6BX/ZX/VIA81/VIA81P

User's Manual Version 1.3

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Table of Contents

Introduction

How This Manual is Organized

This manual is divided into the following sections:

Chapter 1   **Introduction** : Manual information and checklist.
Chapter 2   **Features**   : Information and Specifications con-
                                    cerning this mainboard.
Chapter 3   **Installation**   : Instructions on setting up the board.

Package Checklist

Please check that your package is complete. If you discover any item damaged or missing , please contact with your retailer immediately.

- The 6BX81/6ZX81/6VIA81/6VIA81P mainboard.

- Retention Mechanism & Heatsink Support.

- 1 x IDE 40 pin ribbon cable.

- 1 x IDE 80 pin ribbon UDMA66 cable. (option)

- 1 x floppy ribbon cable.

- 6BX81/6ZX81/6VIA81/6VIA81P support software:
    - Flash Memory Write utility to update the FLASH BIOS.
    - Technical Support Form.

- This user's Manual

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Features

Features of the 6BX81/6ZX81/6VIA81/6VIA81P Mainboard

The 6BX81/6ZX81/6VIA81/6VIA81P is designed for the PC user's who want many new key features processed by the fastest CPU in a economic package. This mainboard :

⧗ **New general CPU support :**
  - Solt-1 support to 866 MHz processor.
    CPU Converter boand
  - Socket 370 Celeron(533MHz ,677MHz(1.5V))processor.
  - Socket 370 Coppermine (500MHz~800MHz)processor.

- **Intel Chipset :**
  Intel 440BX PCIset™ /440ZX PCIset™/VIA 693+596A (6VIA81)/VIA693A+596B(6VIA81P) chips with I/O subsystems.

- **Biggest memory capacity :**
  6BX81/6VIA81/6VIA81P is equipped with three DIMM socket to support (16MB, 32MB, 64MB, 128MB.256MB) 168 pin 3.3v SDRAM SPD(Special Presence Detect).Maximum memory up to 768MB.
  6ZX81 is equipped with two DIMM socket to support 168 pin 3.3v SDRAM SPD(Special Presence Detect).Maximum memory up to 512MB.

- **AGP for fast VGA solution :**
  AGP (Accelerator Graphic Port) will enhance & improve display performance and Application. The bus speed is 66MHz 2 x mode .

- **ISA & PCI Expansion Slot :**
  Provide three 16 bit ISA, and four 32 bit PCI slots.

- **PCI Bus Master IDE Controller :**
  (VIA Chips support UDMA66)
  Comes with an on-board PCI Bus Master IDE, controller with two connectors that supports four IDE devices in two channels, Provides faster data transfer rate, and supports Enhanced IDE devices such as Tape Backup and CD-ROM devices(ATAPI). This controller supports PIO mode 3 and 4 (16.6MB/sec.), and Ultra DMA 33/66**(only 6VIA81P)** (33/66MB/Sec.), also supports ZIP100 and LS-120. BIOS support IDE CD-ROM or SCSI bootup.
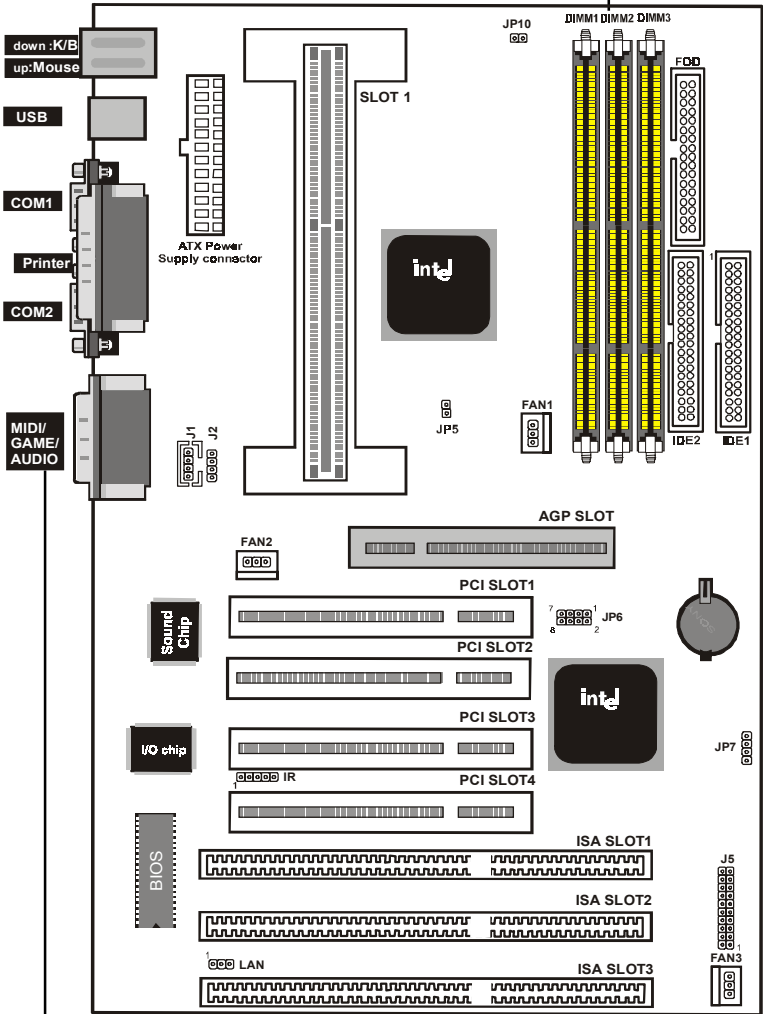
- **Super Multi-I/O :**
  Provides two high-speed UART2 compatible serial ports (match NS16C550A compatible) and one parallel port with

SPP,EPP and ECP capabilities. UART2 can also be directed from COM2 to the Infrared Module for wireless connections. Two floppy drives of either 5.25" or 3.5 "(1. 25MB,1.44MB) are also supported without an external card. Supports Japanese standard "Floppy 3 mode" (3.5" 1. 25MB).

⌛ **WOL (Wake On LAN) :**
Supports system power up from LAN wake up .

