

USER'S MANUAL

POS-6920 Series

**POS System Powered by
Intel® Atom® Platform**

POS-6920 Series M2

POS-6920 Series POS System With LCD / Touchscreen

PREFACE

COPYRIGHT NOTICE

This user's manual is meant to assist users in installing and setting up the system. The information contained in this document is subject to change without any notice.

This manual is copyrighted Feb. 2012 (Revised Edition: Jun. 2012). You may not reproduce or transmit in any form or by any means, electronic, or mechanical, including photocopying and recording.

ACKNOWLEDGEMENTS

All trademarks and registered trademarks mentioned herein are the property of their respective owners.

CE NOTICE

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

FCC NOTICE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any change or modifications to the equipment not expressly approve by the party responsible for compliance could void your authority to operate such equipment.

CAUTION! Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

WARNING! Some internal parts of the system may have high electrical voltage. And therefore we strongly recommend that qualified engineers can open and disassemble the system.

The LCD and Touchscreen are easily breakable, please handle them with extra care.

TABLE OF CONTENTS

CHAPTER 1 INTRODUCTION

1-1	About This Manual	1-2
1-2	POS System Illustration	1-3
1-3	System Specifications	1-5
1-4	Safety Precautions	1-7

CHAPTER 2 SYSTEM CONFIGURATION

2-1	Jumper & Connector Quick Reference Table	2-2
2-2	Component Locations	2-3
2-3	How to Set the Jumpers	2-4
2-4	COM Port Connector	2-6
2-5	COM Port RI and Voltage Selection	2-8
2-6	VGA Connector	2-9
2-7	I-Button Connector	2-10
2-8	I-Button Function Selection	2-10
2-9	LAN Connector	2-11
2-10	USB Connector	2-12
2-11	PS/2 Keyboard & Mouse Connector	2-14
2-12	Reset/ NMI Watchdog Selection	2-14
2-13	Cash Drawer Connector	2-15
2-14	Cash Drawer Power Selection	2-15
2-15	LED Connector	2-16
2-16	Fan Connector	2-17
2-17	Power Connector	2-17
2-18	Power Switch Connector	2-17
2-19	Reset Switch Connector	2-18
2-20	Power for Thermal Printer Connector	2-18
2-21	External Speaker Connector	2-18
2-22	Inverter Connector	2-19
2-23	Backlight Type Selection	2-19
2-24	MSR/ Card Reader Connector	2-20
2-25	LVDS Connector	2-20
2-26	SATA & SATA Power Connector	2-21
2-27	Touch Panel Connector	2-23
2-28	Touch Panel Selection	2-24
2-29	Clear CMOS Data Selection	2-25
2-30	Compact Flash Connector	2-26
2-31	Printer Connector	2-27

CHAPTER 3 SOFTWARE UTILITIES

3-1	Introduction	3-2
3-2	Intel® Chipset Software Installation Utility	3-3
3-3	VGA Driver Utility	3-4
3-4	LAN Driver Utility	3-5
3-5	Sound Driver Utility	3-6
3-6	Touch Screen Driver Utility	3-7
3-7	Fingerprinter Driver Utility (Optional)	3-8
3-8	RFID Module Driver Utility (Optional)	3-9

CHAPTER 4 AMI BIOS SETUP

4-1	Introduction	4-2
4-2	Entering Setup	4-3
4-3	Main	4-5
4-4	Advanced	4-6
4-5	Boot	4-18
4-6	Security	4-22
4-7	Chipset	4-23
4-8	Exit	4-28

APPENDIX A SYSTEM ASSEMBLY

Exploded Diagram for POS-6920 HDD Module Maintenance	A-2
Exploded Diagram for POS-6920 M/B Case Module Assembly	A-3
Exploded Diagram for POS-6920 HDD Module Assembly	A-5
Exploded Diagram for POS-6920 SSD Module Assembly	A-6
Exploded Diagram for POS-6920 Plastic Module Assembly ...	A-7
Exploded Diagram for POS-6920 Heat Sink Module Assembly	A-9
Exploded Diagram for POS-6920 Rotate Module Assembly ...	A-10
Exploded Diagram for POS-6920 Stand Module Assembly	A-12
Exploded Diagram for POS-6920 PPC & Stand Module Assembly	A-14
Exploded Diagram for POS-6920 MSR Module Assembly	A-15
Exploded Diagram for POS-6920 VFD Module Assembly	A-16
Exploded Diagram for POS-6920 2nd Display Module Assembly	A-17



APPENDIX B TECHNICAL SUMMARY

Block Diagram	B-2
Interrupt Map	B-3
DMA Channels Map	B-4
I/O Map	B-5
Watchdog Timer Configuration	B-7
Flash BIOS Update	B-9

APPENDIX C QUICK MANUAL

Assembly Procedure of VFD	C-2
Assembly Procedure of 2nd Display	C-4
i-Button Decoder API	C-6

INTRODUCTION

CHAPTER

1

This chapter gives you the information for the POS-6920. It also outlines the system specifications.

Sections included:

- About This Manual
- POS System Illustration
- System Specifications
- Safety Precautions

Experienced users can jump to chapter 2 on page 2-1 for a quick start.

1-1. ABOUT THIS MANUAL

Thank you for purchasing our POS-6920 Series System. The POS-6920 is an updated system designed to be comparable with the highest performance of IBM AT personal computers. The POS-6920 provides faster processing speed, greater expandability and can handle more tasks than before. This manual is designed to assist you how to install and set up the whole system. It contains four chapters and three appendixes. Users can configure the system according to their own needs.

Chapter 1 Introduction

This chapter introduces you to the background of this manual. It also includes illustrations and specifications for the whole system. The final section of this chapter indicates some safety reminders on how to take care of your system.

Chapter 2 System Configuration

This chapter outlines the location of motherboard components and their function. You will learn how to set the jumper and configure the system to meet your own needs.

Chapter 3 Software Utilities

This chapter contains helpful information for proper installations of the Intel Utility, VGA Utility, LAN Utility, Sound Utility, and Touch Screen Utility. It also describes the optional Fingerprinter and RFID module Utilities.

Chapter 4 AMI BIOS Setup

This chapter indicates you how to change the BIOS configurations.

Appendix A System Assembly

This appendix gives you the exploded diagrams and part numbers of the POS-6920.

Appendix B Technical Summary

This appendix gives you the information about the allocation maps for the system resources, Watchdog Timer Configuration, and Flash BIOS Update.

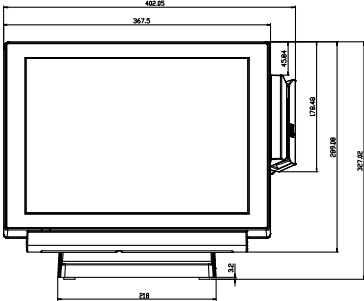
Appendix C Quick Manual

This appendix gives you the information about the VFD and 2nd Display assembly procedures and the i-Button decoder API.

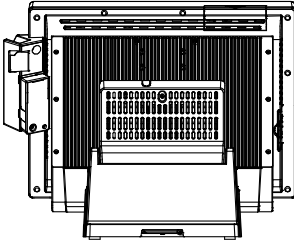
1-2. POS SYSTEM ILLUSTRATION

POS-6920 with Stand

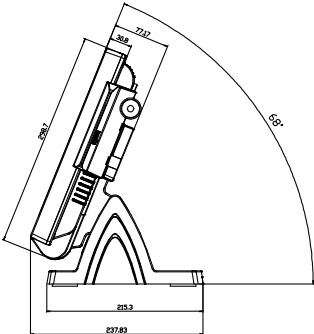
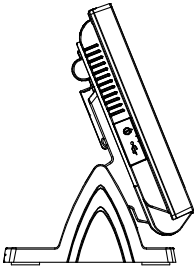
Front View



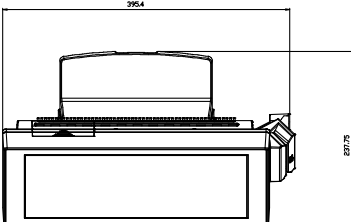
Rear View



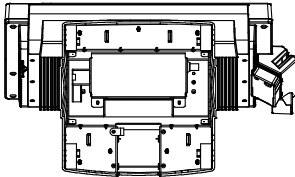
Side View



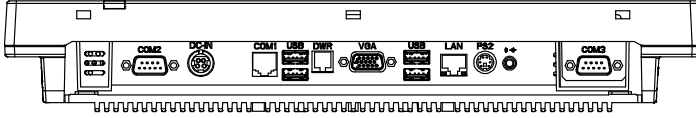
Top View



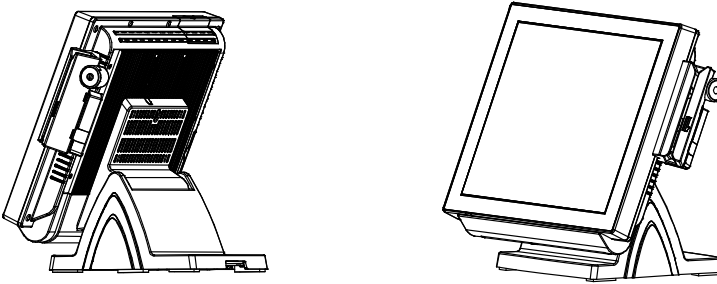
Bottom View



I/O View



Quarter View



1-3. SYSTEM SPECIFICATIONS

MAINBOARD (PROX-A6920LF)

- **CPU Type (with North Bridge):**
Intel® ATOM Pineview D525
- **Chipset:**
Intel® ICH8M
- **Memory:**
One 204-pin DDRIII SO-DIMM socket on board, up to 4GB
- **Cache:**
Depended on CPU
- **Real-Time Clock / Calendar:**
Embedded in Intel® ICH8M South Bridge
- **BIOS:**
AMI SPI BIOS
8Mbits with VGA BIOS
- **Keyboard & Mouse Connector:**
PS/2 Keyboard, combined with mini DIN connector on rear panel.
- **Serial Port:**
1 x RJ45 (COM1), 2 x DB-9(COM 2/3), 1 x Wafer (COM4_1)
+5/12V Selectable (COM 1~4)
- **Universal Serial Bus Port:**
4 x USB2.0 ports
1 x USB2.0 on side bezel
- **LAN Function:**
1 x 10/100/1000 Mbps
- **Audio Function:**
1 x 2W Speaker

- **VGA Function:**
1 x DB-15 VGA Interface
- **Dimension (W x H x D):**
368mm x 327mm x 238mm
- **System Weight:**
11 kg

- **LCD Panel:**

Type	XGA
Max. Resolution	1024 x 768
Size/Type	15" / TFT
Viewing Angel (degree)	0~65 degrees
Pixel Pitch	0.297(H) x 0.297(V)
Brightness	250 cd / m ²
Signal Interface (bit)	TTL (24-bit)

- **Touch Panel:**
15" 5wire True Flat Resistive
- **WIRELESS LAN (Optional):**
Mini PCI-e Wireless LAN Module (802.11b/g)
- **MSR / i-Button / Fingerprint (Optional):**
External vertical module, MSR, Read only, ISO Tracker 1+2+3 (PS/2 KB Interface); i-button (COM Interface) + Fingerprint (USB Interface)
- **MSR / i-Button / Fingerprint (Optional):**
External vertical module, MSR, Read only, JIS-I or II, ISO Tracker 1+2+3; i-button (PS/2 KB Interface) + Fingerprint (USB Interface)
- **RFID (Optional):**
Read / Write, ISO 14443A 13.56MHz (USB Interface)

1-4. SAFETY PRECAUTIONS

The following messages are safety reminders on how to protect your systems from damages, and extending the life cycle of the system.

