

User Manual

Revision v1.3 January 2009



Panel PC Series Hardware System

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Manual Version 1.3

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Safety

IMPORTANT SAFETY INSTRUCTIONS

1. To disconnect the machine from the electrical power supply, turn off the power switch and remove the power cord plug from the wall socket. The wall socket must be easily accessible and in close proximity to the machine.
2. Read these instructions carefully. Save these instructions for future reference.
3. Follow all warnings and instructions marked on the product.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
8. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product

CE MARK



This device complies with the requirements of the EEC directive 89/336/EEC with regard to "Electromagnetic compatibility" and 73/23/EEC "Low Voltage Directive"

FCC

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

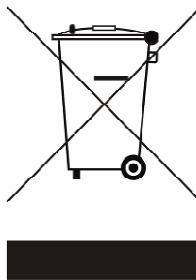
- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation

CAUTION ON LITHIUM BATTERIES

There is a danger of explosion if the battery is replaced incorrectly. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

LEGISLATION AND WEEE SYMBOL

2002/96/EC Waste Electrical and Electronic Equipment Directive on the treatment, collection, recycling and disposal of electric and electronic devices and their components.



The crossed dustbin symbol on the device means that it should not be disposed of with other household wastes at the end of its working life. Instead, the device should be taken to the waste collection centers for activation of the treatment, collection, recycling and disposal procedure.

To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract.

This product should not be mixed with other commercial wastes for disposal

Revision History

Revision Number	Description	Revision Date
1.0	Initial release	May 2007
1.1	<ul style="list-style-type: none">● Cover page. photo update● I/O view photo update● chapter4. reorganized and photo updated● chapter5. CPU support, Brightness, Touch Screen Type, Environment, Dimension, Mounting info updated● 2nd VGA added● Chapter8. photo updated	Oct. 2007
1.3	<ul style="list-style-type: none">● B78 MB upgraded from v1.1 to B78 V2.2● B98 MB V1.0 added● Drivers upgraded● 2nd Fan added for B98● Specification changed (B98 MB added, HDD changed from PATA to SATA)● Driver CD photo updated to v1.9● I/O changed from Line-in, Line-out to MIC-In, Line-Out● Jumper Settings upgraded● Photo of rear cover of system changed	Feb. 2009

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1. Item Checklist

Take the system unit out of the carton. Remove the unit from the carton by holding it by the foam inserts. The following contents should be found in the carton:

a. Driver CD



b. COM port Cable (2)



c. Power Cable



d. Power Adapter

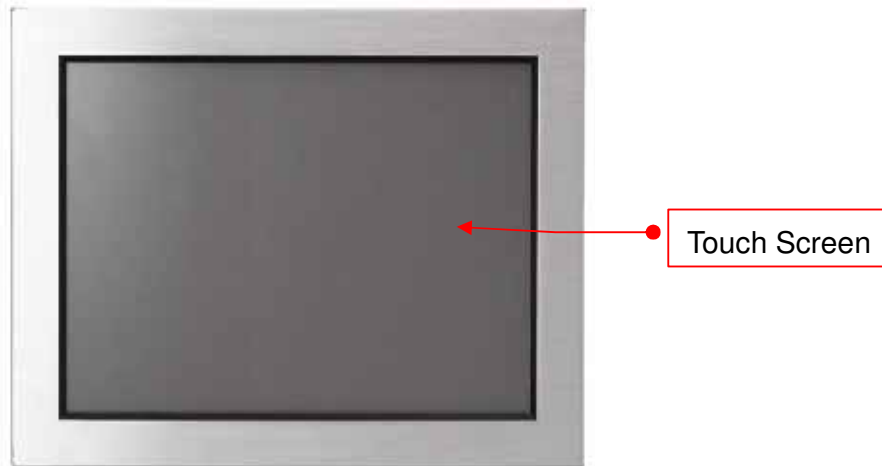


e. System

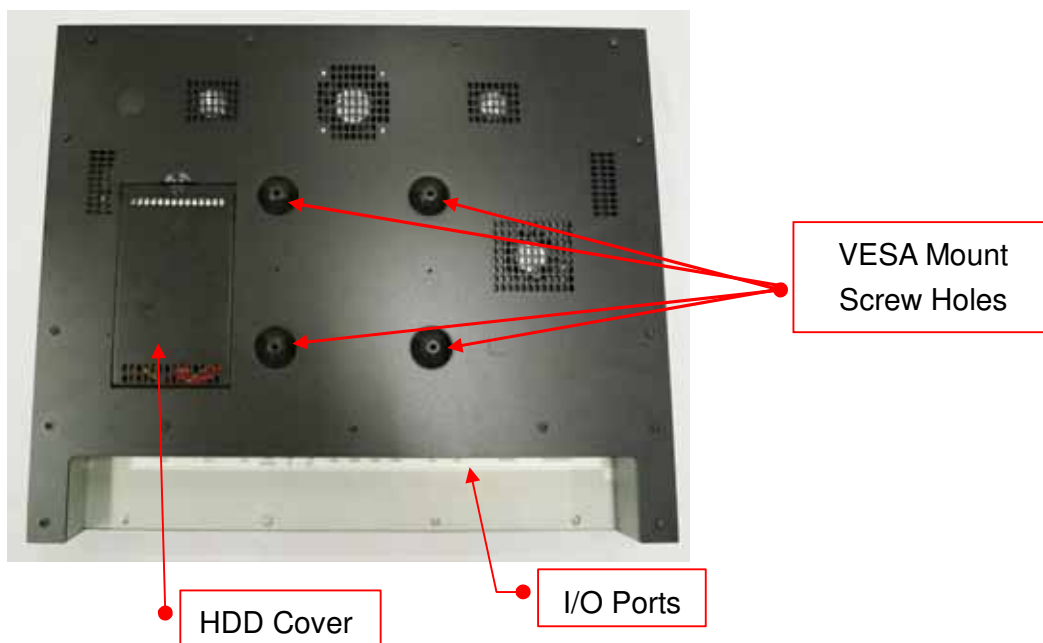


2. System View

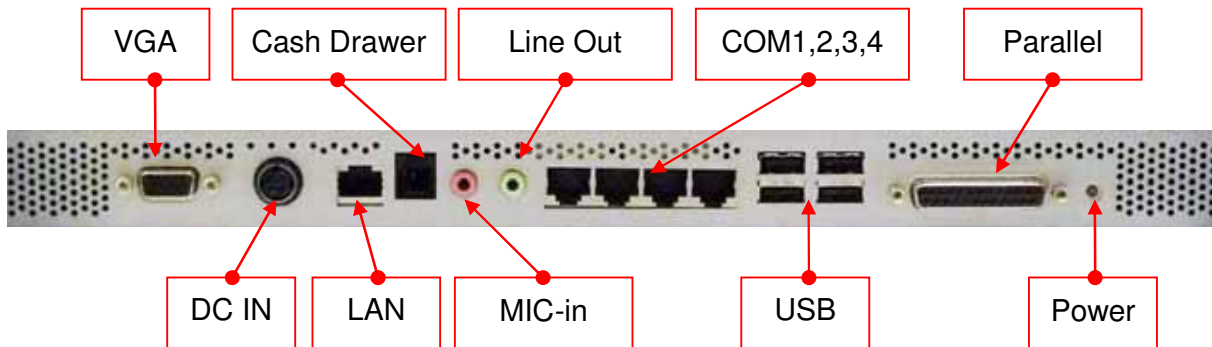
2.1 Front View



2.2 Rear View



2.3 I/O View



3. Drivers Installation

3.1 B78 V2.2 Driver List

Folder/File	File Description
<CD>:\ K790_B78.htm	Driver List
<CD>:\COMMON\INTEL\Chipset\i8xx	Chipset Driver
<CD>:\COMMON\INTEL\USB20	USB 2.0 Driver
<CD>:\COMMON\INTEL\VGA\i85x	VGA Driver
<CD>:\COMMON\Ac97_codec\Realtek\ALC202A	Audio Driver
<CD>:\COMMON\ POS_Touch	POSTouch Driver
<CD>:\COMMON\ELO_Touch	ELO Touch Driver
<CD>:\COMMON\Lan_driver\Realtek_PCI	10/100/1000Mb LAN Driver

-The following procedures are for Windows 2000/XP, other platforms are similar.

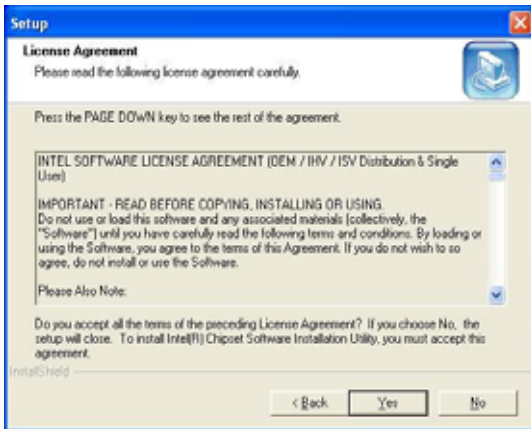
3.2 B78 Chipset Driver Installation



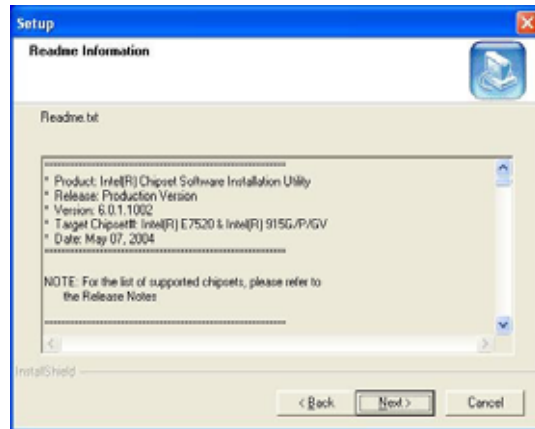
a. Double-click
“infinst_enu_6.0.1.1002.exe” on the
My computer window.



b. Click the “Next” button on the
Welcome window.



c. Click the “Yes” button on the License
Agreement window.



d. Click the “Next” button on the
Readme Information window.



e. Click the “Finish” button and restart your system.