⌛ **IrDA Port :**
Support this serial fast communication up to 115.2Kbps.

⌛ **Support Ring on by modem/Alarm on :**
Support System power up from Modem ring up or timer of System. Required enabled in Ring on by modem and Alarm on in BIOS.

⌛ To support CPU FAN On/Off and LED indicator under Suspend mode.

⌛ **To support CPU temperature detect and Alarm warning by sound. (option)**

⌛ **Dimension : 30.5 cm x 18 cm**

⌛ Supports 16-bits stereo audio controller. Sound Blaster 16/ PRO compatible with stereo voice up to 48 KHz sampling rates.(option)

⌛ Dual channel game port. (supports Microsoft game-pad up to 8 ports).(option)

The 6BX81/6ZX81/6VIA81/6VIA81P Mainboard layout

6ZX81only two DIMM sockets

down :K/B
up:Mouse

USB

COM1

Printer

COM2

MIDI/
GAME/
AUDIO

ATX Power
Supply connector

SLOT 1

JP10

DIMM1 DIMM2 DIMM3

FDD

intel

J1 J2

JP5

FAN1

IDE2 IDE1

AGP SLOT

FAN2

Sound
Chip

PCI SLOT1

JP6

PCI SLOT2

intel

PCI SLOT3

JP7

I/O chip

IR

PCI SLOT4

BIOS

ISA SLOT1

J5

ISA SLOT2

LAN

FAN3

ISA SLOT3

option

Chapter 3

3

Installation

Jumper

Expansion Slot   Which page

Connectors   Refer to page

System Installation Setup

Before using your computer, you must finish the following steps:
1. Set jumpers on mainboard
2. Install SDRAM module.
3. Install the Pentium II/III Processor.
4. Connect Ribbon Cables, Cabinet Wires, and Power supply.
5. Install Add on Cards.
6. Setup the BIOS software.

Static Electricity Precaution

- Keep the mainboard and other system components in their anti-static packaging until you are ready to install them.

- Do all prearation work on a static-free surface with the main board components facing up.

- Unplug your computer when working on the inside.

- Wear an Anti-static wrist strap.

- Hold the system components, boards or cards by its edges only. Be careful not to touch any of IC chips, circuitry, contacts or connections, especially gold contacts on the mainboard.

Jumper Settings

Jumpers

Several hardware setting are made through the use of jumper caps to connect jumper pins (Jxx) on the mainboard. See " Map of the mainboard" for the locationed the jumpers.

The jumper settings will be described numerically such as [----], [1-2], [2-3] for no connection, connect pins 1 & 2, and connect pins 2 & 3 respectively. Pin 1 for our mainboard is always on top one or on the left when holding the mainboard with the keyboard away from yourself. "P1" is written besides pin 1 on jumper with three pins. The jumpers will also be shown graphically such to connect pin 1&2 to connect 2&3. Jumpers with two pins will be shown as for Short (on)and for Open (off).For manufacturing simplicity it may be sharing pins from other groups. Use the diagrams in this manual instead of following the pin layout on the board. Settings with two jumper numbers require that both jumpers be moved together. To connect the pin, simply place a plastic jumper cap over the two pins as diagrammed.

Real Time Clock (RTC) RAM - JP7 :

The CMOS RAM is powered by the onboard button cell battery. To clear the RTC data:

(1)Turn off your AC Power, (2) Move this jumper to "3-4Pin Clear Data", (3) Move the jumper back to "Default", (4) Turn on your computer, (5) Hold down <Delete > during bootup and enter BIOS setup to re-enter user Preferences.
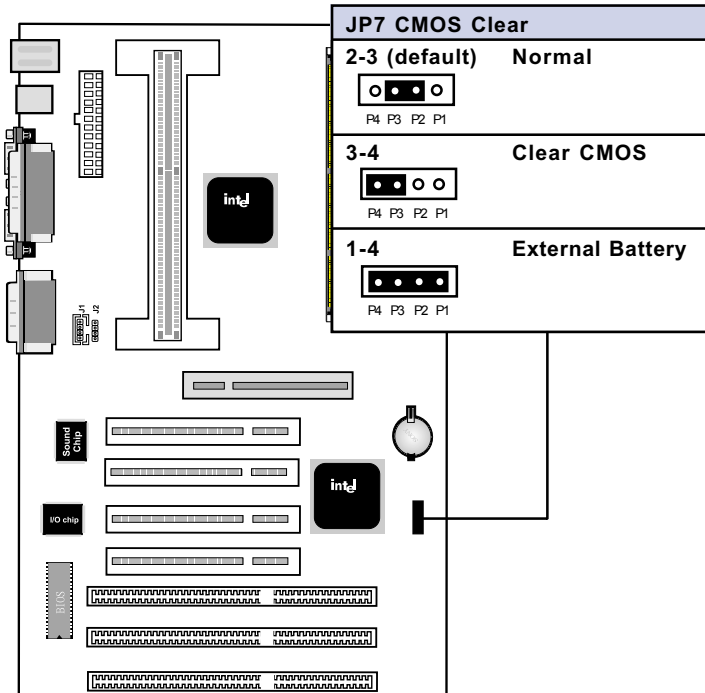
CPU External (Bus) Frequency Selection - JP6

These jumpers tell the clock generator what frequency to send to the CPU. These allow the selection of the CPUs External Frequency (or Bus Clock). The Bus Clock times the BUS ratio equals the CPUs Internal Frequency (the advertised CPU speed).

These jumpers set the frequency ratio between the internal frequency of the CPU and the external frequency (called the BUS Clock)within the CPU. These must be set together with the above jumpers CPU external (Bus) frequency selection.

CPU Model Ratio Bus Freq.

NOTE:

Most of the CPU frequency are locked by the manufacturer.
This motherboard is able to auto-detect the CPU frequency.

