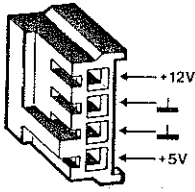


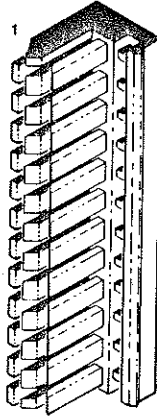
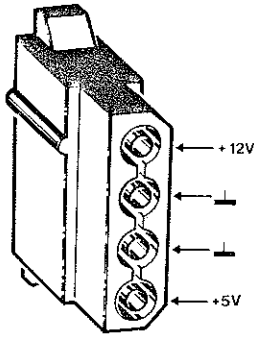
Power

12-pin PSU connector on motherboard

3 1/2" DRIVE



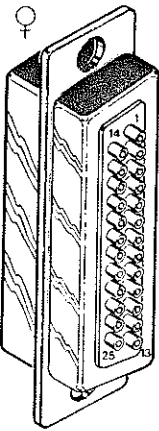
5 1/4" DRIVE



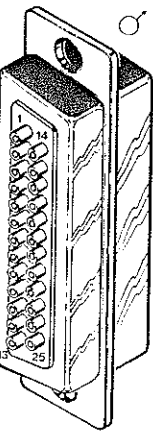
- 1 POWER GOOD (orange)
- 2 N.C.
- 3 +12V (yellow)
- 4 -12V (blue)
- 5 GND (black)
- 6 GND (black)
- 7 GND (black)
- 8 GND (black)
- 9 -5V (white)
- 10 +5V (red)
- 11 +5V (red)
- 12 +5V (red)

RS-232

25 pin sub-D DCE

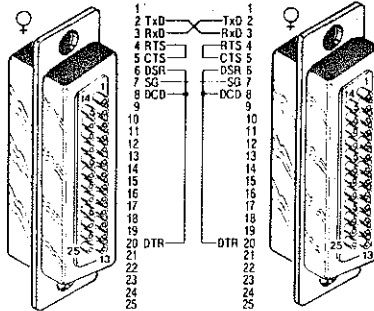


25 pin sub-D DTE

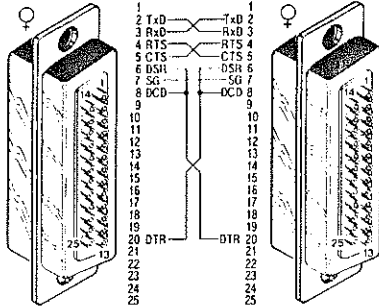


- 1 CG
- 2 RxD
- 3 RTS
- 4 CTS
- 5 DSR
- 6 SG
- 7 DCD
- 8 TEST
- 9 TEST
- 10 NC
- 11 SDCD
- 12 SCTS
- 13 STD
- 14 TxC
- 15 SRxD
- 16 RxC
- 17 NC
- 18 SRTS
- 19 DTR
- 20 SG
- 21 RI
- 22 CH/CI
- 23 XTC
- 24 NC
- 25 NC