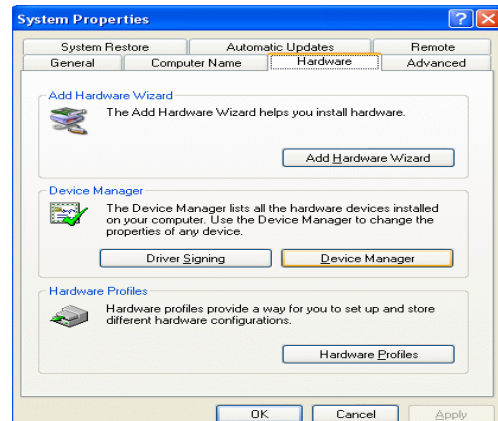
3.3 B78 USB 2.0 Driver Installation

OS Requirements

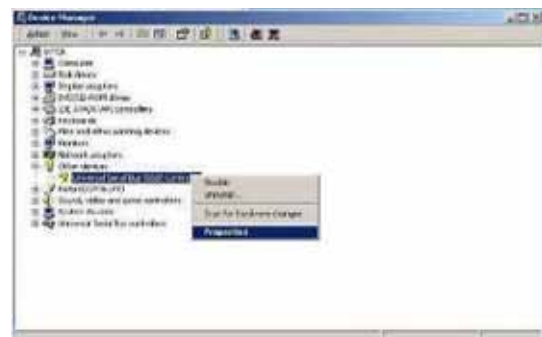
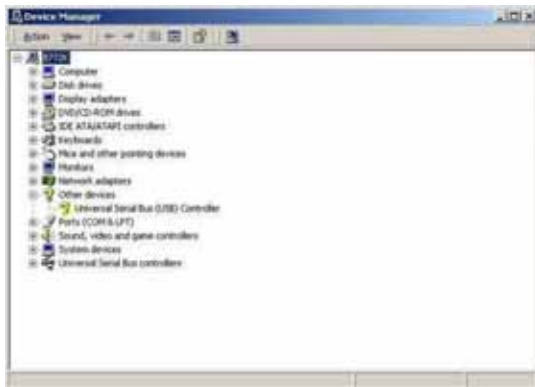
OS	USB 2.0 requirements
Windows XP	USB 2.0 drivers are provided in Service Pack 1 (SP1) for Windows XP, which is available through Windows Update .
Windows 2000	USB 2.0 drivers are available through Windows Update or Service Pack 4.
Windows 98SE/Me	USB 2.0 drivers are available on the Intel developer site .
Windows 98 (Retail)	Developers and OEMs should contact Orange Ware . For end-users, if your device does not ship with Windows 98 drivers, contact your device or system manufacturer. If USB 2.0 drivers are not available, your device will operate at USB 1.1 speeds
Linux	USB 2.0 support is available in kernel 2.4.19 or later development kernels, or in the 2.4.19 or later production kernel. More information .



a. Right click My Computer on the desktop and select “properties”



b. Select “Hardware”→”Device Manager” on system properties



c. Select "Other Devices" → "Universal Serial Bus (USB) Controller" →"Properties" on Device Manager



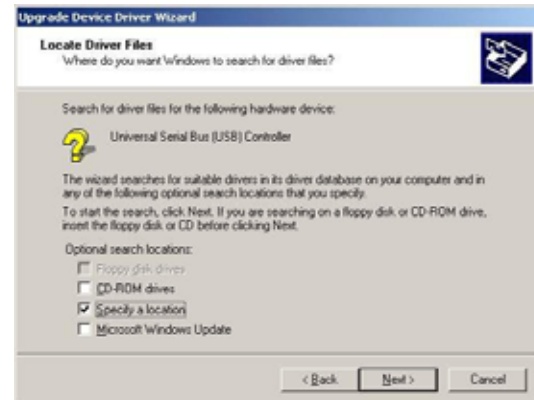
d. Select “Device”→ “Update Driver



e. Click the "Next" button on the welcome window.



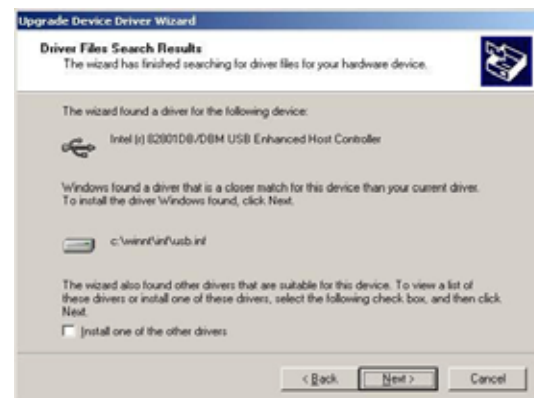
f. Select “Search for a suitable...” and click the “Next” button on the Install Hardware Device Drivers window



g. Select “Specify a location” and click the “Next” button on the Locate Driver Files window.



h. Press “Browse” to select the driver and then click the “OK” button to go to the next page



i. Click the “Next” button on the Driver Files Search Results window.

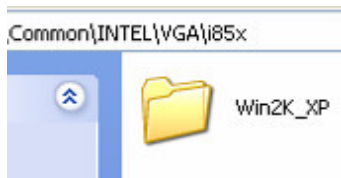


j. Click the “Finish” button to complete this process.

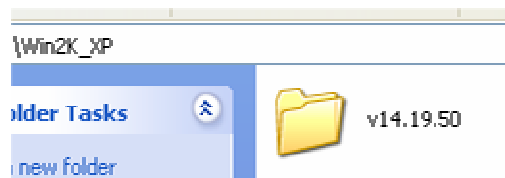


k. Finished.

3.4 B78 VGA Driver Installation



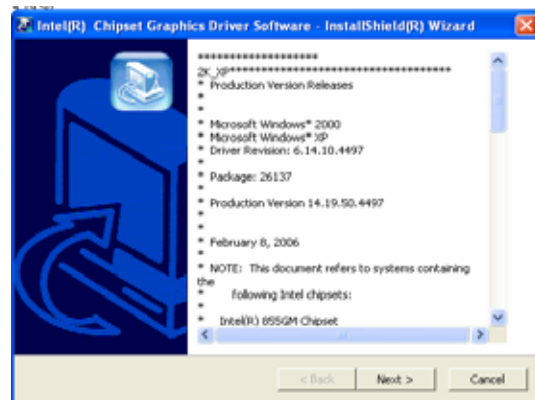
a. Double-click on “Win2K_XP” on the My Computer window.



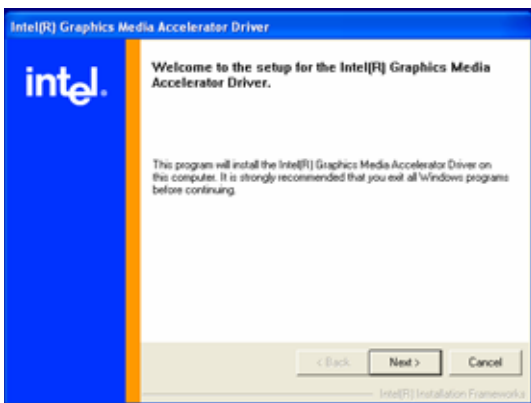
b. Double-click on “v14.19.50”



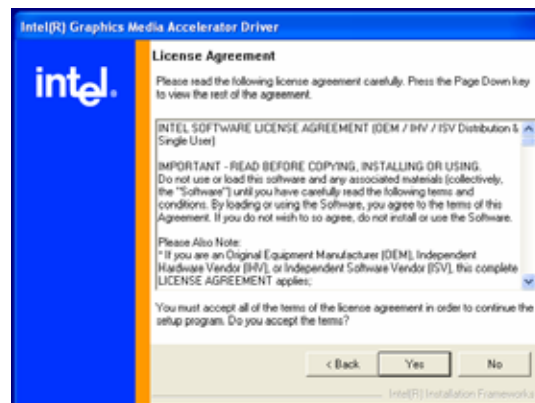
c. Double-click on “win2K_xp141950.exe”



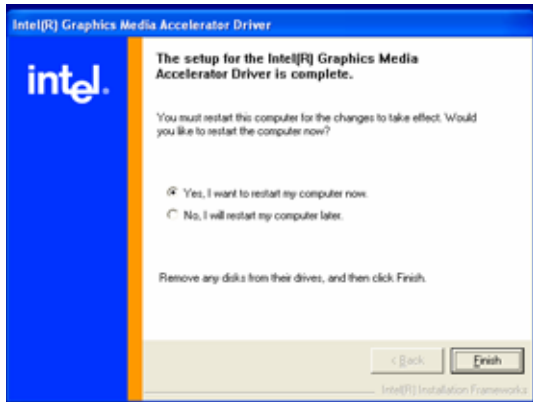
d. Click the “Next” button on the Intel(R) Chipset Graphics Driver Software-Install Shield(R) Wizard window.



e. Click the “Next” button on the Intel(R) Graphics Media Accelerator Driver window.

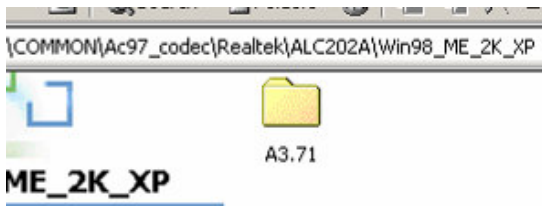


f. Click the “Yes” button on the Intel(R) Graphics Media Accelerator Driver window.



- g. Select “Yes, I want to restart my computer now” and click the “Finish” button on the Intel(R) Graphics Media Accelerator Driver window.

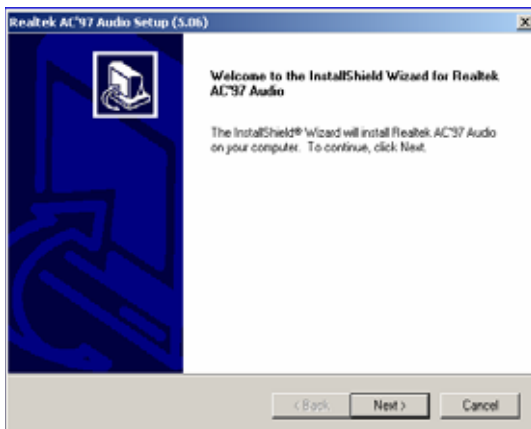
3.5 B78 Audio Driver Installation



- a. Double-click “A3.71” on the My Computer window.



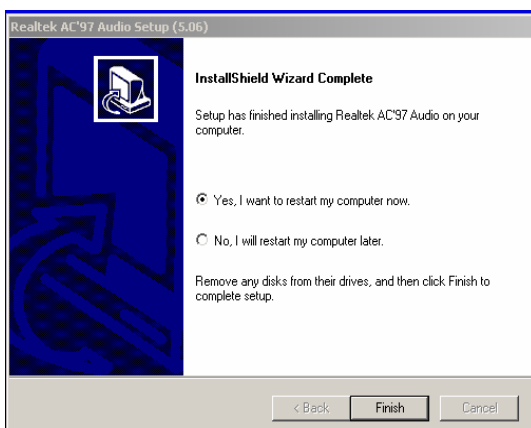
- b. Double-click “wdm_a371.exe” on the My Computer window.