JP6 CPU external frequency

P7 P5 P3 P1

P8 P6 P4 P2

	1-2	3-4	5-6	7-8
2.0X	ON	ON	ON	ON
2.5X	OFF	ON	ON	ON
3.0X	ON	OFF	ON	ON
3.5X	OFF	OFF	ON	ON
4.0X	ON	ON	OFF	ON
4.5X	OFF	ON	OFF	ON
5.0X	ON	OFF	OFF	ON
5.5X	OFF	OFF	OFF	ON
6.0X	ON	ON	ON	OFF
6.5X	OFF	ON	ON	OFF
7.0X	ON	OFF	ON	OFF
7.5X	OFF	OFF	ON	OFF
8.0X	ON	ON	OFF	OFF

Note :
ON : Close   OFF : Open

System Memory (DIMM Module)

This **6BX81/6VIA81/6VIA81P** main board supports three 168 pins DIMM (Dual Inline Memory Module) **(6ZX81 supports two DIMMs)** of 16 MB, 32 MB, 64 MB, 128 MB ,256MB to form a memory size between 16MB to 256MB.

The DRAM can be either 45ns,50ns,or 60ns 3.3v SDRAM,and 3.3v Enhanced Data Output (EDO) RAM.

Install memory in any or all Banks in Combination:

Bank	Memory module
DIMM 1	16MB,32MB,64MB,128MB,256MB
(Bank 0-1)	168 pin,3.3v SDRAM / EDO RAM
DIMM 2	16MB,32MB,64MB,128MB,256MB
(Bank 2-3)	168 pin 3.3v,SDRAM / EDO RAM
DIMM 3	16MB,32MB,64MB,128MB,256MB
(Bank 4-5)	168 pin 3.3v,SDRAM / EDO RAM
	Total System Memory(Max 768MB)

Note :

- **The DIMM Slot does not support any 5v EDO DIMM module.**
- **The DIMM Slot does not support any 5v SDRAM DIMM module.**
- **Memory speed setup is required through "Auto Configuration" in BIOS chipset Setup of BIOS SOFTWARE. If several speed memorious are used, You must set Auto Configuration to low. Example If both 50ns, 60ns are used, Please set Auto configuration to 60ns.**
- **It's allowed any DIMM module put in any DIMM slot. It's allowed there are different capacity DIMM module in all DIMM slot.**

DIMM Memory Installation

Insert the module (s) as shown. Because the number pins are different on either side of the breaks,the module will only fit in the orientation as shown. SDRAM DIMM modules have different pin contacts on each side and therefore have a higher pin density.

168Pin DIMM Socket

88 pins

60 pins

20 pins
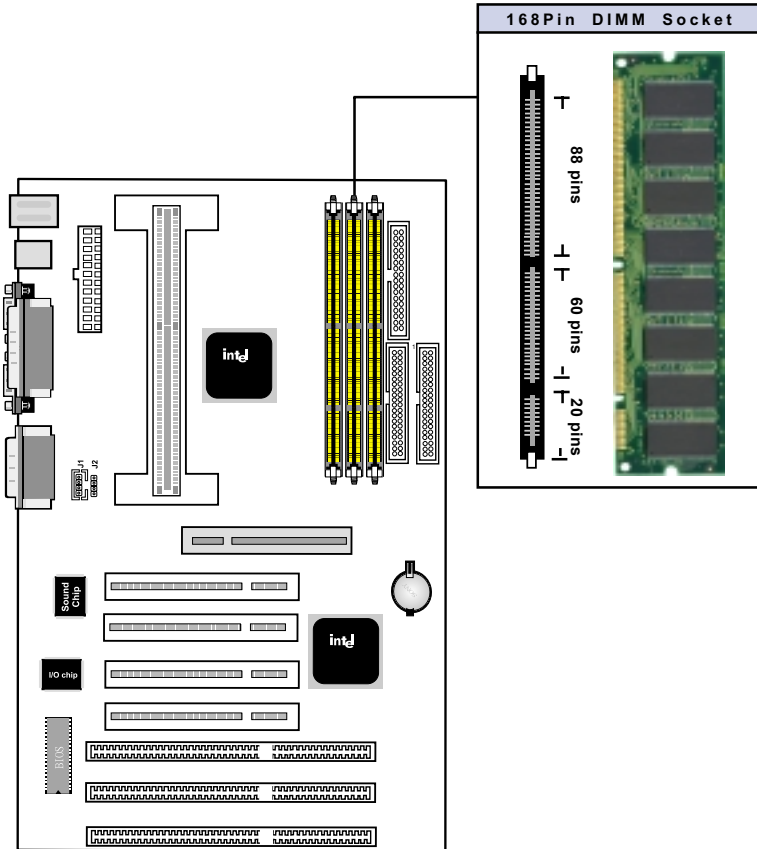
The Dual Inline Memory Module (DIMM) memory module must be 3.3v Extended Data Output (EDO) DRAM or SDRAM. You can identify the type of DIMM module by the illustration below:

RFU	Unbuffered	5.0V	Reserved
Buffered		3.3V	
DRAM Key Position		Voltage Key Position	
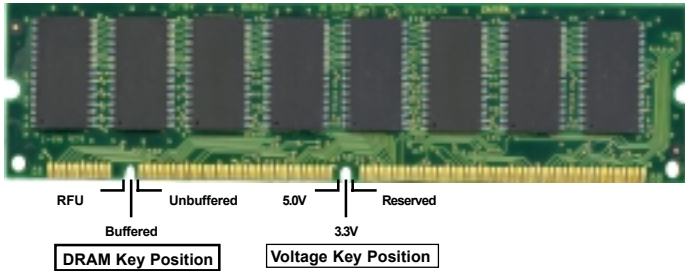
168 Pin DRAM DIMM Notch Key Definitions

The notch on the DIMM module will shift between left, center, or right to identify the type and also to prevent the wrong type to be inserted into the DIMM slot on the Mainboard. You must ask your retailer for Specifications before purchasing.
Four clock signals are supported on this mainboard

Central Processing Unit (CPU)

This main board provides a Single Edge Contact (SEC) slot for Pentium II processor packaged in an SEC cartridge. The SEC slot is not compatible with other non-Pentium II/III Processors.

