

SYSTEM BOARD D1120

*ADDITIONAL TECHNICAL
MANUAL*

Is there ...

... any technical problem or other question you need clarified?

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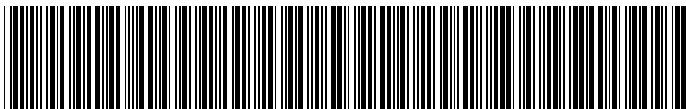
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System Board D1120

Additional Technical Manual

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Contents

Introduction.....	1
Features	1
Mechanics	2
Connectors and Jumpers.....	4
Internal serial port 2 (external via wire)	4
Power on switch connector (ON/OFF switch).....	4
Front panel connector.....	5
Fan 2 connector.....	6
Wake on LAN (WOL) connector.....	6
CD-ROM Audio connector (internal)	6
Auxiliary (MPEG, TV) Audio connector (internal)	7
Fan 1 connector.....	7
Configuration	7
Functions controlled by the switch block	7
Power	8
Power requirement	8
Power loadability.....	8
Documentation	9
Installing drivers	9
Upgrades.....	10
Main memory.....	10
Troubleshooting.....	10
Message BIOS update.....	10
The screen stays blank.....	10

Introduction



This system board is available in different configuration levels. Depending on the hardware configuration of your device, it may be that you cannot find several options in your version of the system board, even though they are described.

You may find further information e. g. in the complete Technical Manual for the system board and in the description "BIOS Setup".

Further information to drivers is provided on the supplied drivers diskettes or on the "Drivers & Utilities" or "ServerStart" CD. For detailed information please look at chapter "[Installing drivers](#)".

Features

Function	Version D1120-A	Function	Version D1120-A
Processor socket	PGA 370	Wake On LAN	x
Processor	Intel Celeron	Keyboard On	-
Formfaktor	µATX	IrDA	
Front Side Bus in MHz	66/100	Chipcardreader	-
Chipset	i 810	Save to Disk (ACPI S4)	x
Memory sockets	2 DIMM	Save to RAM(ACPI S3)	x
ISA slots	-	LAN onboard	-
PCI slots	4	Audio onboard	AD 1881
ISA/PCI shared	-	VGA onboard	i 810
AGP-Port	-	4MB Display Cache	-
Systemmonitoring	-		
Thermal Management	-		



Computer mainboards and components contain very delicate IC chips. To protect them against damage caused from electric static, you have to follow some precautions:

- Unplug your computer when you work inside.
- Hold components by the edge, don't touch their leads.
- Use a grounded wrist strap.

Place the mainboard and the components on a grounded antistatic pad whenever you work outside the computer.

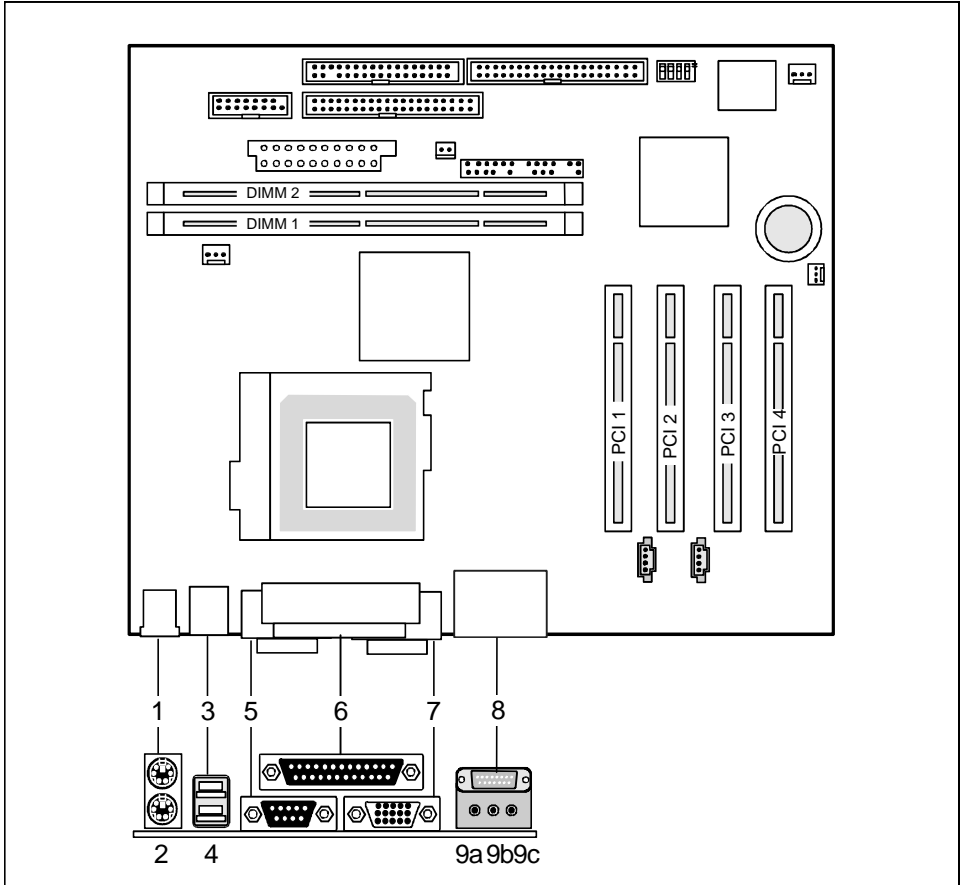
Once you have installed the system board, you should remove the battery protection (i.e. the thin plastic plate between battery and contact spring).

