CHAPTER 1: INTRODUCTION

1-1 OVERVIEW :

THE I440 BX MAIN BOARD IS DESIGNED WITH INTEL® 82443BX PCISET WHICH PROVIDES AN INTEGRATED IDE CONTROLLER WITH TWO HIGH PERFORMANCE IDE INTERFACES FOR UP TO FOUR IDE DEVICES (HARD DEVICES , CD-ROM DEVICES... ETC.), AND USB (UNIVERSAL SERIAL BUS) FEATURES ENHANCES THE OVERALL PERFORMANCE AND EXTENSION FOR THIS BOARD.

IT SUPPORTS INTEL® PENTIUM® II CPUS FAMILY(+) AND IS IDEAL FOR MS-DOS®, WINDOWS®, WINDOWS 95®, WINDOWS NT®, NOVELL®, OS/2®, UNIX®... ESPECIALLY, THE MAIN BOARD IS DESIGNED WITH MORE CHOICES ON POWER ON FUNCTION, LIKE "KB POWER ON PASSWORD, HOT KEY POWER ON, MOUSE LEFT AND MOUSE RIGHT" (REFER TO PAGE 3). THE M/B CAN ALSO DETECT SYSTEM TEMPERATURE, CPU FAN SPEED, AND CPU VOLTAGE AUTOMATICALLY(REFER TO PAGE 12).

THE PERFORMANCE, SPEED AND EXTENSIBILITY OF I440BX MAIN BOARD MAKE IT THE PERFECT CHOICE FOR BUILDING A LAN SERVER, A HIGH-END WORKSTATION OR A MULTI-USER SYSTEM.

(+) INTEL® PENTIUM® II FAMILY
A. PROFESSIONAL PC
  a. 100 MHZ FREQUENCY: DESCHUTES
    CPU SPEED: 300-500 MHZ
  b . 66MHZ FREQUENCY: KLAMATH
    CPU SPEED: 233-333 MHZ WITH INTERNAL CACHE 512K
B. BASIC PC: CELERON
  1. MENDOCINO WITH 128K INTERNAL CACHE: 300 MHZ UP
  2. COVINGTON WITHOUT INTERNAL CACHE: 266 MHZ UP

1-2 UNPACKING :

THE MAIN BOARD PACKAGE CONTAINS:
* I440BX MAIN BOARD
* MANUAL
* CABLES
* DRIVER & UTILITY / CD
* RETENTION MODULES

IF ANY OF THESE ITEMS IS MISSING OR DAMAGED, CONTACT THE DEALER FROM WHOM YOU PURCHASED. LEAVE THE I440BX MAIN BOARD IN ITS ORIGINAL PACKING UNTIL YOU ARE READY TO INSTALL IT.

1-3 SPECIFICATIONS

SPEC.	DESCRIPTION
SLOT 1	SUPPORT INTEL® PENTIUM® II CPU (66 MHZ &100 MHZ FREQ.)
MEMORY	DIMM: 3 OF 168-PIN 3.3V DIMM **A. PROFESSIONAL PC** a. 100 MHZ FREQ.: PC 100- DIMM b. 66 MHZ FREQ. : SDRAM UP TO 384MB 　　　　　　EDO RAM UP TO 768MB (3.3V ONLY) **B. BASIC PC: 66 MHZ FREQ.** a. SDRAM UP TO 384MB b. EDO RAM UP TO 768MB(3.3V ONLY)
EXP. SLOT	2X ISA, 5 X PCI SLOTS AND 1X A.G.P. SLOT
CHIPSET	INTEL® I440 BX CHIPSET----- A. INTEL® 82443BX PCI AND A.G.P CONTROLLER. B. INTEL® 82371EB I/O BRIDGE
BIOS	AWARD® FULL PNP (PLUG & PLAY) BIOS.
I/O FUNCTION	A. 2 X PCI IDE DEVICES B. 1 X FDC,2 X SERIAL PORTS(16550 FAST COM) C. 1X PARALLEL PORT DEVICE /EPP/ECP, D. 2X USB CONNECTOR E. I.R. (INFRARED) CONNECTOR
BOARD SIZE	30.5 CM X 18.00 CM
GREEN FUNCTION	COMPLIED WITH APM (ADVANCED POWER MANAGEMENT)
SPECIAL FEATURES	A. OPTIONAL LM78 FOR HARDWARE MONITORING B. WAKE ON LAN C. MODEM RING ON (REFER TO PAGE 25) D. AUTO DETECTION OF CPU VOLTAGE, FAN & TEMPERATURE E. CREATIVE PCI SOUND BLASTER AWE64D HEADER F. WINDOWS 95 POWER OFF G. KEYBOARD WAKE UP (REFER TO PAGE 3) H. PS/2 MOUSE WAKE UP (REFER TO PAGE 3)

