CONTENTS

HOW TO USE THIS MANUAL

To obtain maximum use from this manual it is suggested:

Read Page A COMPONENT LOCATION DIAGRAM where you find the mainboard layout diagram. Please refer to it when you configure the system.

Read Page B CHECK LIST OF THE PACKAGING where you find the packing contents.

Read about an overview of the mainboard features, and how to upgrade as well as to change hardware configurations such as memory size, CPU type, jumper settings lists and connectors in the following categories:

      Chapter 1 Introduction
    Chapter 2 Installation

When you have finished reading of both chapter 1 and chapter 2, turn to **Chapter 3 Award BIOS Setup** where you will find the update BIOS procedure and the further information which is stored in the SETUP is the system hardware configuration.

The back of this manual contains **APPENDIX A** which shows you how to setup Pentium®II & Celeron™ and processors with SECC2 package, **APPENDIX B** which shows you how to setup thermister and **APPENDIX C** which is a list of request form for technical support.

Your system dealer will set up the mainboard according to your demand of the computer. It means that the current settings of your mainboard may not be the same as the defaults shown in this user's manual. If you need to change your configuration, please ask your dealer first. Be sure this will not void your system warranty, or ask your dealer to do it for you.

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CHAPTER 1 INTRODUCTION

1-1 ATC-6130 Mainboard System Features

- Intel Pentium®II CPU & Celeron™ CPU operating from 233MHz to 400MHz .

- Intel 82440LX AGPset.

- Three 3.3V 168-pin DIMM sockets in three banks of 64-bit wide path up to 384MB SDRAM or 768MB EDO DRAM (with parity chip ECC support).

- Built-in Switching Voltage Regulator.

- Auto-detect CPU core voltage range from 1.8V to 3.5V.

- One AGP slot, three 32-bit PCI slots with revision 2.1 and two 16-bit ISA slots.

- Dual Master IDE connectors support Ultra DMA/33 (33MB/sec), up to four devices in two channels for connecting of high capacity hard drive, CD-ROM, Zip, LS-120...etc.

- Winbond 83977 high-speed Ultra Multi-I/O chipset.

- USB (Universal Serial Bus) header supporting up to 127 peripheral devices.

- AT style Keyboard Connector and PS/2 Mouse Header.

- AT Power Connector and ATX Power Connector.

- Infrared Transfer (IrDA TX/RX) Connection.

- One FDC Port supporting two devices up to 2.88MB.

- Two 16550A fast UARTs compatible Serial Ports.

- One EPP/ECP Mode Parallel Printer Port.

- Fan On / Off Control, Power Button , Resume Reset and Modem Ring On ,Software Power Off Control, Wake-On-LAN, Keyboard & PS/2 mouse Power On. (with ATX power)

- Built-in Hardware Health Monitoring. (option)

- Intel LDCM software. (option)

- Baby AT form factor, board dimension is 260mm x 220mm (8.66" x7.33").

1-2 Software Power Off Control

The mainboard design supports Software Power Off Control feature through the SMM code in the BIOS under Windows 95/98, Windows 3.1x, and MS-DOS operation system environment. In order to reach this feature, you should use **ATX power supply**.
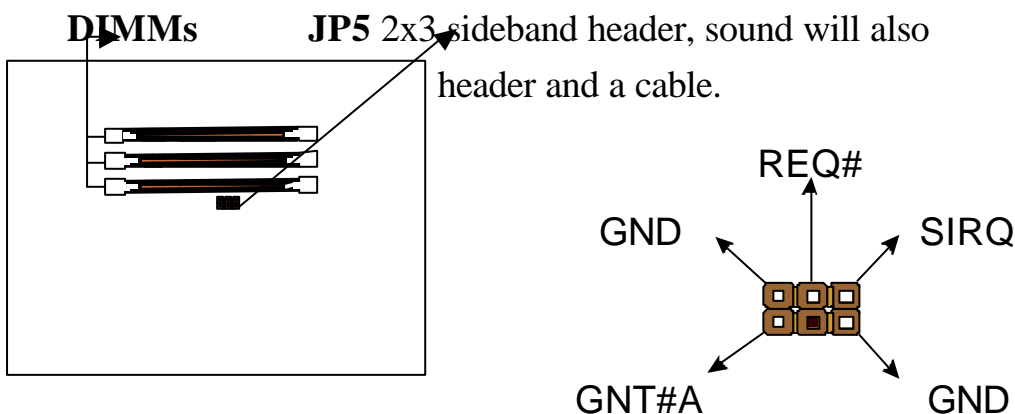
First, you should connect the power switch cable to the connector "PS-ON" on the mainboard. In the BIOS screen of 'POWER MANAGEMENT SETUP', choose "User Defined" (or "Min. Power Saving" or "Max. Power Saving") in 'Power Manager' and choose "Yes" in 'PM Control by APM'.

In Windows 95/98, if you would like to power off the system, you just choose "shutdown the computer ?" in the "Shut Down Windows" from Windows 95/98, then the system power will be off directly and become the stand-by status. In the mean time, you will find the power LED light is blinking. If you would like to restart the system, just press the power switch button, and the system will be powered on.

Note : If you will leave your system for several days, we suggest you use hardware power off to shutdown your system.

1-3 SB-Link Sideband Signals (JP5)

In order to migrate the legacy Sound Blaster compatible audio to the PCI bus, EMU8008 incorporates a pair of SB-Link request/grant sideband signals (PCPCIREQN and PCPCIGNTN) to interface to the PCI bus. SB-Link is a mechanism that was defined and developed by INTEL as a docking solution which allows ISA slots to exist in docking stations connected to desktop PC PCI bus.

DIMMs   **JP5** 2x3 sideband header, sound will also
                           header and a cable.

REQ#

GND   SIRQ

GNT#A   GND

4

1-4 Wake-On-LAN

The remote Wake-On-LAN mode of operation is a mechanism that uses Advanced Micro Device Magic Packet technology to power up a sleeping workstation on the network. This mechanism is accomplished when the LAN card receives a specific packet of information, called a Magic Packet, addressed to thenode on the network. For additional protection, Secure ON is an optional security feature that can be added to the Magic Packet that requires a password to power up the sleeping workstation. When the LAN card is in remote Wake-On-LAN mode, main system power can be shut down leaving power only for the LAN card and auxiliary power recondition.

The LAN card performs no network activities while in the remote Wake-On-LAN mode of operation-It only monitors the network for receipt of a Magic Packet. If a Magic Packet is addressed to the LAN card on the network, the LAN card wake up the system. If the Secure ON feature has been enabled, the password added to the Magic Packet is also verified prior to waking up the system.

CAUTION :

It needs to use with the ATX power supply revision 2.1 (which can deliver +5V standby   5% at 720mA) and the LAN card supports WOL function with INTEL protocol.

ISA slots

WOL
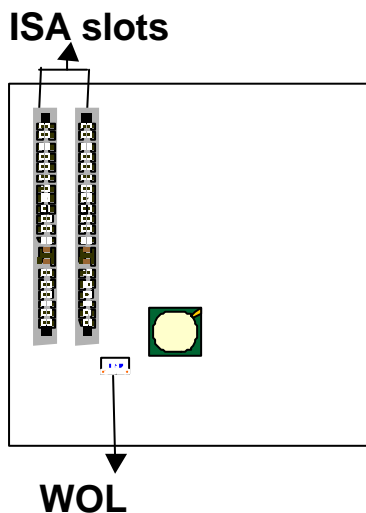
1-5 Keyboard & PS/2 Mouse Power On

The ATC-6130 mainboard has two easy and convenient ways to power up the system. Users may power on the system by typing a password or by double-clicking the PS/2 mouse on the left or right button. It just depends on which one users set in the "Power On function" of BIOS INTEGRANTED PERIPHERALS. And this function is available for **ATX power supply** only.

In order to satisfy different users that will have many different needs, the ATC-6130 mainboard provides four different methods to power up the system:

1. **KB Power On Password:**
   The setting process is as follow: Password: when users select this option, it will show "Enter Password:". After users type the password, it will show " Confirm Password:" and users have to type the same password to confirm it now. Under power-off condition, if users type the correct password, the system will be powered on immediately.
   If you have set the keyboard password power on function, but lost the password, you can CLEAR CMOS to clear the password. Or you can't power on the system.

2. **Hot Key Power On:**
   When users select this option, it will show another line below as Hot Key Power ON : "Ctrl-F1".You can select from "Ctrl-F1" to "Ctrl-F12" by using PageUp / PageDown keys. After power off, users can hold down both the Ctrl and F1 keys to power up the system.

3. **Mouse Left, Mouse Right :**
   This function is available for PS/2 mouse only. It will power up the system by double clicking the left or right mouse. Note that do not move the mouse when you click. Or you can't power on the system.

4. **BUTTON ONLY :**
   Only the power button can power on the system.

1-6 Thermister (option)

This means that user can monitor the CPU temperature through thermister.