Mechanics

Layout

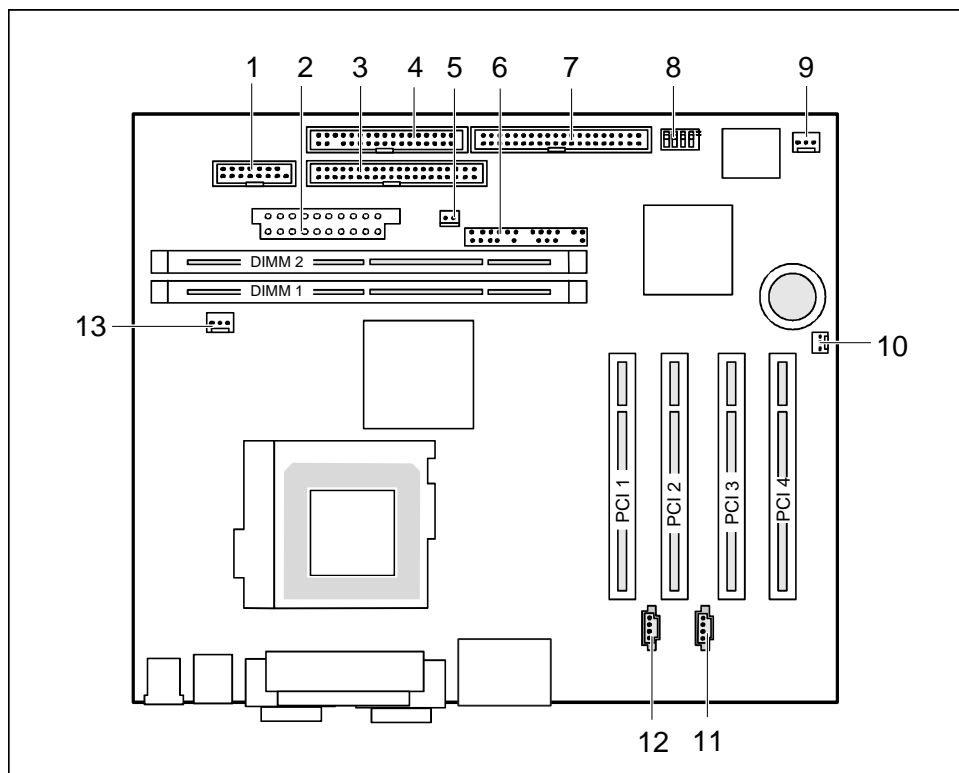
µ-ATX 9,6" x 8" (243,84 mm x 203,2 mm)

Some of the following connectors are optional and may therefore not be included on your mainboard.



