



FEMALE PINS.



MALE PINS.

UNPROTECTED HEADERS AND PARALLEL
INPUT/OUTPUT BOARD.... 22-DEC-85

This board has been designed to take the headaches out of building

"PBUFF" projects. Without this small I/O board, you need to separate, and strip the wires of your parallel flat ribbon cable, then solder each wire to the PBUFF or SERIAL board. Using a system of male and female pins, the I/O board is mounted on top of either the PBUFF board, or the SERIAL board.

STACKABLE SYSTEM... The PBUFF board is mounted with screws into the case. It will have two strips of 12 male pins soldered into the Centronics input and output holes instead of the ribbon cables. The I/O board has two strips of 12 female pins soldered underneath it, on the solder side of the board. Two standard 24 pin I.C. sockets are soldered to the component side of the I/O board. The I/O board female pins will then push straight onto the male pins on the PBUFF board. If a SERIAL board needs to be fitted, the I/O board is removed, the SERIAL board is installed in exactly the same manner as the I/O board was, and the I/O board is installed on top of the SERIAL board. No screwdrivers, no soldering, just push and pull connections.

I/O BOARD CABLE CONNECTIONS... You start off with approx. 3 feet of 36 wire flat ribbon cable, a Centronics male plug crimped on one end and a female on the other. 9 inches from the female plug, cut with a sharp pair of scissors wires 1 to 12, and 19 to 36. This is the first 24 wires closest to wire 1. This will leave 12 wires still connected straight through between the input and output plugs. The two new 24 wire sections of this cable need to be separated back a couple of inches from the remaining 12 wire cable so that 24 pin crimp headers can be crimped onto them. Check that the pin 1 position of the Centronics connectors are pointing up towards you before you crimp the two 24 pin headers facing down. This cable can then be plugged into the I/O board as per the above overlay. The wire 12 jumper option is wired up so that the printer doesn't need to be on line to load the buffer. If this is not required, cut the track between the two pads that are linked, and the through wire 12 connection can be made by linking the top two pads.

UNPROTECTED HEADERS..... Lots of different types around. They come in strips of 12, 25, 36, or 72 and may need trimming down to the required size. They are standard .025 inch square wire wrap size, at .1 inch centers mounted on a plastic block. Some blocks have a groove between each pin and both the male and female pins can be cut quite readily with a good pair of side cutters. One type that I have been able to get onto, are a gold plated more fragile type in a strip of 25, that will need cutting to length. On the female pins, pull out the centre (13th) pin and cut through at the spot where the pin has been removed. They have a small plastic keeper that is fitted over the solder lugs and held in place by twisting the solder lug sideways. Straighten these lugs up and remove the keepers before cutting the female pins. They do not need to be replaced.

SOLDERING THE PINS.... Soldering the male pins into the board is straight forward, but the female pins need to be mounted on the solder side of the board downwards. Place the female pins in position on the board, so that the pin just enters the holes. If you are using the gold plated type, they have a longer tail, and can be sat flush with the component side of the board. Solder only the two end pins first, then check that the strip is parallel to the surface of the board, and at right angles. When you have adjusted the position of the strip, all other pads can be soldered.

PRICES... If ordered at the same time as any main board, postage is included, else add \$2.00 per package. The I/O board is \$4.00 and only when pins are available, one strip of 25 male pins is \$2.00 and one strip of 25 female pins is \$2.00