When setting up the thermister, the Bios will load the CPU temperature automatically. There is a choice of the warning beep sound if the user set the option on. If the CPU temperature is overheated, the user will get the notice from the thermister. This time you should shut down computer and check your devices. Or you can connect with you dealer.

1-7 LDCM   LANDesk Client Manager (option)

If ATC-6130 built-in hardware component support Intel LDCM. LDCM can satisfy users who want manageable systems that can interact automatically with the user. Client manager is the answer, enabling both administrators and clients to manage systems. The features of LDCM are as following :

Review system inventory
Client Manager enables you to view hundreds of inventoried items. Some of these items are software related, while many others are hardware related.

View DMI-compliant component information
Client manager enables you to view component information that is compliant with the Desktop Manager Interface DMI . This means you can manage third-party DMI-compliant components not included with Client manager.

Back up and restore system configuration files.
Client Manager enables you back up and restore system configuration files. Whenever you plan on changing the system configuration , you can make a backup set. If the system no longer works correctly, after you change the system configuration , you can simply restore the system configuration with the backup set.

Troubleshoot
Since Client manager enables you to view the system inventory, you can easily troubleshoot system problems.

Receive notifications for system events
Client manager enables you to receive notification of certain system events. For example, if the system is running low on virtual memory, you are notified of the potential problem.

Transfer files to and from client workstations
As an administrator, you have the ability to transfer files to and from client workstation. This is helpful, for example, when you need to update a client workstation driver.

Remotely reboot client workstations   Administrator also have the ability to remotely reboot a workstation. This is helpful when you want system configuration changes to take effect.

CHAPTER 2 INSTALLATION

2-1 INSTALLATION PROCEDURE

Before installing the computer, please prepare all components such as CPU, DRAM; peripherals such as hard drive, keyboard, CD-ROM and accessories such as cables.Then, install the system as following:

1. Plug CPU/ heat sink (refer to Pentium$^®$II & Celeron^{TM} installation guide, **Appendix A**), and DRAM modules on the mainboard.

2. Set DIP switch & jumpers based on your configuration.

3. Plug add-on cards into PCI/ISA slots, if needed.

4. Connect cables to peripherals devices, power supply…

5. Make sure all components and devices are well connected, turn on the power and setup System BIOS based on your configuration.

6. Install peripherals devices, add-on card drivers and test them.

7. If all of above procedures are running successfully, turn the power off and screw the chassis cover to the chassis, and then connect external devices which are cabled to the system.

2-2 CPU INSTALLATION

ATC-6130 supports INTEL Pentium$^{\hat{a}}$II CPU & Celeron^{TM} CPU.

The ATC-6130 mainboard has built-in VID (Voltage Identify) function to auto detect CPU voltages. Hence you do not have to set the CPU voltage setting.
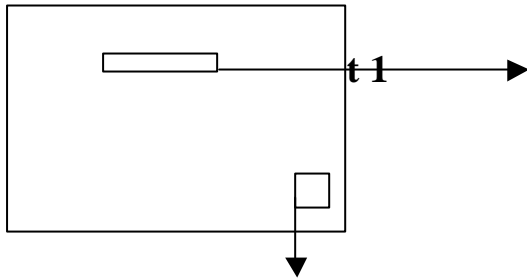
SW1
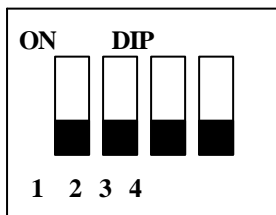
SW1
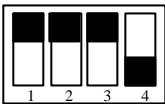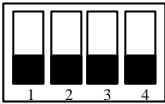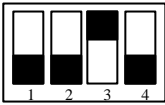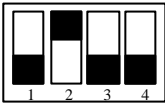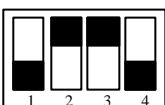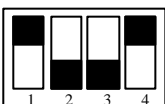
DIP switch, (i.e. : OFF, OFF, OFF, OFF)
ON : switch to the 'ON' position.
OFF : switch to the 'OFF' position.

2-2-1 CPU SETTING

➢ 66MHz CPU Bus Frequency

INTERNAL CPU CLOCK	SW1
233MHz (66x3.5)	
266MHz (66x4.0)	
300MHz (66x4.5)	
333MHz (66x5.0)	
366MHz (66x5.5)	
400MHz (66x6.0)	

This table is for 233~333MHz Intel Pentium^â II & 266~400MHz Celeron^{TM} CPUs.

2-2-2 SW1 setting table:

CPU Clock

SW1	1-1	1-2	1-3	1-4
233MHz	ON	ON	ON	OFF
266MHz	OFF	OFF	OFF	OFF
300MHz	OFF	OFF	ON	OFF
333MHz	OFF	ON	OFF	OFF
366MHz	OFF	ON	ON	OFF
400MHz	ON	OFF	OFF	ON

2-3 SYSTEM MEMORY INSTALLATION

The ATC-6130 provides three 168-pin DIMM sockets for system memory expansion from 8MB to 384MB SDRAM or 768 EDO RAM. These three DIMMs are arranged to three banks, please refer to page A. Each bank provides 64-bit wide data path.

Bank/DIMM	Memory Module	Total Memory
Bank0/DIMM1	8/16/32/64/128/256MB	8MB~256MB
Bank1/DIMM2	8/16/32/64/128/256MB	8MB~256MB
Bank2/DIMM3	8/16/32/64/128/256MB	8MB~256MB
Total System Memory		8MB~768MB

DRAM type, size, parity supported:

- EDO DRAM, Unbuffered SDRAM with SPD
- Both parity or non-parity are available.
- 3.3V, Single/double-side, 8/16/32/64/128/256Mbytes
  (Max. memory size: 128MB SDRAM or 256MB EDO DRAM)

◆ *For 66MHz host bus CPUs use 12ns or faster DIMM module;.*

✎ SPD (Serial Presence Detect)
This EPROM contains speed and design information of the memory module. The mainboard may get optimal performance via accessing the data of SPD.

✎ ECC (Error Check and Correction)
This mainboard can support the ECC function while utilizing parity modules. To enable this function, users must set "DRAM Data Integrity Mode" to "ECC" through "Chipset Features Setup" from the BIOS setup screen. All in all, ECC's function is to detect and correct the errors of transfer datas.

2-4 CONNECTORS DESCRIPTION

The locations of following connectors are indicated in page A. When you plug a cable into the following I/O connectors, you should have the pin 1 edge of the cable align with the pin 1 end of the connector.

CONN1 : speaker, keyboard lock, reset, SMI, turbo LED, and IDE LED connectors.

SPK : speaker
Speaker
GND
GND
VCC

Power LED /KB Lock connector
Power LED +
N/C
GND (power)
Keylock
GND

RST : Reset connector
Reset Signal
GND

SMI : SMI lead
GND
SMI Signal

TB-LED : Turbo LED indicator, LED on when system runs higher speed
GND
+5V (next to CPU)
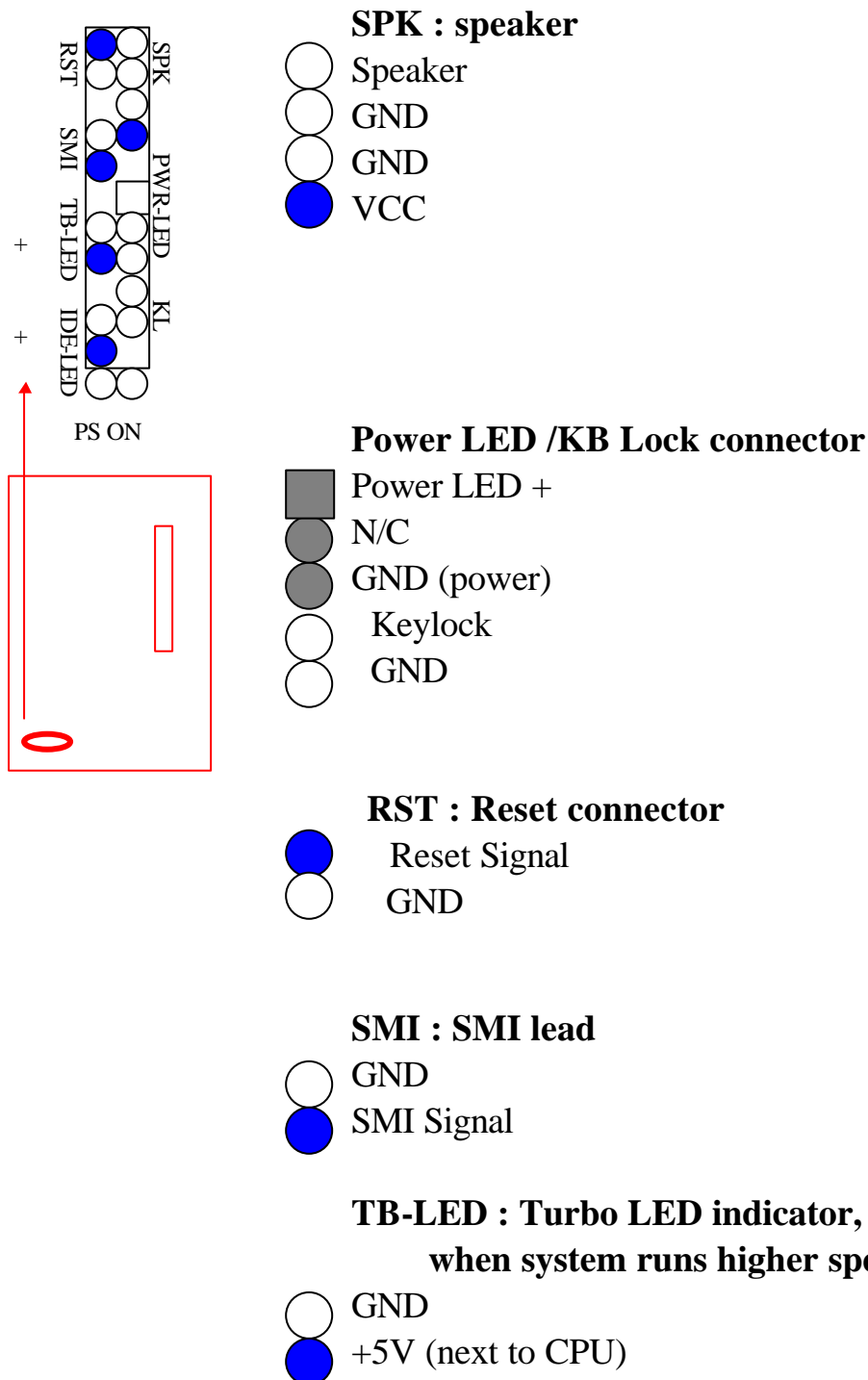
IDE-LED : IDE devices indicator LED connector. IDE-LED stays ON indicates on-board IDE devices in operation. The red wire of HDD connector must be connected to the pin which is +5V.