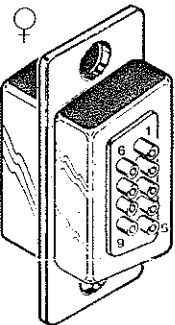
3 wire connection DTE DTE



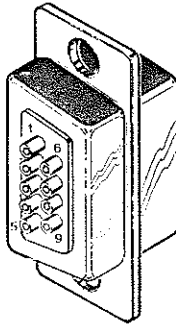
full connection DTE DTE



9 pin sub-D DCE

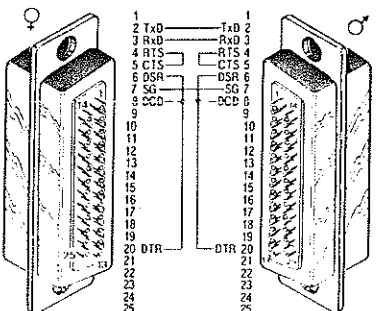


9 pin sub-D DTE

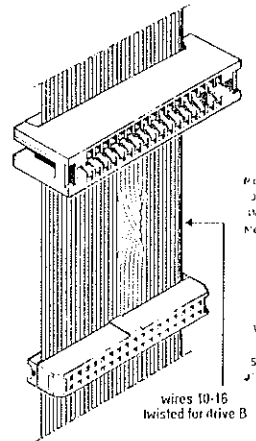


- 1 DCD
- 2 RxD
- 3 Tx
- 4 DTR
- 5 GND
- 6 DSR
- 7 RTS
- 8 CTS
- 9 RI

3 wire DTE-DCE full



Floppy



wires 10-16 twisted for drive B

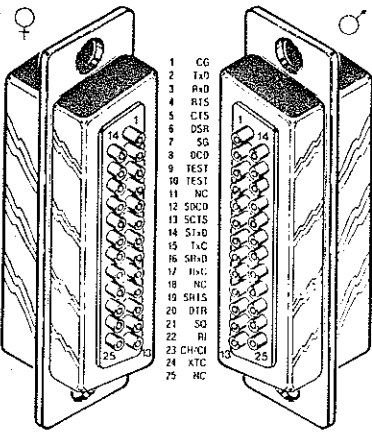
- | | | |
|----|--------------------|----|
| 1 | — GND — | 31 |
| 2 | — Unused — | 2 |
| 3 | — Unused — | 3 |
| 4 | — Unused — | 4 |
| 5 | — Unused — | 5 |
| 6 | — Unused — | 6 |
| 7 | — Index — | 7 |
| 8 | — Motor Enable A — | 8 |
| 9 | — Motor Enable B — | 9 |
| 10 | — Drive Select B — | 10 |
| 11 | — Drive Select A — | 11 |
| 12 | — Drive Select A — | 12 |
| 13 | — Drive Select A — | 13 |
| 14 | — Drive Select A — | 14 |
| 15 | — Motor Enable B — | 15 |
| 16 | — Direction — | 16 |
| 17 | — Step pulse — | 17 |
| 18 | — Step pulse — | 18 |
| 19 | — Step pulse — | 19 |
| 20 | — Write data — | 20 |
| 21 | — Write data — | 21 |
| 22 | — Write enable — | 22 |
| 23 | — Write enable — | 23 |
| 24 | — Track 0 — | 24 |
| 25 | — Write protect — | 25 |
| 26 | — Write protect — | 26 |
| 27 | — Write protect — | 27 |
| 28 | — Read data — | 28 |
| 29 | — Read data — | 29 |
| 30 | — Read data — | 30 |
| 31 | — Select head 1 — | 31 |
| 32 | — Select head 1 — | 32 |
| 33 | — Unused — | 33 |
| 34 | — Unused — | 34 |

all odd numbers = re ground

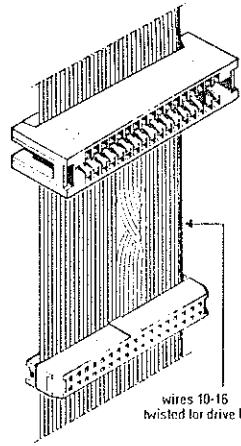
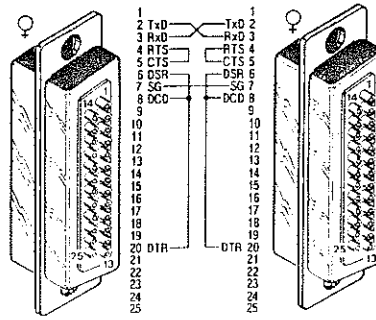
RS-232