1. Check the Line Voltage

- a. The operating voltage for the power supply should be within the range of 100V to 240V AC; otherwise the system may be damaged.

2. Environmental Conditions

- a. Place your POS-6920 on a sturdy, level surface. Be sure to allow enough space around the system to have easy access needs.
- b. Avoid installing your POS-6920 Series POS system in extremely hot or cold places.
- c. Avoid exposure to sunlight for a long period of time (for example, in a closed car in summer time. Also avoid the system from any heating device.). Or do not use the POS-6920 when it has been left outdoors in a cold winter day.
- d. Bear in mind that the operating ambient temperature is between 0°C and 35°C (32°F and 95°F).
- e. Avoid moving the system rapidly from a hot place to a cold place, and vice versa, because condensation may occur inside the system.
- f. Protect your POS-6920 against strong vibrations, which may cause hard disk failure.
- g. Do not place the system too close to any radio-active device. Radio-active device may cause signal interference.
- h. Always shutdown the operating system before turning off the power.

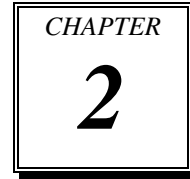
3. Handling

- a. Avoid placing heavy objects on the top of the system.
- b. Do not turn the system upside down. This may cause the hard drive to malfunction.
- c. Do not allow any objects to fall into this product.
- d. If water or other liquid spills into the product, unplug the power cord immediately.

4. Good Care

- a. When the outside case gets stained, remove the stains using neutral washing agent with a dry cloth.
- b. Never use strong agents such as benzene and thinner to clean the surface of the case.
- c. If heavy stains are present, moisten a cloth with diluted neutral washing agent or alcohol and then wipe thoroughly with a dry cloth.
- d. If dust is accumulated on the case surface, remove it by using a special vacuum cleaner for computers.

SYSTEM CONFIGURATION



Helpful information that describes the jumper and connector settings, and component locations.

Sections included:

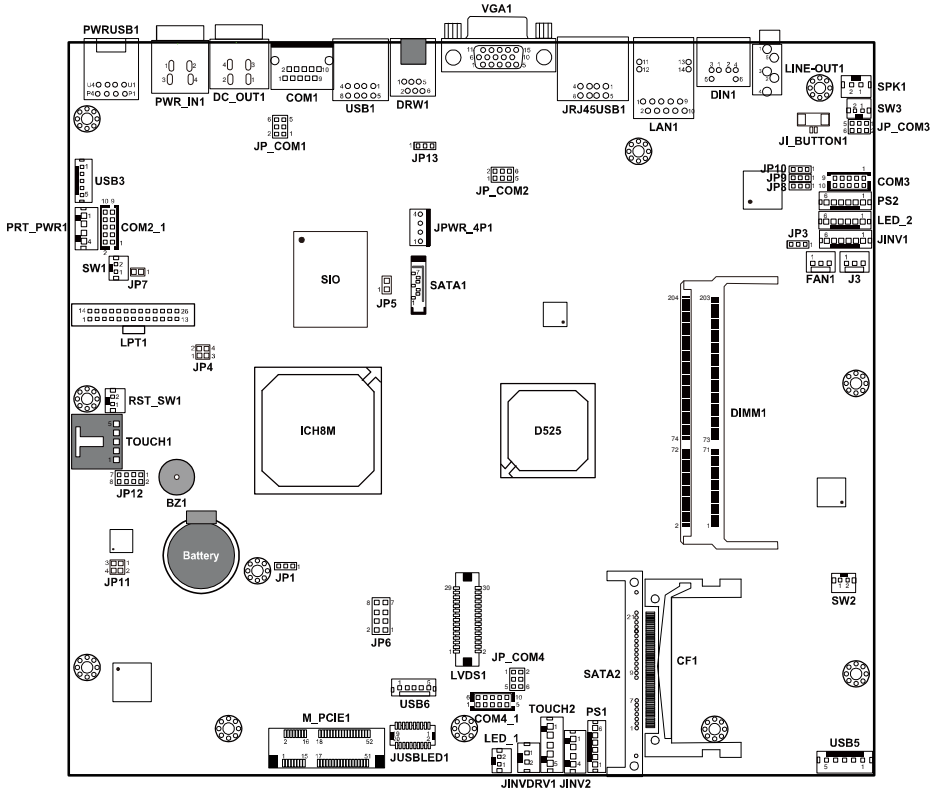
- Jumper & Connector Quick Reference Table
- Component Locations
- Configuration and Jumper settings
- Connector Pin Assignments

2-1. JUMPER & CONNECTOR QUICK REFERENCE TABLE

Connector & Jumper	Name	Page
COM Port Connector	COM1, COM2_1, COM3, COM4_1	2-6
COM Port RI and Voltage Selection	JP_COM1, JP_COM2, JP_COM3, JP_COM4	2-8
VGA Connector	VGA1	2-9
I-Button Connector	JI-BUTTON1	2-10
I-Button Function Selection	JP8, JP9, JP10	2-10
LAN Connector	LAN1	2-11
USB Connector	JRJ45USB1, USB1, USB3, USB5	2-12
PS/2 Keyboard & Mouse Connector	DIN1	2-14
RESET/NMI Watchdog Selection	JP4	2-14
Cash Drawer Connector	DRW1	2-15
Cash Drawer Power Selection	JP13	2-15
LED Connector	LED_1, LED_2, JUSBLED1	2-16
Fan Connector	FAN1	2-17
Power Connector	J3	2-17
Power Switch Connector	SW1, SW2, SW3	2-17
Reset Switch Connector	RST_SW1	2-18
Power for Thermal Printer Connector	PRT_PWR1	2-18
External Speaker Connector	SPK1	2-18
Inverter Connector	JINV1, JINV2	2-19
Backlight Type Selection	JP3	2-19
MSR / Card Reader Connector	PS1, PS2	2-20
LVDS Connector	LVDS1	2-20
SATA & SATA Power Connector	SATA1, JPWR_4P1, SATA2	2-21
Touch Panel Connector	TOUCH1, TOUCH2	2-23
Touch Panel Selection	JP12	2-24
Clear CMOS Data Selection	JP1	2-25
Compact Flash Connector	CF1	2-26
Printer Connector	LPT1	2-27

2-2. COMPONENT LOCATIONS

M/B: PROX-A6920LF



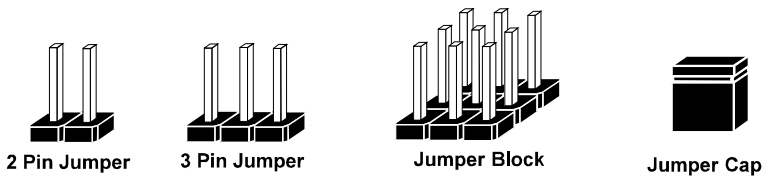
POS-6920 Mainboard Connector, Jumper and Component locations

2-3. HOW TO SET THE JUMPERS

You can configure your board by setting the jumpers. Jumper is consists of two or three metal pins with a plastic base mounted on the card, and by using a small plastic "cap", Also known as the jumper cap (with a metal contact inside), you are able to connect the pins. So you can set-up your hardware configuration by "opening" or "closing" pins.

The jumper can be combined into sets that called jumper blocks. When the jumpers are all in the block, you have to put them together to set up the hardware configuration. The figure below shows how this looks like.

JUMPERS AND CAPS

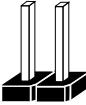


If a jumper has three pins for example, labelled PIN1, PIN2, and PIN3. You can connect PIN1 & PIN2 to create one setting and shorting. You can either connect PIN2 & PIN3 to create another setting. The same jumper diagrams are applied all through this manual. The figure below shows what the manual diagrams look and what they represent.

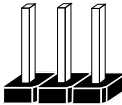
JUMPER DIAGRAMS



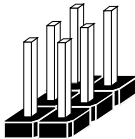
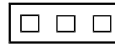
Jumper Cap looks like this



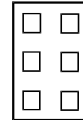
2 pin Jumper looks like this



3 pin Jumper looks like this



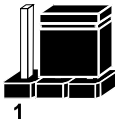
Jumper Block looks like this



JUMPER SETTINGS



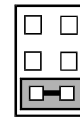
2 pin Jumper closed(enabled)
looks like this



3 pin Jumper
2-3 pin closed(enabled)
looks like this



Jumper Block
1-2 pin closed(enabled)
looks like this



2-4. COM PORT CONNECTOR

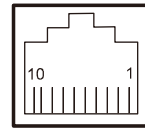
There are four COM ports enhanced in this board namely: COM1, COM2_1, COM3 and COM4_1.

Caution: When using a 72W power adaptor, do not set the voltage at “12V” for three COM ports or above; otherwise, the system may shut down due to power deficiency.

COM1: COM1 Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	DCD1
2	RXD1
3	TXD1
4	DTR1
5	GND
6	DSR1
7	RTS1
8	CTS1
9	RI / +5V / +12V selectable
10	NC

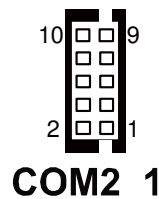


COM1

COM2_1/ COM3: COM2_1/ COM3 Wafer

The pin assignments are as follows:

PIN	ASSIGNMENT
1	DCD2/3
2	RXD2/3
3	TXD2/3
4	DTR2/3
5	GND
6	DSR2/3
7	RTS2/3
8	CTS2/3
9	RI / +5V / +12V selectable
10	NC



The COM3 connector will not function when the jumpers are set as “i-Button”. Refer to the section **2-8 i-Button Function Selection**.

COM4_1: COM4_1 Wafer

The pin assignments are as follows:

PIN	ASSIGNMENT
1	DCD4
2	RXD4
3	TXD4
4	DTR4
5	GND
6	DSR4
7	RTS4
8	CTS4
9	RI / +5V / +12V selectable
10	NC



The COM4_1 connector will not function when the VFD cable is plugged in. Refer to the Pole VFD assembly procedures in **Appendix C Quick Manual**.

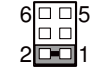


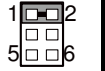
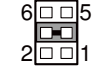


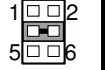
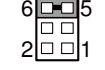


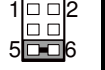
All COM ports are selectable for RI, +5V and +12V. Refer to the section **2-5 COM Port RI & Voltage Selection**.

2-5. COM PORT RI & VOLTAGE SELECTION

JP_COM1 , JP_COM2, JP_COM3, JP_COM4:

COM Port RI & Voltage Selection

The jumper settings are as follows:

SELECTION	JUMPER SETTINGS	JUMPER ILLUSTRATION			
RI (default)	1-2	 JP_COM1	 JP_COM2	 JP_COM3	 JP_COM4
VCC12	3-4	 JP_COM1	 JP_COM2	 JP_COM3	 JP_COM4
VCC	5-6	 JP_COM1	 JP_COM2	 JP_COM3	 JP_COM4

*** Manufacturing Default – RI

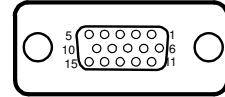
Caution: When using a 72W power adaptor, do not set the voltage at “12V” for three COM ports or above; otherwise, the system may shut down due to power deficiency.

