0.1 CR10 Logger Wiring to EVE

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A straight through cable is used between an EVE electronics box and a CR10X logger box. The logger box includes a Campbell SC32A optically isolated RS232 interface which both isolates and translates normal RS232 signal levels for the CR10. An additional DB-25 surge supressor is usually placed in front of the isolator for added protection. A 9-pin ribbon cable connects the isolator to the logger.

Power for the SC32A isolator is provided by one of 2 ways. A 120-200 ohm 1/4Watt current limiting resistor is placed in series between +12VDC and pin 20 (DTR) on the DB-25 connector of the isolator. Alternatively, the RTS line from EVE (Amp pin 3) is connected to pin 20 for powering the isolator. Most loggers are connected to EVE using tyCo/4 which provides the RTS line. This has an advantage of improved protection for the logger since the EVE +12V line is unregulated battery voltage which can vary considerably. However, for using other EVE ports (tyCo/5, tyCo/6) the direct power connection is required. This is the preferred interconnection because it allows a logger box to be used on any EVE port. A DC-DC converter in the isolator provides the required +/-12V RS232 signal levels.

Physically, the bulkhead connector used on an EVE electronics box is usually the one labeled either 'Campbell' or 'Trime/Aux.' If 'Campbell' is used, the interface panel is ready to go. If 'Trime/Aux.' is used, jumpers must be placed on the 14-pin JP3 header's pins 1-2 and 2-3 to carry the Rx/Tx signals to EVE. A jumper on JP3 pins 5-6 would enable the RTS line as available on the EVE port connected via the RJ45 phone cable.

LOGGER TO EVE

EVE	AMP 9-pin bulkhead	SC32A DB-25	CR10X Logger
Rx (from CR10)	1	3	Tx (to EVE)
Tx (to CR10)	2	2	Rx (from EVE)
RTS	3	20 (Optional power)	
Sig. Gnd	4	7	
shield	6		
+12 VDC	8		+12 Vdc
	8 —/\/— 20 (Power)		
Gnd	7		Gnd

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