Installing the Retention Mechanism
The Mainboard package includes a Retention Mechanism. The Retention Mechanism is used to hold an Intel Pentium II/III Processor to the Intel Slot 1 connector. Make sure the system board is on a workbench (not in a chassis).
To install the Retention Mechanism, follow the steps below:

1. The Retention Mechanism package includes a Retention Mechanism with captive nut and four captive screws.
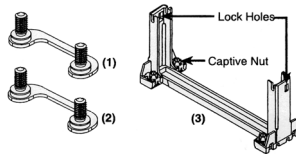
2. Hold the Retention Mechanism upright and position it above the Intel Slot 1 connector.

3. Insert the captive screws attached from underneath the mainboard as shown, and four screws 2 mount bridges directly.

Note:

  ◆ **Don't forget to attach the screw seal before inserting.**
  ◆ **Nut is built into the base of Retention Mechanism. It's convenient to tighten screw directly.**
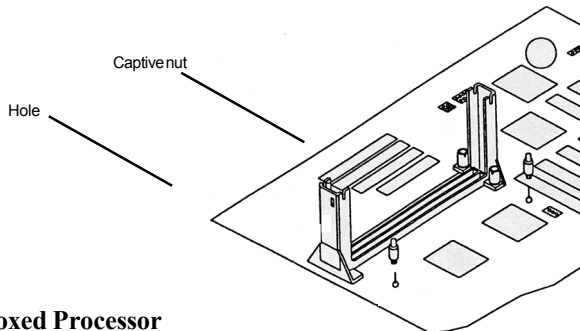
Installing Boxed Processor

1. Mount the two black plastic pegs onto the system board. /these pegs will be used to attach the fan heatsink supports. Notice that one h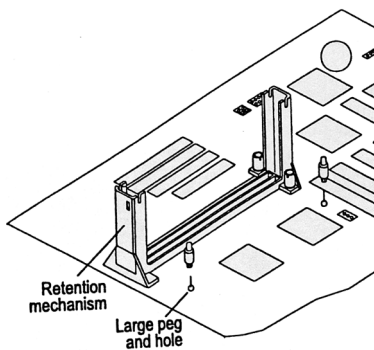ole and the base of one peg are larger than the other hole and peg base. Push each peg into its hole firmly until you hear it " Click" into place.

2. Slide a black plastic heatsink support onto each outside edge of the fan heatsink, making sure that the hole and clip are on the outside edge of the support.(If the supports are reversed, the holes will not line up with the pegs on the main board). Slide each heatsink support toward the center of the processor until the support is seated in the outside groove in the fan housing.
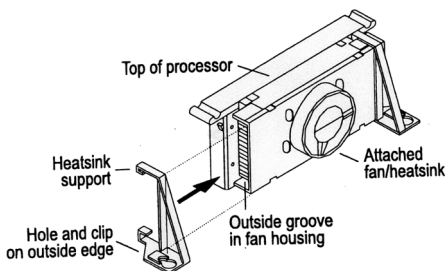
3. Slide the clip (A) as shown on each support toward the processor, exposing the hole that will fit over the peg on the mainboard . Push the latches (B) on the processor toward the center of the processor until they click into place.

4. Hold the processor so that the fan shroud is facing toward the pegs on the main board. Slid the Processor (C) into the Retention Mechanism and slide the supports onto the pegs. Make sure that the pegs on the main board slide into the holes in the heatsink support and that alignment notch I the processor fit over the plug in Slot 1. Push the processor down firmly, with even pressure on both sides of the top, until it is seated
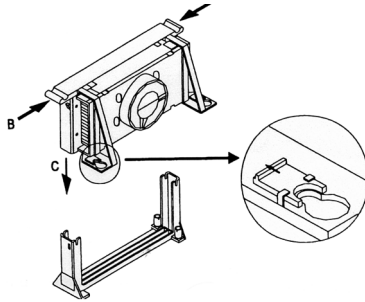
5. Slide the clips on the support (A) forward until they click into place to hold the pegs securely. (Apply slight pressure on the peg and push the peg toward the clip while pushing the click forward) Push the latches in the processor (B) outward until they click into place in the Retention Mechanism. The latches must be secured for proper electrical of the processor.

6. Attach the small end of the power cable to the three-pin connector in the processor, then attach the large end to the three-pin connector on the main board.
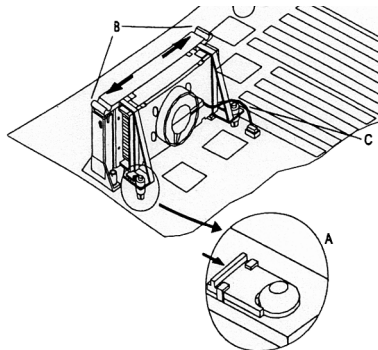
Removing the Processor

To Remove the processor from the system board,follow these steps
(the reverse of the installation processor) :

1. Disconnect the fan power cable from the main board. (We recom-
   mend that you leave the cable connected to the processor) .

2. Slide the clips on the supports backward to release the pegs in
   the mainboard .Push the latches on the processor toward the
   center of the processor until they click into place.

3. Lift one end of the processor until it is free from SLOT 1. Lift the
   other end of the processor until it is freed from SLOT 1. Lift the
   entire processor (with the fan heatsink support attached) until it
   is freed from the Retention Mechanism.

4. Remove the heatsink support pegs from the mainboard and dis-
   card them . With one hand, squeeze together the two halves of the
   peg on the bottom side of the mianboard . With the other hand,
   pull the peg out of the hole in the mainboard . Do not reuse the
   pegs.