25-pin sub-D DCE

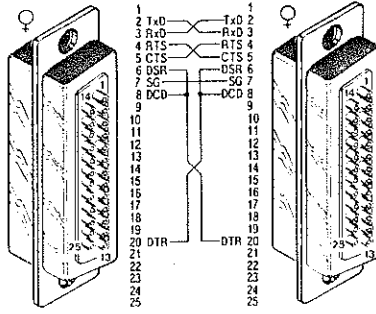
25-pin sub-D DTE



3-wire connection DTE-DTE

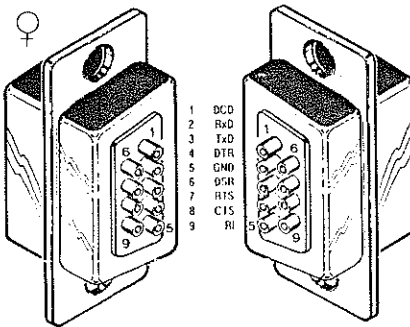


full connection DTE-DTE

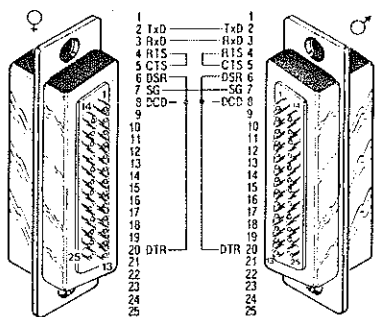


9-pin sub-D DCE

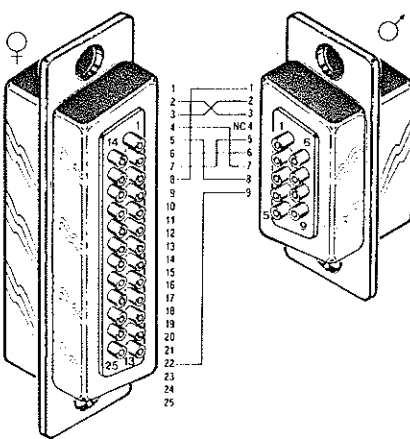
9-pin sub-D DTE



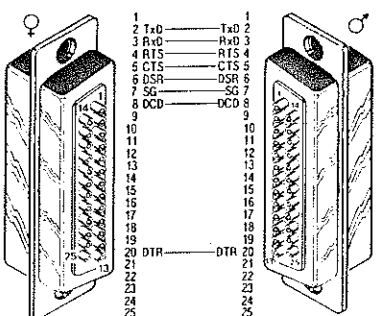
3-wire DTE-DTE



25-9 pin adapter cable



full connection DTE-DTE



b	----- GND -----	a
1	----- Unused -----	2
2	----- Unused -----	3
3	----- Unused -----	4
4	----- Unused -----	5
5	----- Unused -----	6
6	----- Unused -----	7
7	----- Index -----	8
8	----- Index -----	9
9	----- Motor Enable A -----	10
10	----- Motor Enable A -----	11
11	----- Drive Select B -----	12
12	----- Drive Select B -----	13
13	----- Drive Select A -----	14
14	----- Drive Select A -----	15
15	----- Motor Enable B -----	16
16	----- Motor Enable B -----	17
17	----- Direction -----	18
18	----- Direction -----	19
19	----- Step pulse -----	20
20	----- Step pulse -----	21
21	----- Write data -----	22
22	----- Write data -----	23
23	----- Write enable -----	24
24	----- Write enable -----	25
25	----- Track 0 -----	26
26	----- Track 0 -----	27
27	----- Write protect -----	28
28	----- Write protect -----	29
29	----- Read data -----	30
30	----- Read data -----	31
31	----- Select head 1 -----	32
32	----- Select head 1 -----	33
33	----- Unused -----	34
34	----- Unused -----	34

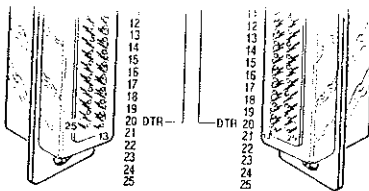
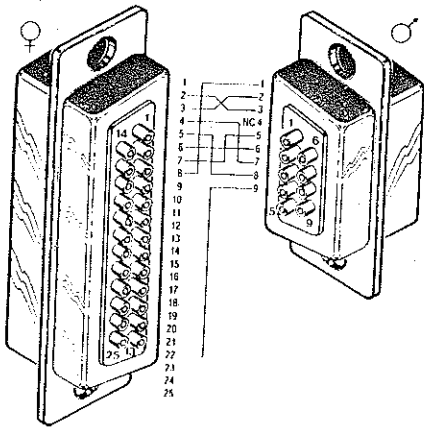
all odd numbers are ground

