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CHAPTER 1 INTRODUCTION

This manual describes to configure the ATC-5130 mainboard for different environments. It's an overview of the layout and features of the mainboard, and also provides information for you to change the configuration or system environment.

This manual is divided into two parts :

PART I includes page A and two chapters as following：
Page A contains layout diagram of the mainboard. Please refer to it when you configure the system.

Chapter 1 is an overview of the mainboard features and packing contents.

Chapter 2 describes how to upgrade and to change hardware configurations such as memory size, CPU type, and lists of jumper settings and connectors.

PART II includes chapter 3 which contains Award BIOS description

Chapter 3 is the user's guide of the Award BIOS setup utility and Flash ROM BIOS. The menu shown in this chapter are the default settings.

PART III include APPENDIX A & JUMPER COMPONENT LOCATION DIAGRAM

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.

REMARK

1-1 SYSTEM FEATURES

- ZIF Socket 7 Support ：
  Intel Pentium Processor 90MHz ~ 200MHz
  Intel Pentium Processor with MMX Technology 166~233MHz
  AMD-K5 PR75 ~ PR166
  AMD-K6 166ALR , 200 ALR, 233 ANR
  Cyrix 6x86L PR 150+ ~ PR 200+
  Cyrix 6x86MX PR 150 ~ PR 200

- Chipset : ALi M1543, M1531 chipset
- SIMM ：Four 72-pin provides two banks of 64-bit wide path up to 512MB addressing page mode DRAMs.
- DIMM ：Two 168-pin sockets for 3.3V SDRAM or EDO DRAM module.
- Supporting three types of DRAM including EDO (Extended Data Out), FPM (Fast Page Mode), 3.3V SDRAM.
- Built-in 256KB or 512KB Pipeline Burst SRAM on board
- Supporting four PCI Bus Master revision 2.1, 5V interface compliant and three 16-bit ISA slots.
- Dual Master IDE connectors support Ultra DMA/33 (33MB/sec transfer rate), up to four devices in two channels for connection of high capacity hard disk drive, CD-ROM, tape backup etc..
- Keyboard ：AT style connector and PS/2 mouse header.
- Multi-I/O chipset： M1543 integrated Keyboard controller.
  Supporting Infrared transfer (IrDA TX/RX) connection.
  One FDC port supports two devices up to 2.88MB & 3 mode Floppy.
  Two 16550A fast UARTs compatible serial ports.
  One EPP/ECP mode parallel port.
- Dual channel USB connection.
- Switching Voltage Regulator： Built-in
- Supports ACPI Power Management - OSPM (OS directed power management)
- Form-factor ：220mm x 250mm (8.66" x 9.84") with four layers designed.

CHAPTER 2 INSTALLATION

2-1 INSTALLATION PROCEDURE

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

1. Plug CPU, heat sink, cooling fan, and DRAM modules in the mainboard.
2. Set jumpers based on your configuration.
3. Plug add-on cards in PCI/ISA slots.
4. Connect cables to peripherals, 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 peripheral, add-on card drivers and test them.
7. If all of above procedures are success, turn-off the power then plug all of them into your computer case.

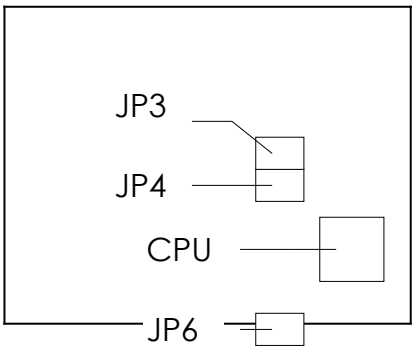
2-2 CPU INSTALLATION

ATC-5130 supports one Pentium level CPU. For installation, please notice CPU pin 1 must align with the ZIF socket 7 pin 1 location. Before you install or upgrade your CPU, please read CPU guide from CPU manufacturer to make sure the CPU voltage specification. Then choose the right installation in section 2-2-1 based on your CPU type / brand and follow the description to setup jumpers. If your CPU is not in the list of 2-2-1, please refer to 2-2-2 and 2-2-3 for installation. For CPU installation, it needs to set 3 jumpers, there are JP6 for CPU Voltage Setting, JP4 for CPU Bus Clock Setting, JP3 for Bus Freq. Ratio Setting.