Caution :

> **When handling the processor, avoid pressing directly on
> the label area of the fan. When removing the processor, avoid
> pressing down on the system board or components Instead ,
> press down on the plastic connectors.**

Installing OEM Processor

If you are using Intel Pentium II/III Processor in OEM package, Please follow the steps below:

1. Your OEM package may include the following items :

Heatsink Support Base/Top Bar (Items 4-7)   Pentium II Processor Heatsink (Item 8)
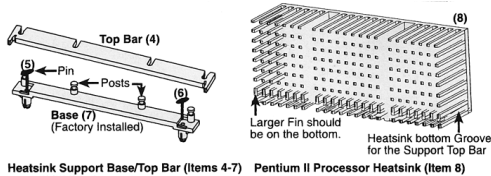
Note :

> ◆**Make sure your heatsink is attached with a fan to prevent overheating the processor.**
> ◆**Contact your heatsink manufacture to check whether your processor requires a Heatsink Support (HSS) installed on the mainboard.**

2. Push the HSS top bar sideways to free the HSS Top bar from the retaining "tabs" of the HSS Base.
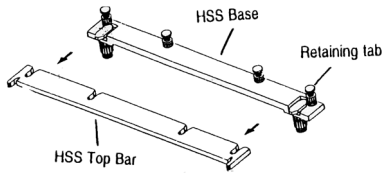
3. Remove the HSS Pins located on the each end of the HSS base.

4. Install the HSS Base by pushing each side down firmly into the holes on the mainboard. (HSS Base can only be installed in one direction). Make sure it locks into place.
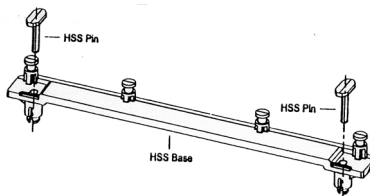
5. Replace the HSS Pins on each end of the HSS Base. These pins will insert through the HSS Base to secure it to the mainboard.

6. Hold the processor and push the latches toward the center of processor until they click into place.
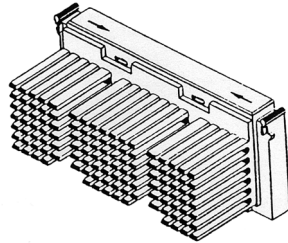
7. Hold the processor so that the heatsink is facing toward the HSS base on the moainboard. Slide the processor into the Retention Mechanism. Make sure that the alignment notch in the processor fits into the Plug & Play in SLOT 1. Push the processor down firmly, with even pressure on both sides of the top, until it is seated.
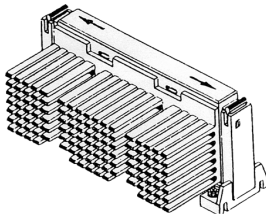
8. Push the latches on the processor outward until they click into place in the Retention Mechanism. The latches must be secured for proper electrical of the processor.

9. Slide the HSS Top bar into the heatsink until it locks into place.
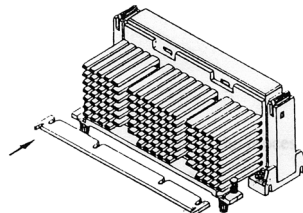
10. Attach the small end of the power cable to three-pin connector in the processor, then attach the large the large end to the three-pin connector on the main board.

Clearance Requirements

To maintain proper airflow once the processor is installed on the mainboard, the processor and fan heatsink require certain space clearances. The clearance above the processor must be at least 0.3 inch. The clearance on at least 3 of 4 sides of the processor and fan heatsink must be at least 0.2 inch. All cables (for Floppy drive,Hard drive,CD-ROM,and so on) must be routed clear of the processor and its airspace.

Fan Exhaust

The processor must be kept cool by using a processor with heatsink and fan attached . The temperature of the air filled with the fan/heatsink cannot exceed 45 $^\circ$C(113 $^\circ$F) . The ambient or room temperature must be below 37 $^\circ$C (99 $^\circ$F) .

EXTERNAL CONNECTORS

Both Ribbon cable and Connectors on board are with direction signs to avoid that user insert wrong direction. On other hand, the ribbon cables should always be connected with the red stripe on the pin 1 of side of the connector.
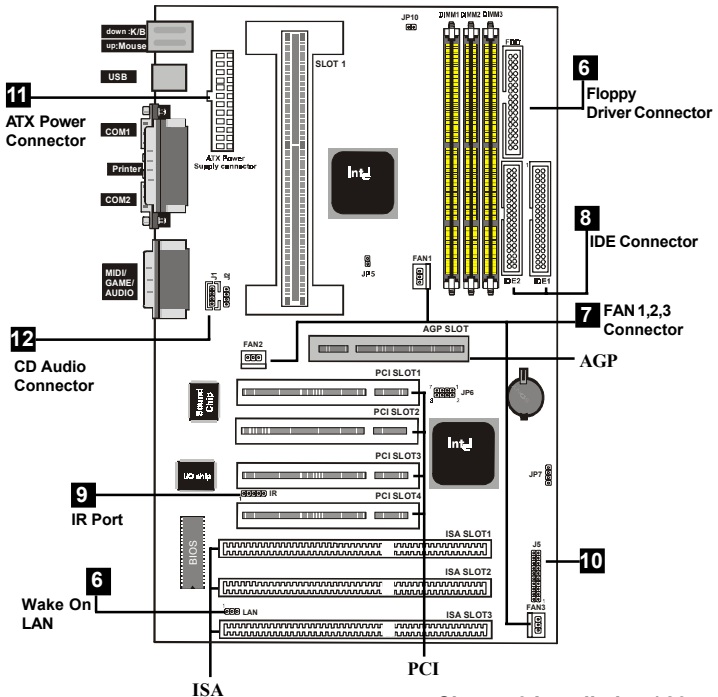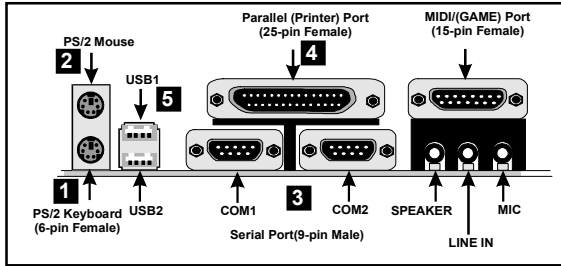
1. **PS/2 AT Keyboard port**
   This connection is for a standard keyboard using an PS/2 plug (mini DIN) . This connector will not allow standard at AT size (large DIN) keyboard plugs. You may use a DIN to mini DIN adapter on standard AT keyboards.

2. **PS/2 Mouse port**
   This system will direct IRQ12 to PS/2 mouse.