Miscellaneous

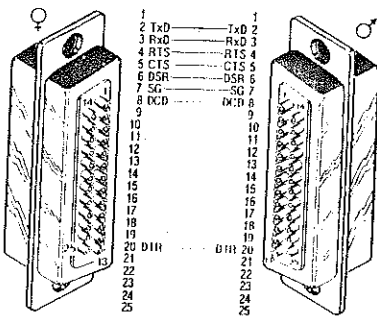


lower row
upper row

25-pin adaptor cable

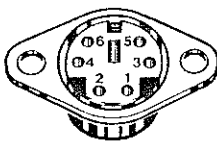


full connection DTR cable



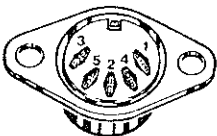
Miscellaneous

Keyboard 5-pin plug



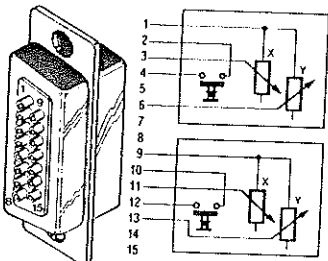
- 1 DATA
- 2 n.c.
- 3 GND
- 4 +5V
- 5 CLK
- n.c.

PS2 key board 6-pin connector

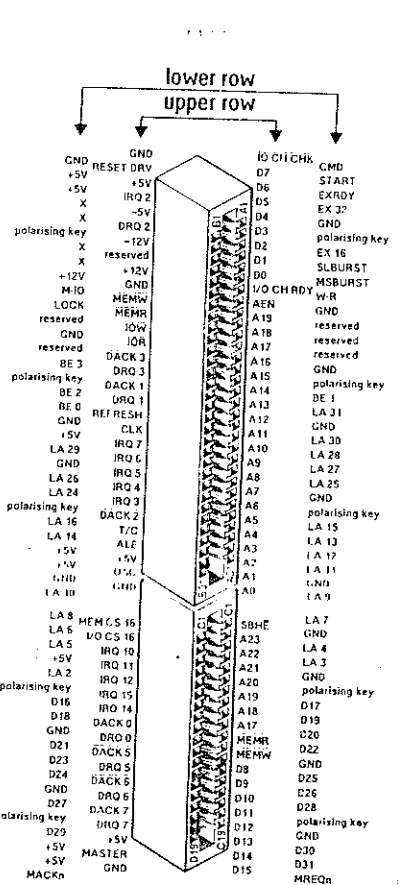
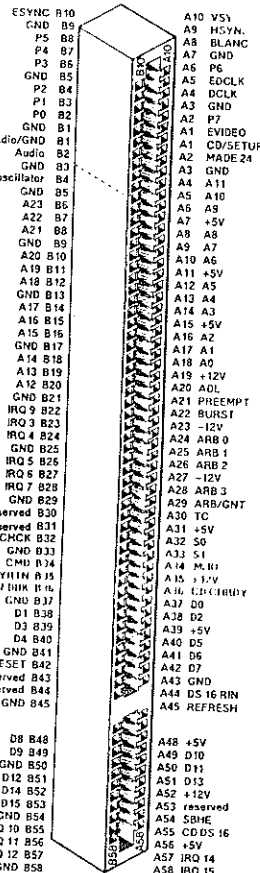
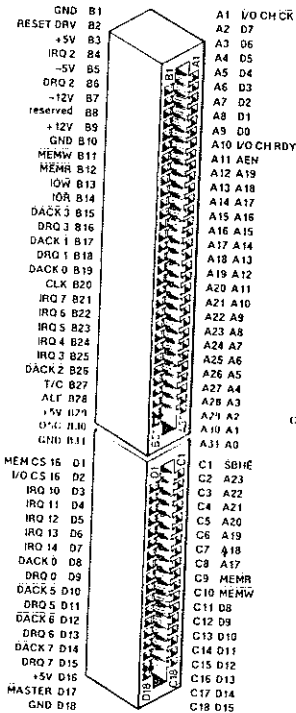