- 1 = PS/2 mouse port
- 2 = PS/2 keyboard port
- 3 = USB port B
- 4 = USB port A

- 5 = Serial port 1
- 6 = Parallel port
- 7 = VGA port
- 8 = Game/Midi port
- 9a = Audio Line Out
- 9b = Audio Line In
- 9c = Audio Micro In



- | | |
|---|--------------------------------------|
| 1 = Serial chipcard reader interface or serial port 2 | 7 = IDE drives 1 and 2 (primary) |
| 2 = Power supply | 8 = Switch block |
| 3 = IDE drives 3 and 4 (secondary) | 9 = Fan 2 (e. g. for the processor) |
| 4 = Floppy disk drive | 10 = Wake On LAN |
| 5 = On/Off switch | 11 = CD Audio Input |
| 6 = Connector for front panel | 12 = AUX Audio Input |
| | 13 = Fan 1 (e. g. for the processor) |

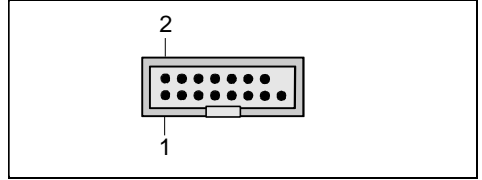
The components and connectors marked do not have to be present on the system board.

Connectors and Jumpers



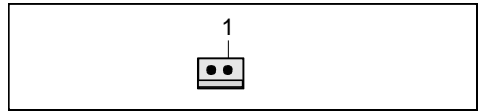
Some of the following connectors are optional!

Internal serial port 2 (external via wire)



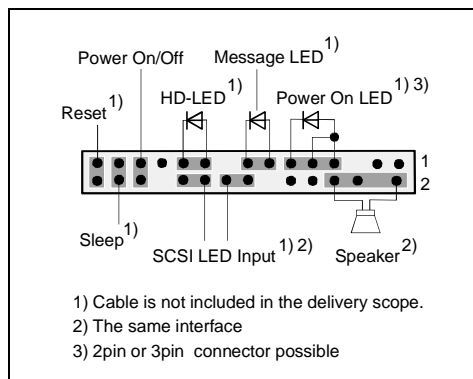
Pin	Signal	Pin	Signal
1	DCD 2	2	DSR 2
3	SIN 2	4	RTS 2
5	SOUT 2	6	CTS 2
7	DTR 2	8	reserved
9	GND	10	VCC Auxiliary
11	EXT SMI (low asserted)	12	VCC
13	RESET (high asserted)	14	GND
15	GND	16	Key

Power on switch connector (ON/OFF switch)



Pin	Signal	Notes
1	GND	
2	Power on pulse (low asserted)	

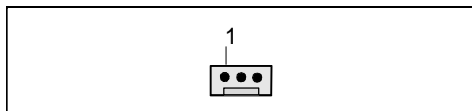
Front panel connector



Pin	Signal	Pin	Signal
1	Not connected	2	Speaker
3	Standby LED (Anode)	4	Key
5	Key	6	GND
7	PON_LED (Anode)	8 ¹⁾	VCC or GND
9	PON_LED (Anode)	10	Key pin
11	PON_LED (Cathode/GND) Standby LED (Cathode/GND)	12	Key pin
13	Message LED (Anode)	14	Key
15	Message LED (Cathode)	16	Not connected
17	Key	18	SCSI LED input (low asserted)
19	HD_LED (Anode)	20	SCSI LED input (low asserted)
21	HD_LED (Cathode)	22	Not connected
23	GND	24	Key
25	Power button (low asserted)	26	GND
27 ²⁾	Sleep button (low asserted)	28	GND
29	Reset button (low asserted)	30	GND

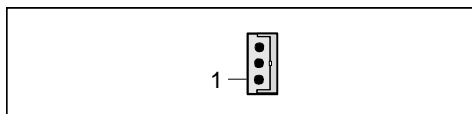
- 1) Pin 8 is connected to VCC if audio is not onboard.
Pin 8 is connected to GND if audio is onboard.
- 2) The sleep button (optional) functions only for operating systems with APM (not with ACPI).

Fan 2 connector



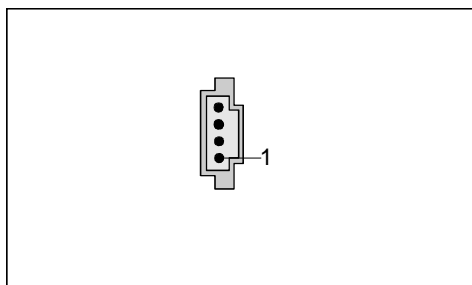
Pin	Signal
1	GND
2	+12 V
3	Fan sense

Wake on LAN (WOL) connector



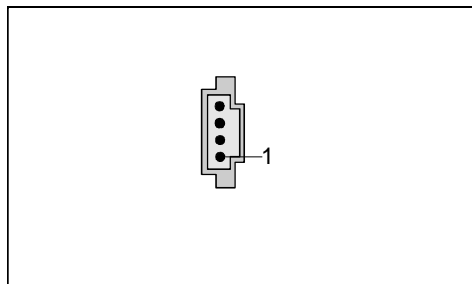
Pin	Signal	Notes
1	VCC Auxiliary	
2	GND	
3	Wake pulse (high asserted)	