3. **Serial Port COM 1 and COM 2 port**
   The two serial ports can be used for pointing devices or other serial devices. See "Onboard Serial Port" in chipset Feature Setup of the BIOS SOFTWARE.

   NOTE:

   > **Serial {D-type 25pin (F) } must be connected to the serial port.**

4. **Parallel Printer port**
   You can enable the parallel port and choose the IRQ through " Onboard Parallel Port" in Chipset. Feature Setup of the BIOS SOFTWARE.

5. **Universal Serial BUS Ports 1 & 2**
   Two USB ports are available for connecting USB devices.

6. **Floppy drive connector**
   This connector supports the provided floppy drive ribbon cable. After connecting the single end to the board, connect the two plus on the other end to the floppy drives.

7. **FAN1 , FAN2 , FAN3 CPU Cooling Fan (FAN/PWR)**
These connectors support cooling fans of 500mAmp (6Watt) or less. Orientate the fans so that the heatsink fins allow airflow to go across the onboard heat sink(s) instead of the expansion slots. Depending on the fan manufacturer, the wiring and plug may be different. The red wire should be positive, while the black should be ground. Connect the fan's plug to the board taking into consideration the polarity of this connector.

FAN1/2 CPU Cooling FAN	
Pin	**Description**
1	**Ground**
2	**+12VDC**
3	**Signal**

FAN3 CPU Cooling FAN	
Pin	**Description**
1	**Ground**
2	**+12VDC**
3	**Ground**
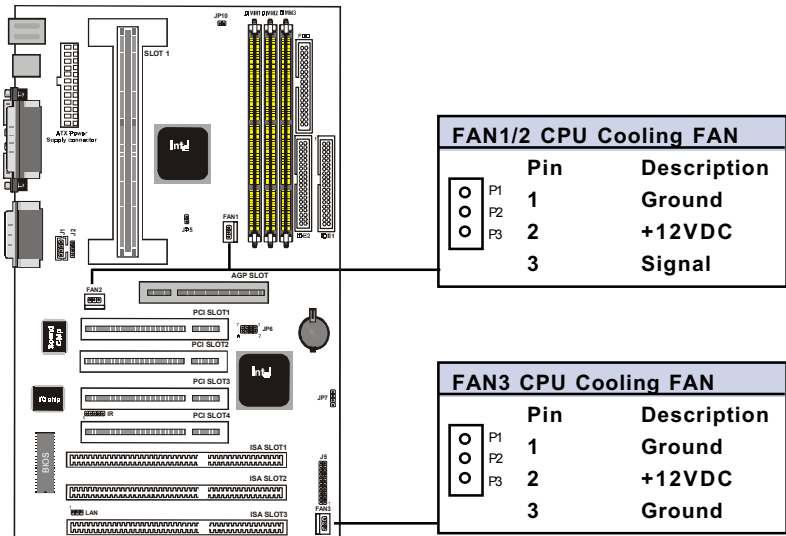
NOTE :

The "Rotation" signal is to be used only by a specially designed fan with rotation signal.

WARNING :

The CPU and/or motherboard will overheat if there is no air flowing across the CPU and onboard heatsinks. Damage may occur to the motherboard and/or the CPU fan if there pins are incorrectly used. These are not jumpers, do not place jumper caps over these pins.

8. **Primary / Secondary IDE connectors (Two 40-pin Blocks)**
These connectors support the provided IDE hard disk ribbon cable. After connecting the single end to the board, connect the two plugs at the other end to your hard disk on space (s) . If you install two hard disks, you must configure the second drive to Slave mode by settings its jumper settings. BIOS now supports SCSI device or IDE CD-ROM boot up (see "HDD Sequence SCSI/ IDE First" & "Boot Sequence" in the BIOS Features Setup of the BIOS SOFTWARE) (Pin 20 is removed to prevent inserting in the wrong orientation when using ribbon cables with pin 20 plugged) .

Tip :
You may configure two hard disks to be both Masters using one ribbon cable on the primary IDE connector. You may install one operating system on an IDE drive and another on a SCSI drive and select the through BIOS Feature Setup**.**
IMPORT : (only for 6VIA81P)
UltraDMA/66 IDE device must use an 80pin IDE cable.

Master   Slave   System
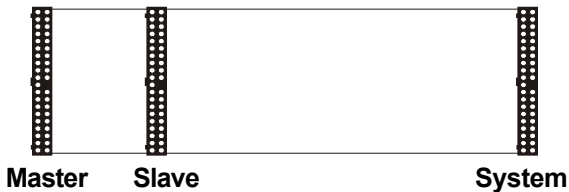
9. **IrDA / Fast IR-Compliant infrared module connector - IR**
   This connector supports the optional wireless transmitting and receiving infrared module. This module mounts to a small opening on system cases that support this feature. You must also configure the setting through UART2 Use Infrared" in Chipset Feature Setup to select whether UART2 is directed for use with COM2 or IrDA. Use the five pins as shown on the Back View and connect a ribbon cable from the module to the motherboard according to the pin definitions.
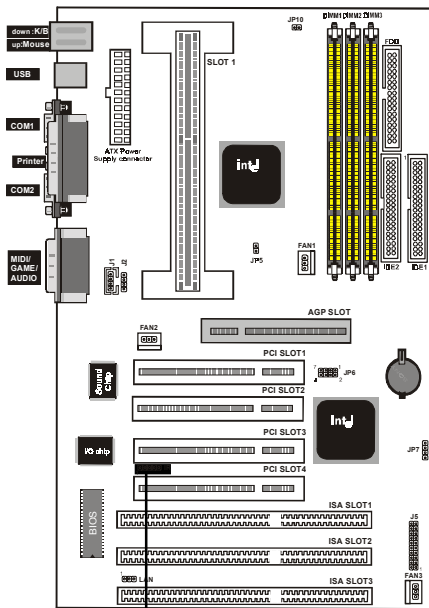
IrDA/Fast IR Connector