- c. Click “Next” button on the Realtek AC'97 Audio Setup window.



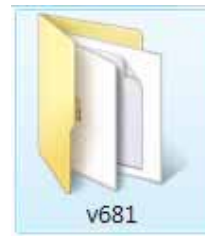
- d. Click “Yes” button on the Digital Signature Not Found window.



- e. Click “Finish” button on the Realtek AC'97 Audio Setup window.

3.6 B78 10/100/1000Mb LAN Driver Installation

PCI 100Mb LAN for B78 v1.0	DOS
	Win9X, ME, 2K, XP
	Vista
	Linux
PCI 1000Mb LAN for B78 v2.0	DOS
	Win9X, ME, 2K, XP
	Vista
	Linux

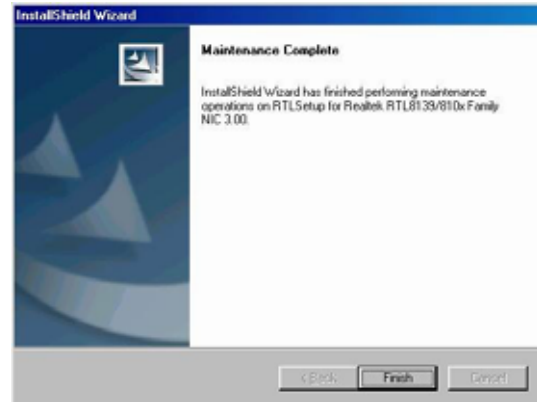


a. In the Realtek RTL8110 section, click on Win9X, ME, 2K, XP

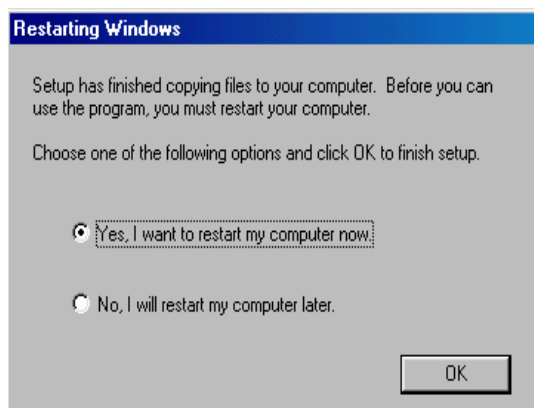
b. Double-click v681



c. Double-click Setup.exe



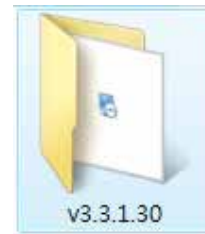
d. Click the Finish button on the Maintenance Complete window.



e. Click the OK button and restart your system.

3.7 B78/B98 POSTouch Driver Installation

Touch Screen	DOS	
• ELO	Windows	v463
	Linux	
Touch Screen	DOS	
• POS Touch	Windows	
	Linux	



a. In the **POSTouch** section, click **Windows**.

b. Double-click on **v3.3.1.30**.



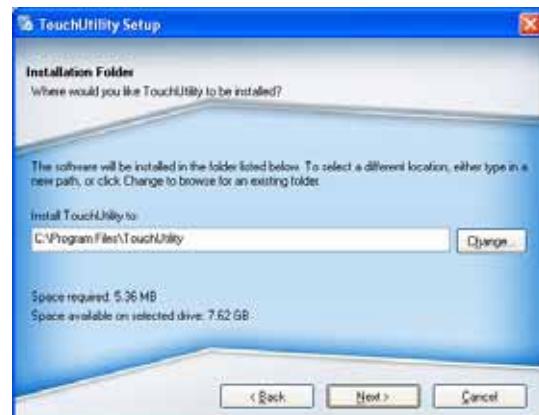
c. Double-click **Setup.exe**.



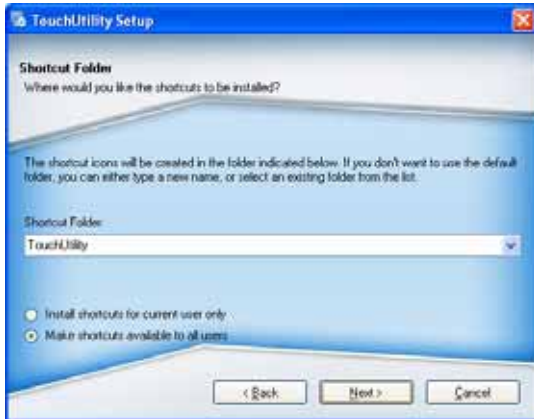
d. Click **Next**.



e. Select **I agree...** and click **Next**.



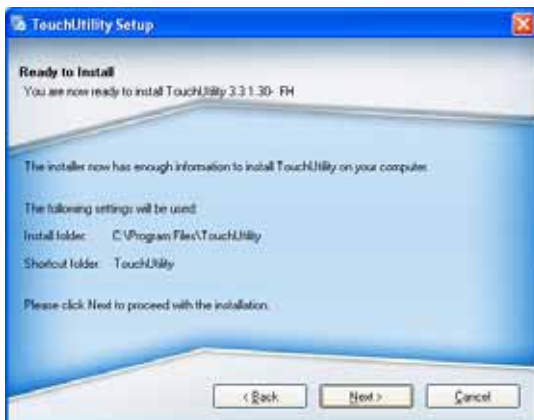
f. Select the installation folder for the touch utility driver and click **Next**.



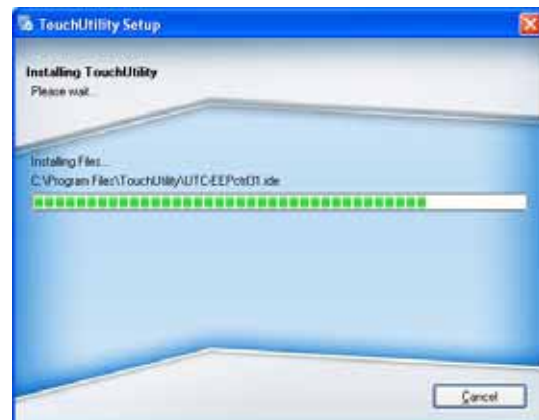
g. Select the shortcut folder for the touch utility driver and click **Next**.



h. Click **Next**.



i. Click **Next**.



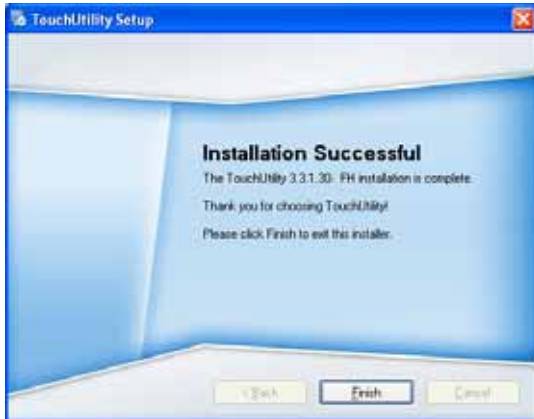
j. The computer is installing the touch driver



k. Click **Continue Anyway**.



l. The serial ports are scanned for a touch device. The Touch panel is on COM5.



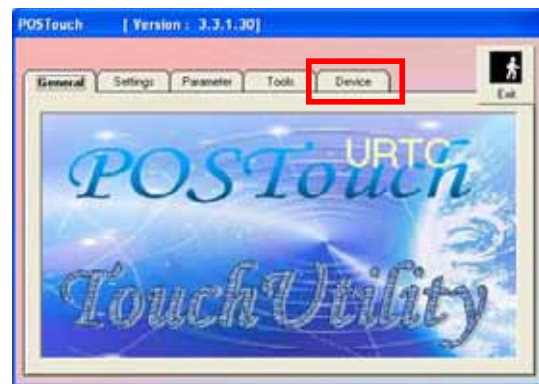
m. Click **Finish**.



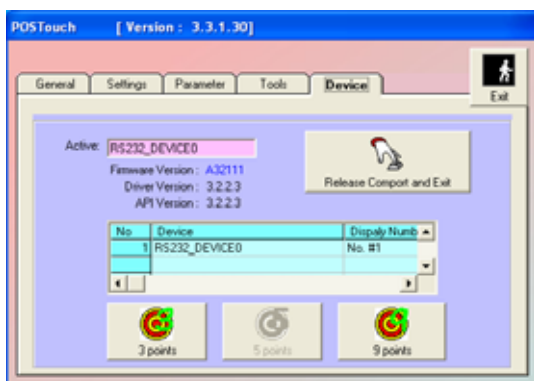
n. Click **OK** to restart the computer and finish the touch utility installation.



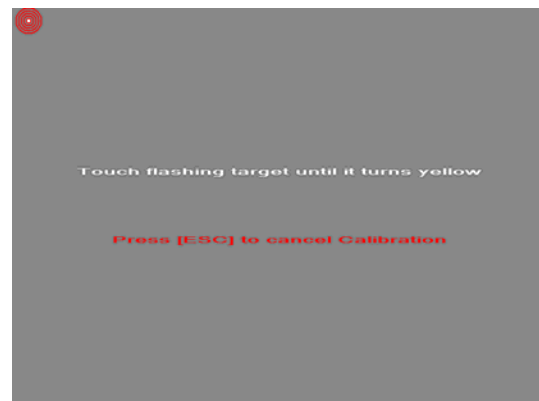
o. The computer has restarted. Click on the Start button, select Programs, then select **Touchutility**.



