appendix **A**

CONNECTORS

This appendix contains the pin assignments for all external connectors.

Table A-1
External Keyboard

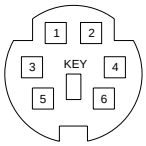
Connector	Pin	Signal
	1	Data
	2	Unused
	3	Ground
	4	+5 VDC
	5	Clock
	6	Unused

Table A-2
PS2-Compatible Mouse

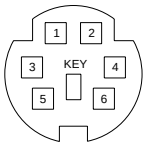
Connector	Pin	Signal
	1	Data
	2	Unused
	3	Ground
	4	+5 VDC
	5	Clock
	6	Unused

Table A-3
Ethernet RJ-45

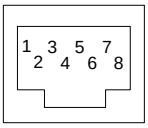
Connector	Pin	Signal
	1	(+) Transmit Data
	2	(-) Transmit Data
	3	(+) Receive Data
	4	Unused
	5	Unused
	6	(-) Receive Data
	7	Unused
	8	Unused

Table A-4
USB

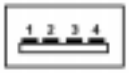
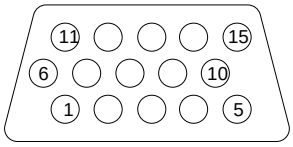
Connector	Pin	Signal
	1	Ground
	2	- Data
	3	+ Data
	4	+5 VDC

Table A-5
External Monitor



Pin	Signal	Pin	Signal
1	Red Analog	9	Blank
2	Green Analog	10	Ground
3	Blue Analog	11	Blank
4	Blank	12	Monitor ID (DD)
5	Ground	13	Horizontal Sync
6	Ground	14	Vertical Sync
7	Ground	15	Monitor ID (CC)
8	Ground		

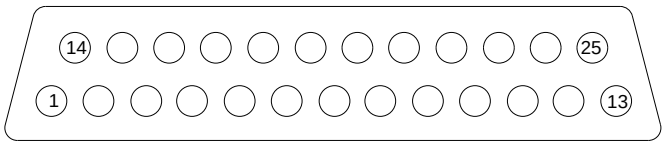
Table A-6
Diskette Drive Connector

25 23 … … … … … … … … 3 1

26 24 … … … … … … … 4 2

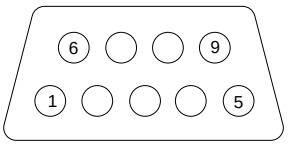
Pin	Signal	Pin	Signal
1	Vcc	14	Step_
2	Vcc	15	GND
3	Vcc	16	WRDATA_
4	DRSEO_	17	GND
5	Index_	18	WRGATE_
6	DSKCHANG_	19	GND
7	Open	20	TRACKO_
8	Ready	21	GND
9	MESIA_ID	22	WRPRO_
10	Motoron_	23	SIDESEL
11	+5V_Pullup	24	RDDATA_
12	Dir	25	GND
13	Speed_Select	26	GND

Table A-7
Parallel Connector



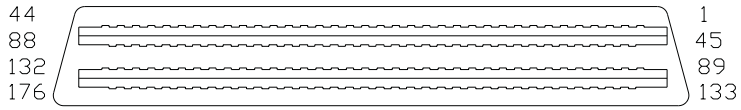
Pin	Signal	Pin	Signal
1	Strobe	14	Auto Linefeed
2	Data Bit 0	15	Error
3	Data Bit 1	16	Initialize Printer
4	Data Bit 2	17	Select In
5	Data Bit 3	18	Ground
6	Data Bit 4	19	Ground
7	Data Bit 5	20	Ground
8	Data Bit 6	21	Blank
9	Data Bit 7	22	Blank
10	Acknowledge	23	Ground
11	Busy	24	Ground
12	Paper End	25	Blank
13	Select		

Table A-8
Serial Connector



Pin	Signal	Pin	Signal
1	Carrier Detect	6	Data Set Ready
2	Receive Data	7	Ready to Send
3	Transmit Data	8	Clear to Send
4	Data Terminal Ready	9	Ring Indicator
5	Ground		

Table A-9
Convenience Base Expansion Connector



Pin	Signal	Pin	Signal
1	GND	31	GREEN
2	GND	32	CRTVSYNC
3	NC	33	RED
4	GND	34	DDCCLK
5	GND	35	PWRLED
6	NC	36	DDCDATA
7	GND	37	DOCK_PWR_EN
8	GND	38	GND
9	AD[31]	39	SPKL
10	DEVSEL	40	LINE_L
11	IRDY	41	SPK_R
12	STOP	42	LINE_R
13	TRDY	43	GND
14	GND	44	DOCK_LG
15	GND	45	GND
16	AD[12]	46	GND
17	AD[13]	47	REQ1
18	GND	48	REQ0
19	GND	49	GNTO
20	CLK1	50	RST
21	AD[0]	51	GND
22	GND	52	AD[23]
23	DOCK_S	53	AD[22]
24	CLK0	54	C/BE2
25	ACVCC	55	AD[20]
26	ACVCC	56	NC
27	ACVCC	57	AD[19]
28	ACVCC	58	FRAME
29	ACVCC	59	AD[17]
30	CRTHSYNC	60	GND

