Floppy Drive Pinouts

40-Pin Card-Edge Interface

34-pin Header Interface Non-Media Sense

<u>34-pin Header Interface, Media Sense</u>

44-pin Planar Interface (95A, Lacuna, 85K/N)

Extracted from PS/2 3.5-inch Diskette Drives Technical Reference (S42G-2194-00), 2nd Ed., Oct 1992, pages 10-12.

NOTE: There are differences between the 1990 Tech Ref and the '92 Tech Ref Signal names for the Enhanced 34-pin interface. See the Notes below the table. I believe the additional definition is related to the floppy controller used for the EE floppies.

Signals and voltages are transferred between the system board and the diskette drives by a cable or printed circuit board. The printed-circuit board provides a 2- by 20-pin card edge connector for each diskette drive, with a locator key between pins 34 and 36. The cable interface provides a 2 x 17-pin header connector to each diskette drive, with a locator key below pin 17.) The following figures show the signals and DC voltages for each diskette drive connector type:

40-Pin Card-Edge Interface

Pin	Signal	Pin	Signal	
1	Ground	2	-High Density Select	
3	Reserved			
5	Ground	6	Reserved	
7	Ground	8	-Index	
9	Ground	10	Reserved	
11	Ground	12	-Drive Select	
13	Ground	14	Reserved	
15	Ground	16	-Motor Enable	
17	Ground	16	-Direction In	
19	Ground	20	-Step	
21	Ground	22	-Write Data	
23	Ground	24	-Write Enable	
25	Ground	26	-Track 0	
27	Ground	26	-Write Protect	
29	Ground	30	-Read Data	
31	Ground	32	-Head 1 Select	
33	Ground	34	-Diskette Change	
35	Ground	36	Ground	
37	Ground	36	+5VDC	
39	Ground	40	+12VDC	
Figure 8. Signal Assignments For the 40-pin Card Edge Interface				

34-pin Header Interface Non-Media Sense

This connector is for drives and controllers that do not support media sense.

Pin SignalPin Signal1 Ground2 -High Density Select3 + 5VDC4 Drive Type ID 1

5	Ground	6	+ 12VDC	
7	Ground	8	-Index	
9	Ground	10	Reserved	
11	Ground	12	-Drive Select	
13	Ground	14	Reserved	
15	Ground	16	-Motor Enable	
17	Ground	18	-Direction In	
19	Ground	20	-Step	
21	Ground	22	-Write Data	
23	Ground	24	-Write Enable	
25	Ground	26	-Track 0	
27	Ground	28	-Write Protect	
29	Ground	30	-Read Data	
31	Ground	32	-Head 1 Select	
33	Ground	34	-Diskette Change	
Figure 9. Signal Assignments For the 34-pin Header Interface				

34-pin Header Interface, Media Sense

This connector is for drives and controllers that support media sense.

Pin Signal	Pin Signal				
1 Ground	2 Data rate Select 1				
3 + 5VDC	4 Drive Type ID1/Drive status 1				
5 Ground	6 + 12VDC				
7 Ground	8 -Index				
9 Drive Type ID0/Drive status 0	10 Reserved				
11 Ground	12 -Drive Select				
13 Ground	14 -Security Command*				
15 Ground	16 -Motor Enable				
17 Media Type ID1/Drive status 3	18 -Direction In				
19 Ground	20 -Step				
21 Ground	22 -Write Data				
23 Ground	24 -Write Enable				
25 Ground	26 -Track 0				
27 Media Type ID0/Drive status 2	28 -Write Protect				
29 Ground	30 -Read Data				
31 Ground	32 -Head 1 Select				
33 Data rate Select 0	34 -Diskette Change				
Figure 10. Signal Assignments For the Enhanced 34-pin Header Interface					
* '90 ref has this Reserved					
All blue text is not present in '90 Tech Ref					

44-pin Planar Diskette Interface

This puppy is found on the 95A, Lacuna, and 9585 K-N models. All floppy drives used must support media sense.

Information extracted from IBM PS/2 Servers 95 and 95A Technical Reference, Type 9595, page 2-5, First Ed., Sept 1993. P/N 71G3726

Pin Signal
2 Data rate Select 1
4 Drive Type ID1/Drive status 1
6 + 12VDC

7	Ground	8 -Index
9	Drive Type ID0/Drive status 0	10 Reserved
11	Ground	12 -Drive Select
13	Ground	14 -Security Command 0
15	Ground	16 -Motor Enable 0
17	Media Type ID1/Drive status 3	18 -Direction In
19	Ground	20 -Step
21	Ground	22 -Write Data
23	Ground	24 -Write Enable
25	Ground	26 -Track 0
27	Media Type ID0/Drive status 2	28 -Write Protect
29	Ground	30 -Read Data
31	Ground	32 -Head 1 Select
33	Data rate Select 0	34 -Diskette Change
35	Drive Select 1	36 Ground
37	-Security Command 1	38 Ground
39	-Motor Enable 1	40 -Drive Select 2
41	Ground	42 -Security Command 2
43	Ground	44 -Motor Enable 2

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