GND
+5V

FAN

1 GND
2 +12V
3 Sense
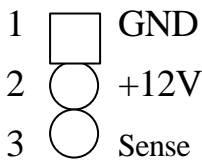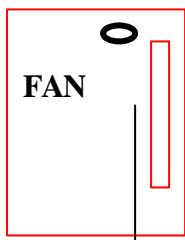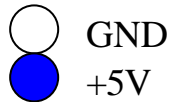
FAN : CPU cooling fan connector. Wire with +12V voltage (most likely red wire) must be plugged into pin2, and GROUND wires (most likely black wires) must be plugged into pin3. Please confirm the wire color re-presentation with your supplier.

CAUTION: Plug wire into wrong connector will DAMAGE fan and mainboard.

IR2 : Infrared / Fast Infrared module connector.

IR2

1 +5V
2 FIRRX
3 IRRX
4 GND
5 IRTX

USB

OC GND D1+ D1- VCC   Red wire
a
VC   OC
status
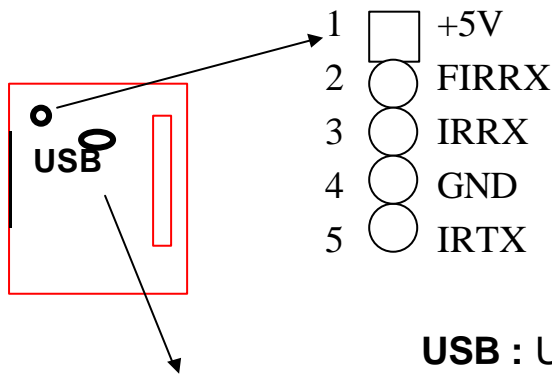
Black wire

USB : USB connector; Universal Serial Bus; this is used to connect USB devices. Through optional dual head cable with a iron plane OC0 abd OC1 are used to mention the status of the USB power supply lines.
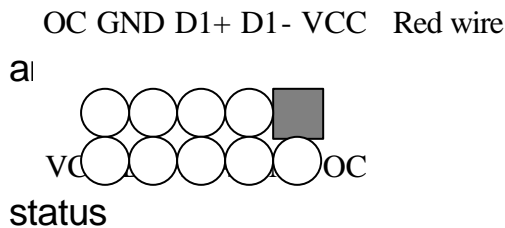
CAUTION Plug wire into wrong connector will DADMAGE USB devices and mainboard.
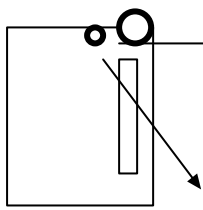
Keyboard : 5-pin AT style compatible keyboard connector.

PS/2 mouse : PS/2 mouse header.

    pin1 : data

    pin2 : N/C

    pin3 : GND

    pin4 : VCC

    pin5 : clock

    pin6 : N/C

PW1 : ATX mode +3.3/5/12V power supply connector.

PW2 : AT (P8/P9) mode power supply connector.
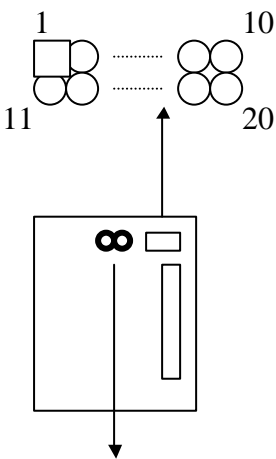
1	3.3V	6	+5V	11	3.3V	16	GND
2	3.3V	7	GND	12	-12V	17	GND
3	GND	8	PWRGD	13	GND	18	-5V
4	+5V	9	5VSB	14*	PS_ON	19	+5V
5	GND	10	+12V	15	GND	20	+5V

* PS_ON : Soft-Off power control

COM1/COM2 : these two connectors are used to connect serial port cables.
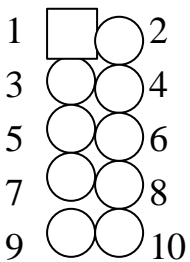
pin	signal name
1	DCD
2	Serial In
3	Serial Out
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

FDC1 : this connector is used to connect the floppy drive through a cable.

34 ○○ 33

2 ○○□ 1
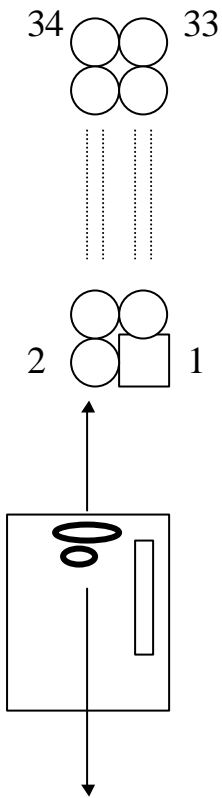
pin	signal	pin	signal
2	RWC-	20	STEP-
4	reserved	22	Write Data
6	FDEDIN	24	Write Gate
8	Index-	26	Track 00-
10	Motor EnableA-	28	Write Protect-
12	Drive Sele.B-	30	Read Data-
14	Drive Sele.A-	32	Side 1 Sele.-
16	Motor EnableB-	34	DisketteChange
18	DIR-		
All of odd pins are ground			

LPT : this connector is used to connect parallel port cable.

25 ○○ 13

14 ○○□ 1
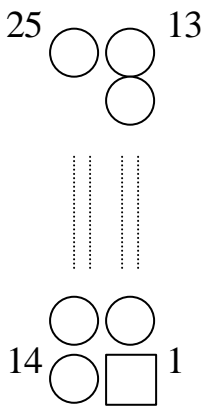
pin	signal	pin	signal
1	STROBE-	10	ACK-
2	Data Bit 0	11	BUSY
3	Data Bit 1	12	PE
4	Data Bit 2	13	SLCT
5	Data Bit 3	14	Auto Feed-
6	Data Bit 4	15	ERROR-
7	Data Bit 5	16	INIT-
8	Data Bit 6	17	SLCT IN-
9	Data Bit 7		
pin18 -- pin25 are ground			

IDE1/IDE2 : these two connectors are used to connect IDE devices through IDE cables, a total of 4 devices can be connected.