2-2-1 Intel Pentium CPU Series

Intel Pentium CPU provides two kind of voltage modes, that are VRE mode (3.400V~3.600V) and standard mode (3.135V~3.600V). The fourth line of the mark on the under-side of the processor contains a code that identifies the voltage level type. V is VRE, S is standard.

A. P54C VRE : (3.400V~3.600V)



JP6	*1-2*	*3-4*	*5-6*	*7-8*
Voltage	close	close	close	close

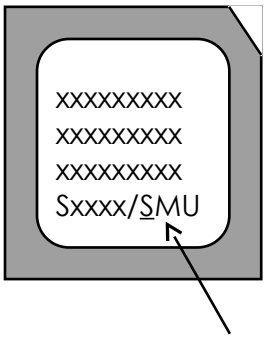
B. P54C STD : (3.135V~3.600V)

JP6	*1-2*	*3-4*	*5-6*	*7-8*
Voltage	close	close	open	close

∗*JP6 is CPU Voltage Setting*

JP4 is CPU Bus Clock Setting

JP3 is Bus Freq. Ratio Setting



Intel Pentium CPU, the first letter after '/' denotes voltage type.

Then set JP4 for CPU Bus Clock Setting and JP3 for Bus Freq. Ratio Setting.

Intel Pentium 90MHz

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	close	close	open	60 x 1.5
JP3	open	open	open	

Intel Pentium 100MHz

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	open	close	open	66 x 1.5
JP3	open	open	open	

Intel Pentium 120MHz

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	close	close	open	60 x 2.0
JP3	close	open	open	

Intel Pentium 133MHz

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	open	close	open	66 x 2.0
JP3	close	open	open	

Intel Pentium 150MHz

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	close	close	open	60 x 2.5
JP3	close	close	open	

Intel Pentium 166MHz

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	open	close	open	66 x 2.5
JP3	close	close	open	

Intel Pentium 180MHz

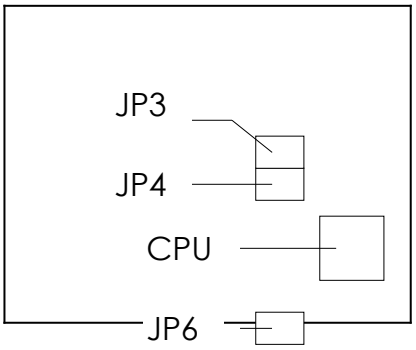
	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	close	close	open	60 x 3.0
JP3	open	close	open	

Intel Pentium 200MHz

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	open	close	open	66 x 3.0
JP3	open	close	open	

C. INTEL PENTIUM MMX™ CPU (P55C) : 2.8V

JP6	*1-2*	*3-4*	*5-6*	*7-8*
Voltage	close	open	open	open



∗*JP6 is CPU Voltage Setting*
JP4 is CPU Bus Clock Setting
JP3 is Bus Freq. Ratio Setting

C-1. Intel Pentium MMX 166MHz

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	open	close	open	66 x 2.5
JP3	close	close	open	

C-2. Intel Pentium MMX 200MHz

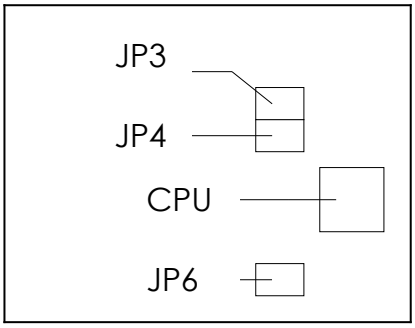
	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	open	close	open	66 x 3.0
JP3	open	close	open	

C-3. Intel Pentium MMX 233MHz

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	open	close	open	66 x 3.5
JP3	open	open	open	