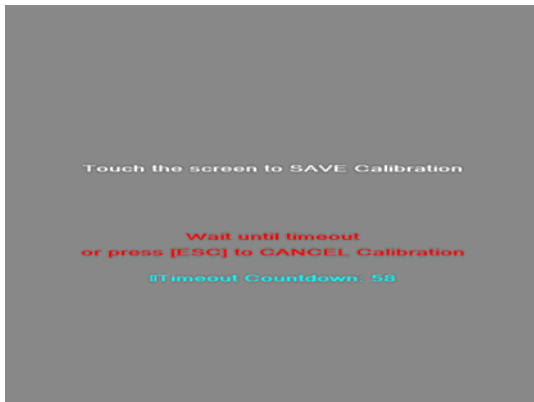
p. Select the Device tab.



q. Click on the 3 points or the 9 points calibration button.



r. Follow the instructions on the screen to do the calibration of the touch panel



- s. Touch the screen to save the calibration

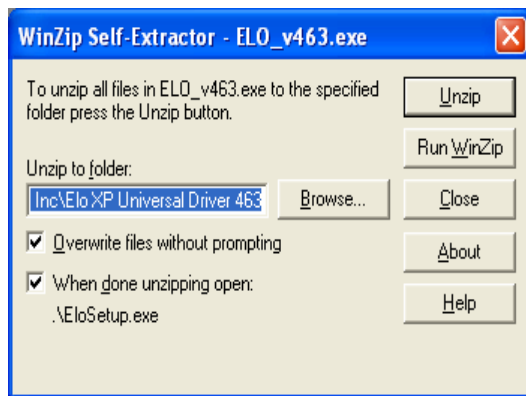
3.8 B78/B98 ELO Touch Driver Installation



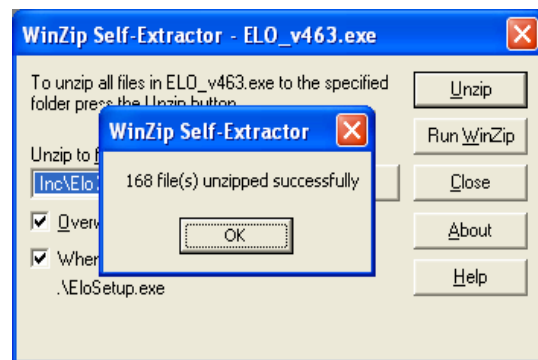
a. In the ELO section, click on Windows



b. Click OK.



c. Click Unzip to extract the driver to the specified folder.



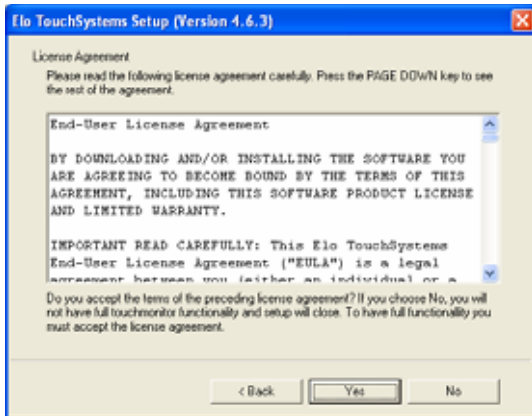
d. Finished unzipping. Click OK.



e. Click Next.



f. Check the box Install Serial Touchscreen Drivers and click Next.



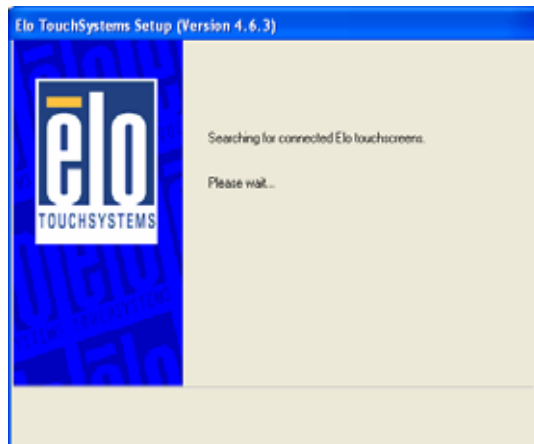
g. Click Yes to accept the End User License Agreement



h. Examining serial ports on the computer



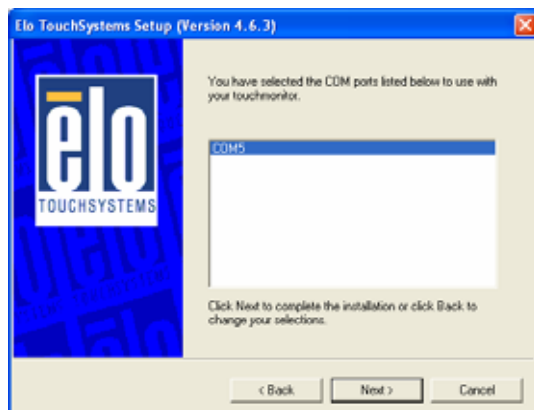
i. Check the box Auto-detect Elo devices and click Next.



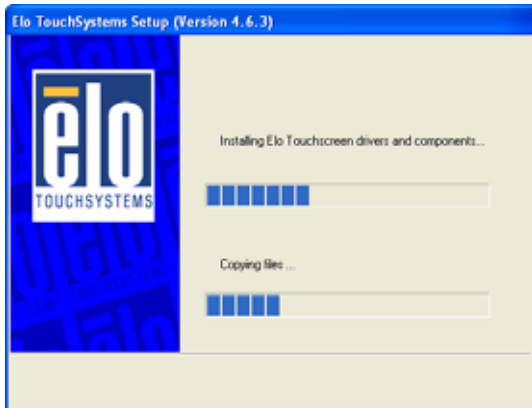
j. The computer is searching for a connected to Elo Touchscreen



k. Touchscreen found on COM5. Click Next.



l. Click Next to complete the driver installation



m. Driver is installing



n. The driver installation and setup are now complete. Click Finish to start the touchscreen calibration.



o. Follow the instructions on the screen to calibrate the Touchscreen.



p. Verify that the touchscreen is working correctly by moving your finger on the screen. The mouse cursor should follow your finger. Finally, touch the green checkmark to save the calibration settings and exit the program

3.9 B98 V1.0 Driver List

Folder/File	File Description
<CD>:\K790_B98.htm	Driver List
<CD>:\COMMON\INTEL\Chipset\i9xx	Chipset Driver
<CD>:\COMMON\INTEL\VGA\i94x	VGA Driver
<CD>:\COMMON\Audio\Realtek_HD_Codec	Audio Driver
<CD>:\COMMON\ POS_Touch	POSTouch Driver
<CD>:\COMMON\ELO_Touch	ELO Touch Driver
<CD>:\COMMON\Lan_driver\Realtek_PCIe	10/100/1000Mb LAN Driver

-The following procedures are for Windows 2000/XP, other platforms are similar.

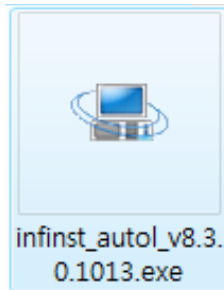
3.10 B98 Chipset Driver Installation

Model name (Motherboard)	Function	OS	Note
(B98)	Chipset	Windows	
		Windows XP	
	VGA	Vista	
		Linux	
	Audio	Win2K_XP_2003	
	• Realtek HD Codec	Vista	
		Linux	
	Windows XP Update	Dual Core CPU	
	SAW Touch Screen	Chipset	
	• ELO Touch	DOS	
		Windows	v463

a. In the Chipset section, click on Windows



b. Double-click **v8.3.0.1013**.



c. Double-click **infinst_autol_V8.3.0.1013.exe**.



d. Click **Next**



e. Click **Yes**.



f. Click **Next**.



g. The driver installation starts...



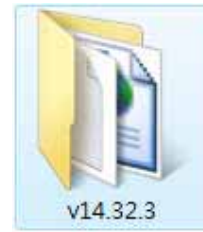
h. Click **Next**.



i. Click **Finish** to restart the system.

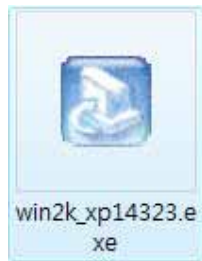
3.11 B98 VGA Driver Installation

Model name (Motherboard)	Function	OS	Note
(B98)	Chipset	Windows	
		Win2K_XP	
	VGA	Vista	
		Linux	
	Audio	Win2K_XP, 2003	
	• Realtek HD Codec	Vista	
		Linux	
	Windows XP update	Dual Core CPU	
		Chipset	
	SAW Touch Screen	DOS	
	• ELO Touch	Windows	v463



a. In the VGA section, click on **Win2K_XP**.

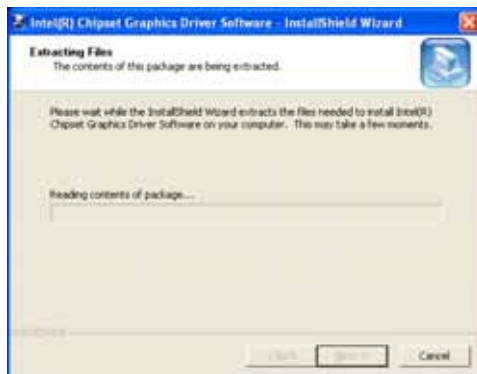
b. Double-click **v14.32.3**.



c. Double-click **win2k_xp14323.exe**



d. Click **Next**.



e. Extracting files...



f. Click **Next**.



g. Click **YES** to accept the license agreement



h. Click **Next**.



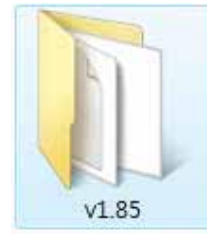
i. Click **Next**.



j. Select **Yes...** and click **Finish** to restart the computer

3.12 B98 Audio Driver Installation

Model name (Motherboard)	Function	OS	Note
(B98)	Chipset	Windows	
		Win2K_XP	
	VGA	Vista	
		Linux	
	Audio	Win2K_XP_2003	
	• Realtek HD Codec	Vista	
		Linux	
	Windows XP update	Dual Core CPU	
	SAW Touch Screen	Chipset	
	• ELO Touch	DOS	
		Windows	v463

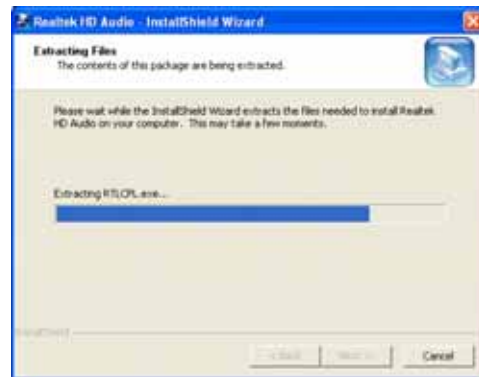


a. In the Realtek HD Codec section, click on **Win2K, XP, 2003**

b. Double click on **v1.85**



c. Double-click **WDM_R185.exe**



d. Driver files are extracted...



e. Click **Next**.



f. The computer is installing the Audio HD driver.



g. Select **“Yes, I want to restart my computer”** and click **Finish**.

3.13 B98 10/100/1000Mb LAN Driver Installation

PCI-E 100Mb LAN	DOS	
	Win9X, ME, 2K, XP	
	Vista	
	Linux	
PCI-E 1000Mb LAN	DOS	
	Win9X, ME, 2K, XP	
	Vista	
	Linux	



a. In the Realtek RTL8111 section, click on **Win9X, ME, 2K, XP**.

b. Double-click **v686**.



c. Double-click **Setup.exe**



d. Click **Next**.



e. Click **Install** to begin the driver installation.



f. The driver is being installed...