40 ◯◯ 39

4 ◯◯ 3
2 ◯□ 1
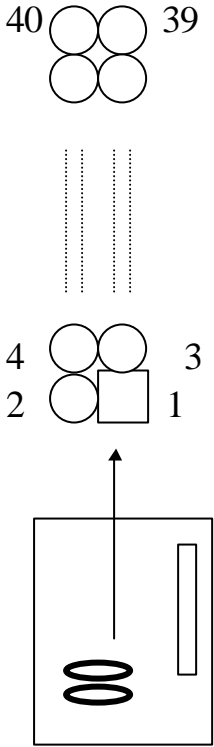
pin	signal	pin	signal
1	Reset IDE	21	DDRQ0(1)
2	GND	22	GND
3	Host Data 7	23	I/O Write-
4	Host Data 8	24	GND
5	Host Data 6	25	I/O Read-
6	Host Data 9	26	GND
7	Host Data 5	27	IORDY
8	Host Data 10	28	N/C
9	Host Data 4	29	DDAK0- (1-)
10	Host Data 11	30	GND
11	Host Data 3	31	IRQ14*
12	Host Data 12	32	IOCS16-
13	Host Data 2	33	Addr 1
14	Host Data 13	34	N/C
15	Host Data 1	35	Addr 0
16	Host Data 14	36	Addr 2
17	Host Data 0	37	ChipSele.1P-
18	Host Data 15	38	ChipSele.3P-
19	GND	39	Activity
20	Key	40	GND

* IDE1 : pin31 is IRQ14;

  IDE2 : pin31 is IRQ15 or MIRQ0

2-5 IDE DRIVER INSTALLATION

The IDE driver installation procedure is the following :

Setup for Windows 95 :

1. Starting Windows 95.

2. Select "START", "RUN".

3. ➢**Put the diskette into your disk drive:**

    Type " A:\inf.exe" to install INF.EXE.

    Type "A:\WIN95\SETUP.EXE".

  ➢**Or put the CD into your CD-ROM drive:**

    If your CD-ROM drive is D, type " D:\winp2x4.exe".

    Then type "D:\IDE\WIN95\SETUP.EXE" to install IDE driver.

4. Restart computer, then follow the instructions on your

   screen to install new IDE driver we offer in the 3.5" diskette or CD.

5. Exit Windows 95, turn power off; then turn power on.

Setup for Windows 98 :

1. Starting Windows 98.

2. Select "START", "RUN".

3. ➢**Put the diskette into your disk drive:**

    Type "A:\WIN95\SETUP.EXE".

  ➢**Or put the CD into your CD-ROM drive:**

    Type "D:\IDE\WIN95\SETUP.EXE" to install IDE driver.

4. Restart computer, then follow the instructions on your

   screen to install new IDE driver we offer in the 3.5" diskette or CD.

5. Exit Windows 98, turn power off; then turn power on.

 (The other platforms please refer to readme file.)

CHAPTER 3 Award BIOS SETUP

Award BIOS manufacturer provides access to the system BIOS through the hardware and software on each ATC-6130 mainboard. The hardware consists of a Flash ROM and the software is a group of programs that are installed in the ROMBIOS along with all the other data the BIOS must contain.

The ATC-6130 mainboard will require special driver supplied by the manufacturer to update the BIOS SETUP program. It is a good idea to read the next page for details for update BIOS driver installation or you can ask your system dealer to do it for you.

When the driver has been successfully updated, it is very important to contact your system dealer to change the CMOS settings for your computer. The CMOS settings are shown in the following pages.

NOTE : To clear CMOS you should unplug the power cord, then set 2-3 to clear, put it back to normal position and plug the power cord again.

	JP8
Normal	1-2
Clear	2-3

Normal CMOS   **Clear CMOS**

ISA slots   JP8
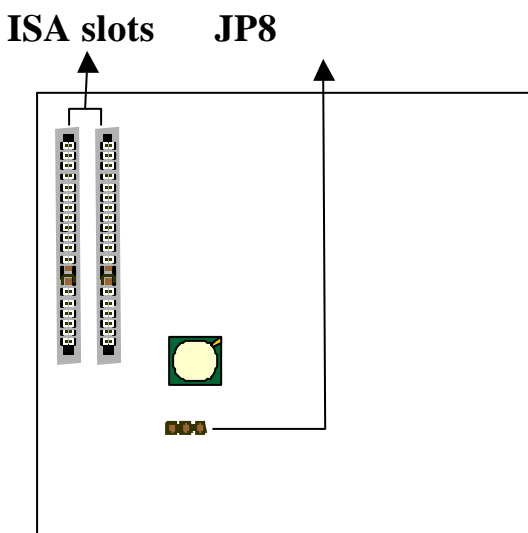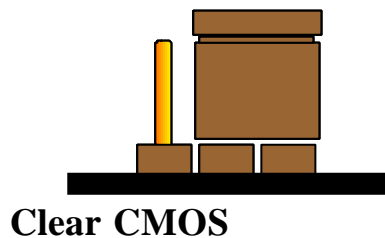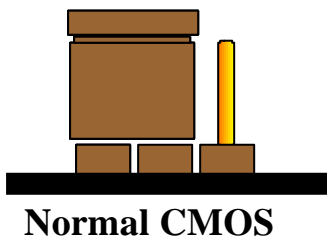
3-1 UPDATE BIOS PROCEDURES

If the BIOS needs to be updated, you can get a diskette or CD with the updated BIOS driver from your system supplier. The BIOS updated diskette or CD includes :

"awdflash.exe"   --   BIOS updated utility program

"awdflash.doc"

"(updated the BIOS filename with version number).bin"

The updated procedure is in the following:

1. Boot the system to DOS mode in a normal manner.
2. Insert the updated diskette or CD to drive A or CD ROM drive.
3. Change working directory to floppy drive A or CD ROM drive, which contains the updated BIOS diskette or CD.
   -- Type "a:\" or "d:\flash", then press "ENTER" key.
4. Run the BIOS updated utility -- Type "awdflash", "ENTER".
5. Type "(updated BIOS file name with version number).bin", ENTER.
6. If you do not want to save the old BIOS version, type "N" when the screen displays the message : " Do you want to save BIOS (Y/N) ?".
7. Type "Y" when the screen shows the message : " Are you sure to program (Y/N) ?".
8. Follow the instructions on the screen. DO NOT remove the updated BIOS diskette or CD from the floppy drive or CD ROM drive nor turn the system power off until the BIOS updated is completed.
9. Turn the power off. Clear the data in CMOS according to the procedure described in the previous page.
10. Turn the system power on and test that your system is working properly.

3-1-1 UPDATE PENTIUM^â II BIOS API

Intel also provides MICROCODE API(Applications Programming Interface) for Pentium®II processor-based mainboard user to updated data block in BIOS quickly and easily. (You can find this utility either in the 3.5" diskette or CD in the package.)

The BIOS code on the Pentium®II processor-based mainboards contains data that is specific to each silicon stepping of the processor. Integrators must ensure that this BIOS stepping data matches the processor stepping used. When the BIOS does not contain stepping data that matches the processor stepping, integrators must updated the data in the BIOS before shipping the system. Historically, Pentium®II systems have been updated by replacing the entire BIOS with a new revision of BIOS that contains the correct stepping data.

Intel's BIOS updated API allows just the stepping data within the BIOS to be updated as needed. Mainboards that contain a BIOS with the Intel-defined BIOS updated API can be quickly and easily updated, if required, without obtaining a complete BIOS upgrade. Using this utility, integrators can easily verify that the correct stepping data is present in all Pentium®II processor-based mainboards. However, if the stepping data requires updating, the mainboard BIOS must contain the Intel-defined BIOS updated API, otherwise a complete BIOS upgrade is required from the mainboard vendor.

Put the CD into CD-ROM drive, e.g. drive E, and then type
E:\>"ENTER", and type \api\checkup3.
Or put the API diskette into the floppy disk drive, and then type
A:\>cd api; A:\>checkup3

The main menu should now be displayed, showing the following four options :
1) Check and load updated
2) Specify stepping data file [current : pep.pdb]
3) Help
4) Quit without loading updated

Select 1 to know the stepping filename, select 2 to load right patch code, then select 1 to updated proper patch code. Now, the screen will show the message "please remove floppy diskette from floppy disk drive" or "CD from CD-ROM drive". Then cold boot (mechanical power off) system to continue. For more information, please refer to "CHECKUP.HLP" file.

3-2 Award SYSTEM BIOS CONFIGURATION SETUP

The following pages explain how to set up the system configuration (CMOS) under the Award BIOS. The SETUP program is stored in the Read-Only-Memory (ROM) on the mainboard. To do the SETUP procedure, press the <Del> key when the system is booting up. The following main menu will appear. Please select " STANDARD CMOS SETUP" to enter the next screen.

ROM PCI/ISA BIOS (ATC-6130)
CMOS SETUP UTILITY
AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURES SETUP	SUPERVISOR PASSWORD
CHIPSET FEATURES SETUP	USER PASSWORD
POWER MANAGEMENT SETUP	IDE HDD AUTO DETECTION
PNP/PCI CONFIGURATION	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP DEFAULTS	
ESC: Quit	↑↓→←:Select Item
F10: Save & Exit Setup	(Shift) F2 : Change Color
Time, Date, Hard Disk Type	

The section on the bottom of the main menu explains how to control this screen.
The other section displays the items highlighted in the list.