1-4 POWER ON FUNCTION

TO GIVE THE USER MORE CHOICES ON POWER ON SETUP, THE MAIN BOARD ADDS ESPECIALLY THE FOLLOWING OPTIONS .

GO TO "INTERGRATED PERIPHERALS" IN BIOS, AND FIND THE ITEM, "POWER ON FUNCTION," IN WHICH THERE ARE "KB POWER ON PASSWORD, HOT KEY POWER ON, MOUSE LEFT,MOUSE RIGHT, AND BUTTON ONLY."

ITEM	PROCEDURE	SPECIAL NOTE
KB POWER ON PASSWORD	1.ENTER PASSWORD: 5 SPACES ALLOWED. 2. CONFIRM PASSWORD: KEY IN THE PASSWORD TO CONFIRM AGAIN.	THE SYSTEM CAN ONLY BE TURNED ON THROUGH KB PASSWORD. CASE BUTTON CAN NOT WORK. IF PASSWORD IS FORGOTTEN, PLEASE CLEAR CMOS AND SET UP AGAIN.
HOT KEY POWER ON	12 OPTIONS: "CTRL+F1...CTRL+F12." THE USER MAY CHOOSE EITHER OF THEM BY "PAGE UP" OR "PAGE DOWN."	THE SYSTEM CAN BE TURNED ON EITHER BY HOT KEY OR PUSHING CASE POWER ON BUTTON.
MOUSE LEFT	MOUSE LEFT (P/S2 MOUSE ONLY)	THE SYSTEM CAN BE TURNED ON EITHER BY PS/2 MOUSE OR PUSHING CASE POWER ON BUTTON.
MOUSE RIGHT	MOUSE LEFT (P/S2 MOUSE ONLY)	THE SYSTEM CAN BE TURNED ON EITHER BY PS/2 MOUSE OR PUSHING CASE POWER ON BUTTON.
BUTTON ONLY	CASE BUTTON	THE SYSTEM CAN BE TURNED ON BY CASE BUTTON.
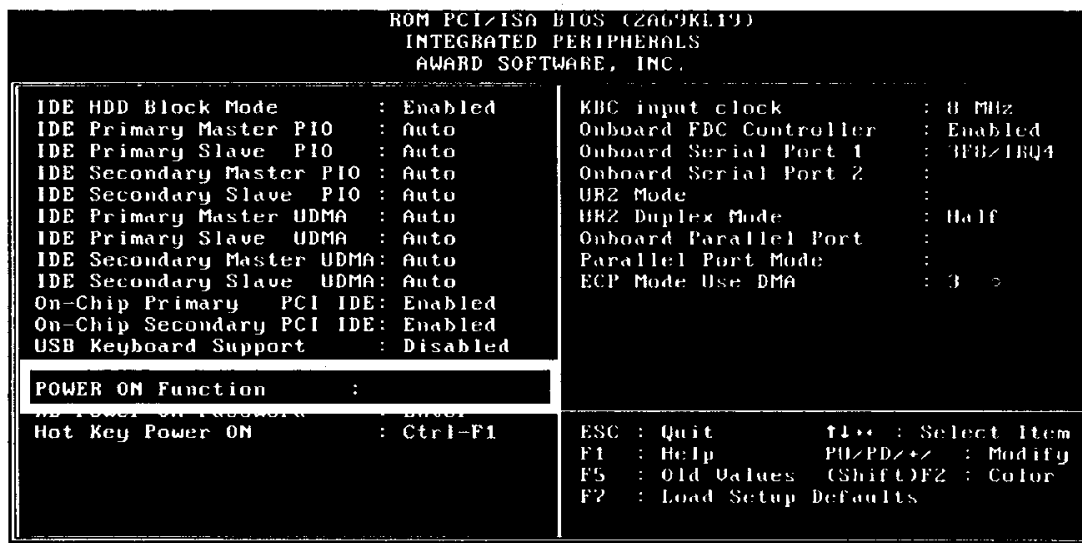
CHAPTER 2. INSTALLATION