4. System Disassembly and Installation

4.1 Replacing Slim HDD



a. Loosen the screw (1) on the HDD Door



b. Remove the HDD Door



c. Disconnect the Cable (1) to replace the HDD

4.2 Opening the Rear Cover

To replace the Heatsink, Fan and CPU, please first follow the steps in chapter 4.1.



a. Disconnect HDD Cable (Refer to Chapter 4.1)



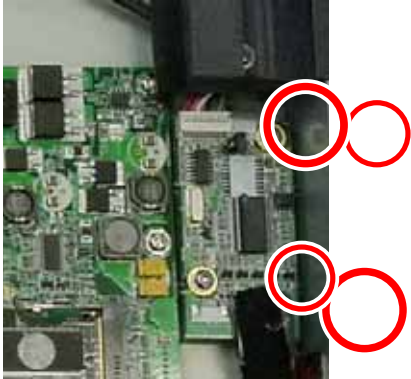
b. Loosen the screw (15) on the rear cover



c. Remove the rear cover

4.3 Replacing the Touch Board

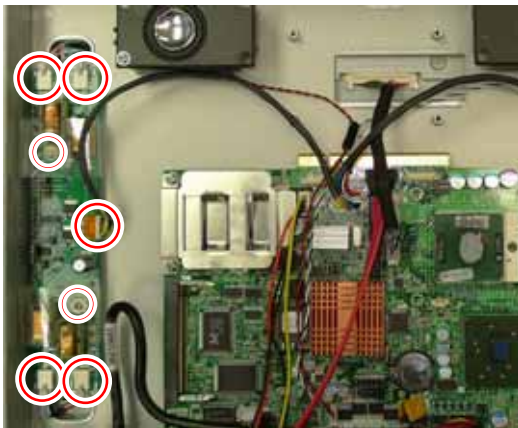
To replace the touch board, please first follow the steps in chapter 4.1 and 4.2.



- a. Remove the screws (2) and disconnect Cables (2) to replace the touch board.

4.4 Replacing the Inverter Board

To replace the touch board, please first follow the steps in chapter 4.1 and 4.2.

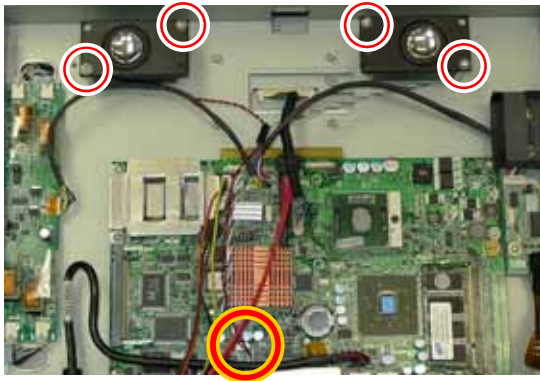


- a. Remove the screws (2) and disconnect cables (5) to replace the Inverter board.

4.5 Replacing the Speakers

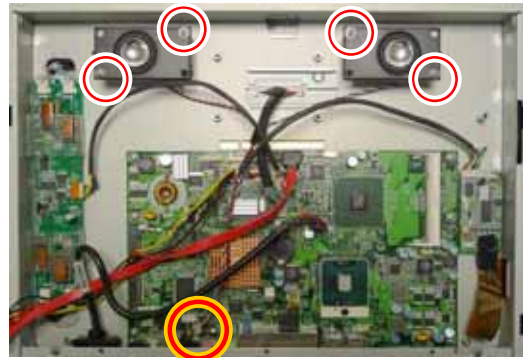
To replace the speakers, please first follow the steps in chapter 4.1 and 4.2.

B78 MB



- a. Remove screws (4) and disconnect cable (1) to replace speakers (2)

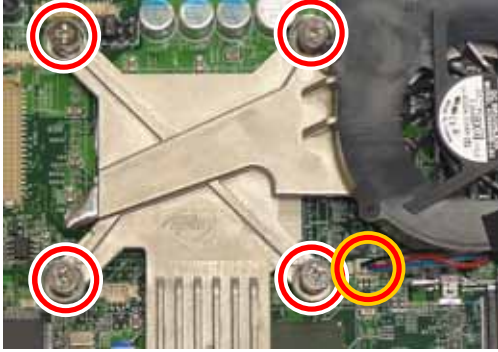
B98 MB



- a. Remove screws (4) and disconnect cable (1) to replace speakers (2)

4.6 Replacing Heatsink, Fan and CPU of B78

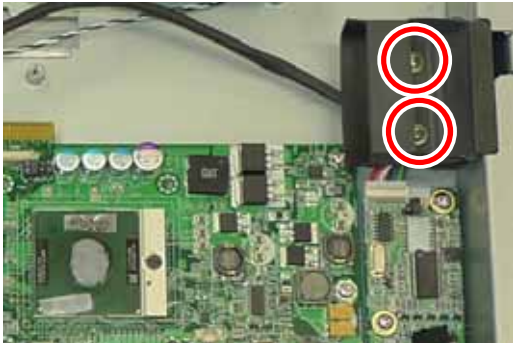
To replace the Heatsink, FAN and CPU, please first follow the steps in chapter 4.1 and 4.2.



b. Disconnect the fan cable (1) and loosen the screws (4) to remove the heatsink / fan



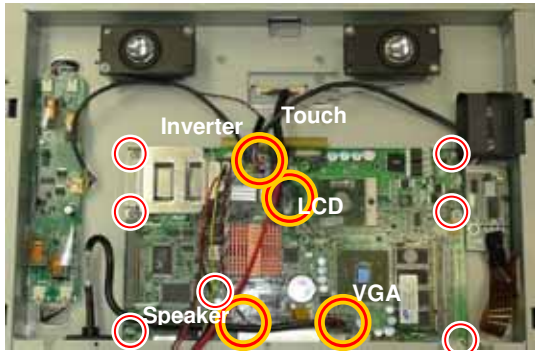
c. Turn the socket lock screw 180 degrees to unlock it and remove the CPU.



d. Remove the screws (2) to remove the fan tunnel.

4.7 Replacing the Motherboard of B78

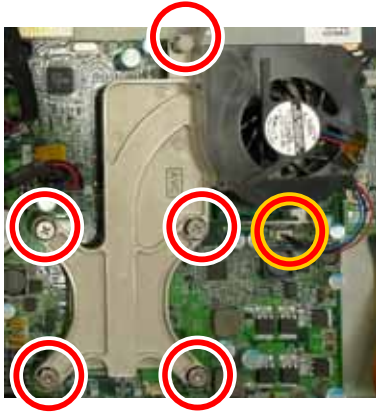
To replace the speakers, please first follow the steps in chapter 4.1, Chapter 4.2 and Chapter 4.6.



- a. Remove screws (7) and disconnect cable (5)-Inverter, Touch, LCD Interface, Speaker and VGA cables to replace B78 MB (2)

4.8 Replacing the Motherboard of B98

To replace the speakers, please first follow the steps in chapter 4.1 and 4.2.

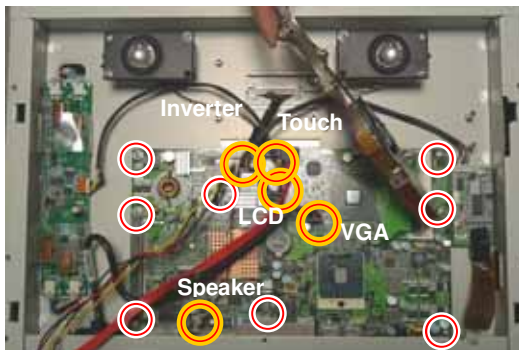


- a. Loose Screws (4) and spring (1) and disconnect FAN cable (1) to firstly loose FAN,

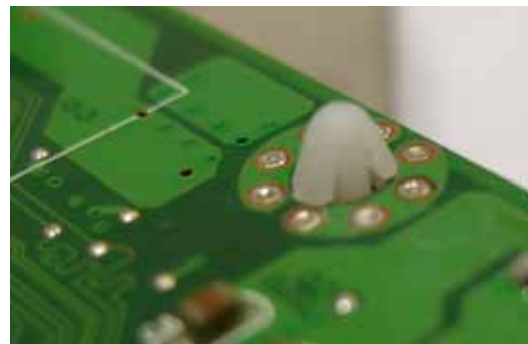
Note: FAN can not be removed unless take off B98 M/B.



- b. To slightly revolve the spring connected the FAN and M/B to show the screws under FAN.



- c. Remove screws (8) and disconnect cables (5)-Inverter, Touch, LCD Interface, Speaker and VGA cables to replace B98 MB.



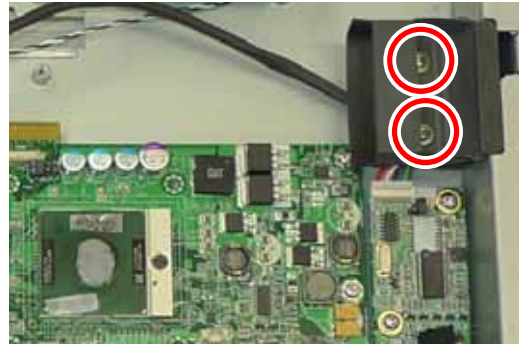
- d. Turn to the back of B98 MB, pinch and push the spring head to unfasten the FAN from MB.

4.9 Replacing Heatsink, Fan and CPU of B98

To replace the Heatsink, FAN and CPU of B98, please first follow the steps in chapter 4.1, Chapter 4.2 and Chapter 4.7 to remove FAN and then replace the CPU secondly.



- a. Turn the socket lock screw 180 degrees to unlock it and remove the CPU.



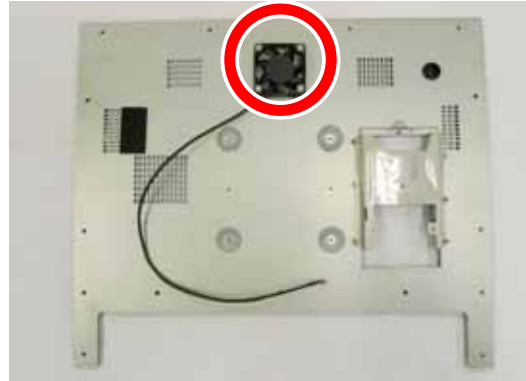
- b. Remove the screws (2) to remove the fan tunnel.