2-6. VGA CONNECTOR

VGA1: VGA Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	RED
2	GREEN
3	BLUE
4	NC
5	GND
6	GND
7	GND
8	GND
9	+5V
10	GND
11	NC
12	DDCA DATA
13	HSYNC
14	VSYNC
15	DDCA CLK

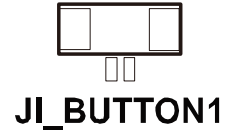


VGA1

2-7. I-BUTTON CONNECTOR

JI-BUTTON1: i-Button Connector
 The pin assignments are as follows:

PIN	ASSIGNMENT
1	COM3_DTR_R_I
2	COM3_RXD_R_I



2-8. I-BUTTON FUNCTION SELECTION

JP8, JP9, JP10: i-Button Function Selection
 The jumper settings are as follows:

SELECTION	JUMPER SETTINGS	JUMPER ILLUSTRATION
i-Button	2-3	<p>1 JP10 JP9 JP8</p>
COM 3 (default)	1-2	<p>1 JP10 JP9 JP8</p>

*** Manufacturing Default – COM3

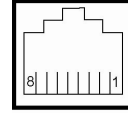
When the jumpers are set as 'i-Button', the COM3 connector is not functional.

2-9. LAN CONNECTOR

LAN1: LAN Connector.

The pin assignments are as follows:

PIN	ASSIGNMENT
1	LAN1_MDIP0
2	LAN1_MDIN0
3	LAN1_MDIP1
4	LAN1_MDIN1
5	LAN1_MDIP2
6	LAN1_MDIN2
7	LAN1_MDIP3
8	LAN1_MDIN3



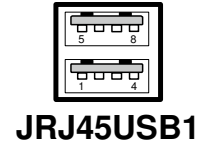
LAN1

2-10. USB CONNECTOR

JRJ45USB1: USB Connector

The pin assignments are as follows:

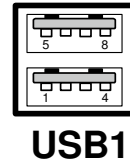
PIN	ASSIGNMENT
1	5V
2	USB0-
3	USB0+
4	GND
5	5V
6	USB1-
7	USB1+
8	GND



USB1: USB Connector

The pin assignments are as follows:

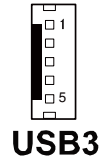
PIN	ASSIGNMENT
1	5V
2	USB2-
3	USB2+
4	GND
5	5V
6	USB3-
7	USB3+
8	GND



USB3: Internal USB Connector

The pin assignments are as follows:

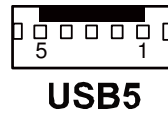
PIN	ASSIGNMENT
1	USB6-
2	USB6+
3	GND
4	VCC5
5	GND



USB5: USB Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	USB8-
2	USB8+
3	GND
4	VCC5
5	GND



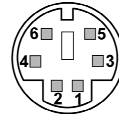
2-11. PS/2 KEYBOARD & MOUSE CONNECTOR

DIN1: Keyboard or PS/2 Mouse Connector

DIN connector can support keyboard, Y-cable, or PS/2 Mouse, user may select the right device to use on “Keyboard or PS/2 Mouse Selection”.

The pin assignments are as follows:

PIN	ASSIGNMENT
1	KDAT
2	MDAT
3	GND
4	V5SB
5	KCLK
6	MCLK



DIN1

2-12. RESET/NMI WATCHDOG SELECTION

JP4: Reset/NMI Watchdog Selection

The jumper settings are as follows:

SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION
Reset (default)	1-2	<p>JP4</p>
NMI	3-4	<p>JP4</p>

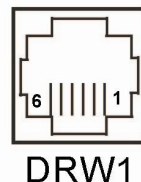
***Manufacturing Default – Reset

2-13. CASH DRAWER CONNECTOR

DRW1: Cash Drawer Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	GND
2	Drawer Open
3	Drawer Sense
4	+12V
5	NC
6	GND



PROX-A6920LF cash drawer control in GPIO port

To Open Drawer1 (GPIO 7)

Write "0" to I/O space register "50C" Bit 7

To Close Drawer1

Write "1" to I/O space register "50C" Bit 7

Detect Drawer1 Status

Read I/O space register "50E" (GPIO 20)

Definition (bit4)

2-14. CASH DRAWER POWER SELECTION

JP13: Cash Drawer Power Selection

The jumper settings are as follows:

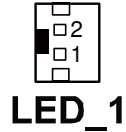
SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION
+12V	2-3	<p>JP13</p>
+24V (default)	1-2	<p>JP13</p>

*** Manufacturing Default – +24V

2-15. LED CONNECTOR

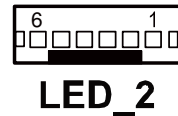
LED_1: Power indication LED Connector.
The pin assignments are as follows:

PIN	ASSIGNMENT
1	GND
2	PWR_LED



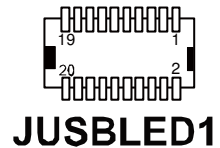
LED_2: Power, HDD, LAN indication LED Connector
The pin assignments are as follows:

PIN	ASSIGNMENT
1	PWR_LED
2	GND
3	HDD_LED
4	GND
5	LAN_Link
6	GND



JUSBLED1: Power, HDD, LAN indication LED Connector
The pin assignments are as follows:

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	NC	11	GND
2	NC	12	GND
3	NC	13	PWR_LED
4	NC	14	GND
5	NC	15	HDD_LED
6	NC	16	GND
7	NC	17	LAN_Link
8	NC	18	GND
9	GND	19	LAN_State
10	GND	20	GND

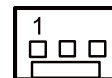


2-16. FAN CONNECTOR

FAN1: Fan Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	GND
2	12V
3	CPUFAN



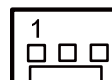
FAN1

2-17. POWER CONNECTOR

J3: Provide 12 Voltage Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	VCC12
2	GND
3	VCC12



J3

2-18. POWER SWITCH CONNECTOR

SW1, SW2, SW3: Power Switch Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	PWR_SW
2	GND



SW1



SW2

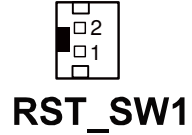


SW3

2-19. RESET SWITCH CONNECTOR

RST_SW1: Reset Switch Connector
The pin assignments are as follows:

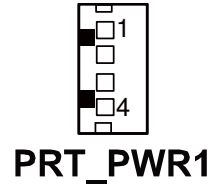
PIN	ASSIGNMENT
1	RST_SW
2	GND



2-20. POWER FOR THERMAL PRINTER CONNECTOR

PRT_PWR1: Power for Thermal Printer Connector
The pin assignments are as follows:

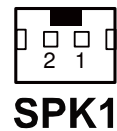
PIN	ASSIGNMENT
1	VCC24SB
2	VCC24SB
3	GND
4	GND



2-21. EXTERNAL SPEAKER CONNECTOR

SPK1: External Speaker Connector
The pin assignments are as follows:

PIN	ASSIGNMENT
1	SPK_GND
2	SPK_OUT



2-22. INVERTER CONNECTOR

JINV1: Inverter Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	+12V
2	GND
3	GND
4	BRCTR
5	LVDS_BKLTEN
6	+12V



JINV1

JINV2: Inverter Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	+12V
2	GND
3	LVDS_BKLTEN
4	BRCTR



JINV2

2-23. BACKLIGHT TYPE SELECTION

JP3: Backlight Type Selection

The jumper settings are as follows:

SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION
CCFL (default)	2-3	<p>JP3</p>
LED	1-2	<p>JP3</p>

*** Manufacturing Default – CCFL

2-24. MSR/ CARD READER CONNECTOR

PS1 & PS2: MSR/ Card Reader Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	KB_CLK (Output)
2	KB_CLK_C (Input)
3	KB_DATA_C (Input)
4	KB_DATA (Output)
5	+5V
6	GND



PS1



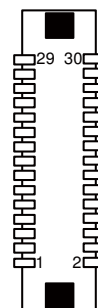
PS2

2-25. LVDS CONNECTOR

LVDS1: LVDS connector

The pin assignments are as follows:

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	LVDS_VCC	2	GND
3	NC	4	NC
5	GND	6	NC
7	NC	8	GND
9	NC	10	NC
11	NC	12	NC
13	NC	14	NC
15	GND	16	CLKO+
17	CLKO-	18	GND
19	RINO2+	20	RINO2-
21	GND	22	RINO1+
23	RINO1-	24	GND
25	RINO0+	26	RINO0-
27	RINO3+	28	RINO3-
29	LVDS_VCC	30	LVDS_VCC



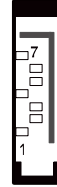
LVDS1

2-26. SATA & SATA POWER CONNECTOR

SATA1: Serial ATA Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	G1
2	TX+
3	TX-
4	G2
5	RX-
6	RX+
7	G3



SATA1

JPWR_4P1: Serial ATA Power Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	VCC
2	GND
3	GND
4	VCC12

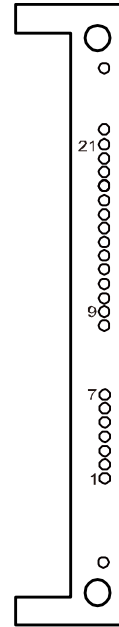


JPWR_4P1

SATA2: Serial ATA and Serial ATA Power Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	G1
2	TX+
3	TX-
4	G2
5	RX-
6	RX+
7	G3
8	N/A
9	N/A
10	N/A
11	GND
12	GND
13	GND
14	VCC5
15	VCC5
16	VCC5
17	GND
18	N/A
19	GND
20	VCC12
21	VCC12
22	VCC12



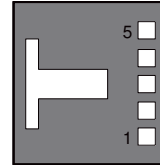
SATA2

2-27. TOUCH PANEL CONNECTOR

TOUCH1: Touch Panel Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	LR (Low Right)
2	LL (Low Left)
3	Probe
4	UR (Up Right)
5	UL (Up Left)

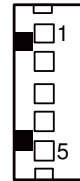


TOUCH1

TOUCH2: Touch Panel Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	LR (Low Right)
2	LL (Low Left)
3	Probe
4	UR (Up Right)
5	UL (Up Left)

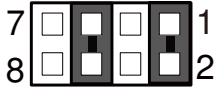



TOUCH2

2-28. TOUCH PANEL SELECTION

JP12: Touch Panel Selection

The jumper settings are as follows:



SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION
e-Turbo	1-2 5-6	 <p>JP12</p>
Elo (default)	3-4 7-8	 <p>JP12</p>

*** Manufacturing Default – Elo


2-29. CLEAR CMOS DATA SELECTION

JP1: Clear CMOS Data Selection

The jumper settings are as follows:

FUNCTION	JUMPER SETTING (pin closed)	JUMPER ILLUSTRATION
Clear CMOS	2-3	 JP1
Normal (default)	1-2	 JP1

*** Manufacturing Default – Normal

 To clear CMOS data, users must power-off the computer and set the jumper to “Clear CMOS” as illustrated above. After five to six seconds, set the jumper back to “Normal” and power-on the computer.

2-30. COMPACT FLASH CONNECTOR

CF1: Compact Flash Connector

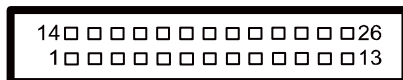
The pin assignments are as follows:

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	GND	26	GND
2	D03	27	D11
3	D04	28	D12
4	D05	29	D13
5	D06	30	D14
6	D07	31	D15
7	CSJ1	32	CSJ3
8	GND	33	GND
9	GND	34	SDIORDJ
10	GND	35	SDIOWRJ
11	GND	36	+5V
12	GND	37	IRQ14
13	+5V	38	+5V
14	GND	39	-CSEL
15	GND	40	NC
16	GND	41	RESETJ
17	GND	42	IORDJ
18	A02	43	REQ
19	A01	44	ACKJ
20	A00	45	CF_LEDJ
21	D00	46	-PDIAG
22	D01	47	D08
23	D02	48	D09
24	NC	49	D10
25	GND	50	GND

2-31. PRINTER CONNECTOR

LPT1: Printer Connector

The pin assignments are as follows:



LPT1

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	STBJ	14	ALFJ
2	PDR0	15	ERRJ
3	PDR1	16	PAR_INITJ
4	PDR2	17	SLCTINJ
5	PDR3	18	GND
6	PDR4	19	GND
7	PDR5	20	GND
8	PDR6	21	GND
9	PDR7	22	GND
10	ACKJ	23	GND
11	BUSY	24	GND
12	PE	25	GND
13	SLCTJ	26	NC

SOFTWARE UTILITIES

CHAPTER

3

This chapter provides the detailed information users need to install driver utilities for the system.