2-2-2 Cyrix 6x86 CPU Series

A. Cyrix 6x86 MX CPU : 2.9V



JP6	*1-2*	*3-4*	*5-6*	*7-8*
Voltage	close	open	open	close

∗*JP6 is CPU Voltage Setting*

JP4 is CPU Bus Clock Setting

JP3 is Bus Freq. Ratio Setting

A-1. Cyrix 6x86MX PR150 @ 60 Bus 2x

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	close	close	open	60 x 2.0
JP3	close	open	open	

A-2. Cyrix 6x86MX PR166 @ 66 Bus 2x

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	open	close	open	66 x 2.0
JP3	close	open	open	

A-3. Cyrix 6x86MX PR166 @ 60 Bus 2.5x

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	close	close	open	60 x 2.5
JP3	close	close	open	

A-4. Cyrix 6x86MX PR200 @ 66 Bus 2.5x

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	open	close	open	66 x 2.5
JP3	close	close	open	

A-5. Cyrix 6x86MX PR200 @ 75 Bus 2x

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	close	open	open	75 x 2.0
JP3	close	open	open	

B. Cyrix 6x86L CPU : 2.8V

JP6	*1-2*	*3-4*	*5-6*	*7-8*
Voltage	close	open	open	open

∗*JP6 is CPU Voltage Setting*

JP4 is CPU Bus Clock Setting

JP3 is Bus Freq. Ratio Setting

B-1. Cyrix 6x86L PR150+

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	close	close	open	60 x 2.0
JP3	close	open	open	

B-2. Cyrix 6x86L PR166+

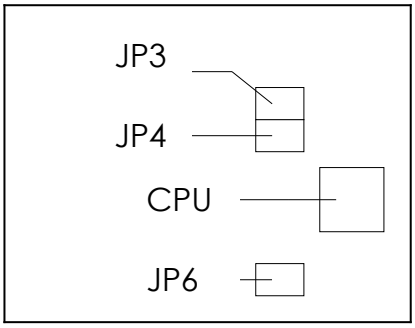
	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	open	close	open	66 x 2.0
JP3	close	open	open	

B-3. Cyrix 6x86L PR 200+

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	close	open	open	75 x 2.0
JP3	close	open	open	

2-2-3 AMD CPU Series

A. AMD-K5 CPU : 3.5V



JP6	*1-2*	*3-4*	*5-6*	*7-8*
Voltage	close	close	close	close

∗*JP6 is CPU Voltage Setting*

JP4 is CPU Bus Clock Setting

JP3 is Bus Freq. Ratio Setting

A-1. AMD-K5 PR90

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	close	close	open	60 x 1.5
JP3	open	open	open	

A-2. AMD-K5 PR100

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	open	close	open	66 x1.5
JP3	open	open	open	

A-3. AMD-K5 PR120

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	close	close	open	60 x 2.0
JP3	close	open	open	

A-4. AMD-K5 PR133

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	open	close	open	66 x 2.0
JP3	close	open	open	

A-5. AMD-K5 PR166

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	close	close	open	60 x 2.5
JP3	close	close	open	

B. AMD-K6-166 ALR / K6-200 ALR CPU : 2.9V

JP6	*1-2*	*3-4*	*5-6*	*7-8*
Voltage	close	open	open	close

∗*JP6 is CPU Voltage Setting*

JP4 is CPU Bus Clock Setting

JP3 is Bus Freq. Ratio Setting

B-1. AMD-K6 166 ALR

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	open	close	open	66 x 2.5
JP3	close	close	open	

B-2. AMD-K6 200 ALR

	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP4	open	close	open	66 x 3.0
JP3	open	close	open	

C. AMD-K6-233 ANR CPU : 3.2V

JP6	*1-2*	*3-4*	*5-6*	*7-8*
Voltage	close	close	open	open

∗*JP6 is CPU Voltage Setting*

JP4 is CPU Bus Clock Setting

JP3 is Bus Freq. Ratio Setting

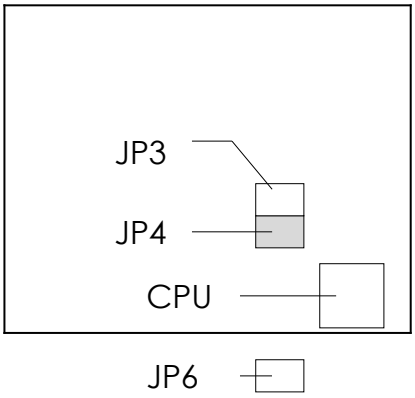
	1 - 2	3 - 4	5 - 6	*Bus Clock x Freq.*
JP3	open	close	open	66 x 3.5
JP4	open	open	open	