4.10 To replace 2nd Fan of B98 M/B

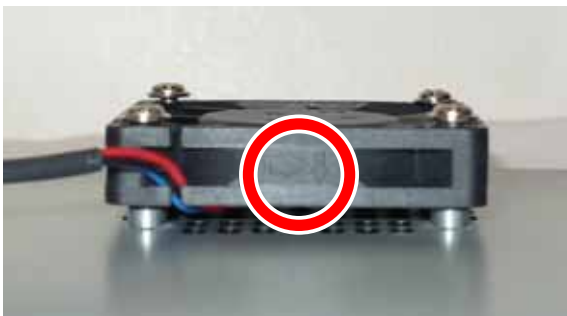
To replace the 2nd Fan of B98, please first follow the steps in chapter 4.1 and Chapter 4.2 to remove the rear cover.



a. 2nd Fan location



b. Turn to the back of rear cover and loose screws (4)



c. To make sure arrow → and ↓ at round side of 2nd Fan placed in the right direction when you replace the 2nd Fan.

5. Specification

Model Name	K792	K795	K797	K799
Motherboard	B78		B98	
CPU Supports	Intel Celeron M 1.5GHz; Pentium M 1.6GHz/1.8GHz		Celeron M 1.86GHz; Core Due 2.0GHz; Core 2 Due 1.66GHz/2.16GHz	
Chipset	Intel 852GM and ICH4		Intel 945GME+ ICH7M	
System Memory	2 x DDR SO-DIMM slot, up to 2 GB		2 x DDRII SO-DIMM slot, up to 4 GB	
Graphic Memory	Share system memory max 64MB		Share system memory max 244MB	
LCD / Touch Panel				
LCD Size	12" TFT LCD	15" TFT LCD	17" TFT LCD	19" TFT LCD
Brightness	370nits	350nits	300nits	300nits
Maximal Resolution	800 x 600	1024 x 768	1280 x 1024	
Touch Screen Type	Resistive touch	Resistive type / SAW touch / IR Touch		
Storage				
HDD	2.5" Slim HDD bay, SATA HDD			
Flash Memory	1 Optional Compact Flash memory (without HDD) for B78 main board only			
Expansion				
mini-PCI Slot	1, support 802.11 a/b/g WLAN card			
PCI express	1 for B98 main board only			
External I / O Ports				
USB 2.0	4 x USB Type A			
Serial / COM	RJ-45 (COM1 standard RS-232; COM2 RS-232 / 422 / 485 selectable by jumper; COM3 & COM4 pin 9 with 5V or 12V power by jumper)			
Parallel	1 x D-sub 25F			
LAN (10 / 100/1000)	1 x RJ-45			
Cash Drawer	1 x RJ-11 (12V or 24V)			
DC Jack	1 x Latch Type			
Audio Jack	1 x Mic-in, 1 x Line-out			
2nd VGA	1 x DB 15F			
Internal Interface				
USB 2.0	2			

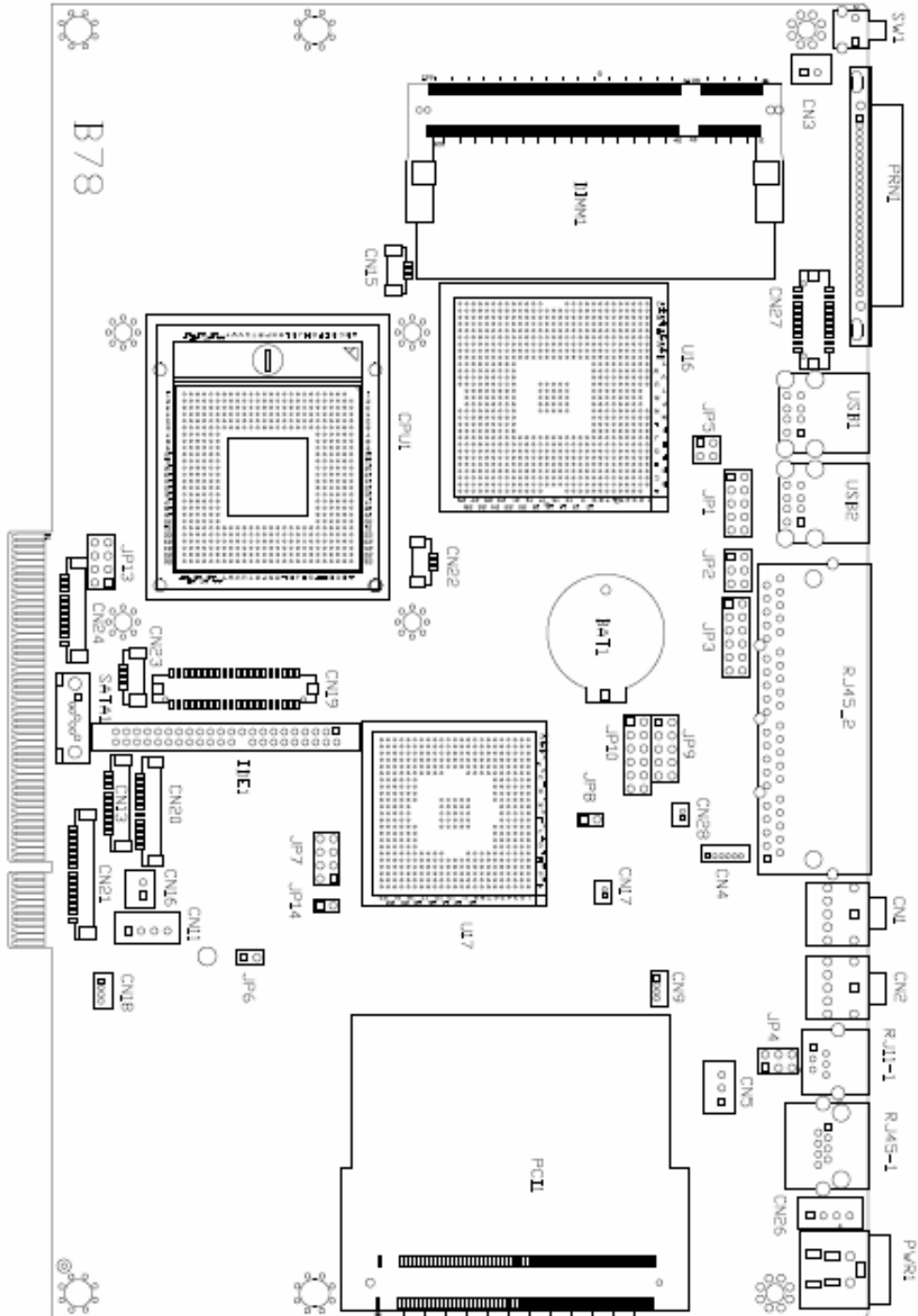
Model Name	K792	K795	K797	K799
Audio				
Speaker	1 x 3W Speaker	2 x 3W Speakers		
Power				
Power Adapter	DC 19V / 90W			
Environment				
EMC & Safety	FCC Class A, CE, LVD			
Operating Temperature	0℃ ~ 40℃ (32°F ~ 104°F)			
Storage Temperature	-20° ~ 60℃ (-4°F ~ 140°F)			
Operating Humidity	5% - 95% RH non-condensing			
Storage Humidity	5% - 95% RH non-condensing			
Dust & Water Proof	NEMA 4 / IP 65 (front)			
Dimension (W x D x H)	331 x 265 x 55 mm	386 x 308 x 60 mm	411 x 345 x 60 mm	449 x 374 x 60 mm
	13" x 10.5" x 2.2"	15.2"x 12.1"x 2.4"	16.2" x 13.6" x 2.4"	17.7" x 14.7" x 2.4"
Weight	N.W. 4.7kgs / 10.4 lbs	N.W. 5.8 kgs / 12.8 lbs	N.W. 7.6 kgs / 16.7 lbs	N.W. 9 kgs / 19.8 lbs
Mounting	100mm x 100mm Standard VESA / Panel Mount			
OS Support	Windows Vista for B98, Windows XP, WEPOS, XP Embedded, XP professional for Embedded, WIN 2000 professional Embedded, Linux			

* This specification is subject to change without prior notice.

6. Jumper Settings

6.1 B78 Jumper Settings

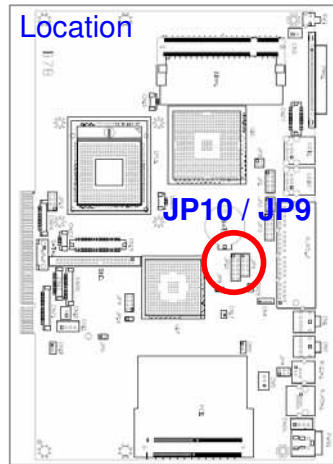
6.1.1 B78 V2.2 Motherboard layout



6.1.2 B78 V2.2 connectors

Connector	Function
BAT1	CMOS Battery Base (Use CR2023)
CN1	Audio Line Out
CN2	Audio MIC In
CN3	Internal Power Switch
CN4	Speaker & MIC Connector
CN9	CD-IN Connector
CN11	Power Connector For 3.5" HDD
CN13	COM5 for Touch
CN15	CPU FAN Connector
CN16	Hardware Reset
CN18	USB2
CN19	LCD Interface Connector
CN20	Inverter Connector
CN21	Card Reader Connector
CN22	System FAN Connector
CN23	IrDA Connector
CN24	FT Status Interface
CN26	Internal Power In Connector
CN27	Internal LPT Connector
CN28	Internal PCI Reset Output Connector
IED1	Secondary IDE Connector (Pitch = 2.0mm)
PRN1	Parallel Port
PWR1	+19V Power Adaptor
RJ11_1	Cash Drawer Connector
RJ45_1	LAN (On Board)
RJ45_2	COM1, COM2, COM3, COM4
SATA1	SATA Connector
USB1	USB3, USB4
USB2	USB5, USB6
JP1	VGA Port
JP2	VGA Power

6.1.3 B78 V2.2 Jumper settings

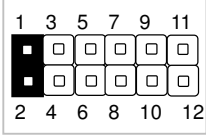
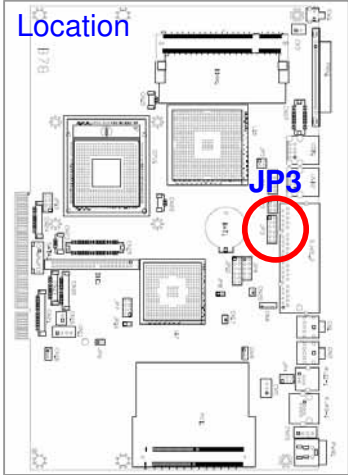
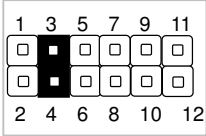
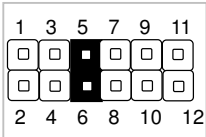
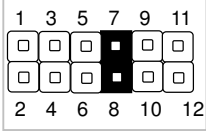
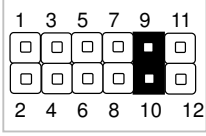
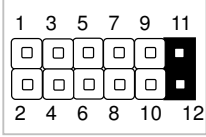