Pin	Description
1	VCC
2	IR4_MODE
3	IRRXA
4	GND
5	IRTXA

P 1

10. **J5**

J5 PANEL Connector

Reset HDD LED   System Power LED
P9   P1
P10   P18   P2
SMI LED   SMI   Speaker   ATX
Power Switch Button
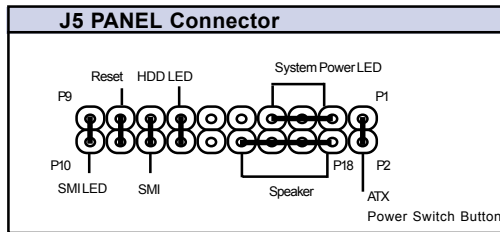
a. **IDE activity LED (HD_LED)**

This connector supplies power to the cabinet's IDE activity LED. Read and write activity by devices connected to the Primary or Secondary IDE connectors will cause the LED to light up.

b. **Power LED Lead (PW_LED)**

The system power LED lights when the system's power is on.

c. **SMI Suspend Switch Lead (SMI)**

This allows the user to manually place the system into a suspend mode or "Green" mode where systematic activity will be instantly decreased to save electricity and expand the life of certain components when the system is not in use. This 2-pin connector (see the figure below) connects to the case-mounted suspend switch. If you do not have a switch for the connector, you may use the "Turbo Switch" since it does not have a function. SMI is activated when it detects a short to open moment and therefore leaving it shorted will not cause any problems. It may require one or two pushes depending on the position of the switch. Wake-up can be controlled by settings in the BIOS but the keyboard will always allow wake-up (the SMI lead cannot wake-up the system). If you want to use this connector,"Suspend Switch" in the Power Management Setup of the BIOS SOFTWARE section should be on the default setting of Enable

d. **SMI Suspend LED**

e. **Reset Switch Lead (RST)**

This 2-pin connector connects to the case-mounted reset switch for rebooting your computer without having to turn off your power switch. This is a preferred method of rebooting in order to prolong the life of the system's power supply.

f. **Speaker Connector (SPEAKER)**
   This 4-pin connector connects to the case-mounted speaker.
g.ATX Power Switch (PW_BN)
   The system power is controlled by a momentary switch connected
   to this lead. Pushing the button once will switch the system ON.
   The system power LED lights when the system's power is on

11. **ATX Power Supply Connector (20-pin block) - PW1**
    This connector connects to a ATX power supply. The plug from
    the power supply will only insert in one orientation because of
    the different hole sizes. Find the proper orientation and push
    down firmly making sure that the pins are aligned.
    IMPORTANT:

    **Make sure that the ATX power supply can take at least
    10mAmp load on the 5Volt standby lead (5VSB). You may
    experience difficulty in powering on your system without this.**

Pin	Description	Pin	Description
1	3.3V	2	3.3V
3	GND	4	5V
5	GND	6	5V
7	GND	8	PW-OK
9	5VSB	10	12V
11	3.3V	12	-12V
13	GND	14	PS-ON
15	GND	16	GND
17	GND	18	-5V
19	5V	20	5V

12. **CD Audio Connector- J1/J2**

The 4-pin connectors enable the system to receive the audio output from the CD-ROM.

J1	Description
1	CD-R
2	GND
3	CD-L
4	GND

J2	Description
1	CD-R
2	GND
3	GND
4	CD-L

Wake-On-LAN Connector		
Pin	**Description**	
1	5VSB	P1
2	GND	
3	SENSOR	P3
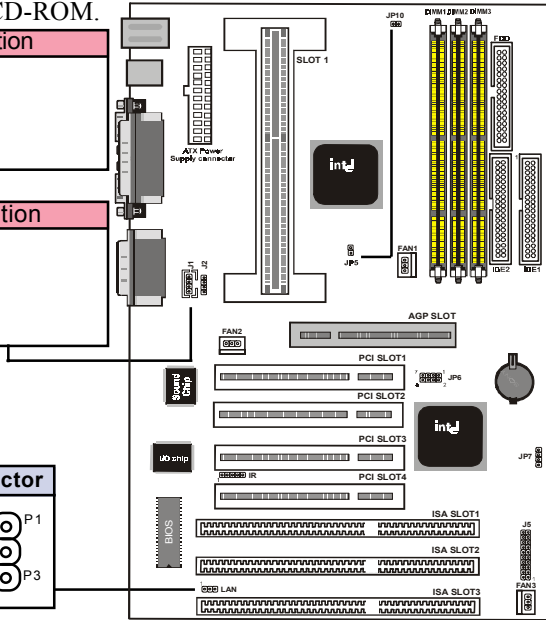
13. **Wake Up On LAN : LAN**

This connector connects LAN cards and a Wake On LAN output. When the system is in soft-off mode LAN activity will power on the system.

14. **JP5/JP10:** Over CLK for CPU

		FSB
JP5	Close	66MHZ(default)
	Open	100MHZ
JP10	Close	100MHZ(default)
	Open	133MHZ

Chapter 4

4

Audio Installation

Audio Rack Introduction

The Audio Rack32 enables you to take advantage of your computer's audio capabilities with all of the controls conveniently in one compact space. You can play audio CDs, wave files (in .wav and .aud formats), and MIDI files (in .mid and .rmi formats). With the multisource Audio Mixer, you can then record your creations as wave files and edit them with the Audio Recorder.

The AudioRack32 has six main parts:

- ☒ Command Center- customizes the appearance of the AudioRack32.
- ☒ Audio Mixer - Controls the volume and balance of the AudioRack32 devices.
- ☒ Digital Audio Player- plays and records files in the .wav format.
- ☒ MIDI Player - enables you to play MIDI files.
- ☒ Compact Disk Player - enables you to play audio CDs on a CD-ROM.

In addition, the AudioRack32 has a miniature mode enabling you to control the AudioRack32 while using minimal screen space.

The Audio Recorder is a separate application from the AudioRack32. It can be used to add effects and edit files recorded with the Digital Audio Player or by the Audio Recorder itself. The Audio Recorder can be launched from the AudioRack32's Digital audio Player or on its own.

The Command Center

Introduction

The command center controls the parts of the AudioRack32 that are displayed. You can display or hide any part of the AudioRack32 you choose, customizing its appearance to suit your needs or desires. It also displays information on the status of the different audio components.