Sections included:

- Intel® Chipset Software Installation Utility
- VGA Driver Utility
- LAN Driver Utility
- Sound Driver Utility
- Fingerprinter Driver (Optional)
- RFID Module Driver (Optional)

3-1. INTRODUCTION

Enclosed with the POS-6920 Series package is our driver utilities, which comes in a CD ROM format. Refer to the following table for driver locations.

Filename (Assume that CD ROM drive is D:)	Purpose
D:\Driver\Plaform\XP,POSReady2009 (32-bit)\Main Chip or D:\Driver\Plaform\Win7,POSReady7(32-bit)\Main Chip	Intel® Chipset Software Installation Utility
D:\Driver\Plaform\XP,POSReady2009 (32-bit)\VGA or D:\Driver\Plaform\Win7,POSReady7(32-bit)\VGA	Intel® Graphics Media Accelerator 3150 for VGA driver installation
D:\Driver\Plaform\XP,POSReady2009 (32-bit)\LAN or D:\Driver\Plaform\Win7,POSReady7(32-bit)\LAN	Realtek® 8111DL for LAN Driver installation
D:\Driver\Plaform\XP,POSReady2009 (32-bit)\Sound or D:\Driver\Plaform\Win7,POSReady7(32-bit)\Sound	Realtek® ALC888 for Sound driver installation
D:\Driver\Device	Driver installation for touchscreen, embedded printer, wireless, MSR, etc.

🔔 Users must install the driver utilities right after the OS is fully installed.

3-2. INTEL® CHIPSET SOFTWARE INSTALLATION UTILITY

3-2-1. Introduction

The Intel® Chipset Software Installation Utility installs to the target system the Windows* INF files that outline to the operating system how the chipset components will be configured. This is needed for the proper functioning of the following features.

- SATA Storage Support (SATA & SATA II)
- USB Support (1.1 & 2.0)
- Identification of Intel® Chipset Components in Device Manager

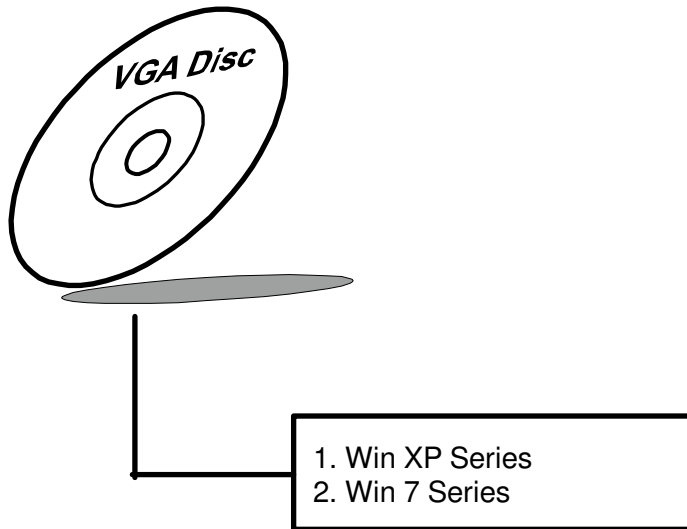
3-2-2. Installation of Intel® Chipset Driver

The utility pack is to be installed only for Windows XP/ 7 series, and it should be installed right after the OS installation. Please follow the steps below:

1. Connect the USB-CD ROM device to the POS-6920 and insert the driver disk inside.
2. Enter the “Main Chip” folder where the Chipset driver is located (depending on your OS platform).
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart the POS-6920 for the changes to take effect.

3-3. VGA DRIVER UTILITY

The VGA interface embedded with the POS-6920 series can support a wide range of display types. You can have dual displays via CRT and LVDS interfaces work simultaneously.



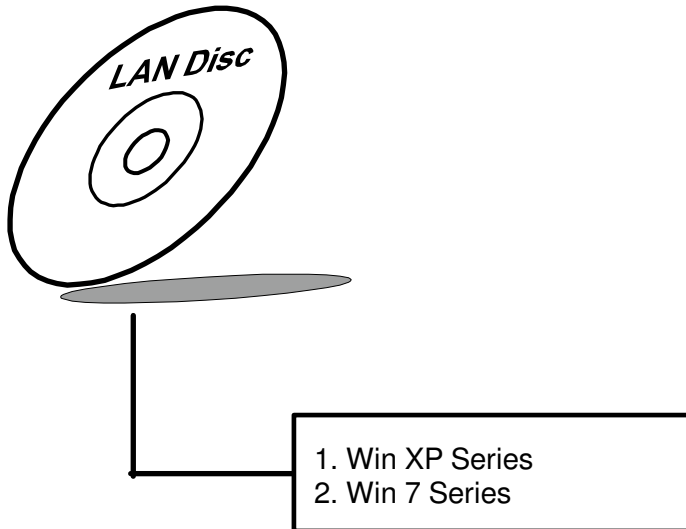
3-3-1. Installation of VGA Driver

To install the VGA Driver, follow the steps below:

1. Connect the USB-CD ROM device to the POS-6920 and insert the driver disk inside.
2. Enter the "VGA" folder where the VGA driver is located (depending on your OS platform).
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart the POS-6920 for the changes to take effect.

3-4. LAN DRIVER UTILITY

The POS-6920 Series is enhanced with LAN function that can support various network adapters. Installation platform for the LAN driver is listed as follows:



For more details on the Installation procedure, please refer to the Readme.txt file found on LAN Driver Utility.

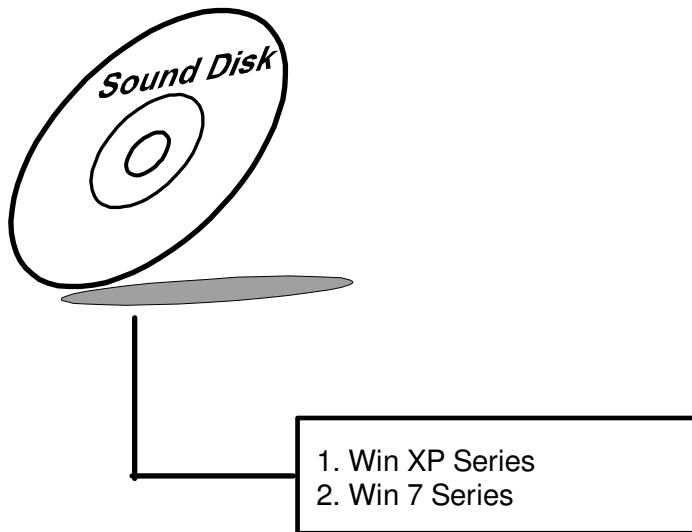
3-4-1. Installation of LAN Driver

To install the LAN Driver, follow the steps below:

1. Connect the USB-CD ROM device to the POS-6920 and insert the driver disk inside.
2. Enter the "LAN" folder where the LAN driver is located (depending on your OS platform).
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart the POS-6920 for the changes to take effect.

3-5. SOUND DRIVER UTILITY

The sound function enhanced in this system is fully compatible with Windows XP/ 7 series. Below, you will find the content of the Sound driver.



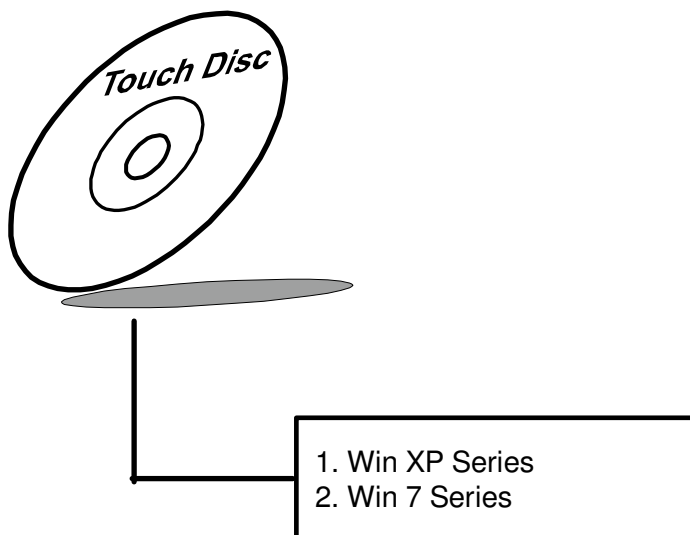
3-5-1. Installation of Sound Driver

To install the Sound Driver, follow the steps below:

1. Connect the USB-CD ROM device to the POS-6920 and insert the driver disk inside.
2. Enter the "Sound" folder where the Sound driver is located (depending on your OS platform).
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart the POS-6920 for the changes to take effect.

3-6. TOUCHSCREEN DRIVER UTILITY

The touchscreen driver utility can only be installed on a Windows platform (XP/ 7 series), and it should be installed right after the OS installation.



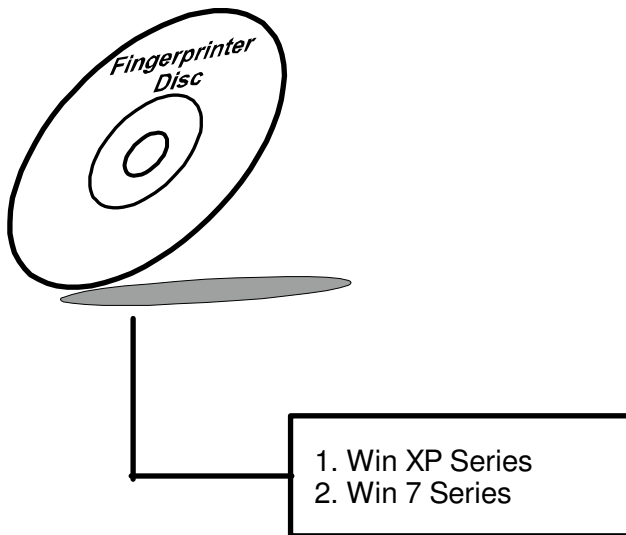
3-6-1. Installation of Touchscreen Driver

To install the Touchscreen Driver, follow the steps below:

1. Connect the USB-CD ROM device to the POS-6920 and insert the driver disk inside.
2. Enter the "Device/Touchscreen" folder where the Touchscreen driver is located.
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart the POS-6920 for the changes to take effect.

3-7. FINGERPRINTER DRIVER UTILITY (OPTIONAL)

The fingerprinter driver utility can only be installed on a Windows platform (XP/ 7 series), and it should be installed right after the OS installation.