STANDARD CMOS SETUP

This screen records some basic hardware information, and sets the system clock and error handling. These records can be lost or corrupted if the on-board battery has failed or is weak.

```
                        ROM PCI/ISA BIOS(ATC-6130)
                          STANDARD CMOS SETUP
                          AWARD SOFTWARE, INC.
┌─────────────────────────────────────────────────────────────────────────┐
│ Date (mm:dd:yy)  : Mon, Jun  25 1999                                       │
│ Time(hh:mm:ss)   : 13 : 37 : 14                                            │
│ HARD DISKS   TYPE  SIZE   CYLS   HEAD   PRECOMP LANDZ SECTOR MODE          │
│ Primary Master  :Auto   0     0       0         0       0       0    Auto  │
│ Primary Slave   : Auto  0     0       0         0       0       0    Auto  │
│ Secondary Master : Auto  0     0       0         0       0       0   Auto  │
│ Secondary Slave  : Auto  0     0       0         0       0       0   Auto  │
│ Drive A : 1.44M,  3.5  in.                                                 │
│ Drive B : None                    Base  Memory        :      640K         │
│ Floppy 3 Mode Support : Disabled  Extended  memory     :     7168K        │
│                                   Other  Memory        :      384K        │
│ Video  : EGA/VGA                  -----------------------------------------│
│ Halt On: All Errors               Total  Memory        :     8192K        │
│ ESC   :   Quit          ↑↓→←:Select  Item        PU/PD/+/- : Modify        │
│ F1    :   Help          (Shift) F2 : Change  Color                         │
└─────────────────────────────────────────────────────────────────────────┘
```

__Date__ The date format is <day>, <date>, <month>, <year>. Press <F3> to show the calendar.

day	The day, from Sun to Sat, determined by the BIOS and is displayed-only
date	The date, from 1 to 31
month	The month, Jan. through Dec.
year	The year, from 1900 to 2099

__Time__ The time format is <hour><minute><second>. The time is calculated based on the 24-hour military-time clock. For example, 1p.m. is 13:00:00.

Primary Master Primary; Slave Secondary Master Secondary Slave

These categories identify the types of the 2 channels that have been installed in the computer. There are 45 predefined types and 4 user definable types for Enhanced IDE BIOS. Type 1 to 45 which are predefined. Type **'user'** which is user-definable. Press PgUp/PgDn to select a numbered hard disk type or type the number and press <Enter>. If you select **'Auto',** the BIOS will detect the HDD & CD-ROM Drive automatically at the

POST stage and show the IDE for HDD & CD-ROM Drive. If you select **'user'**, you will need to know the information listed below. This information should be from your hard disk vender or dealer. Then enter the figure directly and press <Enter>. If the controller of the HDD interface is ESDI, the selection shall be **'Type 1'**; if SCSI, the selection shall be **'None'**. If no device is installed select **'NONE'** and press <Enter>.

Type	drive type
SIZE	automatically adjusts
CYLS	number of cylinders
HEAD	number of heads
PRECOMP	write precom
LANDZ	landing zone
SECTOR	number of sectors
MODE	mode type

Drive A, Drive B This category identifies the types of floppy disk drive A or drive B that have been installed in the computer.

None	No floppy drive installed
360K, 5.25 in	5.25" PC-type 360KB capacity
1.2M, 5.25 in	5.25" AT-type 1.2MB capacity
720K, 3.5 in	3.5" double-side 720KB capacity
1.44M, 3.5 in	3.5" double-side 1.44MB capacity
2.88M, 3.5 in	3.5" double-side 2.88MB capacity

Floppy 3 Mode Support This is the Japanese standard floppy drive. This standard stores 1.2MB in a 3.5" diskette.

Video This category selects the type of video adapter used for the primary system monitor. Although secondary monitors are supported, you do not have to select the type in Setup.

EGA/VGA	Enhanced Graphics Adapter/Video Graphics Array. For EGA, VGA, SEGA, SVGA or PGA monitor adapters
CGA 40	Color Graphics Adapters, power up in 40 column mode
CGA 80	Color Graphics Adapters, power up in 80 column mode
MONO	Monochrome adapter, includes high resolution monochrome adapters

Halt On   This category determines whether the computer will stop if an error is detected during power up.

No errors	The system boot will not be stopped for any error that may be detected
All errors	When the BIOS detects a non-fatal error the system will be stopped and you will be prompted
All, But Keyboard	The system boot will not stop for a keyboard error, it will stop for all other errors
All, But Diskette	The system boot will not stop for a disk error, it will stop for all other errors
All, But Disk/Key	The system boot will not stop for a disk or keyboard error, it will stop for all other errors

Memory   This category is displayed only which is determined by POST (Power On Self Test) of the BIOS.

Base Memory   The POST will determine the amount of base (or conventional) memory installed in the system. The value of the base memory is typically 512K or 640K based on the memory installed on the motherboard.

Extended Memory   How much extended memory is present during the POST. This is the amount of memory located above 1MB in the CPU's memory address map.

Other Memory   This refers to the memory located in the 640K to 1024K address space. This is memory that can be used for different applications. DOS uses this area to load device drivers in an effort to keep as much base memory free for application programs. The BIOS is the most frequent user of this RAM area since this is where it shadows RAM.

BIOS FEATURES SETUP

This screen is a list of system configuration options. Some of them are defaults required by the mainboard's design, others depend on the features of your system.

ROM PCI/ISA BIOS (ATC-6130)
BIOS FEATURES SETUP
AWARD SOFTWARE, INC.

Virus Warning	: Disabled	Video BIOS Shadow	: Enabled
CPU Internal Cache	: Enabled	C8000-CBFFF Shadow	: Disabled
External Cache	: Enabled	CC000-CFFFF Shadow	: Disabled
Quick Power On Self Test	: Enabled	D0000-D3FFF Shadow	: Disabled
Boot Sequence	: A,C,SCSI	D4000-D7FFF Shadow	: Disabled
Swap Floppy Drive	: Disabled	D8000-DBFFF Shadow	: Disabled
Boot Up Floppy Seek	: Enabled	DC000-DFFFF Shadow	: Disabled
Gate A20 Option	: Fast		
Boot Up NumLock Status	: On		
Boot up System Speed	: High		
Typematic Rate Setting	: Disabled		
Typematic Rate(Chars/Sec)	: 6	Esc : Quit ↑↓→←:Select Item
Typematic Delay(Msec)	: 250	F1 : Help PU/PD/+/- : Modify
Security Option	: Setup	F5 : Old Values (SHIFT)F2 : Color
PCI/VGA Palette Snoop	: Disabled	F6 : Load BIOS Defaults
Assign IRQ For VGA	: Enabled	F7 : Load Setup Defaults
OS Select for DRAM>64MB	: Non-OS2		
Report No FDD for Win95	: No		

Virus Warning   When this item is enabled, the Award BIOS will monitor the boot sector and partition table of the hard disk drive for any attempt at modification. If an attempt is made, the BIOS will halt the system and the following error message will appear.

Afterwards, if necessary, you will be able to run an antivirus program to locate and remove the problem before any damage is done.

```
                    ! WARNING !

          Disk boot sector is to be modified
     Type 'Y' to accept write or 'N' to abort write
                 Award Software, Inc.
```

Enabled	Activates automatically when the system boots up. If anything attempts to access the boot sector or hard disk, partition table will cause a warning message to appear.
Disabled	No warning message will appear when anything attempts to access the boot sector or hard disk partition table.

Many disk diagnostic programs which attempt to access the boot sector table can cause the above warning message. If you will be running such a program, we recommend that you first disable Virus Protection beforehand.

CPU Internal Cache; External Cache   These two categories speed up memory access. However, it depends on CPU/chipset design. The default value is 'enabled'.

Quick Power On Self Test   This category speeds up Power On Self Test after you power up the computer. If you set Enabled, BIOS will shorten or skip some checked items during POST.

Boot Sequence   This category determines which drive to search first for the Disk Operating System (i.e., DOS). The system will search those drives in order, Ex.: C, CDROM, A: System will first search for hard disk drive then CDROM drive, and the last is floppy disk drive.
Note: C is primary master; D is primary slave; E is secondary master, F is secondary slave.

Swap Floppy Drive   This item allows you to determine whether to enable the swap floppy drive or not. The choice : Enabled/ Disabled

Boot Up Floppy Seek   During POST, the BIOS will determine if the floppy disk drive installed is 40 tracks (360K) or 80 tracks (720K, 1.2M, 1.44M)

Enabled	BIOS searches for floppy disk drive to determine if it is 40 or 80 tracks
Disabled	BIOS will not search for the type of floppy disk drive by track number

Boot Up NumLock Status   This allows you to determine the default state of the numeric keypad. By default, the system boots up with NumLock on.

On	Keypad is numeric keys
Off	Keypad is arrow keys

Boot Up System Speed   Selects the default system speed—the normal operating speed at power up.

High	Set the speed to high
Low	Set the speed to low

Gate A20 Option   This entry allows you to select how the gate A20 is handled. The gate A20 is a device used to address memory above 1 MB. Initially, the gate A20 was handled via a pin on the keyboard. Today, while keyboards still provide this support, it is more common and much faster for the system chipset to provide support for gate A20. Normal is keyboard; Fast is chipset.