The command center controls

Power - closes the AudioRack32 window.
Stealth- enables the miniature mode, minimizing the AudioRack32 dissplay   .
Dat   - displays or hides the Digital audio player.
Help   - accesses On-line help
CD   - displays or hides the compact disk player.
Mixer   - displays or hides the audio Mixer.
MIDI   - displays or hides the MIDI Player.

The Miniature Mode

Introduction

The miniature mode is designed to give you full control of the AudioRack32 while using a minimum of space, You are able to effectively use the AudioRack32 and still have enough room on your desktop to run other applications. In the miniature mode, you can play, pause, stop, and control the master volume of the audioRack32.

The Audio Mixer

Introduction
The Audio Mixer has two modes : playback mode and record mode.
You can use these two modes to fully control the audio soources
you are listening to or recording, how loud each of those sources are
and how they are balanced. Each audio source has its own module
with mute, balance and volume controls.
In addition, the audio mixer provides special effect controls for chorus,
reverb, treble, bass, and 3-D effects.

The audio mixer controls
The two playback and record toggle buttons are used to switch be-
tween playback mode and record mode.
The effects toggle button switches the display to the effects panel
where you can use the buttons to enable and disable effects and the
sliders to control the amount of the effect.
There are a number of audio source modules displayed on the audio
Mixer. The exact number displayed depends on the capabilities of
your hardware. Each module has three controls.
- a slider to adjust the balance
- a slider to adjust the volume
- a button for muting

The Digital Audio Player

Introduction

The digital audio player enables you to play, record, and compress sound as .wave files. In addition, you can play audio files. The wave files use PCM, which is the Windows' audio file format. The .aud format uses ESPCM compression to produce an audio file. Files are written directly to your hard disk as you record, enabling you to record very large files. Your only limitation is the amount of free space on your hard disk. The voice activation feature is useful for recording any kind of intermittent audio. The digital audio player provides a choice of linear PCM (8 or 16 bit)recording. Note that you have additional options using the audio Recorder, which is invoked by the EDIT button.

The MIDI Player

Introduction

The MIDI Player enables you to play MIDI files with the .MID or .RMI file extensions. These MIDI (Musical Instrument Digital Interface) files can be produced by sequencer programs and then played back using the MIDI Player. You can also mix MIDI files with other audio sources. Or you can compile MIDI files in a playlist and play them back in any order you choose.

The MIDI player display

By clicking on the image of the floppy drive, you can display the length and name of the current MIDI file in the playlist. Click the display to return to the image of the floppy drive.

The MIDI Player has an indicator to show when you are listening to ESFM. When the EXFM light to the left of the playlist button is lit, the MIDI Player is using ESFM synthesis. ESFM performs superior-quality music synthesis compared to that of traditional FM, producing richer timbre and greater depth of instrument voices. FM synthesis is a lower quality technology compared with Wave table synthesis. This card supports Wave table synthesis therefore ESFM is not supported on this card.

The Compact Disk Player

Introduction

If you have a CD-ROM drive, you can play audio CDs. Check your hardware manual about setting up CD audio hardware and drivers. The compact disk player uses intellignet CD playlist management : The compact disk player maintains a record of each CD you play. It remembers the last playlist you used with each CD and loads that playlist automatically whenever you insert that CD.

The Audio Recorder

The audio recorder enables you to record, compress, store, and play back voice, music, and other sound. It provides settings for sound attributes such as mono/stereo, compression level, and sampling rate, You can use it to embed sound objects in documents created in applications that support object linking and embedding (OLE).

The audio recorder's edit, record, and playback capabilities are compatible with the Windows Sound Recorder and other recorders that record and play back in the PCM format, like the Digital Audio Player. The Audio Recorder can record and play back .wav and .aud files. The Audio Recorder allows a choice of compression from low, medium, and high ESPCM and ADPCM.

Release Notes

This information is provided for convenience only. Information here is subject to change without prior notic. View the installation CD for any updated informaation in Readme text files. The AudioRack also provides detailed online help (click the Help button on the Command Center)

Disable Eject Button On the CD Player

Under the Windows directory in the file "ajddrive.ini", there is a string "disableEjectButton=0" under the [cdplayer] section. If you would like to disable EJECT button on the CD player, you can change the value from 0 to 1. You need to close AudioRack and launch it again to let the new settings take effect.

Using AudioRack CD player as Default CD Player

During installation, you will be asked if you want to use AudioRack CD player as the default CD player. Normally Windows 95 CD player is the default and will automatically run when as audio CD is inserted into the CD-ROM. If you answer "Yes", the installation program will overwrite the value of the key[HKEY_CLASSES_ROOT] \audioCD\shell\play\command in the registry. You may switch back to Windows95 CD player by resetting this key value.

Configuring Playback Mixer

The onboard PCI audio device offers eight inputs for the playback mixer, including "Line", "Wave", "CD", "Synth", "Aux A", "Aux B", "Mic" and "Mono In". AudioRack can only display six of them at a time. You may configure the settings by modifying the file "auddrive. ini" in the Windows directory. Under the section [MixerRak], you can enable or disable the display of each input by setting its corresponding binary value to 1 (enable) or 0 (disable).

Install Software Wavetable (Winnndows 95/98)

Insert the Softwave Driver into your computer, run **Setup.exe** in the root directory. This will bring up the main menu. Click Install Software Wave Table. Select Install **ESS** Software Wavetable and click next. When Setup has finished installing all the necessary files on your computer, it will prompt you to restart your computer.

Select yes, I want to restart my computer now and then click finish to restart your computer and complete setup.

Date :   /   /

Guarantee Sheet/Technical Fault Report

M/B Model No.:_____   Vender

Serial No.   :_____

Date of Purchasing:_____

Hardware Configuration Used :

CPU	
RAM	
Video Card	
Hard Drive	
Other Card	

Diagnostic Software Used :

Fault Description :

Technical Support :

WWW   :   www.acorp.com.tw

FAE   :   fae@acorp.com.tw