- 1 CLK
- 2 DATA
- 3 RESET
- 4 GND
- 5 +5V

joystick plug (5-pin) with D



25-pin connector cable



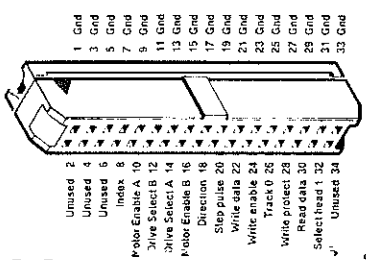
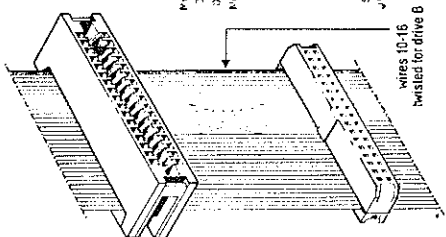
lower row
upper row

- ESYNC B10
- GND B9
- P5 B8
- P4 B7
- P3 B6
- GND B5
- P2 B4
- P1 B3
- P0 B2
- GND B1
- Audio/GND B1
- Audio B2
- GND B3
- oscillator B4
- GND B5
- A23 B6
- A22 B7
- A21 B8
- GND B9
- A20 B10
- A19 B11
- A18 B12
- GND B13
- A17 B14
- A16 B15
- A15 B16
- GND B17
- A14 B18
- A13 B19
- A12 B20
- GND B21
- IRQ 9 B22
- IRQ 3 B23
- IRQ 4 B24
- GND B25
- IRQ 5 B26
- IRQ 6 B27
- IRQ 7 B28
- GND B29
- A25 A6
- A24 A7
- A23 A8
- A22 A9
- A21 A10
- A20 A11
- A19 A12
- A18 A13
- A17 A14
- A16 A15
- A15 A16
- A14 A17
- A13 A18
- A12 A19
- A11 AEN
- A10 V/CHRDRY
- A1 AEN
- A2 D7
- A3 D6
- A4 D5
- A5 D4
- A6 D3
- A7 D2
- A8 D1
- A9 D0
- A10 V/CHRDRY
- A11 AEN
- A12 A19
- A13 A18
- A14 A17
- A15 A16
- A16 A15
- A17 A14
- A18 A13
- A19 A12
- A20 A11
- A21 A10
- A22 A9
- A23 A8
- A24 A7
- A25 A6
- A26 A5
- A27 A4
- A28 A3
- A29 A2
- A30 A1
- A31 A0
- C1 SBHE
- C2 A23
- C3 A22
- C4 A21
- C5 A20
- C6 A19
- C7 A18
- C8 A17
- C9 MEMR
- C10 MEMW
- C11 D8
- C12 D9
- C13 D10
- C14 D11
- C15 D12
- C16 D13
- C17 D14
- C18 D15
- A10 V5V
- A9 HSYN.
- A8 BLANC
- A7 GND
- A6 PE
- A5 EDCLK
- A4 DCLK
- A3 GND
- A2 P7
- A1 EVIDEO
- A1 CDV/SETUP
- A2 MADE24
- A3 GND
- A4 A11
- A5 A10
- A6 A9
- A7 +5V
- A8 A8
- A9 A7
- A10 A6
- A11 +5V
- A12 A5
- A13 A4
- A14 A3
- A15 +5V
- A16 A2
- A17 A1
- A18 A0
- A19 +12V
- A20 AOL
- A21 PREEMPT
- A22 BURST
- A23 -12V
- A24 ARB 0
- A25 ARB 1
- A26 ARB 2
- A27 -12V
- A28 ARB 3
- A29 ARB/GNT
- A30 TC
- A31 +5V
- A32 S0
- A33 S1
- A14 M.HI
- A15 +1V
- A16 L3/CRDRY
- A17 L3/CRDRY
- A18 D0
- A19 D2
- A20 D2
- A21 +5V
- A22 DS
- A23 DS
- A24 DS
- A25 DS
- A26 DS
- A27 DS
- A28 DS
- A29 DS
- A30 DS
- A31 DS
- A48 +5V
- A49 D10
- A50 D11
- A51 D13
- A52 +12V
- A53 reserved
- A54 SBHE
- A55 CD DS 16
- A56 +5V
- A57 IRQ 14
- A58 IRQ 15
- GND B1
- RESET DRV B2
- +5V B3
- IRQ 2 B4
- 5V B5
- DRQ 2 B6
- 12V B7
- reserved B8
- +12V B9
- GND B10
- MEMW B11
- MEMR B12
- LOW B13
- IOA B14
- DACK 3 B15
- DRQ 3 B16
- DRQ 1 B18
- DACK 0 B19
- CLK B20
- IRQ 7 B21
- IRQ 6 B22
- IRQ 5 B23
- IRQ 4 B24
- IRQ 3 B25
- T/C B27
- ALF B28
- +5V B29
- +5V B30
- GND B31
- MEM CS 16 D1
- V/CS 16 D2
- IRQ 10 D3
- IRQ 11 D4
- IRQ 12 D5
- IRQ 13 D6
- IRQ 14 D7
- DACK 0 D8
- DRQ 0 D9
- DACK 5 D10
- DRQ 5 D11
- DACK 6 D12
- DRQ 6 D13
- DACK 7 D14
- DRQ 7 D15
- +5V D16
- MASTER D17
- GND D18
- IO CHCK
- CMD
- START
- EXRDY
- D5
- EX 37
- D3
- GND
- polarising key
- D1
- EX 16
- SLBURST
- MSBURST
- W-R
- GND
- reserved
- reserved
- reserved
- GND
- polarising key
- BE 1
- LA 31
- GND
- A11
- A10
- LA 28
- LA 27
- A9
- A8
- LA 25
- GND
- polarising key
- LA 15
- A4
- LA 13
- LA 17
- A1
- LA 11
- A0
- LA 9
- LA 7
- GND
- LA 4
- LA 3
- A21
- GND
- polarising key
- D17
- D19
- D20
- D22
- GND
- D25
- D26
- D28
- polarising key
- D12
- GND
- D30
- D31
- MREQn
- MEM CS 16
- V/CS 16
- IRQ 10
- IRQ 11
- IRQ 12
- IRQ 15
- IRQ 14
- DACK 0
- DRQ 0
- DACK 5
- DRQ 5
- DRQ 6
- DACK 7
- IRQ 7
- +5V
- MASTER
- GND
- MACKn