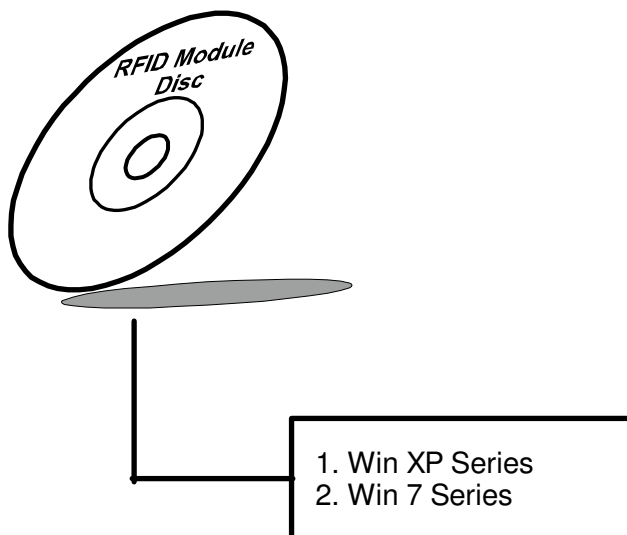
3-7-1. Installation of Fingerprinter Driver

To install the Fingerprinter Driver, follow the steps below:

1. Connect the USB-CD ROM device to the POS-6920 and insert the driver disk inside.
2. Enter the "Device/Embedded Fingerprint" folder where the Fingerprinter driver is located.
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart the POS-6920 for the changes to take effect.

3-8. RFID MODULE DRIVER UTILITY (OPTIONAL)

The RFID Module driver utility can only be installed on a Windows platform (XP/ 7 series), and it should be installed right after the OS installation.



3-7-1. Installation of RFID Module Driver

To install the RFID Module Driver, follow the steps below:

1. Connect the USB-CD ROM device to the POS-6920 and insert the driver disk inside.
2. Enter the "Device/Embedded RFID Module" folder where the RFID Module driver is located.
3. Click **Autorun.exe** file for driver installation.
4. Select **Mifare Demo Software V1.5R8**.
5. Follow the on-screen instructions to complete the installation.
6. Once installation is completed, shut down the system and restart the POS-6920 for the changes to take effect.

AMI BIOS SETUP

CHAPTER

4

This chapter shows how to configure the AMI BIOS settings.

Sections included:

- Introduction
- Entering Setup
- Main
- Advanced
- Boot
- Security
- Chipset
- Exit

4-1. INTRODUCTION

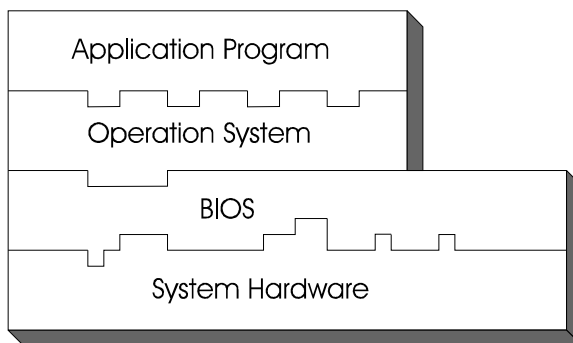
This chapter will illustrate functions of the BIOS (Basic Input/Output System) in managing the features of your system. The **6920LF** motherboard is equipped with the BIOS from AMI (American Megatrends Inc). Following pages describe how to use the BIOS in order to configure system hardware by BIOS setup menu.

When the PC starts up, its first job for the BIOS is to initialize and identify all system devices such as the video display card, keyboard and mouse, hard disk, CD/DVD drive and other hardware. The BIOS then locates operating system(s) saved on storage device (designated as a 'boot device'), be it a hard disk, USB flash disk or a CD/DVD, and loads and executes that operating system, giving it control over the PC.

BIOS code is stored on a non-volatile, ROM chip built into the system, on the mother board and the BIOS software is specifically designed to work with the particular type of system in question. That includes having understanding of principles for each devices included in the PC.

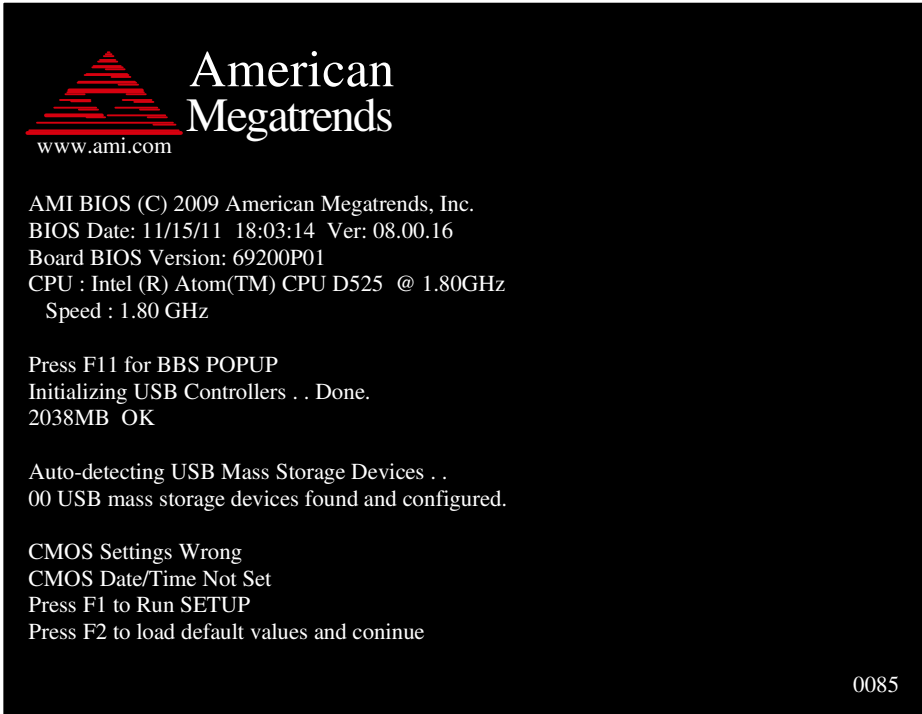
BIOS also provides an user interface—in this document referent to as setup menu—in a form of a menu system accessed by pressing a certain key on the keyboard when the PC starts. In the BIOS setup menu, a user can configure hardware, set the system clock, enable or disable system components, and most importantly, select which devices are eligible to be a potential boot device. It is also possible to set various password prompts, for instance a password for securing access to the BIOS setup menu functions itself and preventing unauthorized users from booting undesirable operating systems from peripheral devices.

Following diagram illustrates the relationships between system hardware, BIOS, operating system, and application program:



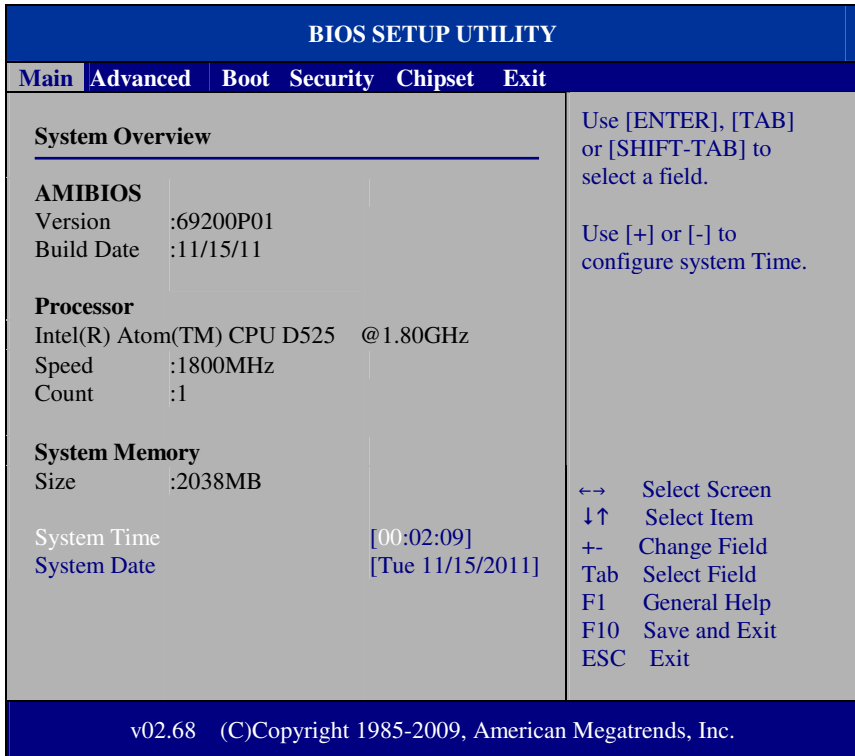
4-2 ENTERING SETUP

When system powered on, BIOS will enter the Power-On Self Test (POST) routines and displays below message on the screen:



POST Screen

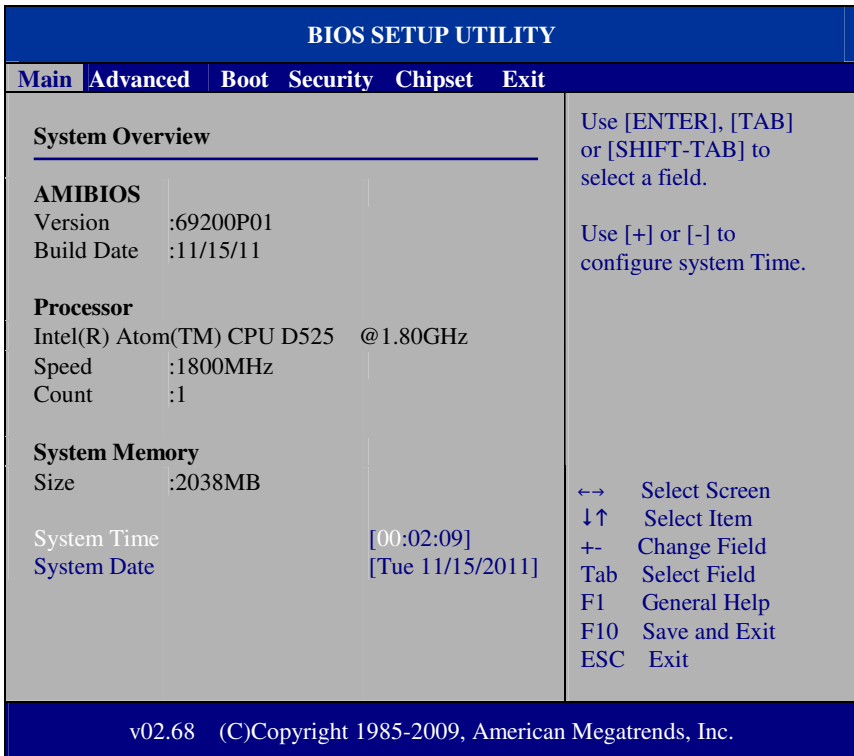
As long as this logo is present on the screen you may press the key (the one that shares the decimal point at the bottom of the number keypad) to enter the BIOS setup program. In a moment, the main menu of the AMI SETUP program will be shown on the screen:



Setup program initial screen

You may move the cursor by up/down keys to highlight the individual menu items. As you highlight each item, a brief description of the highlighted selection will appear at the right side of the screen.

4-3. Main

**Main Screen**

use <↑> or <↓> arrow keys to highlight the item and key in the value you want in each item. This menu provides basic system configurations, such as time and date.

AMI BIOS, Processor, System Memory

This items show the BIOS version, BIOS build up date, processor and system memory information of your system.