2-2-4 CPU Voltage, CPU Bus Clock and Bus Freq. Ratio Setting

A. CPU Voltage : JP6

VDC	1-2	3-4	5-6	7-8
2.1	open	open	open	close
2.8	close	open	open	open
2.9	close	open	open	close
3.2	close	close	open	open
3.3	close	close	open	close
3.5	close	close	close	close

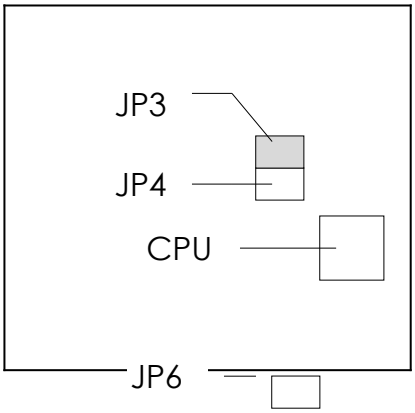
B. CPU Bus Clock : JP4



CLK	1-2	3-4	5-6
60	close	close	open
66	open	close	open
75	close	open	open
83	open	open	open

C. CPU Bus Frq. : JP3

CPU CLK	1-2	3-4	5-6
1.5x	open	open	open
2.0x	close	open	open
2.5x	close	close	open
3.0x	open	close	open
3.5x	open	open	open



2-3 SYSTEM MEMORY INSTALLATION

ATC-5130 provides four 72-pin SIMM sockets for system memory expansion from 8MB to 516MB. These four SIMMs are arranged to two banks, Bank0 (SIM 1, 2) and Bank1(SIM 3, 4), please refer to page A. Each bank provides 64-bit wide data path.

The mainboard accepts Fast Page Mode DRAM, and EDO Mode (Extended Data Out) DRAM, with a speed no slower than 70 nanosecond. You should plug DRAM modules into two sockets (same bank) or four sockets at one time. Each pair of modules in the same bank must be the same size, type, and speed; no matter single-side or double-side module. Please plug in Bank 0 firstly if you only have 2 modules. The mainboard supports mixing of EDO and fast page mode DRAM among different banks, please plug EDO in Bank 0.

Also this mainboard provides two 168-pin DIMM sockets for 3.3V SDRAM or 3.3V EDO DRAM expansion. You should plug SDRAM/DRAM module into each DIMM sockets (as a bank) or two sockets at one time.

CAUTION: It‘s not recommended to install the 3.3V SDRAM and 5V EDO or Fast Paged mode memory within a system. The 72-pin DRAM cannot work with 168-pin DRAM in the same time. Changing EDO/FPM DRAM to SDRAM, you don‘t have to adjust jumper setting or BIOS value, nor change SDRAM to EDO/FPM DRAM.

(※ Please make sure the SDRAM plugged-in fully, to prevent contact loss.)

ATC-5130 provides cacheable memory more than 64MB , this can growth system performance 5~10%. User should plug in 2nd TAG RAM (3.3V; locate in U14, next to SRAM chip) and install more than 64MB DRAM (or SDRAM), then revise the BIOS value. The screen of ‘CHIPSET FEATURES SETUP’, “TAG RAM Size” item replace the value of ‘8 Bit’ to ‘11 Bit’. The maximum cacheable size can be upgrade to 512MB.