Typematic Rate SettingThis determines if the typematic rate is to be used. When disabled, continually holding down a key on your keyboard will generate only one key instance.

Typematic Rate(Chars/Sec)   When the typematic rate is enabled, this section allows you select the rate at which the keys are repeated.

6	6 characters per second
8	8 characters per second
10	10 characters per second
12	12 characters per second
15	15 characters per second
20	20 characters per second
24	24 characters per second
30	30 characters per second

Typematic Delay(Msec) When the typematic rate is enabled, this section allows you select the delay between when the key was first depressed and when the acceleration begins.

250	250 msec
500	500 msec
750	750 msec
1000	1000 msec

Security Option   This category allows you to limit access to the system and Setup, or just to Setup

System	The system will not boot and access to Setup will be denied if the correct password is not entered at the prompt
Setup	The system will boot, but access to Setup will be denied if the correct password is not entered at the prompt

To disable the security, select PASSWORD SETTING at Main Menu, and then you will be asked to enter password. Do not type anything and just press <Enter>, it will disable the security. Once the security is disabled, the system will boot and you can enter Setup freely.

PCI/VGA Palette Snoop   It determines whether the MPEG ISA/VESA VGA cards can work with PCI/VGA or not.

Enabled	When PCI/VGA working with MPEG ISA/VESA VGA Card
Disabled	When PCI/VGA not working with MPEG ISA/VESA VGA Card

Assign IRQ for VGA   When this items is enabled, the system will assign an IRQ for VGA. If this item is disabled, the VGA will not occupy an IRQ; therefore the IRQ of VGA will be released for other usage.

OS Select for DRAM > 64MB   This item allows you to access the memory that is over 64MB in OS/2. The choice : Non-OS2, OS2

Report No FDD For WIN 95   Set this item to Yes, BIOS will report FDD to Win95. If in standard CMOS setup, set Drive A to none and set this item to yes. Inside Win95, My Computer and File manager Disk(A:) will show Removable Disk (A:).

Video BIOS Shadow   Determines whether video BIOS will be copied to RAM. However it is optional depending on chipset design. Video Shadow will increase the video speed.The choice : Enabled/Disabled

C8000 – CBFFF Shadow; DC000 – DFFFF Shadow   These categories determine whether option ROMs will be copied to RAM. An example of such option ROM would be the support of onboard SCSI. The choice : Enabled/Disabled

CHIPSET FEATURES SETUP
This screen controls the setting for the chipset on the mainboard. (* the functions are optional, please confirm these with your supplier.)

```
                      ROM PCI/ISA BIOS (ATC-6130)
                        CHIPSET FEATURES SETUP
                        AWARD SOFTWARE, INC.
```

Auto Configuration	: Enabled	SDRAM CAS latency Time	: 3
DRAM Speed Selection	: 60 ns	Auto Detect DIMM/PCI ClK	:Enabled
MA Wait State	: Slow	Spread Spectrum	:Disabled
EDO RAS# To CAS# Delay	: 3	CPU Clock Frequency	:66MHz
EDO RAS# Precharge Time	: 4	**The following items are optional**	
EDO DRAM Read Burst	: x333	CPU Warning Temperature*	: Disabled
EDO DRAM Write Burst	: x333	Current CPU Temperature*	: 20 $^{\circ}$ C/ 68 $^{\circ}$ F
DRAM Data Integrity Mode	: Non-ECC	Current CPUFAN Speed*	:4615 PRM
CPU-To-PCI IDE Posting	: Enabled	Current Vin (V)*	:2.85V
System BIOS Cacheable	: Disabled		
Video BIOS Cacheable	: Disabled		
Video RAM Cacheable	: Disabled		
8 Bit I/O Recovery Time	: 1		
16 Bit I/O Recovery Time	: 1		
Memory Hole At 15M-16M	: Disabled		
Passive Release	: Enabled	Esc: Quit	↑↓→←:Select Item
Delayed Transaction	: Disabled	F1 : Help	PU/PD/+/-:Modify
AGP Aperture Size (MB)	: 64	F5 : Old Values	(Shift)F2 :Color
SDRAM RAS-to-CAS Delay	: Slow	F6 :Load BIOS Defaults	
SDRAM RAS Precharge Time	: Slow	F7 :Load Setup Defaults	

Auto Configuration Pre-defined values for DRAM, cache... timing according to CPU type & system clock. When this item is enabled, the pre-defined items will become SHOW-ONLY.

DRAM Speed Selection The DRAM speed is controlled by the DRAM timing Registers. The timings programmed into this register are dependent on the system design.

MA wait State This item allows you to select MA Wait State. The choice : Fast, Slow.

EDO RAS# to CAS# Delay When DRAM is refreshed, both rows and columns are addressed separately. This setup item allows you to determine the timing of the transition from RAS to Column Address Strobe (CAS).

EDO RAS# DRAM must continually be refreshed or it will lose.

Precharge Time   its data. Normally, DRAM is refreshed entirely as the result of a single request. This option allows you to determine the number of CPU clocks allocated for the Row Address Strobe to accumulate its charge before the DRAM is refreshed. If insufficient time is allowed, refresh may be incomplete and data lost.

EDO DRAM Read Burst; EDO DRAM Write Burst   This sets the timing for burst mode read (or writes) from DRAM. Burst read and write requests aregenerated by the CPU in four separate parts.The first part provides the location within the DRAM where the read or write is to take place while the remaining three parts provide the actual data. The lower the timing numbers, the faster the system will address memory.

DRAM data Integrity Mode   Error checking and correcting function.

CPU-To-PCI IDE Posting   Select Enabled to post write cycles from the CPU to the PCI IDE interface. IDE accesses are posted in CPU to PCI buffers, for cycle optimization.

System BIOS Cacheable   When enabled, accesses to the system BIOS ROM addressed at F0000H-FFFFFH are cached, provided that the cache controller is enabled.

Video BIOS Cacheable   As with changing the system BIOS above, enabling the Video BIOS cache will cause access to video BIOS addressed at C0000H to C7FFFH to be cached, if the cache controller is also enabled.

Video RAM Cacheable   Cache Video RAM to L2 cache.

8 Bit I/O Recovery Time   The recovery time is the length of time, measured in CPU clocks, which the system will be delay after the completion of an I/O request. This item allows you to determine the recovery time allowed for 8 bit I/O. Choices are from NA, 1 to 8 CPU clocks.

16 Bit I/O Recovery Time   This item allows you to determine the recovery time allowed for 16-bit I/O. Choices are from NA, 1 to 4 CPU clocks.

Memory Hole At15M-16M   In order to improve performance, certain space in memory can be reserved for ISA cards. This memory must be mapped into the memory below 16MB.

Passive Release   When Enabled, CPU to PCI bus access are allowed during passive release. Otherwise, the arbiter only accept PCI master access to local.

Delayed Transaction   The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles. Select Enabled to compliance with PCI specification version 2.1…..

AGP Aperture Size (MB)   Select the size of the AGP aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycle that hit the aperture range are forwarded to the AGP without any translation. See www.agpforum.org for AGP information. The choice 4, 8, 16, 32, 64, 128, 256

SDRAM RAS-to- CAS Delay; SDRAM CAS latency Time   You can select RAS to CAS Delay time (CAS latency time) in HCLKs of 2/2 or 3/3. The system board designer should set the values in this field, depending on the DRAM installed. Do not change the values in this field unless you change specifications of the installed DRAM or the installed CPU. The choice: 2,3

SDRAM RAS Precharge Time Defines the length of time for Row Address Strobe is allowed to precharge.

CPU Clock Ratio   Use this option to set CPU clock ratio. After change the CPU Clock Ratio, if the system can not start , please see " CPU Clock Frequency " item to solve the problem.

Auto Detect DIMM/PCI ClK   If this item is enabled, the unused DIMM and PCI slot clock will be disabled. If this item is disabled the unused DIMM and PCI slot will still get the active clock signal.

Spread Spectrum.   Enable / Disable this item the BIOS will Enable / Disable the clock generator spread spectrum .

CPU Clock Frequency   Use this item to set CPU base clock frequency.
Note: After you change the CPU Clock Frequency and the system can not start, please do the following procedures:
1. Turn the system off firstly.
2. Turn on the system. Then press and hold the " Insert " key at boot.
3. Select the proper frequency in the item of *CPU Clock Frequency***.**
4. Save and Exit Setup.

The following functions are optional, the board must be built-in hardware controller. Please confirm this with your supplier.

CPU Warning Temperature.   When this item is enabled, we can set the CPU warning temperature . If the CPU temperature is higher than the setting temperature, the system will beep.

Current CPU Temperature It shows the current system temperature.

Current CPUFAN Speed   It shows the running speed of the system fan.

Current Vin(v)   It shows the Vcore valtage.

POWER MANAGEMENT SETUP   This screen controls the 'green' features of this mainboard.

ROM PCI/ISA BIOS (ATC-6130)
POWER MANAGEMENT SETUP
AWARD SOFTWARE, INC.

