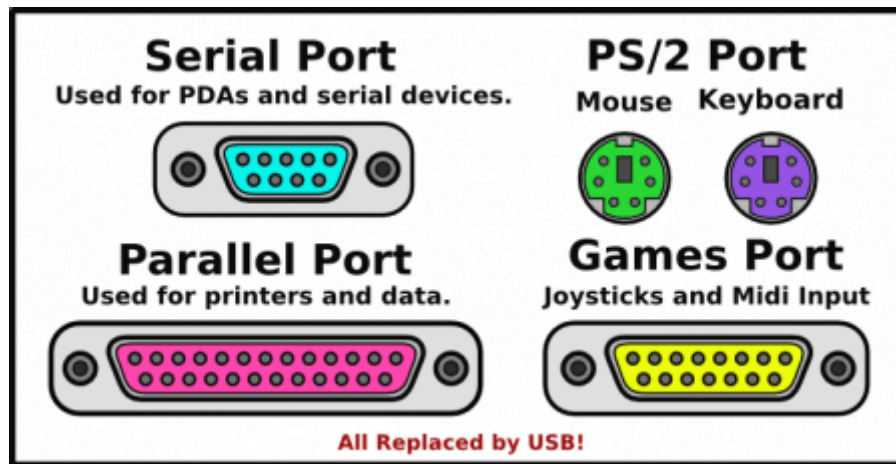
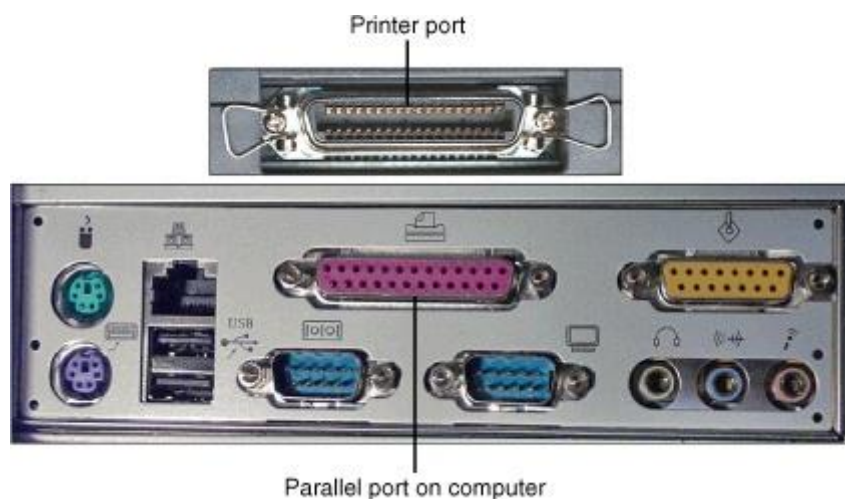


A **parallel interface** refers to a multiline channel, with each line capable of transmitting several bits of data simultaneously. ... In contrast, a "**serial interface**" uses a **serial port**, a single line capable of only transmitting one bit of data at a time; a computer mouse connection is a good example.



A **parallel port** is a type of interface found on computers (personal and otherwise) for connecting peripherals. The name refers to the way the data is sent; parallel ports send multiple bits of data at once, as opposed to serial interfaces that send bits one at a time. To do this, parallel ports require multiple data lines in their cables and port connectors and tend to be larger than contemporary serial ports which only require one data line.

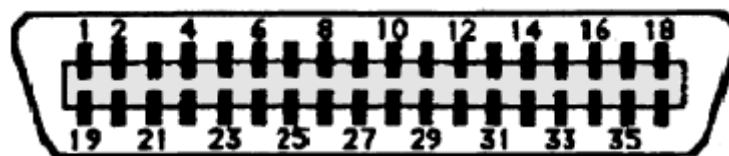
There are many types of parallel ports, but the term has become most closely associated with the **printer port** or Centronics port found on most personal computers from the 1970s through the 2000s. It was an industry *de facto* standard for many years, and was finally standardized as IEEE 1284 in the late 1990s, which defined the Enhanced Parallel Port (EPP) and Extended Capability Port (ECP) bi-directional versions. Today, the parallel port interface is virtually non-existent because of the rise of Universal Serial Bus (USB) devices, along with network printing using Ethernet and Wi-Fi connected printers.