2-1 LAYOUT REFERENCE
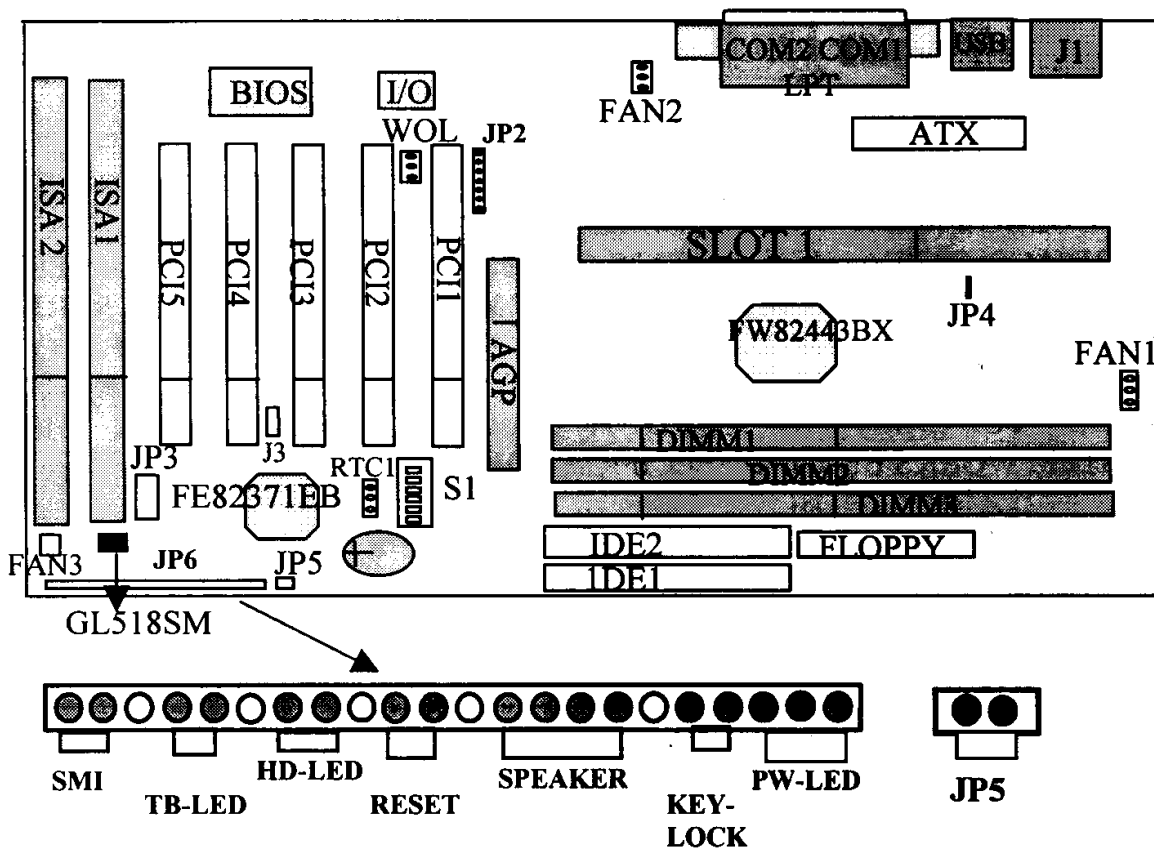
* SMI: SUSPEND MODE INTERRUPT
SMI IS FOR **BREAK SWITCH SETTING** . WHEN SMI IS TURNED FROM OPEN TO CLOSE AND BACK TO OPEN, THE SYSTEM WOULD SUSPEND IMMEDIATELY.

