

My "PBUFF" printer buffer was designed only for Parallel Centronics INPUT/OUTPUT. Due to demand, I have designed a simple board that caters for all other combinations of the word serial. My new SERIAL board is a double sided plated through board that uses DB-25 female connectors to interface to RS232 communication lines. Using this board, you can now have SERIAL to SERIAL, SERIAL to PARALLEL, and PARALLEL to SERIAL, all at standard RS232C levels. (or TTL in.) The SERIAL baud rate in and out can be set at 75, 300, 600, 1200, 2400, 4800, 9600, and 19200. Provision is made to set the data character format from 5 to 8 data bits, parity odd, even, or none, and stop bits at 1 or 2. (or 1.5 at 5 data bits.) With all of the above combinations, virtually any computer system that uses hardware handshaking only, can be hooked up to any printer, with few exceptions, all designed around a large buffer. XON, XOFF (or any other) SOFTWARE PROTOCOL IS NOT SUPPORTED, but a lot of these types of systems can be reconfigured for hardware handshaking. With a large enough buffer, in some cases, the software handshake can be ignored. The two DB25 female connectors are also used to mount the SERIAL board into the rear panel of your PBUFF case. This board uses the new PBUFF bus system for board interconnections. This is a system of 26 wire flat ribbon cables, crimp connectors, and dual row 26 pin male unprotected headers. Further details of the new PBUFF bus system can be found in my BP10 advertising material. Two headers are provided for interfacing to other boards. One is used to connect to your PBUFF and the other can be used for BP10, or other boards. The main chip is an "INDUSTRY STANDARD" UART that has been produced by many manufacturers over the years, however some have now ceased production believing that this I.C. has had it's day. INTERSIL produces a new low power CMOS version of this chip, INTERSIL IN64021PL which retails for around \$14.00 Other chips proven to work in my serial board are the TR 1602 and the GI AY-3-1015D Many of these "older" UART's can be found in junk boxes and old boards. The TRS-80 Model I and System 80 used the TR 1602 in their serial interface section. The other I.C.'s used in this project are what I consider "GARDEN VARIETY CHIPS", that is, readily available and reasonably priced. Some kit builders have had trouble getting the 74LS76 and 4020 chips. Well, try Dick Smith. He has ample stock of both, and if you can get them at Dickies, you should be able to get them anywhere. This board can be used as a stand alone converter used in conjunction with my BP10 board, however the main power supply circuitry is on the PBUFF board, so a separate power supply section would have to be built. Details of a stand alone power supply are included with the assembly instructions. I am selling this unit in what I call a "PBUFF SERIAL BOARD SHORT FORM KIT". (cat. id code SER) This consists of:- One bare double sided plated through printed circuit board, circuit, and full assembly instructions. You provide all other parts and labour. Check my ORDER FORM for current prices.

BC1-BC3	.01uf	Ceramic (3)	R1, R2	2K2 (2)
C1	.0047uf	Ceramic (4n7)	R3, R6	10K (2)
C2	220pf	Ceramic	R4, R8	4K7 (2)
C3	2.2uf	Tantalum	R5	1K
C4, C5	1000uf	Electrolytic @16V	R7	2K7
C6	22pf	Ceramic	D1, D2	1N4002 (2)
Crystal	4.9152 MHZ		D3	12 Volt 1 Watt Zener
			D4, D5	1N914 (2)

RN1 Resistor network 1 is a 10 pin device with one common pin that is connected to ground, and 9 by pull-down resistors. (Cat ID RN10-4K7)

