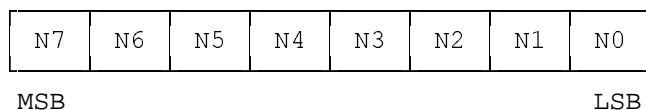


PROTOCOL USED FOR BC-2031N RS-232 COMMUNICATION

The protocol used for communication between the PC and the master BC-2031N is defined as follows:



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, eg, 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, ie. N3N2N1N0 = 0011 is equivalent to pressing switch 3 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, ie. which input is selected on that machine.

N3N2N1N0 = 1110 is an "OK" handshake, ie. 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).

When a button is pressed on the front panel of a machine, information is sent from the master to the PC using the same format, ie.

0 , (machine number - 1) , new switch status.

N7	N6N5N4	N3N2N1N0

The rate of data transfer is always 1200 baud, with no parity, 8 data bits and 1 stop bit.