

Motocross Protocol Error and USB to RS232 Adapters

We have seen some combinations of USB-RS232 adapters based on Prolific PL-2303 chips when used with generic Prolific or some OEM driver code. We have infrequently had problems with other Prolific PL-2303 based adapters (like the ATEN UC232A) but only with certain driver versions.

Problem



Communications work correctly between the PC and the CF2 until a file is loaded to the CF2. The error actually occurs at the 9600-115200 switchover that takes place in the MotoCross loader, but the problem is not baud related, it is instead the failure of the driver code in the PC to take the 2 stop-bit WinAPI request that accompanies the higher baud rate and program the PL-2303 registers properly. It does something to incorrectly set the data bits and/or parity so that the subsequent characters are garbled. If your problem has similar roots, you can see this happen from MotoCross or HyperTerminal by just changing the stop bits from 1 to 2 and typing a few characters. The CF2 will recognize what you send, but the echoed characters come back garbled. Change back to 1 stop and everything will be fine.

We suggest picking a non-Prolific based adapter. We've been using on a \$79 CablesToGo dual RS232 adapter (product #26478) that is based on FTDI chips and so far it hasn't given any troubles. We've recommended it to other customers without any complaints so far.

<http://www.cablestogo.com/product.asp?cat%5Fid=1529&sku=26478>

