KRAMER ELECTRONICS Ltd.

RS-232 COMMUNICATION PROTOCOL
VS-1211/1011/811/611/411 and VS-1201XL/1001XL/801XL/601XL/401XL

The protocol used for communication between the PC and the master
is defined as follows:

N7	N6	N5	N4	N3	N2	N1	N0
MSB				LSB			

where

$N7$ is used for communication between the slave and the master
only and is always 0 for communication with the PC.

$N6N5N4$ is the binary value of the machine we are addressing
minus one, e.g., if we wish to address the master
(machine 1 by definition), then $N6N5N4 = 000$, if we
wish to address machine 6, then $N6N5N4 = 101$.

$N3N2N1N0$ is the binary value of the input to be selected, i.e.
$N3N2N1N0 = 0111$ is equivalent to pressing switch 7
on the front of the machine.

Several special codes are also valid :

$N3N2N1N0 = 1101$ requests that the machine being addressed
sends to the PC its present status, i.e. which input
is selected on that machine.

$N3N2N1N0 = 1110$ is an "OK" handshake, i.e. confirmation that
the instruction was received by the addressed
machine. (If the addressed machine is not present,
then this confirmation is not sent to the PC).

Information sent from the master to the PC is done using the same format, i.e.

0 , (machine number - 1) , new switch status.
↑   ↑   ↑
N7   N6N5N4   N3N2N1N0

The rate of data transfer is always 9600 baud, with no parity, 8 data bits
and 1 stop bit.

To configure the VS-401xl, VS-601xl, VS-801xl, VS-1001xl, VS-1201xl, VS-411, VS-611, VS-811, VS-1011,
VS-1211 to Protocol 2000 press front panel input buttons 1 and 4 simultaneously, then turn the switcher off for 5
seconds before turning it on again. To return to the old protocol, simultaneously press input buttons 1 and 3 and
turn off and on as above.
The Machines may be operated via K-switch using the old program, and via K-ontrol using Protocol 2000.