PIN 3- PIN6 SETUP

CPU SPEED	CLOCK SPEED	RATIO	SW1
PENTIUM® II 233MHZ	66MHZ	3.5X (DEFAULT)	ON DIP 1 2 3 4 5 6
PENTIUM® II 350MHZ	100MHZ		
PENTIUM® II 266MHZ	66MHZ	4X	ON DIP 1 2 3 4 5 6
PENTIUM® II 400MHZ	100MHZ		
PENTIUM® II 300MHZ	66MHZ	4.5X	ON DIP 1 2 3 4 5 6
PENTIUM® II 450 MHZ	100MHZ		
PENTIUM® II 330 MHZ	66MHZ	5X	ON DIP 1 2 3 4 5 6
*PENTIUM® II 500 MHZ	100MHZ		
*PENTIUM® II 366 MHZ	66MNZ	5.5X	ON DIP 1 2 3 4 5 6
*PENTIUM® II 550 MHZ	100MHZ		
*PENTIUM® II 600 MHZ	100MHZ	6X	ON DIP 1 2 3 4 5 6
*PENTIUM® II 650 MHZ	100MHZ	6.5X	ON DIP 1 2 3 4 5
*PENTIUM® II 700 MHZ	100MHZ	7X	ON DIP 1 2 3 4 5 6
*PENTIUM® II 750 MHZ	100MHZ	7.5X	ON DIP 1 2 3 4 5 6
*PENTIUM® II 800 MHZ	100MHZ	8X	ON DIP 1 2 3 4 5 6

*PENTIUM® II 366MHZ AND 500 MHZ - 800MHZ ARE FOR REFERENCE ONLY AS THEY ARE NOT AVAILABLE WHEN THIS MANUAL IS PUBLISHED.

JP2 : IR (INFRARED) CONNECTOR

| I.R. CONNECTOR PIN OUT						
PIN 1	PIN 2	PIN 3 TX	PIN 4	PIN 5	PIN 6	PIN 7
RX	GND		+5V	RXH	VCC	GND
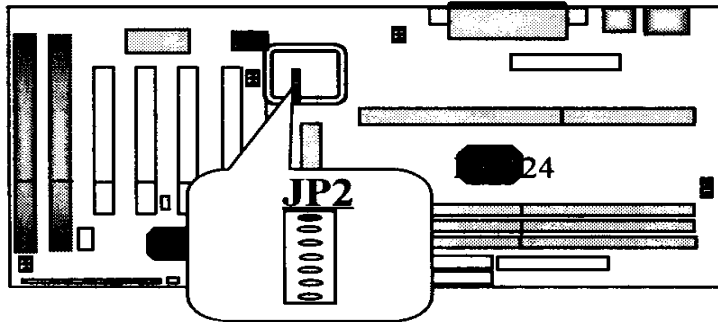
NOTE : IR1 USES THE SAME I/O PORT AS COM2. THERE IS NO ANY HARDWARE JUMPER SETTING FOR IRCON/COM2 ON THIS MAIN BOARD BUT CUSTOMERS NEED TO SET PROPER BIOS SETTING FOR **"IRDA1.0","ASKIR"** OR **"STANDARD"**(DEFAULT) UNDER "INFRA RED (IR) FUNCTION" OF "INTEGRATED PERIPHERALS."

