



2.7 RS-232

The CLM communicates bidirectionally with devices external to the projector using RS-232 via panel connectors J2, P3 or J3. Three wires - transmit, receive and ground - are required for connection. Hardware handshaking signals are not supported, therefore XON/XOFF flow control is required. Data format is 8 bits, 1 stop bit, no parity. The default baud rate for J2 and P3 is 9600 bps, but can be changed in a projector menu. The baud rate for J3 is fixed at 9600 bps. Signal levels are EIA-232D compatible, as follows:

RS-232 Output	TxD HIGH:	+10V +/-5V
	TxD LOW:	-10V +/-5V
RS-232 Input	RxD HIGH:	+3V min, +30V max
	RxD LOW:	-3V max, -30V min

2.8 Convergence Waveforms

Six convergence waveforms are output on backplane connector P2; RH-CONV, RV-CONV, GH-CONV, GV-CONV, BH-CONV and BV-CONV. The shape of each waveform depends on the exact amounts of correction applied to the projected RGB component images. Typical horizontal and vertical correction waveforms for a fully-corrected image are shown below (6' diagonal image, 10 degree keystone,  $f_H = 31.5$  kHz,  $f_V = 60$  Hz). For each waveform, two diagrams are shown, one illustrating the horizontal component of the waveform and the other the vertical component.