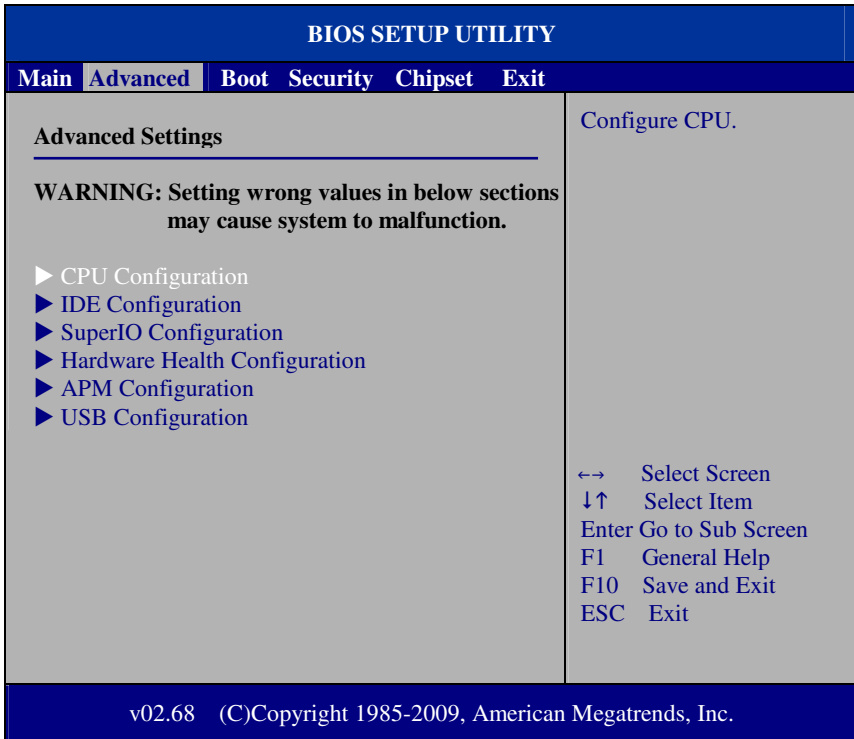
System Time

This setting allows you to set the system time. The format is [Hour: Minute: Second]. User can directly key-in value or use <+> or <-> arrow keys to increase/decrease it.

System Date

This setting allows you to set the system date. The format is [Day: Month: Date: Year]. User can directly key-in value or use <+> or <-> arrow keys to increase/decrease it.

4-4. Advanced



Advanced Screen

This menu provides advanced configurations such as CPU Configuration, IDE Configuration, Super I/O Configuration, etc.

4-4.1. CPU Configuration

BIOS SETUP UTILITY	
Advanced	
Configure advanced CPU settings Module Version: 3F.1C	
Manufacturer :Intel Intel(R) Atom(TM) CPU D525 @ 1.80GHz Frequency :1.80GHz FSB Speed :800MHz Cache L1 :48 KB Cache L2 :1024 KB Ratio Actual Value :9	Enabled for Windows XP and Linux4 (OS optimized for Hyper Threading Technology) and disabled for other OS (OS not optimized for Hyper-Threading Technology)
Hyper Threading Technology [Enabled]	↔ Select Screen ↓↑ Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit
v02.68 (C)Copyright 1985-2009, American Megatrends, Inc.	

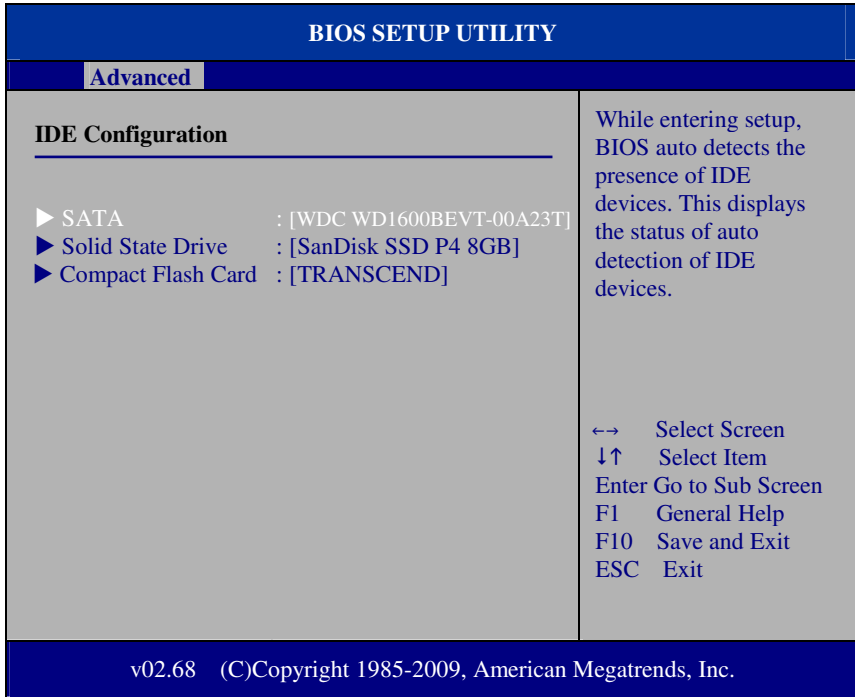
CPU Configuration Screen

This menu provides advanced CPU settings and some information about CPU.

Hyper Threading Technology

Hyper Threading is Intel's term for its simultaneous multithreading implementation in their CPUs. Enable this function will improve parallelization of computation performed on PC microprocessor. For each processor core that is physically present, the operation system addresses two virtual processors, and shares the workload between them when possible.

4-4.2. IDE Configuration



IDE Configuration Screen

This menu provides advanced IDE configuration for hard drive. The control items of SATA / Solid State Drive (SSD)/Compact Flash (CF) Card are all the same and describe in next section.

SATA / Solid State Drive (SSD)/Compact Flash (CF) Card

This setting displays the status of storages.

4-4.2.1 SATA / Solid State Drive (SSD)/Compact Flash (CF) Card

BIOS SETUP UTILITY	
Advanced	
SATA 1	
Device	:Hard Disk
Vendor	:FUJITSU MHY2040BH ESW
Size	:40.0GB
LBA Mode	:Supported
Block Mode	:16Sectors
PIO Mode	:4
Async DMA	:MultiWord DMA-2
Ultra DMA	:Ultra DMA-5
S.M.A.R.T.	:Supported
Type	[Auto]
LBA/Large Mode	[Auto]
Block (Multi-Sector Transfer)	[Auto]
PIO Mode	[Auto]
DMA Mode	[Auto]
S.M.A.R.T.	[Auto]
32Bit Data Transfer	[Enabled]
Select the type of device connected to the system.	
↔	Select Screen
↓↑	Select Item
+ -	Change Option
F1	General Help
F10	Save and Exit
ESC	Exit
v02.68 (C)Copyright 1985-2009, American Megatrends, Inc.	

SATA Screen

Type

Select the type of device connected to the system.

LBA/Large Mode

Enabling LBA causes Logical Block Addressing to be used in place of Cylinders, Heads and Sectors.

Block (Multi-Sector Transfer)

Any selection except Disabled determines the number of sectors transferred per block.

PIO Mode

Configure the type of PIO (Programmed Input/Output) mode 0-4 for IDE device. Mode 0 through 4 provides successively increased performance.

DMA Mode

Select the type of Ultra DMA mode on a hard drive.

S.M.A.R.T

This allows you to activate the S.M.A.R.T. (Self-Monitoring Analysis & Reporting Technology) capability for the hard disks. S.M.A.R.T is a utility that monitors your disk status to predict hard disk failure. This gives you an opportunity to move data from a hard disk that is going to fail to a safe place before the hard disk becomes offline.

32Bit Data Transfer

Enables/Disable 32-bit data transfer.

4-4.3. Super I/O Configuration

BIOS SETUP UTILITY	
Advanced	
Configure Win627UHG Super IO Chipset	
Watchdog Function	[Disabled]
Serial Port1 Address	[3F8]
Serial Port1 IRQ	[IRQ4]
Serial Port2 Address	[2F8]
Serial Port2 IRQ	[IRQ3]
Serial Port3 Address	[3E8]
Serial Port3 IRQ	[IRQ11]
Serial Port4 Address	[2E8]
Serial Port4 IRQ	[IRQ10]
Parallel Port Address	[378]
Parallel Port Mode	[Normal]
Parallel Port IRQ	[IRQ7]
Allows BIOS to set WDTO function.	
↔ Select Screen ↓↑ Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit	
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Super I/O Configuration Screen

WatchDog function

If system hang or not respond for user, enable watchdog function can triggers a system reset by an user given value count down to zero.

Serial Port1~4 Address

Select IO address as serial ports default resource.

Serial Port1~4 IRQ

Select IO IRQ as serial ports default resource.

Parallel Port Address

Select IO address for parallel ports resource allocation.

Parallel Port Mode

Select the operation mode for parallel port.

Parallel Port IRQ

Select IRQ for parallel ports resource allocation.

4-4.4. Hardware Health Configuration

BIOS SETUP UTILITY	
Advanced	
Hardware Health Configuration	
System Temperature	: 43°C / 109°F
CPU Temperature	: 51°C / 123°F
Vcore	: 1.104 V
12V	: 11.776 V
5V	: 5.024 V
1.05V	: 1.080 V
VSB	: 5.049 V
	↔ Select Screen ↓↑ Select Item F1 General Help F10 Save and Exit ESC Exit
v02.68 (C)Copyright 1985-2009, American Megatrends, Inc.	

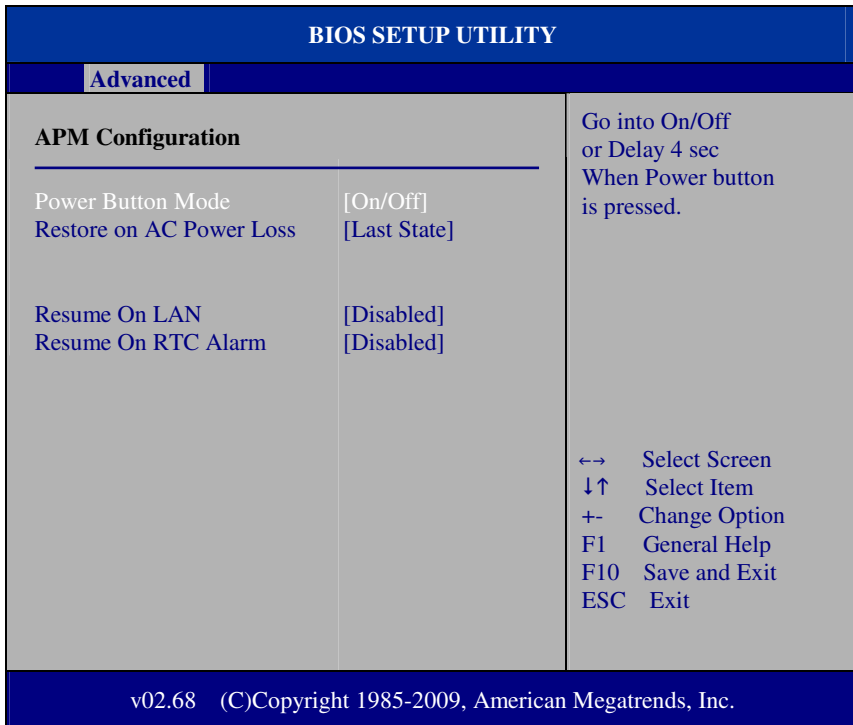
Hardware Health Configuration Screen**System Temperature / CPU Temperature**

Both sections show System and CPU current temperature.

VCORE / 12V / 5V / 1.05V / VSB

These items provide hardware health information.

4-4.5. APM Configuration



APM Configuration Screen

Power Management/APM

This is the main control item for enable/disable below APM functions.

Power Button Mode

This setting controls shutdown action by pressing power button. The system will be shutdown immediately after pressing power button when set to “On/Off”. If set the power button mode to “Delay 4 seconds”, system will be shutdown after pressing and hold the power button over 4 seconds.

Restore on AC/Power Loss

Once a power failure situation happens, this item decides the system power state after AC power restore back.

Resume On LAN

When user set this option to [Enable], System can be wake up from sleep state and boot into OS once received an incoming message from LAN device.