B78 V2.2 COM2 RS232/485/422 Setting

Function	JP10 (1-2) (3-4) (5-6) (7-8) (9-10) (11-12)	JP9 (1-2) (3-4) (4-6) (5-7) (7-8) (9-10)
⊙ RS232		
RS485		
RS422		

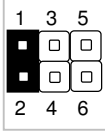
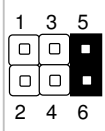
⊙ = Default

B78 V2.2 COM3 & COM4 Power Setting

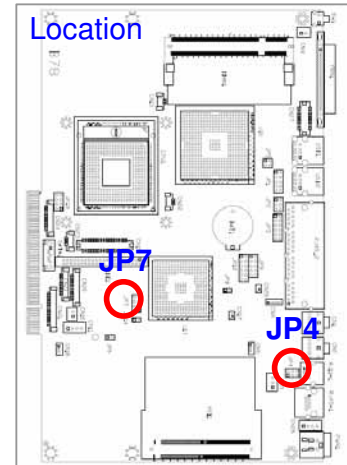
Function		JP3 (1-2) (3-4) (5-6) (7-8) (9-10) (11-12)	Location
COM3 Pin10	⊙RI		
	+5V		
	+12V		
COM4 Pin10	⊙RI		
	+5V		
	+12V		

⊙ = Default

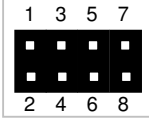
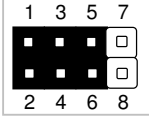
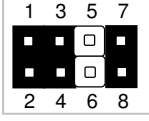
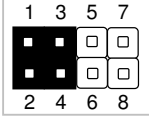
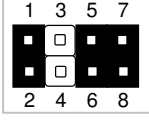
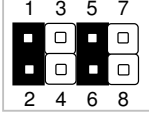
B78 V2.2 Cash Drawer Power Setting

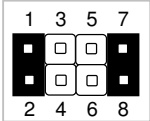
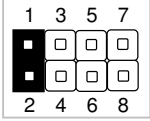
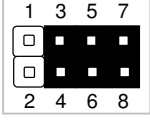
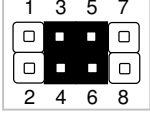
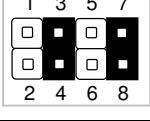
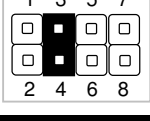
Function	JP4 (1-2) (3-4) 5-6
+12V	
⊙+19V	

⊙ = Default



B78 V2.2 LCD ID Setting

Panel #	Resolution	LVDS		JP7 (1-2) (3-4) (5-6) (7-8)
		Bits	Channel	
1	640 x 480	18	Single	
2	800 x 600	18	Single	
3	1024 x 768	18	Single	
4	1280 x 1024	24	Dual	
5	1024 x 768	24	Single	
6	800 x 600	24	Single	

Panel #	Resolution			LVDS		JP7 (1-2) (3-4) (5-6) (7-8)
				Bits	Channel	
7	800	x	600	18	Single	
8	800	x	600	18	Single	
9	1024	x	768	24	Single	
10	1440	x	900	24	Dual	
11	1280	x	1024	24	Dual	
12	1440	x	900	18	Dual	

B78 V2.2 Power Mode Setting

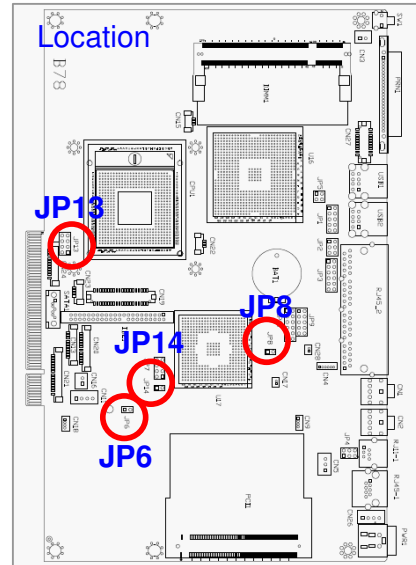
Function	JP6 (1-2)
⊙ATX Power	<input type="checkbox"/> <input type="checkbox"/>
AT Power	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

B78 V2.2 CMOS Operation Mode

Function	JP8 (1-2)
⊙CMOS Normal	<input type="checkbox"/> <input type="checkbox"/>
CMOS Reset	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

B78 V2.2 USB Path Setting

Function	JP14 (1-2)
To Docking	<input type="checkbox"/> <input type="checkbox"/>
⊙To MB	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

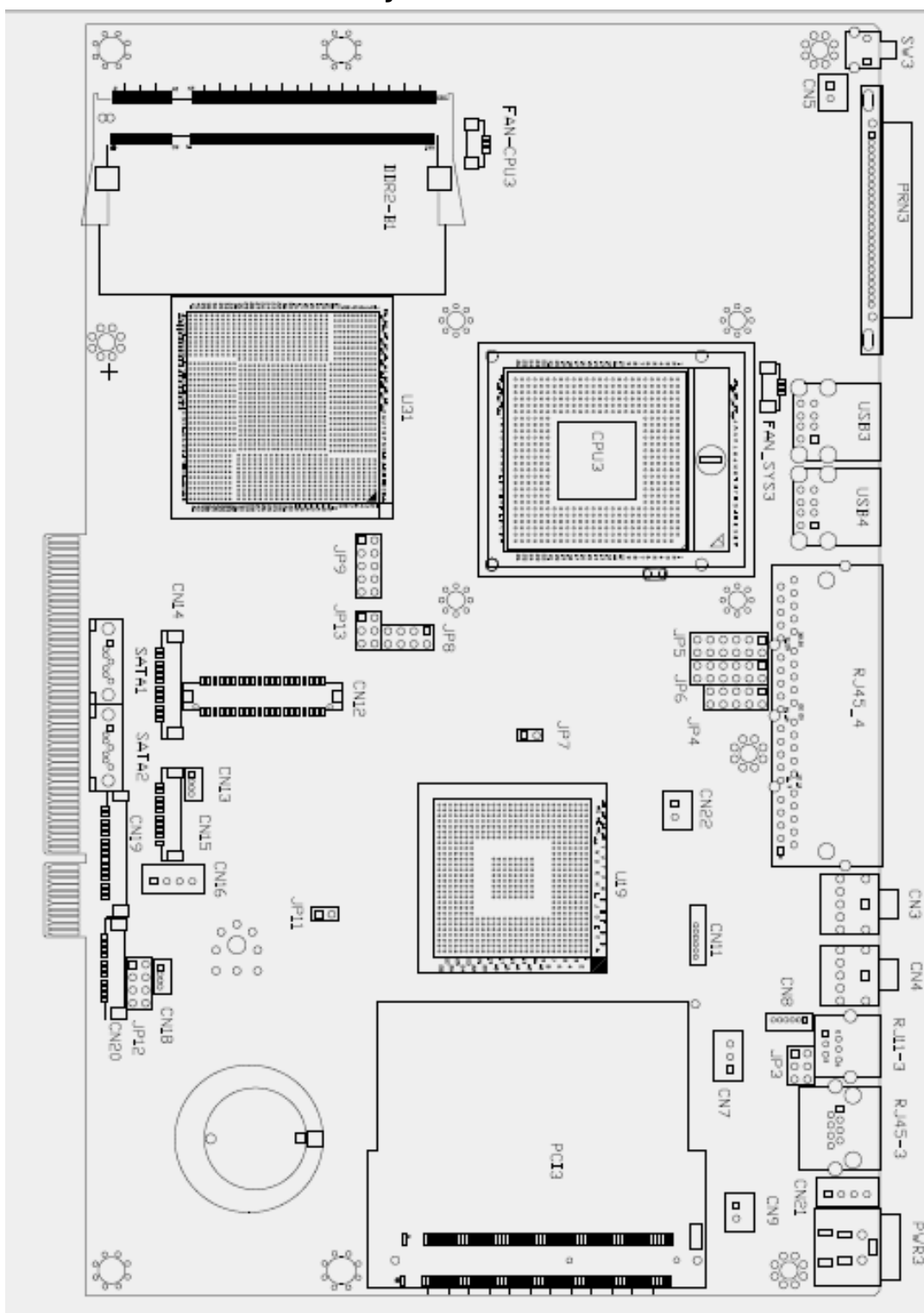


B78 V2.2 System Indicator Function

Function	JP13 (1-2) (3-4) (5-6) (7-8)																
⊙Disable	<table><tr><td>1</td><td>3</td><td>5</td><td>7</td></tr><tr><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>2</td><td>4</td><td>6</td><td>8</td></tr></table>	1	3	5	7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	4	6	8
1	3	5	7														
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>														
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>														
2	4	6	8														
Enable	<table><tr><td>1</td><td>3</td><td>5</td><td>7</td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td>2</td><td>4</td><td>6</td><td>8</td></tr></table>	1	3	5	7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2	4	6	8
1	3	5	7														
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>														
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>														
2	4	6	8														

⊙ = Default

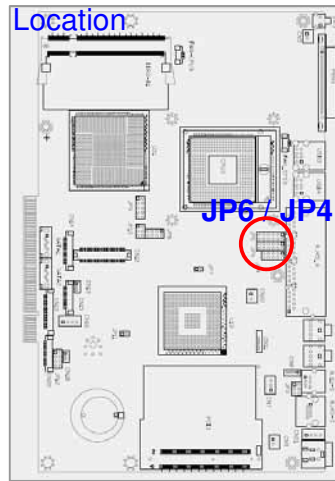
6.2.1 B98 V1.0 Motherboard layout



6.2.2 B98 V1.0 Connectors

Connector	Purpose
BAT3	CMOS Battery Base (Use CR2023)
CN3	Audio Line Out
CN4	MIC In
CN5	Internal Power On Switch Connector
CN8	Speaker & MIC Connector
CN9	Internal LAN LED
CN11	CD-IN / Line-In Connector
CN12	LCD Interface Connector
CN13	IrDA Connector
CN14	Inverter Connector
CN15	COM5 for Touch
CN16	Power Connector For HDD
CN18	USB5
CN19	Card Reader Connector
CN20	FT Status Interface Connector
CN21	Internal Input Power Connector
CN22	Hardware Reset
DDR2_A1	DDR2 SO-DIMM
DDR2_B1	DDR2 SO-DIMM
FAN_CPU3	CPU FAN Connector
FAN_SYS3	System FAN Connector
MINI_PCIE3	Mini PCI-E Socket
PCI3	Mini PCI Socket
PRN3	Parallel Port
PWR3	+19V Power Adaptor
RJ11_3	Cash Drawer Connector
RJ45_3	LAN (On Board)
RJ45_4	COM1, COM2, COM3, COM4
SATA1	SATA Connector
SATA2	SATA Connector
SKT1	SPI ROM
SW3	Power On Button
USB3	USB1, USB2
USB4	USB3, USB4
JP9	VGA Port
JP10	2 nd Display Power