Floppy disk/Hard disk

Floppy disk

Shugart interface AT and AT



- 1 Gnd
 - 3 Gnd
 - 5 Gnd
 - 7 Gnd
 - 9 Gnd
 - 11 Gnd
 - 13 Gnd
 - 15 Gnd
 - 17 Gnd
 - 19 Gnd
 - 21 Gnd
 - 23 Gnd
 - 25 Gnd
 - 27 Gnd
 - 29 Gnd
 - 31 Gnd
 - 33 Gnd
- 2 Unused
 - 4 Unused
 - 6 Unused
 - 8 Index
 - 10 Motor Enable A
 - 12 Drive Select B
 - 14 Drive Select A
 - 16 Motor Enable B
 - 18 Direction
 - 20 Step pulse
 - 22 Write data
 - 24 Write enable
 - 26 Track 0
 - 28 Write protect
 - 30 Read data
 - 32 Select head 1
 - 34 Unused

Hard disk ST506 interface

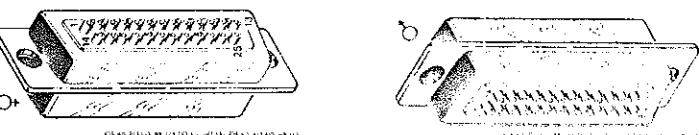


- ### DRIVE CONTROL
- 1 Gnd
 - 3 Gnd
 - 5 Gnd
 - 7 Gnd
 - 9 Gnd
 - 11 Gnd
 - 13 Gnd
 - 15 Gnd
 - 17 Gnd
 - 19 Gnd
 - 21 Gnd
 - 23 Gnd
 - 25 Gnd
 - 27 Gnd
 - 29 Gnd
 - 31 Gnd
 - 33 Gnd
- ### DRIVE DATA
- 2 No Connection
 - 4 Address Mark
 - 6 Gnd
 - 8 -Write Clock
 - 10 +Reference Clock
 - 12 Gnd
 - 14 -Write Data
 - 16 Gnd
 - 18 Read Data
 - 20 No Connection
- ### DRIVE DATA
- 1 Drive Select
 - 3 Command -Alternate
 - 5 No Connector
 - 7 +Write Clock
 - 9 No Connector
 - 11 -Reference Clock
 - 13 +Write Data
 - 15 Gnd
 - 17 +Read Data
 - 19 Gnd