JP5: ATX POWER SWITCH

THE SYSTEM POWER IS CONTROLLED BY A MOMENTARY SWITCH (WHEN "POWER SWITCH TYPE" IS SET TO MOMENTARY) CONNECTED TO THIS LEAD. PUSHING THE BUTTON ONCE WILL TURN ON THE SYSTEM AND PUSHING ANOTHER TIME WILL TURN OFF THE SYSTEM. THE SYSTEM POWER LED SHOWS THE STATUS OF THE SYSTEM'S POWER.   THIS CONNECTION DOES NOT HAVE A FUNCTION WHEN A STANDARD POWER SUPPLY IS USED.
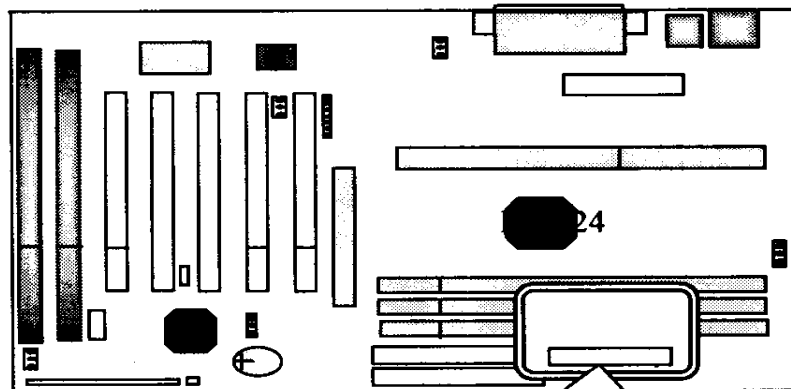

JP5 ATX POWER SWITCH

1.POWER ON   2..POWER OFF
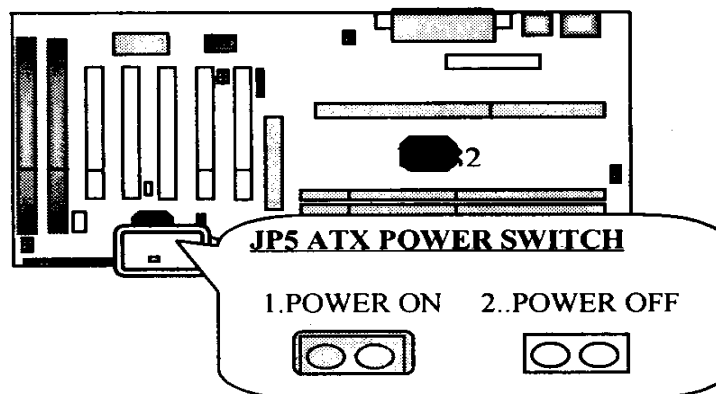
IDE1: PRIMARY HDD CONNECTOR
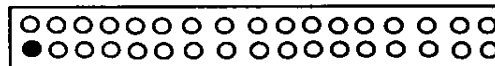## IDE2: SECONDARY HDD CONNECTOR
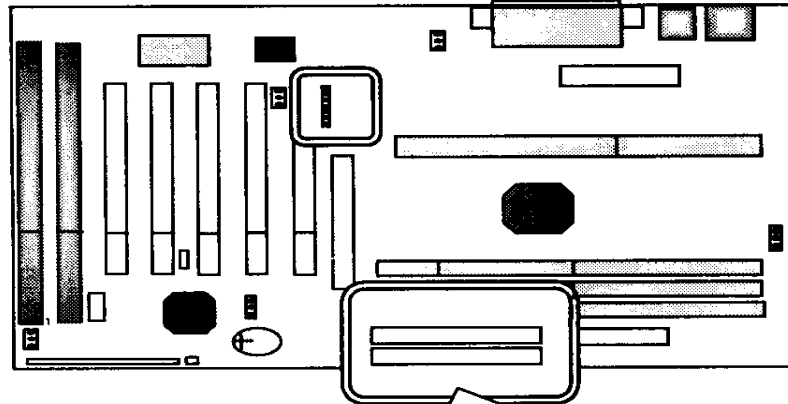
IDE2: SECONDARY HDD
IDE1: PRIMARY HDD
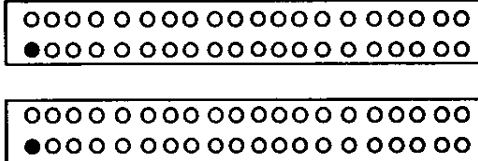
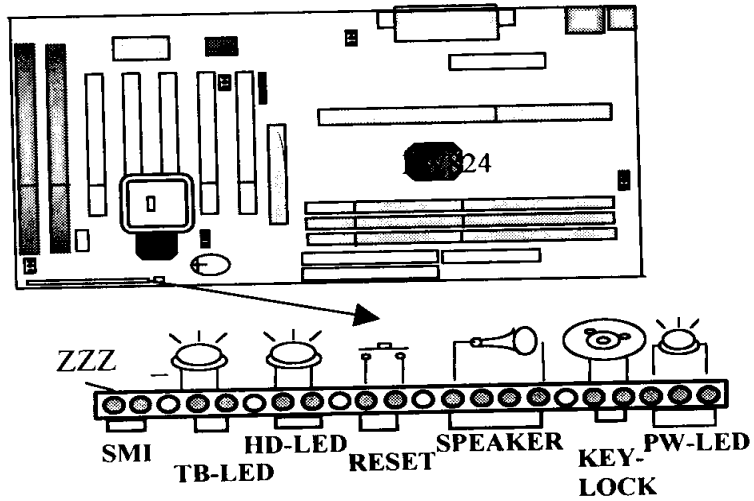## FLOPPY DISK CONNECTOR