Power Management	: Disabled	*Reload Global Timer Events*	
PM Control by APM	: Yes	IRQ [3-7, 9-15], NMI	:Enabled
Video Off Method	: V/H SYNC	Primary IDE 0	:Disabled
	+BLANk	Primary IDE 1	:Disabled
Video Off After	: Standby	Secondary IDE 0	:Disabled
Modem Use IRQ	: 3	Secondary IDE 1	:Disabled
Doze Mode	: Disabled	Floppy Disk	:Disabled
Standby Mode	: Disabled	Serial Port	:Enabled
Suspend Mode	: Disabled	Parallel Port	:Disabled
HDD Power Down	: Disabled		
Throttle Duty Cycle	: 62.5%		
ZZ Active in Suspend	: Disabled		
VGA Active Monitor	: Enabled		
Soft-Off by PWR-BTTN	: Instant-Off		
CPUFAN Off In Suspend	: Enabled	Esc: Quit ↑↓→← :Select Item	
Resume by Ring	: Enabled	F1 : Help PU/PD/+/- : Modify	
Resume by Alarm	: Disabled	F5 : Old Values (Shift) F2: Color	
IRQ 8 Break Suspend	: Disabled	F6 : Load BIOS Defaults	
		F7 :Load Setup Default	

Power Management   This category allows you to select the type (or degree) of power saving and is directly related to the following modes **: Doze; Standby; Suspend; HDD Power Down.**

Disabled	No power management. It means all 4 modes are disabled.
Min. Power Saving	Minimum power management. Doze =1hr.; Standby=1hr.; Suspend=1hr.; HDD Power Down=15min
Max. Power Saving	Maximum power management **only available for SL CPU.** Doze=1min.; Standby=1min.; Suspend=1min.;HDD Power Down=1min
User Defined	Allows you to set each mode individually. When not disabled, each of the ranges are from 1min. to 1hr. except for HDD Power Down which ranges from 1 to 15min. and disable

If you would like to use Software Power-off Control function, you can not choose "Disabled" here, and should select "Yes" in PM Control by APM.

PM Control by APM   When enabled, an Advanced Power Management device will be activated to enhance the Max. Power Saving Mode and stop the CPU internal clock. If the Max. Power Saving is not enabled, this will be shown as NO.

Video Off Method   This determines the manner in which the monitor is blanked.

V/H SYNC + Blank	This selection will cause the system to turn off the vertical and horizontal sync. ports and write blanks to the video buffer
Blank Screen	This option only writes blanks to the video buffer
DPMS	Initial display power management signaling

Video off After When enabled, this feature allows the VGA adapter to operate in a power saving mode.

N/A	Monitor will remain on during power saving modes.
Suspend	Monitor is blanked when the systems enters the Suspend mode.
Standby	Monitor is blanked when the system enters Standby mode.
Doze	Monitor is blanked when the system enters any power saving mode.

MODEM Use IRQ This item determines the IRQ in which the MODEM can be used. The choice : 3,4,5,7,9,10,11,NA.

The Following 4 modes are Green PC power saving functions which are only user configurable when 'User Defined' power management has been selected.

➢ **Doze Mode**   When enabled and after the set time of system inactivity, the CPU clock will run at slower speed while all other devices still operate at full speed.

➢ **Standby Mode**   When enabled and after the set time of system inactivity, the fixed disk drive and the video would be shut off while all other devices still operate at full speed.

➢ **Suspend Mode**   When enabled and after the set time of system inactivity, all devices except the CPU will be shut off.

➢ **HDD Power Down**   When enabled and after the set time of system inactivity, the hard disk drive will be powered down while all other devices remain active.

Throttle Duty Cycle When the system enters Doze mode, the CPU clock runs only part of time. You may select the percent of time that the clock runs.

ZZ Active in Suspend   When Enabled, the ZZ signal is active during Suspend mode.

VGA Active Monitor   When Enabled, any video active restarts the global timer for Standby mode.

Soft-Off by PWR-BTTN   *Instant-off :* When push the power button, the system power will be off immediately. *Delay 4 sec :* when push the power button, it will enter suspend mode. We need to push the power button and hold for 4 seconds to turn off the power.

CPUFAN Off In Suspend   Enabled: under suspend mode, the CPU FAN will be turned off. Disabled: the CPU FAN won't be turned off.

Resume by Ring   Enabled: when system in suspend mode, it can be wake up by modem. Disabled: it cannot be wake up by modem.

Resume by Alarm   When Enabled, two additional lines will be added to the screen :Date (of Month) Alarm; Time (hh:mm:ss) Alarm to let user set the desired date and time. After power off, the system will automatically power on at the specified date and time.

IRQ 8 Break Suspend   When enabled, the device which occupies the IRQ8 can wake up the system.

Reload Global Timer Events   When enabled, an event occurring on each device listed below restarts the global time for Standby mode. IRQ [3-7, 9-15], NMI; Primary IDE 0; Primary IDE 1; Secondary IDE0; Secondary IDE1; Floppy Disk; Serial Port; Parallel Port

PNP/PCI CONFIGURATION   This screen configures the PCI Bus slots.

```
                    ROM PCI/ISA BIOS (ATC-6130)
                      PNP/PCI CONFIGURATION
                      AWARD SOFTWARE, INC.
┌──────────────────────────────────┬──────────────────────────────────┐
│ PNP OS Installed        : No      │ PCI IDE IRQ Map to      : PCI-AUTO│
│ Resources Controlled by : Auto    │ Primary IDE INT#        : A       │
│ Reset Configuration Data: Disabled│ Secondary IDE INT#      : B       │
│                                   │                                  │
│                                   │                                  │
│                                   │                                  │
│                                   ├──────────────────────────────────┤
│                                   │ Esc: Quit   ↑↓→←   :Select Item   │
│                                   │ F1  : Help       PU/PD/+/- : Modify│
│                                   │ F5  : Old Values    (Shift) F2: Color│
│                                   │ F6  : Load BIOS Defaults          │
│                                   │                                  │
└──────────────────────────────────┴──────────────────────────────────┘
```

PNP OS Installed This item allows you to determine PnP OS or not.

Resource Controlled by   The Award Plug and Play BIOS has the capability to automatically configure all of the boot and Plug & Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play OS such as Windows 95. Choices are Auto and Manual.

Reset Configuration Data This item allows you to determine whether to reset the configuration data or not.

PCI IDE IRQ Map To Primary IDE INT#; Secondary IDE INT#   This allows you to configure your system to the type of IDE disk controller in use. By default, Setup assumes that your controller is an ISA device rather than a PCI controller. The moe apparent difference is the type of slot being used. If you have equipped your system with a PCI controller, changing this allows you to specify which slot holds the controller and which PCI interrupt (A,B,C,D) is associated with the connected hard disk. This setting refers to the hard disk drive itself, rather than individual partitions. Since each IDE controller supports two separate hard drives, you can select the INT# for each. Again, you will note that the primary has a lower interrupt than the secondary as described in *lot x Using   INT#"*   above. Select 'PCI Auto' allows the system to automatically determine how your IDE disk system is configured.

INTEGRATED PERIPHERALS **This section page includes all the items of IDE hard drive and Programmed Input/Output features. See also Section "Chipset Features Setup".**

ROM PCI/ISA BIOS (ATC-6130)
INTEGRATED PERIPHERALS
AWARD SOFTWARE, INC.

IDE HDD Block Mode	: Enabled	Onboard Parallel Port	: 378H/IRQ7
IDE Primary Master PIO	: Auto	Onboard Parallel Mode	: ECP
IDE Primary Slave PIO	: Auto	ECP Mode Use DMA	: 3
IDE Secondary Master PIO	: Auto		
IDE Secondary Slave PIO	: Auto		
IDE Primary Master UDMA	: Auto		
IDE Primary Slave UDMA	: Auto		
IDE Secondary Master UDMA	: Auto		
IDE Secondary Slave UDMA	: Auto		
On-Chip Primary PCI IDE	: Enabled		
On-Chip Secondary PCI IDE	: Enabled		
USB Keyboard Support	: Disabled		
Init AGP Display First	: Disabled		
Power On Function	: Button Only		
KBC input clock	: 8 MHz	Esc: Quit ↑↓→← :Select Item	
Onboard FDC Controller	: Enabled	F1 : Help PU/PD/+/- : Modify	
Onboard Serial Port 1	: 3F8/IRQ4	F5 : Old Values (Shift) F2: Color	
Onboard Serial Port 2	: 3F8/IRQ3	F6 : Load BIOS Defaults	
UART Mode Select	: Normal		

IDE HDD Block Mode This allows your HD controller to use the fast block mode to transfer data to and from your HD drive.