※ System Memory Combinations Options ※

BANK0 SIM 1, 2	BANK1 SIM 3, 4	Total Memory SIM 1- 4
4MBx2	-	8MB
-	4MBx2	8MB
8MBx2	-	16MB
-	8MBx2	16MB
4MBx2	4MBx2	16MB
4MBx2	8MBx2	24MB
8MBx2	4MBx2	24MB
16MBx2	-	32MB
-	16MBx2	32MB
8MBx2	8MBx2	32MB
4MBx2	16MBx2	40MB
16MBx2	4MBx2	40MB
8MBx2	16MBx2	48MB
16MBx2	8MBx2	48MB
32MBx2	-	64MB
-	32MBx2	64MB
16MBx2	16MBx2	64MB
4MBx2	32MBx2	72MB
32MBx2	4MBx2	72MB
8MBx2	32MBx2	80MB
32MBx2	8MBx2	80MB
16MBx2	32MBx2	96MB
32MBx2	16MBx2	96MB
32MBx2	32MBx2	128MB
64MBx2	-	128MB

- continue -

-	64MBx2	128MB
4MBx2	64MBx2	136MB
64MBx2	4MBx2	136MB
8MBx2	64MBx2	144MB
64MBx2	8MBx2	144MB
16MBx2	64MBx2	160MB
64MBx2	16MBx2	160MB
32MBx2	64MBx2	192MB
64MBx2	32MBx2	192MB
64MBx2	64MBx2	256MB
*128MBx2	-	256MB
-	*128MBx2	256MB

* Please confirm this with your supplier firstly.

2-4 IDE DRIVER INSTALLATION

Setup for Windows 95 :

1. Starting Windows 95
2. Select “START”, “RUN”. It will show a dialog box similar to picture 1.
3. Type “A:\WIN95\INSTALL.BAT”, the dialog box will be similar to picture 2.
4. Click ‘OK’, and a dialog box similar to picture 3 will show up.
5. Click ‘Yes’, and a dialog box similar to picture 4 will show up.
6. Click ‘Finish’, and the system will restart automatically.
7. After restarting, the system will check hardware again.
8. Exit Windows 95, turn power off; then turn power on.

- After installation, if the screen shows a yellow ’！’ , please ignore it.
- (The other platforms please refer to readme file.)

Make sure your HDD should follow ATA standard, and your CD-ROM should follow ATAPI standard. When you plug-in the IDE devices, please plug your first and second devices into IDE 1 port (Master then Slave), then plug third and forth devices into IDE 2 port. If you have CD-ROM drive, please set it behind hard disk devices as the last device. For example, if you have 2 HDDs and 1 CD-ROM, you should set HDD1 and HDD2 in IDE1 Master and Slave, set CD-ROM in IDE 2 Master. Some of the brands devices combination may not work under this sequence, you can try to re-arrange the devices sequence, or contact your vendor.

CHAPTER 3 AWARD BIOS SETUP

This chapter explains the system BIOS setup, and how to update new BIOS. All BIOS screens shown in the following pages are default values, your system dealer will set up these values according to your demand of computer.

ATC-5130 uses Flash ROM to make BIOS easier to be updated by the floppy disk-based program and to committee Microsoft Windows 95 plug & play feature. Please refer to the next page for the update procedure. After the BIOS is updated, you should clear the setup data stored in the CMOS.

The update CMOS process is mechanical power off (or unplug the power cord) to ensure there is no power to the mainboard, first. Set JP5 to 1,2 position to clear CMOS, then set JP5 to 2,3 position, and power on the power switch (or plug the power cord).

	JP5
Normal	1-2
Clear	2-3

3-1 UPDATE BIOS PROCEDURES

If the BIOS needs to be updated, you can get a diskette with the updated BIOS from your system supplier. The BIOS diskette includes 3 files:
“awdflash.exe” -- BIOS update utility program
“awdflash.doc”
“(updated BIOS filename with version number).bin”

The update procedures are as following:

1. Boot the system to DOS mode in a normal manner.
2. Insert the updated diskette to drive A (or B).
3. Change working directory to floppy drive, A or B, which contains the updated BIOS diskette. -- Type “a:\” or “b:\”, “ENTER”.
4. Run the BIOS update utility -- Type “awdflash”, “ENTER”.
5. Type “(update BIOS file name with version number).bin”, ENTER.
6. 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 instructions displayed on the screen.

DO NOT remove the update BIOS diskette from the floppy drive now turn the system power off until the BIOS update 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 your system working properly or not.

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. Enter 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 (2A5KIA29)
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 one section displays the items highlighted in the list.