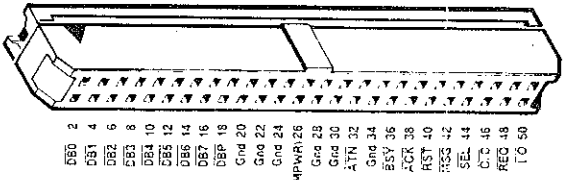
Hard disk IDE interface



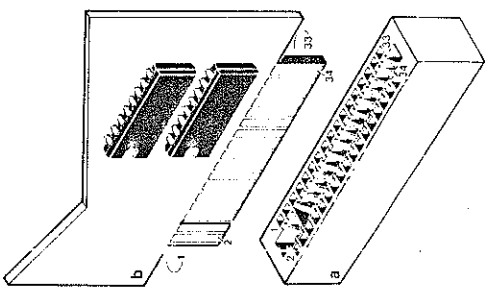
- 1 Reset
 - 3 DD7
 - 5 DD6
 - 7 DD5
 - 9 DD4
 - 11 DD3
 - 13 DD2
 - 15 DD1
 - 17 DD0
 - 19 GND
 - 21 DMARQ
 - 23 DIO#
 - 25 DIOR
 - 27 IORDY
 - 29 ORACK
 - 31 INTRO
 - 33 DA1
 - 35 DA0
 - 37 CSIFX
 - 39 DASFX
- 2 GND
 - 4 DD8
 - 6 DD9
 - 8 DD10
 - 10 DD11
 - 12 DD12
 - 14 DD13
 - 16 DD14
 - 18 DD15
 - 20 Keypin
 - 22 GND
 - 24 GND
 - 26 GND
 - 28 SPSYNC
 - 30 GND
 - 32 IOCS16
 - 34 PDAG
 - 36 DA2
 - 38 CSDFX
 - 40 GND



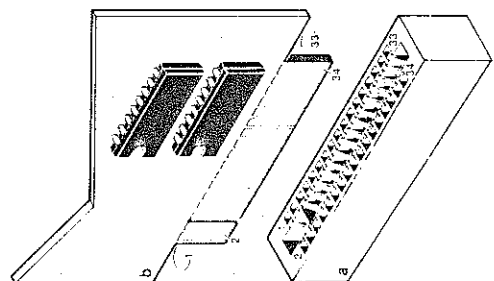
Hard disk SCSI interface



- 1 Gnd
 - 3 Gnd
 - 5 Gnd
 - 7 Gnd
 - 9 Gnd
 - 11 Gnd
 - 13 Gnd
 - 15 Gnd
 - 17 Gnd
 - 19 Gnd
 - 21 Gnd
 - 23 Gnd
 - 25 n.c.
 - 27 Gnd
 - 29 Gnd
 - 31 Gnd
 - 33 Gnd
 - 35 Gnd
 - 37 Gnd
 - 39 Gnd
 - 41 Gnd
 - 43 Gnd
 - 45 Gnd
 - 47 Gnd
 - 49 Gnd
- 2 DB0
 - 4 DB1
 - 6 DB2
 - 8 DB3
 - 10 DB4
 - 12 DB5
 - 14 DB6
 - 16 DB7
 - 18 DBP
 - 20 Gnd
 - 22 Gnd
 - 24 Gnd
 - 26 n.c.
 - 28 Gnd
 - 30 Gnd
 - 32 ATN
 - 34 Gnd
 - 36 BSY
 - 38 ACK
 - 40 RST
 - 42 FCS
 - 44 SEL
 - 46 C7
 - 48 REQ
 - 50 L0



- 1 GND
- 2 Reduced Write Current
- 3 Head select 2
- 4 Head select 1
- 5 Write Gate
- 6 Seek Complete
- 7 Track 0
- 8 Write Fault
- 9 Head Select 0
- 10 ESDI sector
- 11 Head Select 1
- 12 Index
- 13 Ready
- 14 Step
- 15 Drive Select 1
- 16 Drive Select 2
- 17 Drive Select 3
- 18 Drive Select 4
- 19 Direction in



