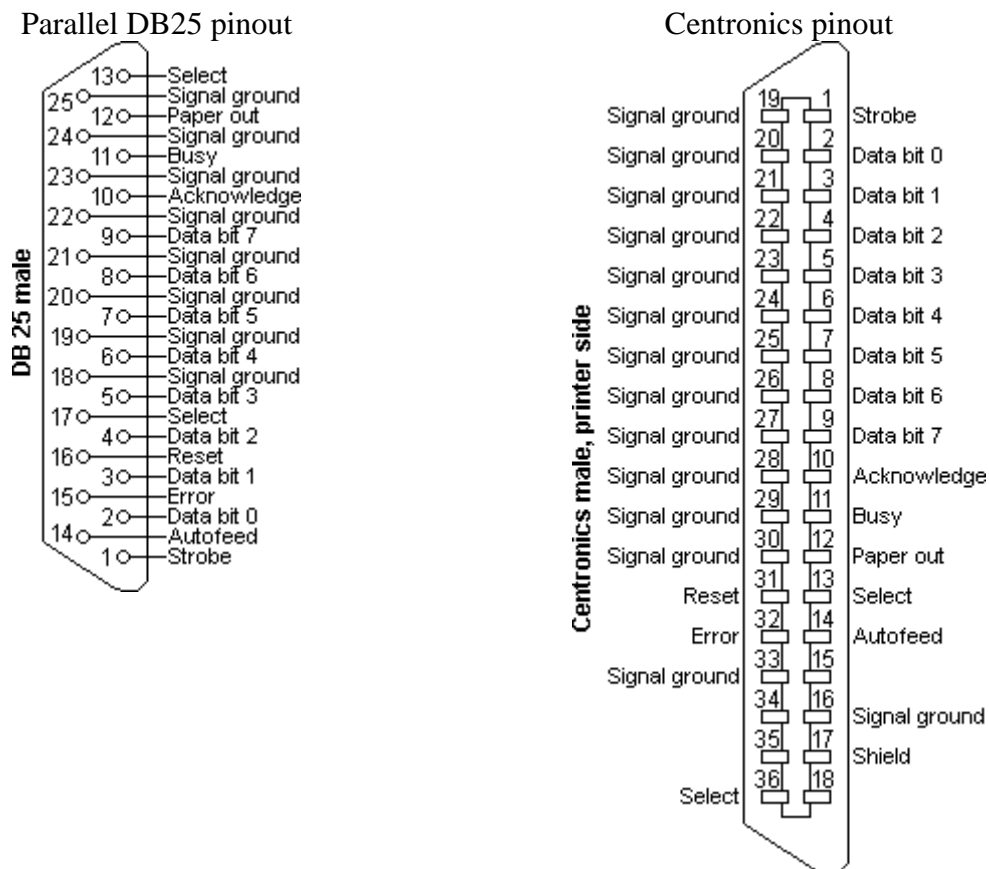


## Parallel Connector Pinout

The parallel port socket on your computer uses 25 pins. On most peripherals like printers, the 36 pins Centronics version is used. Both connector pinouts are shown here. The centronics socket is named after the company that introduced the first dot matrix printer in 1970, but after IBM and Epson took over the dot matrix printer market (later followed by Hewlett Packard in the laser and deskjet printer segment) most people only associate the word *centronics* with the port interface itself, not with a manufacturer.



## Parallel printer cable

Most printers are connected to a computer using a cable with a 25 pins DB male connector at one side and a 36 pins *centronics* connector on the other. The normal way to make such a cable is shown here.

Parallel printer cable

NAME	Line	DB 25 male (computer)		Centronics (printer)
STROBE	Strobe	1	→	1
D0	Data bit 0	2	→	2
D1	Data bit 1	3	→	3
D2	Data bit 2	4	→	4
D3	Data bit 3	5	→	5
D4	Data bit 4	6	→	6
D5	Data bit 5	7	→	7
D6	Data bit 6	8	→	8
D7	Data bit 7	9	→	9
ACK	Acknowledge	10	←	10
BUSY	Busy	11	←	11
PE	Paper out	12	←	12
SEL	Select	13	←	13
AUTOFD	Autofeed	14	→	14
ERROR	Error	15	←	32
INIT	Reset/Init	16	→	31
SELIN	Select	17	→	36
GND	Signal ground	18	↔	33
GND	Signal ground	19	↔	19 + 20
GND	Signal ground	20	↔	21 + 22
GND	Signal ground	21	↔	23 + 24
GND	Signal ground	22	↔	25 + 26
GND	Signal ground	23	↔	27
GND	Signal ground	24	↔	28 + 29
GND	Signal ground	25	↔	16 + 30
	Shield	Cover	↔	Cover + 17