Resume On RTC Alarm

When user set this option to [Enable], it allows system to be wake up at specific date/time.

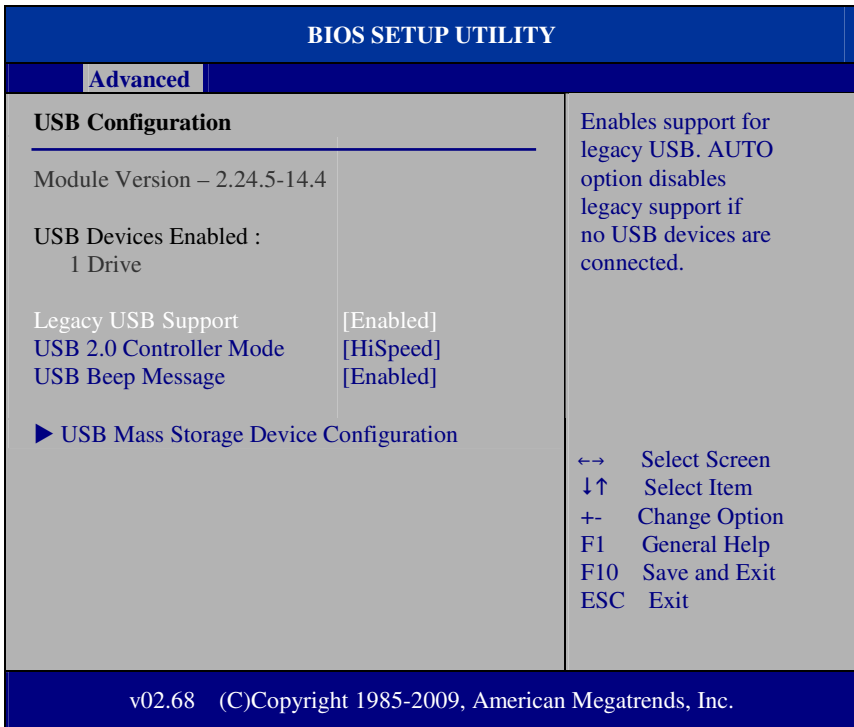
RTC Alarm Date (Days)

Set a specific date value for RTC alarm function to wakeup system from soft off state.

System Time

Set a specific time value for RTC alarm function to wakeup system from soft off state.

4-4.6 USB Configuration



USB Configuration Screen

Legacy USB Support

Set to [Enabled] if you want to use USB device in the legacy operating system, such as MS-DOS or SCO Unix.

USB 2.0 Controller Mode

Configure the onboard USB 2.0 controller operation mode to high Speed or full speed mode.

USB Beep Message

System will generate beep sound during USB device enumeration.

4-4.6.1 USB Mass Storage Device Configuration

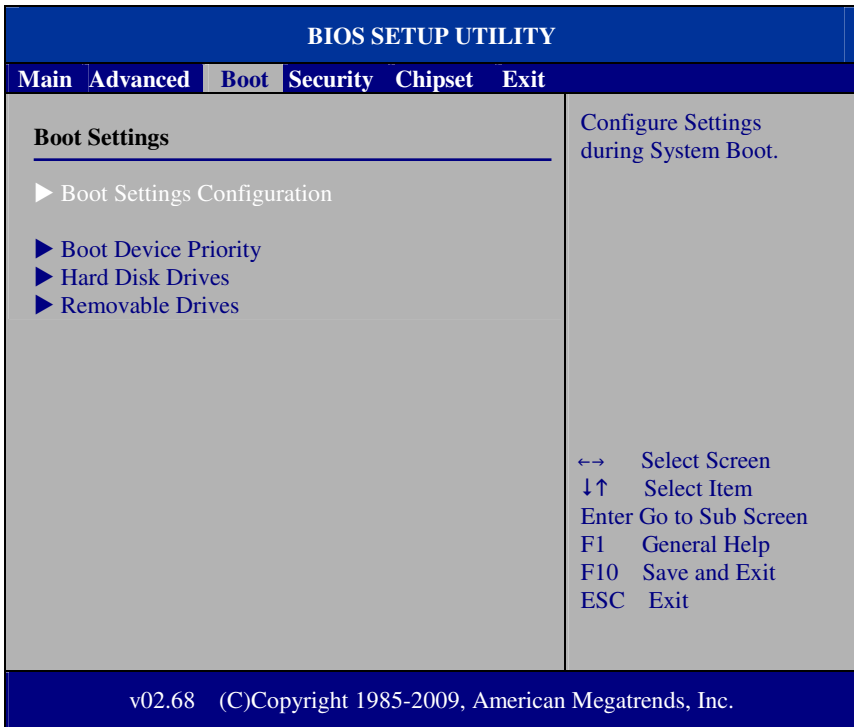
BIOS SETUP UTILITY	
Advanced	
USB Mass Storage Device Configuration	
Device #1 Emulation Type	USB2.0 USB Flash Disk [Auto]
<p>If Auto, USB devices less than 530MB will be emulated as Floppy and remaining as hard drive. Forced FDD option can be used to force a HDD formatted drive to boot as FDD (Ex. ZIP drive).</p> <p>↔ Select Screen ↓↑ Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit</p>	
v02.68 (C)Copyright 1985-2009, American Megatrends, Inc.	

USB Mass Storage Device Configuration Screen

Emulation Type

Select which type of device that USB mass storage emulation. When user select to [Auto], the USB storage size less than 530MB will be emulated as floppy drive and remaining as hard drive.

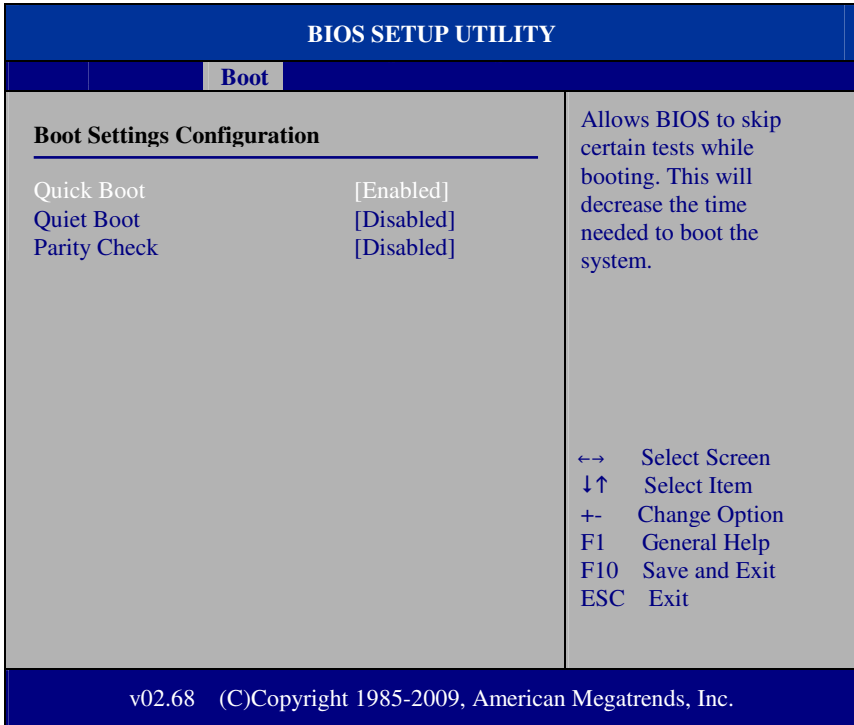
4-5. Boot



Boot Screen

This menu provides control items for system boot configuration.

4-5.1 Boot Settings Configuration

**Boot Settings Configuration Screen****Quick Boot**

Enable this item allows BIOS POST to skip some tests during boot-up for saving boot time.

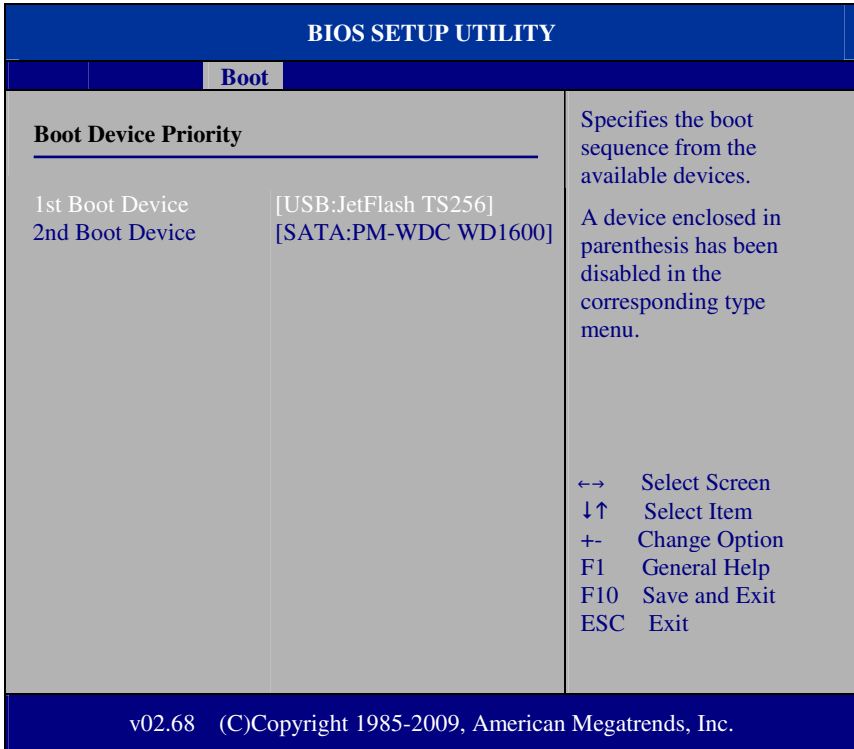
Quiet Boot

When set this option to [disabled], BIOS will display normal POST messages.

Parity Check

This setting enables or disables memory or parity error check.

4-5.2 Boot Device Priority

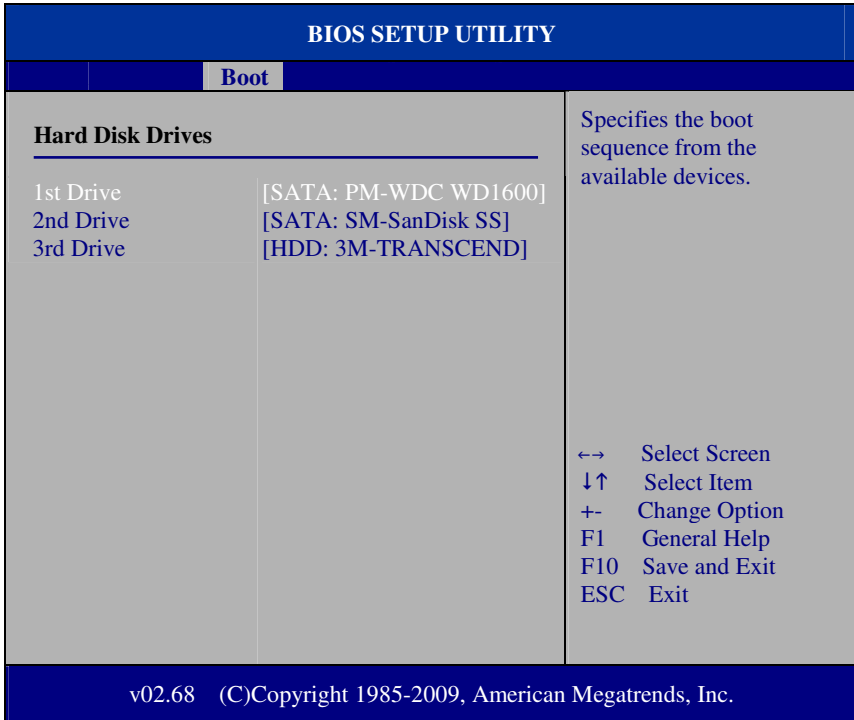


Boot Device Priority Screen

1st / 2nd / 3rd ...Boot Device

Choose the boot sequence from the available devices.