- 1 Drive Select
- 2 Reserved
- 3 Spare
- 4 Reserved
- 5 Reserved
- 6 Reserved
- 7 Reserved
- 8 Reserved
- 9 Reserved
- 10 Reserved
- 11 4-MFM Write Data
- 12 4-MFM Write Data
- 13 4-MFM Write Data
- 14 4-MFM Write Data
- 15 4-MFM Write Data
- 16 4-MFM Write Data
- 17 4-MFM Write Data
- 18 4-MFM Write Data
- 19 GND
- 20

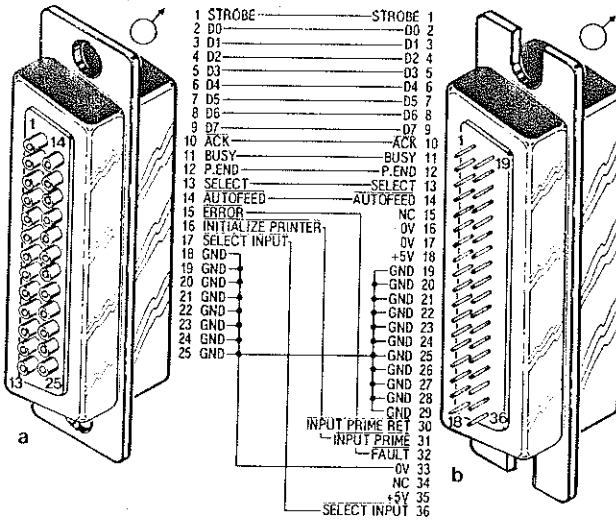
all odd numbers are ground

30 Drive Select 3 30
 31 Drive Select 3 31
 32 Drive Select 4 32
 33 Direction In 33
 34 Direction In 34
 all odd numbers are ground

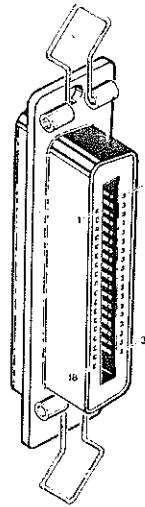
SEL 44 43 Gnd
 C/D 46 45 Gnd
 REQ 48 47 Gnd
 I/O 50 49 Gnd

Centronics

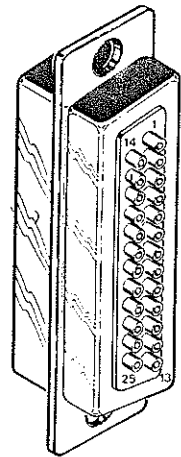
Centronics printer cable connections



36 pin Centronics socket

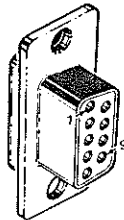


25 pin sub D plug

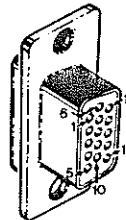


Video

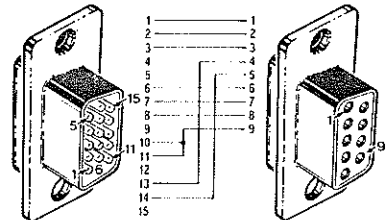
9 pin sub D



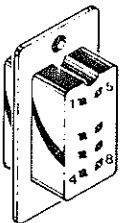
15 pin sub D



15 pin connection



15 pin



	MDA (Hercules) ①	CGA (dig. RGB) ①	EGA (dig. RGB) ③	NEC (dig. RGB) ①	VGA (an. RGB) ②
1	ground	ground	ground	intensity	R - out
2	ground	ground	R ⁺	R	G - out
3	n.c.	R	R	G	B - out
4	n.c.	G	G	B	mon. ID bit 2
5	n.c.	B	B	ground	ground
6	intensity	intensity	G ⁺	ground	R - return
7	video	n.c.	B ⁺	ground	G - return
8	h - sync (+)	h - sync (+)	h - sync (+)	h - sync (+)	B - return
9	v - sync (-)	v - sync (-)	v - sync (-)	v - sync (-)	(no pin)
10					sync - return
11					mon. ID bit 0
12					mon. ID bit 1
13					h - sync
14					v - sync
15					reserved