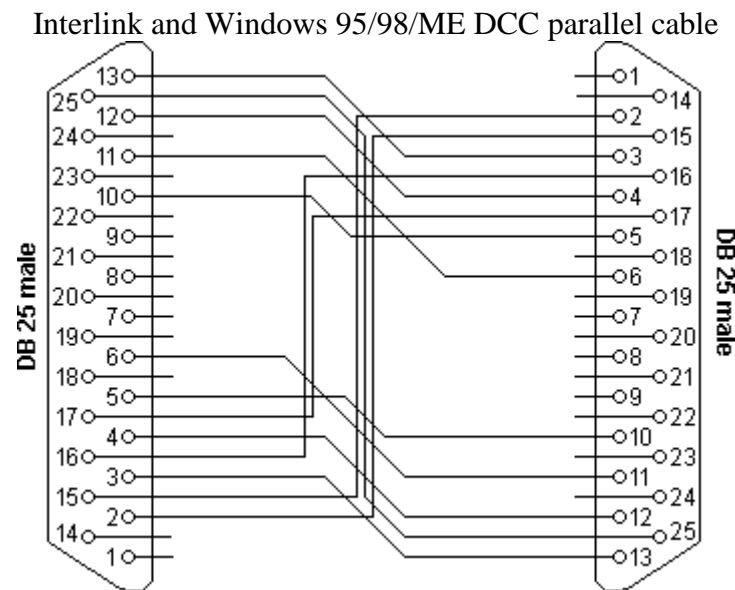
## Interlink and Windows 95/98/ME DCC parallel cable

The following parallel cable can be used with file transfer and network programs like LapLink and InterLink. The cable uses the parallel port which makes it possible to achieve higher throughput than with a serial connection at the same low costs. The cable is amongst others compatible with the following software.

- Laplink from Travelling software
- MS-DOS v 6.xx InterLink

- Windows 95, 98 and ME direct cable connection
- Norton Commander
- Norton Ghost

Because the parallel port on a computer was mainly designed to connect printers with one-way communication, a trick is used to achieve full two way data transfer between both sides. Five error and status message inputs are redefined as data inputs. Instead of reading full bytes, the communication software reads these five bits and combines multiple groups of data back to bytes. The sender and receiver have to use the same protocol to convert bytes to groups of 5 bits and vice versa.

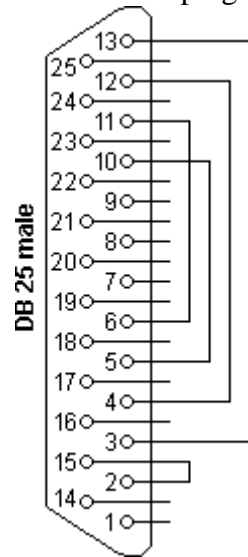


Connector 1	Connector 2	Description
2	15	Data bit 0 → Error
3	13	Data bit 1 → Select
4	12	Data bit 2 → Paper Out
5	10	Data bit 3 → Acknowledge
6	11	Data bit 4 → Busy
10	5	Acknowledge ← Data bit 3
11	6	Busy ← Data bit 4
12	4	Paper Out ← Data bit 2
13	3	Select ← Data bit 1
15	2	Error ← Data bit 0
25	25	Signal ground

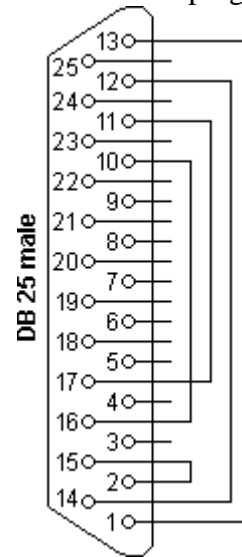
## Parallel port test plugs

Both Norton Diagnostics and CheckIt have the ability to check the functionality of a parallel port. To do this, both software packages need a special plug on the port. Unfortunately, the pin layout of both connectors is not the same. The scheme of both sockets is given here.

Norton test plug



CheckIt test plug



## Parallel Port LED Control Sample Diagram