Continued

Table A-9 Convenience Base Expansion Connector *Continued*

Pin	Signal	Pin	Signal
61	GND	96	GND
62	AD[14]	97	CBE3
63	AD[15]	98	AD[21]
64	AD[1]	99	NC
65	AD[3]	100	NC
66	AD[2]	101	AD[18]
67	GND	102	C/BE1
68	MDATA	103	PAR
69	KBDATA	104	GND
70	MCLK	105	AD[16]
71	KBCLK	106	AD[6]
72	ACVCC	107	C/BE0
73	PMVCC5	108	AD[5]
74	PMVCC5	109	AD[7]
75	NC	110	AD[4]
76	BLUE	111	BATTLED
77	NC	112	SWC
78	PBUSY	113	TA
79	PDATA7	114	SWB
80	PBDATA3	115	SWD
81	PSLIN	116	SWA
82	GND	117	PMVCC5
83	GND	118	PMVCC5
84	SPK_IN	119	PMVCC5
85	+5v	120	PMVCC5
86	NC	121	PSELECT
87	ERDY	122	PDADA6
88	SYSVCC5A	123	PACK
89	STANDBy_SW	124	PDATA2
90	NC	125	PDATA0
91	NC	126	PFAULT
92	NC	127	GND
93	NC	128	GND
94	GNT1	129	DSRA
95	GND	130	DCDA

Continued

Table A-9 Convenience Base Expansion Connector *Continued*

Pin	Signal	Pin	Signal
131	RTSA	154	AD[8]
132	RIA	155	PORT_REP
133	POWER_SW	156	MSI
134	INTB	157	MSO
135	NC	158	TC
136	INTA	159	TD
137	NC	160	TB
138	GND	161	PMVCC5
139	NC	162	PMVCC5
140	AD[27]	163	PPE
141	AD[30]	164	PMVCC5
142	AD[26]	165	PDATA4
143	AD[29]	166	PDATA5
144	AD[25]	167	PDATA1
145	AD[28]	168	PINIT
146	AD[24]	169	PSTB
147	BLOCK	170	PAFD
148	GND	171	GND
149	PERR	172	GND
150	SERR	173	CTSA
151	AD[11]	174	SINA
152	AD[9]	175	DTRA
153	AD[10]	176	SOUTA

Table A-10
Mobile 3500 Expansion Unit Connector

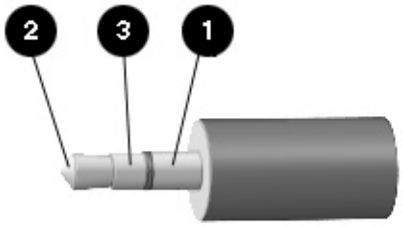
Pin	Signal	Pin	Signal
1	SDD0	45	MPBID0
2	SDD8	46	MPBID1
3	SDD1	47	PMVCC5
4	SDD9	48	PMVCC5
5	GND	49	PMVCC5
6	GND	50	PMVCC5
7	SDD2	51	HDSEL
8	SDD10	52	MPBDET_
9	SDD3	53	GND
10	SDD11	54	GND
11	GND	55	WRTPRT_
12	GND	56	RDATA_
13	SDD4	57	WGATE_
14	SDD12	58	TRK0_
15	SDD5	59	WDATA_
16	SDD13	60	STEP_
17	GND	61	GND
18	GND	62	GND
19	SDD6	63	FDIR
20	SDD14	64	1.6MODE
21	SDD7	65	DSKCHG_
22	SDD15	66	MTR01_
23	GND	67	INDEX_
24	GND	68	DRV1_
25	SDIOR_	69	ACGND
26	IRQ(15)	70	ACGND
27	SDIOW_	71	ACGND
28	HD2RST_	72	ACGND
29	SDCS1_	73	AC_VCC
30	SDDACK_	74	AC_VCC
31	SDCS3_	75	AC_VCC
32	HDD3ON	76	AC_VCC
33	GND	77	AC_VCC
34	GND	78	AC_VCC
35	FDDID1_	79	AC_VCC
36	SIORDY	80	AC_VCC
37	HDDLED2_	81	ACGND
38	SDDREQ	82	ACGND
39	SDA0	83	ACGND
40	SDA1	84	ACGND
41	SDA2	85	SLICEID
42	SLICE_ACIN	86	S_SPK_SD
43	GND	87	SPEAKER_OFF
44	GND	88	S_THERMAL
89	SYSVCC5	97	HEAD_R

