feel free to call ClearOne Technical Support for assistance. ClearOne Communications does not guarantee success with any USB to Serial adapter.