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

ROM PCI/ISA BIOS (2A5KIA29)
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 (2A5KIA29)
STANDARD CMOS SETUP
AWARD SOFTWARE, INC.

Date (mm:dd:yy) : Fri, Feb 14 1997
Time(hh:mm:ss) : 13 : 7: 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.	Base Memory : 640K
Drive B : None	Extended memory : 64512K
Floopy 3 Mode support : Disabled	Other Memory : 384K

Video : EGA/VGA	Total Memory : 65536K
Halt On: All Errors	

ESC : Quit	↑↓→←:Select Item	PU/PD/+/- : Modify
F1 : Help	(Shift) F2 : Change Color	

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 (2A5KIA29)
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
Virus, Protection, Boot Sequence	

ROM PCI/ISA BIOS (2A5KIA29)
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
Boot Up NumLock Status	: On		
Boot Up System Speed	: High		
Gate A20 Option	: Fast		
Memory Parity Check	: Disabled		
Typematic Rate Setting	: Disabled		
Typematic Rate (Chars/Sec)	: 6		
Typematic Delay(Msec)	: 250		
Security Option	: Setup		
PS/2 mouse function control	: Enabled	Esc : Quit	↑↓→←:Select Item
PCI/VGA Palette Snoop	: Disabled	F1 : Help	PU/PD/+/- : Modify
Assign IRQ For VGA	: Enabled	F5 : Old Values	(SHIFT)F2 : Color
OS select for DRAM>64MB	: Non-OS2	F6 : Load BIOS Defaults	
Report No FDD for WIN 95	: NO	F7 : Load Setup Defaults	

This screen controls the setting for the chipset on the mainboard.

*** L2 cache cacheable size value, refer to page 16.**

ROM PCI/ISA BIOS (2A5KIA29)
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
AT Clock, DRAM Timings	

ROM PCI/ISA BIOS (2A5KIA29)
CHIPSET FEATURES SETUP
AWARD SOFTWARE, INC.

Auto Configuration	: Enabled	Passive Release	: Enabled
AT Bus Clock	: CLK2/4	ISA Line Buffer	: Enabled
DRAM Write WS	: X-2-2-2	Delay Transaction	: Disabled
Page Mode Read WS	: X-3-3-3	TAG RAM Size	: 8 Bit*
RAS Precharge Period	: 3T		
RAS-To-CAS Delay Time	: 3T		
EDO Read WS	: X-2-2-2		
DRAM Speculative Read	: Disabled		
SDRAM CAS Latency	: 3		
SDRAM Access Timing	: 3-4-7		
SDRAM Speculative Read	: Disabled		
Pipelined Function	: Enabled		
DRAM Refresh Period	: 60ns		
DRAM Data Integrity Mode	: Parity		
Memory Hole At 15-16M	: Disabled		
Primary Frame Buffer	: 2MB	Esc : Quit	↑↓→←:Select Item
VGA Frame Buffer	: Enabled	F1 : Help	PU/PD/+/-: Modify
Data Merge	: Enabled	F5 : Old Values	(Shift)F2 :Color
Byte Merge	: Disabled	F6 :Load BIOS Defaults	
fast Back-to-Back	: Disabled	F7 :Load Setup Defaults	

This screen controls the 'green' features of this mainboard.

ROM PCI/ISA BIOS (2A5KIA29)
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
Sleep Timer, Suspend Timer, ...	

ROM PCI/ISA BIOS (2A5KIA29)
POWER MANAGEMENT SETUP
AWARD SOFTWARE, INC.

Power Management : Min Saving	** External Switch **
PM Control by APM : Yes	
Mode Use IRQ : 3	DOCK I / O SMI : Disabled
Video Off Option : Susp,Stby -> Off	
Video Off Method : V/H SYNC+Blank	
** PM Monitor **	
HDD Power Down : Disabled	
Doze Mode : Disabled	
Standby Mode : Disabled	
Suspend Mode : Disabled	
** Standby Event **	
Primary HDD : Disabled	Esc : Quit ↑↓→←: Select item
Floppy : Disabled	F1 : Help PU/PD/+/- : Modify
Serial Ports : Enabled	F5 : Old values (Shift) F2: Color
Keyboard : Enabled	F6 : Load BIOS Defaults
Parallel Ports : Disabled	F7 : Load Setup Defaults

This screen configures the PCI Bus slots.