Continued

Table A-10 Mobile 3500 Expansion Unit Connector *Continued*

Pin	Signal	Pin	Signal
90	SYSVCC5	98	HEAD_L
91	HDD2ON	99	GND
92	CB_SPK_IN	100	GND
93	GND	101	GND
94	GND	102	GND
95	CD_RIGHT	103	GND
96	CD_LEFT	104	GND

Table A-11
Speaker Connector



Pin	Signal
1	Shield
2	Left channel audio
3	Right channel audio

Table A-12
Pin Assignments for the PC Card and CardBus Interfaces

	16-bit				ATA Mode		
Pin	Mem.	I/O+ Mem.	32-bit CardBus	Zoomed Video	Mandatory Signal	Optional Signal	Functional Description
1	GND	GND	GND		GND		Ground
2	D3	D3	CADO		D3		Bi-directional lines for data transfer.
3	D4	D4	CAD1		D4		Bi-directional lines for data transfer.
4	D5	D5	CAD3		D5		Bi-directional lines for data transfer.
5	D6	D6	CAD5		D6		Bi-directional lines for data transfer.
6	D7	D7	CAD7		D7		Bi-directional lines for data transfer.
7	CE1_	CE1_	CCBE0_		CE1_		Card Enable. When active (low), enables bytes at even (CE1) address.
8	A10	A10	CAD9	HREF		A10	Address lines. For memory functions, allow up to 64-MB to be directly addressed. For I/O functions, determine port selection. ZV is Horiz. Sync. to ZV port.
9	OE_	OE_	CAD11		OE_		Output Enable. When active (low), enables read access of a PC Card (memory) by the host system.
10	A11	A11	CAD12	VS		A11	Address lines. For memory functions, allow up to 64-MB to be directly addressed. For I/O functions, determine port selection. ZV is Vert. Sync. to ZV port.

Continued

Table A-12 Pin Assignments for the PC Card and CardBus Interfaces *Continued*

	16-bit				ATA Mode		
Pin	Mem.	I/O+ Mem.	32-bit CardBus	Zoomed Video	Mandatory Signal	Optional Signal	Functional Description
11	A9	A9	CAD14	Y0	A9		Address lines. For memory functions, allow up to 64-MB to be directly addressed. For I/O functions, determine port selection. ZV is video data to ZV port (YUV:4:2:2).
12	A8	A8	CCBE1_	Y2	A8		ZV is video data to ZV port (YUV:4:2:2).
13	A13	A13	CPAR	Y4		A13	ZV is video data to ZV port (YUV:4:2:2).
14	A14	A14	CPERR_	Y6		A14	ZV is video data to ZV port (YUV:4:2:2).
15	WE_	WE_	CGNT_		WE_		Write Enable/Program. For normal operation, enables write access to PC Card (memory) by host. Supports programming of EEPROM on PC Card.
16	READY	IREQ_	CINT_		READY:IREQ_		Ready/Busy/Interrupt Requests. When high, indicates to host system that the PC Card is ready to service an access request. When low, indicates to the host system that the PC Card is either servicing or initiating a request.
17	Vcc	Vcc	Vcc		Vcc		DC power to the PC Card
18	Vpp1	Vpp1	Vpp1		Vpp1 or No Connect		Programming power to the PC Card
19	A16	A16	CCLK	UV2		A16	ZV is video data to ZV port (YUV:4:2:2).
20	A15	A15	CIRDY_	UV4		A15	ZV is video data to ZV port (YUV:4:2:2).
21	A12	A12	CCBE2_	UV6		A12	ZV is video data to ZV port (YUV:4:2:2).
22	A7	A7	CAD18	I²S_SCLK	A7		ZV is I²S data clock