FLOPPY

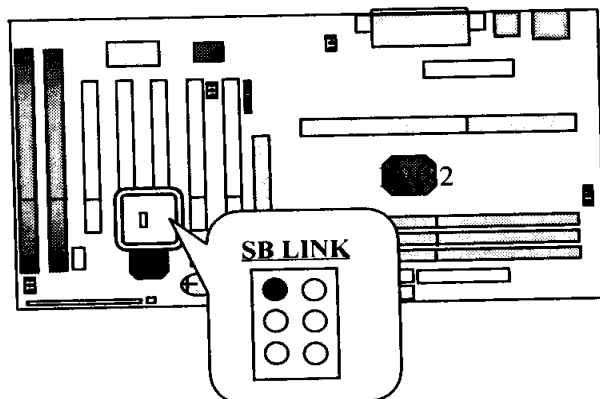## J1: KB/PS/2 MOUSE CONNECTOR

PS/2 MOUSE ◄——

KEYBOARD ◄——

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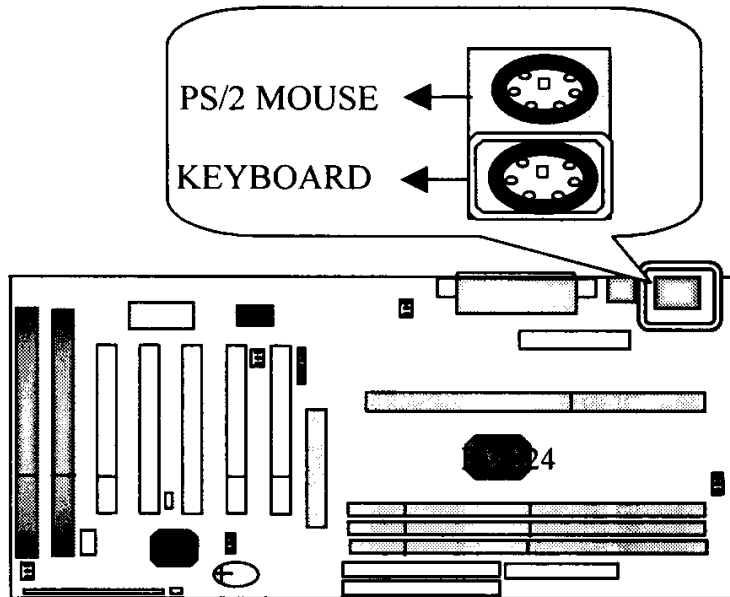
COM1/COM2/LPT: SERIAL PORT 1 CONNECTOR, SERIAL PORT 2 CONNECTOR, PRINTER PORT CONNECTOR
USB : USB (UNIVERSAL SERIAL BUS) CONNECTOR