Enabled	IDE controller uses block mode
Disabled	IDE controller uses standard mode

IDE Primary Master/Slave PIO IDE; Secondary Master/Slave PIO

PIO - Programmed Input/Output, it allows the BIOS to tell the controller what it wants and then let the controller and the CPU to complete the task by themselves. This is simpler and more faster. Your system supports five modes, 0 - 4, which primarily differ in timing. When **Auto** is selected, the BIOS will select the best available mode.

IDE Primary Master/Slave UDMA; IDE Secondary Master/Slave UDMA Auto, will support the Ultra DMA function. Disabled, will not support the Ultra DMA function.

On-Chip Primary PCI IDE; On-Chip Secondary PCI IDE   This setup item allows you to either enable or disable the primary/secondary controller. You might choose to disable the controller if you were to add higher performance or specialized controller.

USB Keyboard Support   Enabled will support USB keyboard in Win95 2.1 and NT 5.0 or above operating system.

Init Display First   This item will activate the PCI in the multi-displayed environment.

Power On Function
➢ **KB Power On Password:** this function is available for ATX power only. User can select the power on method to power on the system. The options are the following Password : when user select this option, it will show "Enter Password:", after user type password, it will show "Confirm Password:", user should type the same password to confirm it. After power off, if user types the correct password, the system will power on.
➢ **Hot Key :** when user select this option, it will show another line as "Hot Key Power ON: Ctrl-F1".Select any hot key you like. After power off, if user hold down the "Control" and "F1" key, it will power up the system.
➢ **Mouse Left, Mouse Right :** it will power up the system by double clicking the left or right mouse. Note do not move your mouse between the first click and the second click.
➢ **Button Only :** only the power button can power the system.

KBC input clock Let user change the keyboard working clock.

On Board FDC Controller   This item will enable or disable the floppy disk controller.

On Board Serial Port 1   User can select serial port IRQ. If set to Auto, system will assign an IRQ for it. Note : set to Auto is not recommended.

On Board Serial Port 2   User can select serial port IRQ. If set to Auto, system will assign an IRQ for it. Note : set to Auto is not recommended.

UART Mode Select   This lets you select the Infrared mode. Choices are Standard, HPIR, and ASKIR. If you choose HPIR or ASKIR mode, the screen will show another two lines to let you choose 'IR Function Duplex' (Full or Half) and 'RxD TxD Active' (Hi Lo; Lo Hi; Hi Hi; Lo Lo).

On Board Parallel Port   Let user select IRQ for parallel port When Disabled, the parallel port will be disabled.

On Board Parallel Mode   Let user select error check mode. This item is not recommended to change except user has special request.

ECP Mode Use DMA   Select a DMA channel for the port. Choices are 3, 1.

ROM PCI/ISA BIOS (ATC-6130)

CMOS SETUP UTILITY

AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURES SETUP	SUPERVISOR PASSWORD
CHIPSET FEATURES SETUP	USER PASSWORD
POWER MANAGEMENT SETUP	IDE HDD AUTO DETECTION
PNP/PCI CONFIGURATION	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP DEFAULTS	

ESC: Quit	↑↓→←:Select Item
F10: Save & Exit Setup	(Shift) F2 : Change Color

Time, Date, Hard Disk Type .....

ROM PCI/ISA BIOS (ATC-6130)

CMOS SETUP UTILITY

AWARD SOFTWARE, INC.

Hard Disks   Type   Size   CYLS   HEAD   PRECOMP   LANDZ   SECTOR   MODE

Primary Master :

Select Primary Master Option (N=Skip) : N

Options	Size	CYLS	Head	PRECOMP	LANDZ	Sector	Mode
2(Y)	1337	648	64	0	2594	63	LBA
1	1339	2595	16	65535	2594	63	NORMAL
3	1338	1297	32	65535	2594	63	LARGE

Note : Some OSes (like SCO-UNIX) must use "Normal" for installation

ESC : Skip

The last second item of the main menu is 'save and exit'. If you select this item and press 'Y', then these records will be saved in the CMOS memory on the mainboard. It will be checked every time when you turn your computer on.

ROM PCI/ISA BIOS (ATC-6130)
CMOS SETUP UTILITY
AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURES SETUP	SUPERVISOR PASSWORD
CHIPSET FEATURES SETUP	USER PASSWORD
POWER MANAGEMENT SETUP	IDE HDD AUTO DETECTION
PNP/PCI CONFIGURATION	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP DEFAULTS	
ESC: Quit	↑↓→←:Select Item
F10: Save & Exit Setup	(Shift) F2 : Change Color
Time, Date, Hard Disk Type	

ROM PCI/ISA BIOS (ATC-6130)
STANDARD CMOS SETUP
AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURES SETUP	PASSWORD SETTING
CHIPSET FEATURES SETUP	IDE HDD AUTO DETECTION
POWER MANAGEMENT SETUP	SAVE & EXIT SETUP
PNP/PCI CONFIGURATION	EXIT WITHOUT SAVING
LOAD BIOS DEFAULTS	SAVE to CMOS and EXIT (Y/N):Y
ESC: Quit	↑↓→←:Select Item
F10: Save & Exit Setup	(Shift) F2 : Change Color
Save Data to CMOS & Exit SETUP	

**LOAD BIOS DEFAULTS**   When your mainboard has problems and needs to trouble shoot the system, you can use this function. The default values loaded only affect the BIOS Features Setup, Chipset Features Setup, Power Management Setup and PNP/PCI Configuration Setup. There is no effect on the Standard CMOS Setup. To use this function, select it from main menu and press <Enter>. A line will appear on the screen asking if you want to load the BIOS default values. Press <Yes> and <Enter> then the BIOS default values will be loaded.

**LOAD SETUP DEFAULTS**   This allows you to load optimal settings which are stored in the BIOS ROM. The default values loaded only affect the BIOS Features Setup, Chipset Features Setup, Power Management Setup and PNP/PCI Configuration Setup. There is no effect on the Standard CMOS Setup. To use this function, select it from main menu and press <Enter>. A line will appear on the screen asking if you want to load the Setup default values. Press <Yes> and <Enter> then the Setup default values will be loaded.

**SUPERVISOR PASSWORD / USER PASSWORD**   This allows you to set the password. The mainboard defaults with password disabled. If you set both supervisor and user passwords, only the supervisor password allows you to enter the BIOS SETUP program.

Enter/Change password : Enter the current password. And at the prompt, key-in your new password (up to eight alphanumeric characters), then press <Enter>. At the next prompt, confirm the new password by typing it again and press <Enter>.

Disable password : Press the <Enter> key instead of entering a new password when the 'Enter Password' dialog box appears. A message will appear for confirming that the password is disabled.

CAUTION: If you forgot your password, you must disable the CMOS by turning the power off and setting JP 8 to '2-3', then '1-2' to reload the system.

**IDE HDD AUTO DETECTION**   This allows you to detect the IDE hard disk driver's parameters and enter them into 'Standard CMOS Setup' automatically. If the auto-detected parameters displayed do not match the ones that should be used for your hard drive, do not accept them. Press <N> to reject the values and enter the correct ones manually on the Standard CMOS Setup screen.

**SAVE & EXIT SETUP**   This allows you to save the new setting values in the CMOS memory and continue with the booting process. Select what you want to do, press <Enter>.

**EXIT WITHOUT SAVING**   This allows you to exit the BIOS setup utility without recording any new values or changing old ones.

Control Key Description

UP ARROW		Move to previous item
DOWN ARROW		Move to next item
LEFT ARROW		Move to the item in the left hand
RIGHT ARROW		Move to the item in the right hand
Esc KEY	Esc	Main Menu : Quit and not save changes Setup menu : Exit current page and return to main menu
PgUp KEY		Increase the numeric value or make changes
PgDn KEY		Decrease the numeric value or make changes
F1 KEY	Help	General help
F2 KEY	Shift +F2	Change color from total 16 colors
F5 KEY	Old Value	Restore the pervious CMOS value from CMOS
F6 KEY	Load BIOS default	Load the default CMOS value from BIOS default table
F7 KEY	Load setup default	Load Setup default
F10 KEY	Save & Exit Setup	Save all the CMOS changes and Exit setup, only for Main Menu

CHECK LIST OF THE PACKAGING

The mainboard comes securely packed in a durable box or shipping carton. If any of the following items are missing or damaged, please contact your supplier.

Each mainboard contains:

Q'TY	Description	
1	Mainboard	: ATC-6130.
1	CD(option)	: LDCM, Enhanced IDE driver
		Award system BIOS Update Utility
1	Diskette(option) : Enhanced IDE driver	
		Award system BIOS Updated Utility
1	Retention mechanism (for Pentium$^®$II installation)	
1	Retention mechanism (for Celeron^{TM} installation)	
2	Metal screw kit (for Pentium$^®$II & Celeron^{TM} installation)	
1	Cable	: Enhanced IDE cable.
1	Cable	: F.D.D. cable.
1	Cable	: Serial / Parallel.
1	Cable	: Serial / PS/2.
1	Cable	: Thermister cable (option).
1	Manual	: User manual. (English version)
1		English LDCM user manual (option)