Continued

Table A-12 Pin Assignments for the PC Card and CardBus Interfaces *Continued*

	16-bit				ATA Mode		
Pin	Mem.	I/O+ Mem.	32-bit CardBus	Zoomed Video	Mandatory Signal	Optional Signal	Functional Description
23	A6	A6	CAD20	I²S_MCLK	A6		ZV is master clock.
24	A5	A5	CAD21	RESERVED	A5	3-stated	ZV is N/C in PC Card (3 state).
25	A4	A4	CAD22	RESERVED	A4		ZV is N/C in PC Card (3 state).
26	A3	A3	CAD23	ADD3	A3		ZV is used for accessing PC Card
27	A2	A2	CAD24		A2		Retains function in ATA mode.
28	A1	A1	CAD25		A1		Retains function in ATA mode.
29	A0	A0	CAD26	ADD0	A0		Retains function in ATA mode. ZV is used for accessing PC Card.
30	D0	D0	CAD27		D0		Bi-directional lines for data transfer.
31	D1	D1	CAD29		D1		Bi-directional lines for data transfer.
32	D2	D2	RSRVD		D2		Bi-directional lines for data transfer.
33	WP	IOIS16_	CCLKRUN_	PCLK	WP:IOIS16_		Write Protect/Port is 16-bit. On some memory PC Cards, indicates (when high) status of write-protect tab. For I/O PC Cards, indicates (when low) to host system that PC Card has 16-bit functionality.
34	GND	GND	GND		GND		Ground
35	GND	GND	GND		GND		Ground
36	CD1_	CD1_	CCD1_		CD1_		Card Detect. When active (high), indicates to host system of PC Card installation.
37	D11	D11	CAD2		D11		Bi-directional lines for data transfer.
38	D12	D12	CAD4		D12		Bi-directional lines for data transfer.
39	D13	D13	CAD6		D13		Bi-directional lines for data transfer.
40	D14	D14	RSRVD		D14		Bi-directional lines for data transfer.

Continued

Table A-12 Pin Assignments for the PC Card and CardBus Interfaces *Continued*

	16-bit				ATA Mode		
Pin	Mem.	I/O+ Mem.	32-bit CardBus	Zoomed Video	Mandatory Signal	Optional Signal	Functional Description
41	D15	D15	CAD8		D15		Bi-directional lines for data transfer.
42	CE2	CE2	CAD10		CE2		Card Enable. When active (low), enables bytes at odd (CE2_) address.
43	VS1_	VS1_	CVS1		VS1_		
44	RSRVD	IORD_	CAD13		IORD_		Reserved/Port read. For I/O peripherals is active low during a host system read of an I/O port.
45	RSRVD	IOWR_	CAD15		IOWR_		Reserved/Port read. For I/O peripherals is active low during a host system write of an I/O port.
46	A17	A17	CAD16	Y1		A17	ZV is video data to ZV port (YUV:4:2:2).
47	A18	A18	RSRVD	Y3		A18	ZV is video data to ZV port (YUV:4:2:2).
48	A19	A19	CBLOCK_	Y5		A19	ZV is video data to ZV port (YUV:4:2:2).
49	A20	A20	CSTOP_	Y7		A20	ZV is video data to ZV port (YUV:4:2:2).
50	A21	A21	CDEVSEL_	UV0		A21	ZV is video data to ZV port (YUV:4:2:2).
51	Vcc	Vcc	Vcc		Vcc		DC power to the PC Card.
52	Vpp2	Vpp2	Vpp2		Vpp2 or No Connect		Programming power to the PC Card.
53	A22	A22	CTRDY_	UV1		A22	ZV is video data to ZV port (YUV:4:2:2).
54	A23	A23	CFRAME_	UV3		A23	ZV is video data to ZV port (YUV:4:2:2).
55	A24	A24	CAD17	UV5		A24	ZV is video data to ZV port (YUV:4:2:2).
56	A25	A25	CAD19	UV7		A25	ZV is video data to ZV port (YUV:4:2:2).
57	VS2_	VS2_	CVS2		VS2_		
58	RESET	RESET	CRST_		RESET		Reset

Continued

Table A-12 Pin Assignments for the PC Card and CardBus Interfaces *Continued*

	16-bit				ATA Mode		
Pin	Mem.	I/O+ Mem.	32-bit CardBus	Zoomed Video	Mandatory Signal	Optional Signal	Functional Description
59	WAIT_	WAIT_	CSERR_		WAIT_		Wait. When high, instructs host system to extend bus cycle.
60	RSRVD	INPAK_	CREQ_	I²S_LRCLK	INPAK_		Reserved/Port Acknowledge. Used by I/O peripherals to acknowledge interrupt request. ZV is audio L/R select PCM.
61	REG_	REG_	CCBE3		REG_		Register Select. When active low, address selects attribute memory location. When high, address selects normal memory location.
62	BVD2	SPKR_	CAUDIO		Logic High unless BVD: SPKR_	LED_	Battery Voltage Detect/Speaker Output. Can be used (by host system) to monitor PC Card's internal battery condition. Also used by the PC Card for audio output to host system. ZV is audio PCM data.
63	BVD1	STSCHG_	CSTSCHG_		Logic High unless BVD: STSCHG_	PDIAG	Battery Voltage Detect/Card Status Changed. Used by the host system to monitor the PC Card's internal battery condition. Used by the PC Card to indicate a change in status.
64	D8	D8	CAD28		D8		
65	D9	D9	CAD30		D9		
66	D10	D10	CAD31		D10		
67	CD2_	CD2_	CCD2_		CD2_		Card Detect. When active (high), indicates to host system of PC Card installation.
68	GND	GND	GND		GND		Ground

Table A-13
Expansion Base AC Power Connector

Pin	Signal
1	Neutral
2	Ground
3	Line