LPT1

USB

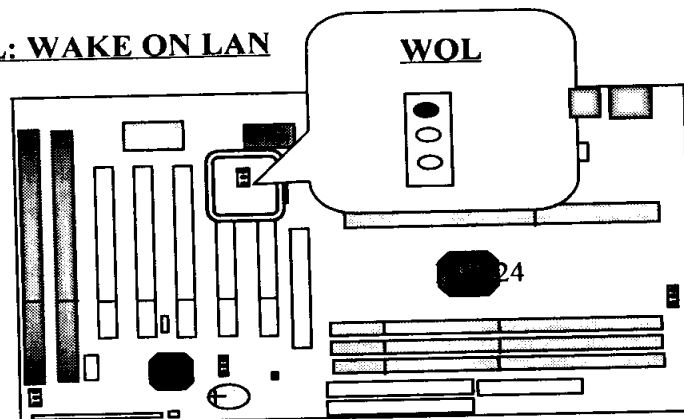COM1   COM2

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JP6: CASE CONNECTOR

ZZZ

SMI TB-LED HD-LED RESET SPEAKER KEY-LOCK PW-LED
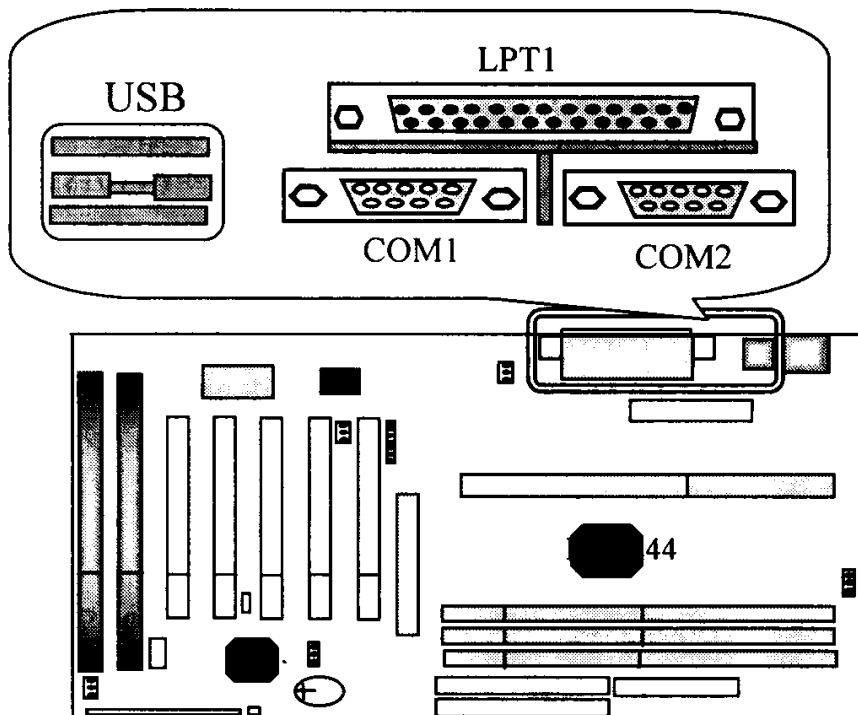
J3: SBLINK

SB LINK

WOL: WAKE ON LAN

WOL

RADIO AND TELEVISION INTERFERENCE STATEMENT

The equipment described in this manual generates and uses radio frequency energy. If it is not installed and used properly, that is, in strict accordance with the manufacturer's instruction, it may cause interference to radio and television reception.

This equipment has been tested and complies with the limits for a Class B digital device in accordance with the specifications in Part 15 of the FCC Rules. These rules are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- o   Reorient the receiving antenna
- o   Relocate the computer with respect to the receiver
- o   Move the computer away from the receiver
- o   Plug the computer into a different outlet so that computer and receiver are on different branch circuits

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet, prepared by the Federal Communications Commission, helpful: *How to Identify and Resolve Radio and TV Interference Problems.* This booklet is available from the U.S. Government Printing Office, Washington, DC 20402.

WARNING

This equipment has been certified to comply with the limits for a Class B computing device under Part 15 of FCC Rules. Only peripherals (computer input/output devices, terminals, printers, etc.) certified to comply with the Class B limits may be attached to this computer. Operation with non-certified peripherals is likely to result in interference to radio and TV reception. Any changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

REMARKS

To meet FCC requirements, shielded cables and power cords are required to connect the device to a personal computer, peripheral, or other Class B certified device.