# RS232 to RS485 Converter Connections

## B&B Electronics 485SD9TB

The B&B Electronics 485SD9TB is the RS232 to RS485 converter currently being shipped with Mauell mapboards. It has one male DB9 serial connector on one end and a five position terminal block on the other end. This converter can be plugged directly into a 9 pin serial connector on the computer or a standard 9 pin male to female straight through cable can be used. This converter normally gets its power from the serial port handshake lines. Two of the positions on the terminal block can be used to provide 12Vdc externally in the event that the handshake lines are not available or do not provide enough power (such as on some laptops). If needed, power can be provided from the DO128 and/or BCD controllers since their logic is powered by 12Vdc, just continue the four conductor RS485 / Logic Power cable that daisy chains between the controllers back to the RS485 terminal block. When connecting the 2-wire RS485 line, terminal A is negative and terminal B is positive.

## Telebyte 266

Telebyte 266 is the RS232 to RS485 converter that used to be shipped with Mauell mapboards. It has a DB25 serial connector at one end, a terminal block at the other end, a set of dip switches, requires external power via the provided wall transformer and requires a special serial cable to connect it to the serial port on the computer. The dip switches should be set as follows: SW1 = OFF, SW2 = ON, SW3 = ON and SW4 = OFF. SW1 and SW2 set the termination value while SW3 and SW4 set the operational mode. The correct settings are 120 ohms and mode 3. The pinouts for the special cable are as follows: At the Telebyte end, pins 2 and 4 must be tied together. At the host end tie pins 4 and 5 together and tie pins 6 and 20 together. Finally connect Telebyte to host pins 2 to 2, 3 to 3 and 7 to 7. **The most important and not necessarily intuitive thing is that the serial cable must have pin 2 and pin 4 tied together at the Telebyte converter end.**