6.2.3 B98 V1.0 Jumper Setting

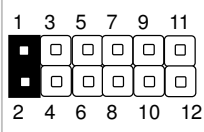
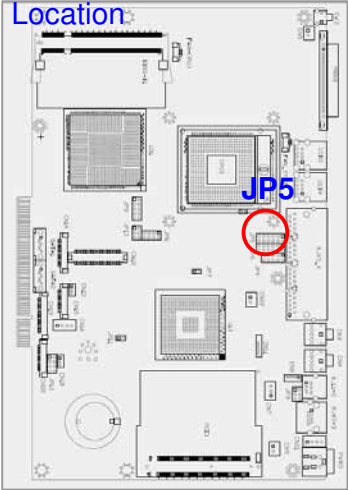
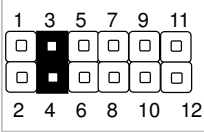
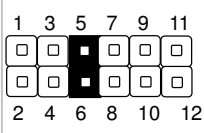
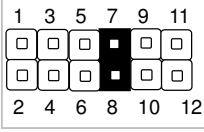
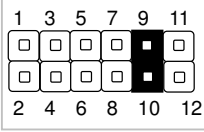
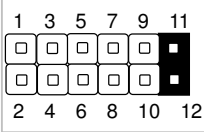


B98 V1.0 COM2 RS232/485/422 Setting

Function	JP6 (1-2) (3-4) (5-6) (7-8) (9-10) (11-12)	JP4 (1-2) (3-4) (4-6) (5-7) (7-8) (9-10)
⊙RS232		
RS485		
RS422		

⊙ = Default

B98 V1.0 COM3 & COM4 Power Setting

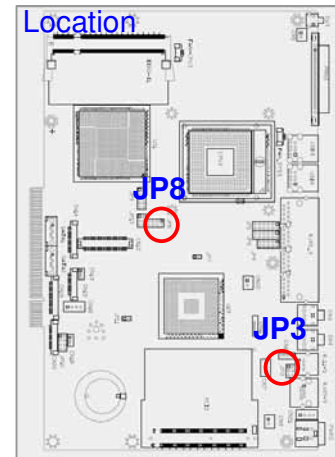
Function		JP5 (1-2) (3-4) (5-6) (7-8) (9-10) (11-12)	Location
COM3 Pin10	⊙RI		
	+5V		
	+12V		
COM4 Pin10	⊙RI		
	+5V		
	+12V		

⊙ = Default

B98 V1.0 Cash Drawer Power Setting

Function	JP3 (1-2) (3-4) 5-6)												
+12V	<table><tr><td>1</td><td>3</td><td>5</td></tr><tr><td><div></div></td><td><div></div></td><td><div></div></td></tr><tr><td><div></div></td><td><div></div></td><td><div></div></td></tr><tr><td>2</td><td>4</td><td>6</td></tr></table>	1	3	5	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	2	4	6
1	3	5											
<div></div>	<div></div>	<div></div>											
<div></div>	<div></div>	<div></div>											
2	4	6											
⊙+19V	<table><tr><td>1</td><td>3</td><td>5</td></tr><tr><td><div></div></td><td><div></div></td><td><div></div></td></tr><tr><td><div></div></td><td><div></div></td><td><div></div></td></tr><tr><td>2</td><td>4</td><td>6</td></tr></table>	1	3	5	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	2	4	6
1	3	5											
<div></div>	<div></div>	<div></div>											
<div></div>	<div></div>	<div></div>											
2	4	6											



⊙ = Default





B98 V1.0 LCD ID Setting

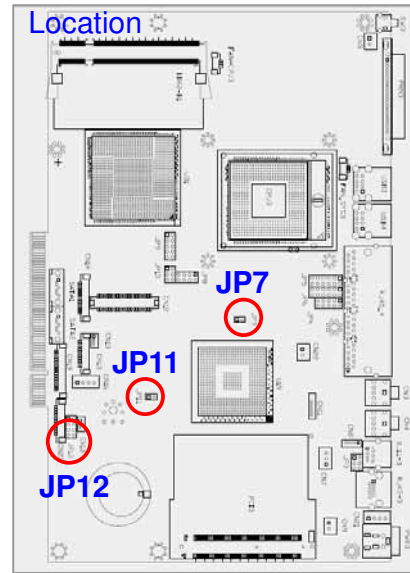
Panel #	Resolution			LVDS		JP8 (1-2) (3-4) (5-6) (7-8)																
				Bits	Channel																	
1	1024	x	768	24	Single	<table><tr><td>1</td><td>3</td><td>5</td><td>7</td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td>2</td><td>4</td><td>6</td><td>8</td></tr></table>	1	3	5	7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2	4	6	8
1	3	5	7																			
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																			
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																			
2	4	6	8																			
2	1280	x	1024	24	Dual	<table><tr><td>1</td><td>3</td><td>5</td><td>7</td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>2</td><td>4</td><td>6</td><td>8</td></tr></table>	1	3	5	7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	4	6	8
1	3	5	7																			
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																			
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																			
2	4	6	8																			
3	800	x	600	24	Single	<table><tr><td>1</td><td>3</td><td>5</td><td>7</td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr><tr><td>2</td><td>4</td><td>6</td><td>8</td></tr></table>	1	3	5	7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	4	6	8
1	3	5	7																			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																			
2	4	6	8																			
4	1024	x	768	18	Single	<table><tr><td>1</td><td>3</td><td>5</td><td>7</td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>2</td><td>4</td><td>6</td><td>8</td></tr></table>	1	3	5	7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	4	6	8
1	3	5	7																			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																			
2	4	6	8																			

B98 V1.0 Power Mode Setting

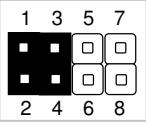
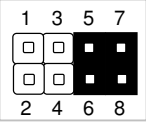
Function	JP11 (1-2)
⊙ATX Power	
AT Power	

B98 V1.0 CMOS Operation Mode

Function	JP7 (1-2)
⊙CMOS Normal	
CMOS Reset	



B98 V1.0 System Indicator Function

Function	JP12 (1-2) (3-4) (5-6) (7-8)
⊙Disable	
Enable	

⊙ = Default

Note:



OPEN



SHORT

7. BIOS Settings

7.1 BIOS Setup Utility

The BIOS setup defines how the system is configured. You need to run this program the first time you configure this product. You may need to run it again if you change the configuration. You need to connect a PC keyboard to the keyboard connector to run the BIOS setup utility.

7.2 Starting the BIOS Setup

Turn on or reboot this product.

Press the DEL key immediately after the product is turned on, or press the DEL key when the following message is displayed during POST (the Power on Self-Test)

Press DEL to enter SETUP.

The main menu of the BIOS setup is displayed.

If the supervisor password is set, you must enter it here.

7.3 When a Problem Occurs

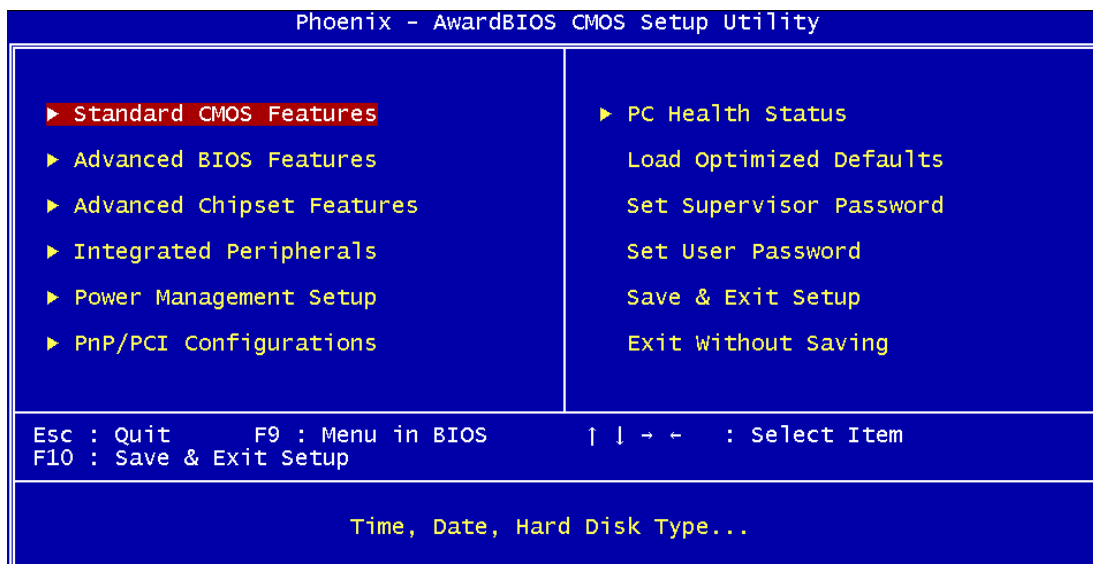
If, after making and saving system changes with the Setup utility, you find that this product no longer boots, start the BIOS setup and execute the following

Load Optimized Defaults

7.4 BIOS Main Menu

When the BIOS Main Menu is displayed, the following items can be selected. Use the arrow keys to select items and the Enter key to accept and enter the sub-menu.

Note: The BIOS setup menus shown in this section are for reference only and may not exactly match the items of your BIOS version.



Standard CMOS Features

Use this menu for basic system configuration.

Advanced BIOS Features

Use this menu to set the Advanced Features available on the system.

Advanced Chipset Features

Use this menu to change the values in the chipset registers and optimize the system's performance.

Integrated Peripherals

Use this menu to specify your settings for integrated peripherals.

Power Management setup

Use this menu to specify your settings for power management.

PnP/PCI Configurations

This entry appears if your system supports Plug and Play and PCI Configuration.

PC health status

Displays CPU, System Temperature, Fan Speed, and System Voltages Value.

Load Optimized Defaults

Use this menu to load the BIOS default values, i.e., factory settings for optimal performance system operations. While Award has designed the custom BIOS to maximize performance, the factory has the option to change these defaults to meet their needs.

Set Supervisor Password

Enables you to change, set, or disable the supervisor or user password.

Set Password

Change, set, or disable the password. It allows you to limit access to the system and to the setup, or just to the setup.

Save & exit setup

Save CMOS value changes to CMOS and exits setup.

Exit without saving

Ignores all CMOS value changes and exits setup.