ROM PCI/ISA BIOS (2A5KIA29)
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
IRQ Settings, Latency Timers, ...	

ROM PCI/ISA BIOS (2A5KIA29)
PNP/PCI CONFIGURATION
AWARD SOFTWARE, INC.

PNP OS Installed	: No	PCI IDE 2nd Channel	: Enabled
Resources Controlled By	: Auto	PCI IDE IRQ Active By	: Level
Reset Configuration Data	: Disabled	PCI IDE IRQ Map To	: PCI-AUTO
		Primary IDE INT#	: A
		Secondary IDE INT#	: B
		Esc: Quit ↑↓→←	:Select Item
		F1 : Help	PU/PD/+/- : Modify
		F5 : Old Values	(Shift) F2: Color
		F6 : Load BIOS Defaults	
		F7 : Load Setup Defaults	

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 (2A5KIA29)
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 (2A5KIA29)
INTEGRATED PERIPHERALS
AWARD SOFTWARE, INC.

On-Chip Primary IDE	: Enabled	UR2 Mode	: Normal
On-Chip Secondary IDE	: Enabled		
IDE Primary Master PIO	: Auto		
IDE Primary Slave PIO	: Auto	Onboard Parallel Port	: 378/IRQ7
IDE Secondary Master PIO	: Auto	Parallel Port Mode	ECP
IDE Secondary Slave PIO	: Auto	ECP Mode Use DMA	: 3
IDE Primary Master UDMA	: Auto		
IDE Primary Slave UDMA	: Auto		
IDE Secondary Master UDMA	: Auto		
IDE Secondary Slave UDMA	: Auto		
IDE HDD Block Mode	: Enabled		
On-Chip USB Controller	: Disable		
Onboard FDC Controller	: Enabled	Esc: Quit	↑↓→←:Select Item
Onboard Serial Port 1	: 3F8/IRQ4	F1 : Help	PU/PD/+/- : Modify
UR1 Mode	: Normal	F5 : Old Values	(Shift) F2: Color
		F6 : Load BIOS Defaults	
Onboard Serial Port 2	: 2F8/IRQ3	F7 : Load Setup Defaults	

This section page includes all the items of IDE hard drive and Programmed Input/Output features. See also Section "IDE HDD Auto Detection".

ROM PCI/ISA BIOS (2A5KIA29)
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 .....

303030303030303030303030303030303030(2A5KIA29)
CMOS SETUP UTILITY
AWARD SOFTWARE, INC.

Hard Disks Type Size CYLS HEAD PRECOMP LANDZ SECTOR MODE

Primary Mster :

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 step 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 (2A5KIA29)
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	

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	SAVE to CMOS and EXIT (Y/N):**Y**
ESC: Quit	↑↓→←:Select Item
F10: Save & Exit Setup	(Shift) F2 : Change Color
Auto-Configure HDD: Sector, Cylinder, Head	

※ 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

APPENDIX A

※※TECHNICAL SUPPORT REQUEST FORM※※

If the mainboard doesn't function properly, please complete the following information and return it to your system dealer. If the further information is needed, please attach this separating sheets.

Model No : ATC-5130 Date of Purchase : _____

Serial No : _____

HARDWARE :

	BRAND	MODEL	SPEED	Q'TY
CPU				
SIM Module				
PB SRAM on Board				
TAG SRAM				
Sync. SRAM Module				

SIMM :_____MB (__ EDO, __FastPage)
Hard Disk Interface Controller : __ __ IDE, ____ SCSI
Hard Disk Brand :_____, Model :_____, Capacity :_____
Display Controller Brand :_____,Model :_____
Controller Chip Brand :_____,Model :_____
AWARD SYSTEM BIOS: Version _____ Date Code _____
Keyboard BIOS: Brand _____

Other Add-on Cards Information:

Add-on Card	Bus Interface	Model	Remark

Error Description :