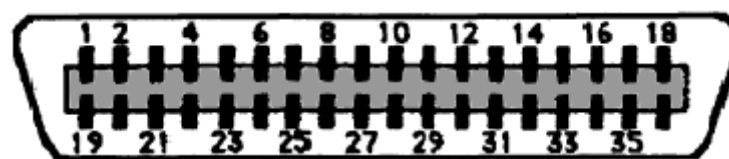
## Centronics Parallel Interface

The Centronics parallel interface is an older and still widely-used standard I/O interface for connecting printers and certain other devices to computers. The interface typically includes a somewhat cumbersome cable and a 36- pin male and female connector at the printer or other device. The cable plugs into a 25-pin parallel port on the computer. Data flows in one direction only, from the computer to the printer or other device. In addition to eight parallel data lines, other lines are used to read status information and send control signals. Centronics Corporation designed the original Centronics parallel interface for dot matrix printers. In 1981, IBM used this interface as an alternative to the slower one-bit-at-a-time serial interface.

When the Centronics parallel interface was first developed, the main peripheral was the printer. Since then, portable disk drives, tape backup drives, and CD-ROM players are among devices that have adopted the parallel interface. These new uses caused manufacturers to look at new ways to make the Centronics parallel interface better.

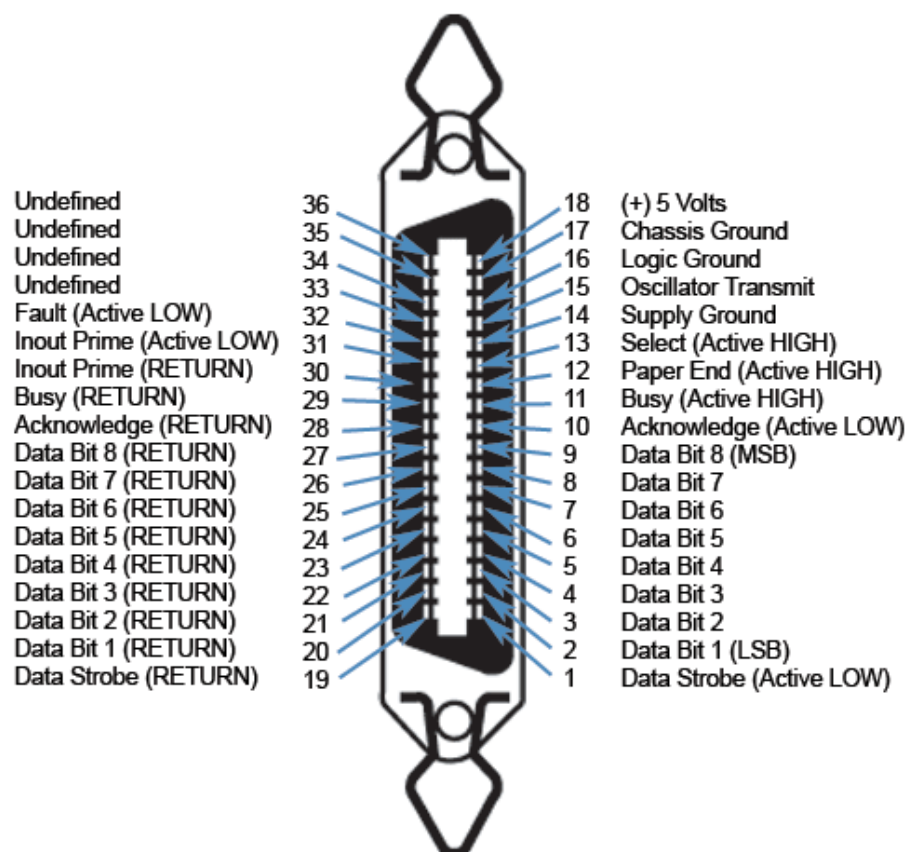


Male 36-pin Centronics Connector



Female 36-pin Centronics Connector

(Centronics parallel interface male and female)

**Pin Description of Centronics parallel interface:-****Centronics parallel interface with computer and printer**

PC		Printer
DB 25 socket		CP 36 socket
1	Strobe →	1
2	D0 →	2
3	D1 →	3
4	D2 →	4
5	D3 →	5
6	D4 →	6
7	D5 →	7
8	D6 →	8
9	D7 →	9
10	Acknowledge ←	10
11	Busy ←	11
12	Paper Empty ←	12
13	Select ←	13
14	Auto Linefeed →	14
15	Error ←	32
16	Init →	31
17	Select In →	36
18-25	Signal GND —	19-30
	Shield —	17
	+5 VDC (opt.) —	18

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