CD-ROM Audio connector (internal)



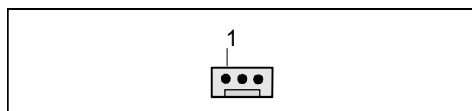
Pin	Signal
1	Left CD audio input
2	CD GND
3	CD GND
4	Right CD audio input

Auxiliary (MPEG, TV) Audio connector (internal)



Pin	Signal
1	Left AUX audio input
2	Analog GND
3	Analog GND
4	Right AUX audio input

Fan 1 connector



Pin	Signal
1	GND
2	Controlled fan voltage (0...+12 V)
3	Fan sense

Configuration

Functions controlled by the switch block

Function	SW1	SW2	SW3	SW4
Password Skip	on	X	X	X
Off	off	X	X	X
Recovery BIOS	X	on	X	X
Off	X	off	X	X
Floppy write protect	X	X	on	X
Off	X	X	off	X
Clear CMOS	X	X	X	on
Off	X	X	X	off

Power

Power requirement

Source	Voltage	Maximum variation	Maximum current	Comment
Main power supply	+5.0 V	±5 %	15 A	
Main power supply	+12 V	±10 %	350 mA	
Main power supply	-12 V	±10 %	150 mA	
Main power supply	+3.3 V	±5 %	4 A	
Auxiliary power supply	+5.0 V	±5 %	1 A	

Power loadability

Fuse number	Maximum Fuse current	Function	Maximum function current
1	750 mA	Keyboard Port	Not specified
		Mouse Port	Not specified
		Game Port	Not specified
		VGA Connector	minimum 50 mA
2	750 mA	Universal serial bus (USB) Port A	500 mA
3	750 mA	Universal serial bus (USB) Port B	500 mA

Documentation

- ▶ Insert the "Drivers & Utilities" CD.
- ▶ If the CD does not start automatically, run the *START.EXE* file in the main directory of the CD.
- ▶ Select your system board or your device.
- ▶ Select *Documentation*.
- ▶ Select - *Technical Manuals*
- ▶ Select - *Technical Manuals (BIOS)*



You may have to install the Acrobat Reader - Software on the CD-ROM (path: utls/acrobat) before reading!

For more details please read the according readme.txt files.

Installing drivers

- ▶ Insert the "Drivers & Utilities" CD.
- ▶ If the CD doesn't start automatically call the *START.EXE* file in the main directory of the CD.
- ▶ If the system board list is displayed select the system board or select under *Driver* the operating system used and the audio and video drivers.

Upgrades

Main memory

Support: The system needs at least one module and can manage at most two SDRAM modules.

PC100 modules must have an SPD-EEPROM*.
It is not possible to mix SDRAM and EDO modules.

Size: From 16 Mbytes up to 512 Mbytes SDRAM

Technology: 100 MHz unbuffered DIMM modules.
168 pin, 3.3V, 100 MHz SDRAM
2M, 4M, 8M, 16M and 32M x 64 bit
2M, 4M, 8M, 16M and 32M x 72 bit (without ECC)

Granularity: For one socket 16, 32, 64, 128 or 256 Mbyte

*: The EEPROM of PC100 / PC66 modules contain a number of critical timing parameters and data regarding the chip and the module vendor. Due to this the mainboard will properly recognize the module by reading all important timing parameters specified in the EEPROM via the **Serial Presence Detect** interface.

Troubleshooting

Message BIOS update

The System BIOS provides optimum support for the processor you have chosen. If the message `BIOS update for installed CPU failed`

appears the microcode required for the processor inserted must still be loaded. Further information on this is available in the "BIOS Setup" manual on the "Drivers & Utilities" CD provided.

The screen stays blank

If your screen stays blank this may have the following cause:

The wrong RAM memory module has been inserted

- ▶ See the chapter "Main Memory" for information which memory modules can be used.