4-5.3 Hard Disk Drives

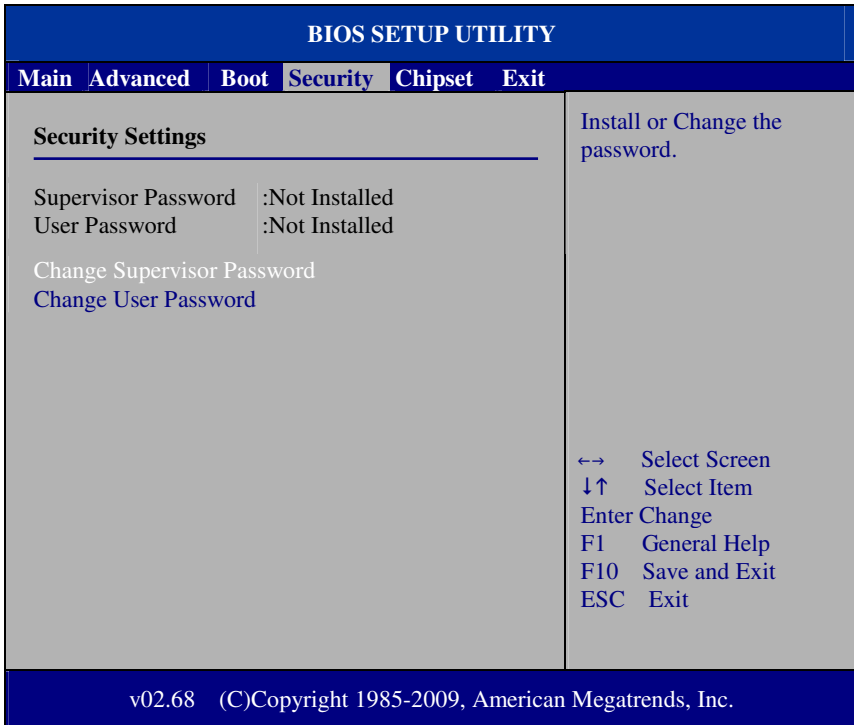


Hard Disk Drives Screen

1st / 2nd ...Drive

This setting allows user to set the priority of hard drive or another bootable USB storages. Press <Enter> to enter the sub-menu and press <↑> or <↓> arrow keys to select the device. Another way is to press <+> or <-> to move it up/down in the priority list.

4-6. Security



Security Settings Screen

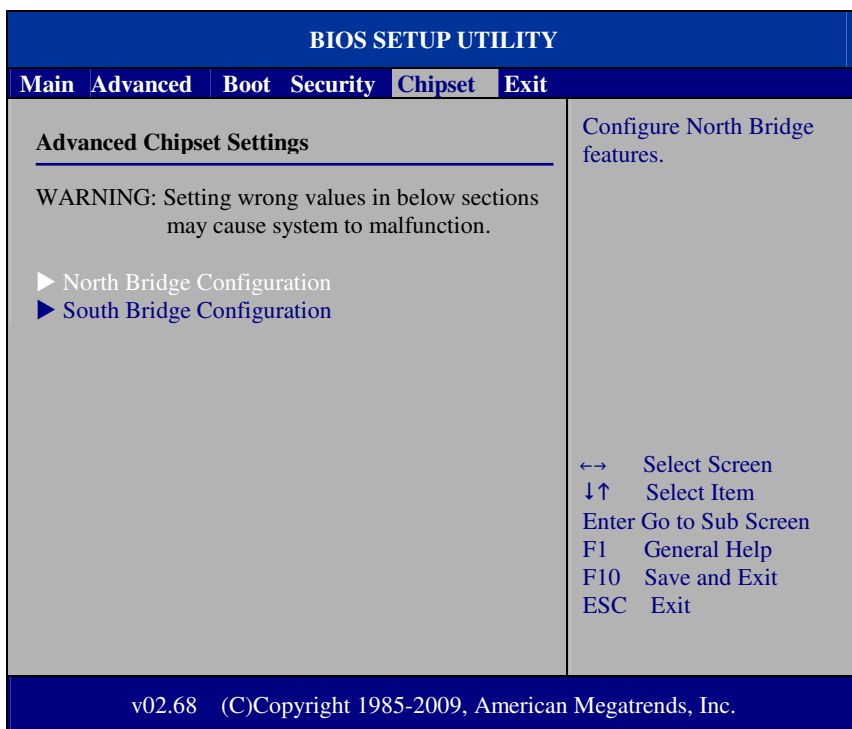
Change Supervisor Password

Supervisor Password controls the access right to the BIOS Setup utility. These settings allow user to set or change the supervisor password.

Change User Password

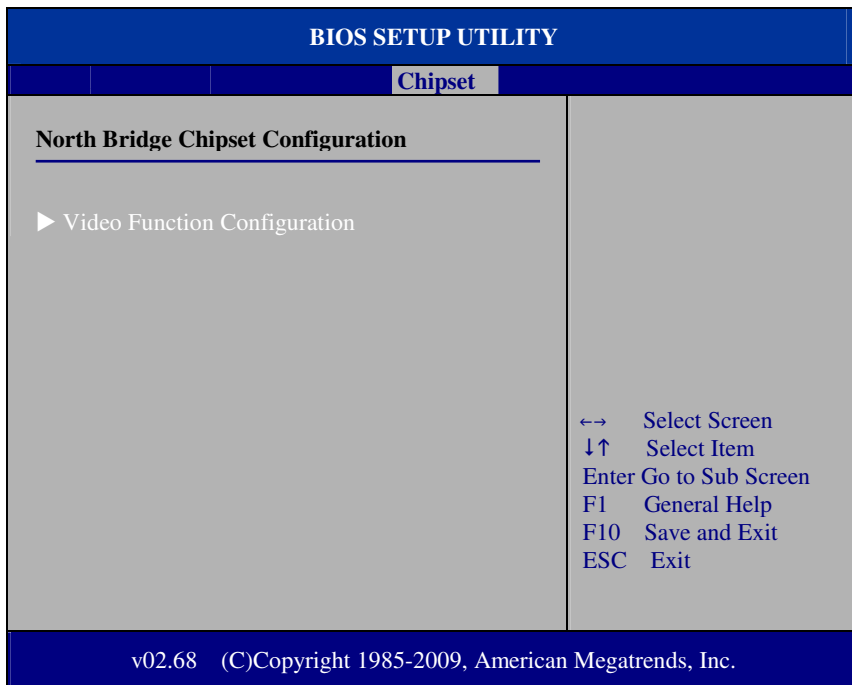
User Password controls system access right when power on. These settings allow user to set or change the user password.

4.7 Chipset



Advanced Chipset Settings Screen

4-7.1 North Bridge Chipset Configuration



North Bridge Chipset Configuration

4-7.1.1 Video Function Configuration

BIOS SETUP UTILITY		
	Chipset	
Video Function Configuration		Options
DVMT Mode Select	[DVMT Mode]	Fixed Mode
DVMT/FIXED Memory	[256MB]	DVMT Mode
Boot Display Device	[CRT+LVDS]	
Flat Panel Type	[1024x768]	
		↔ Select Screen ↓↑ Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit
v02.68 (C)Copyright 1985-2009, American Megatrends, Inc.		

Video Function Configuration Screen

DVMT Mode Select / DVMT/ FIXED Memory

Intel's Dynamic Video Memory Technology (DVMT) allows the system to dynamically allocated memory resources according to the demands of the system at any point in time. The key idea in DVMT is to improve the efficiency of the memory allocated to either system or graphics processor. It is recommended that user select this option to DVMT Mode that system memory is dynamically allocated for optimal balance between graphics and system performance.

Boot Display Device

Choose the default boot display device by user requirement such as [CRT], [LVDS] and [CRT+LVDS].

Flat Panel Type

Select the resolution for the connected LVDS panel such as [800x600] and [1024x768].

4-7.2 South Bridge Chipset Configuration

BIOS SETUP UTILITY		
	Chipset	
South Bridge Chipset Configuration		Options
USB 2.0 Controller	[Enabled]	Enabled
HDA Controller	[Enabled]	Disabled
		↔ Select Screen ↓↑ Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit
v02.68 (C)Copyright 1985-2009, American Megatrends, Inc.		

South Bridge Chipset Configuration Screen

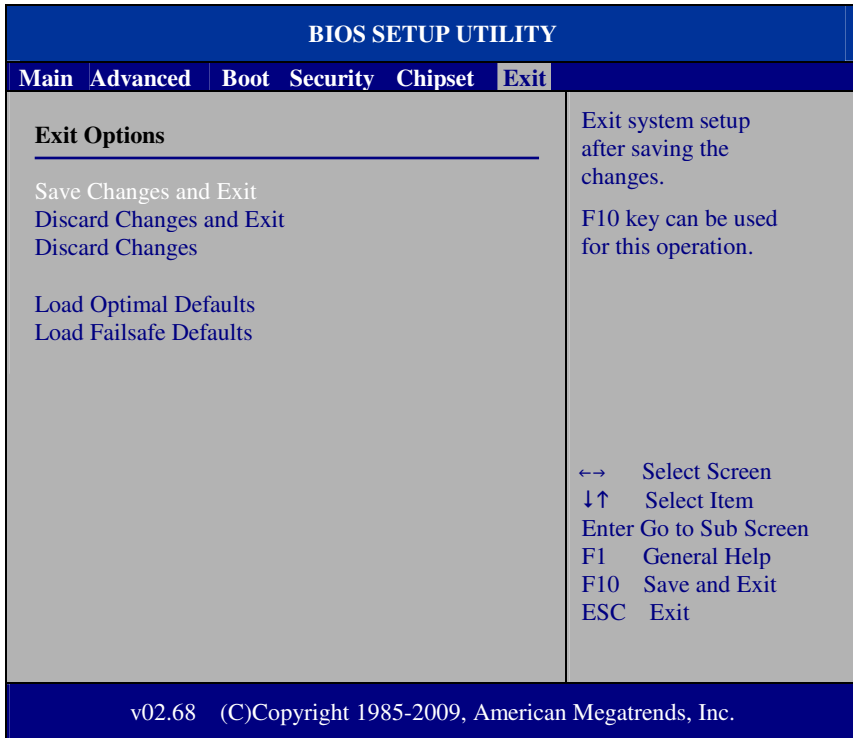
USB 2.0 Controller

Enable the USB 2.0 Controller.

HDA Controller

Enable or disable the onboard High-definition Audio controller.

4.8 Exit



Exit Screen

Save Changes and Exit

Save changes to CMOS and then exit the BIOS setup screen. User can also press the [F10] key for this operation.

Discard Changes and Exit

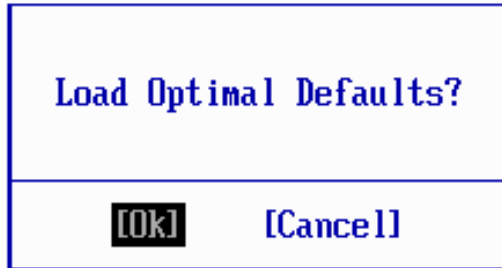
Abandon all changes and exit the BIOS setup screen. User can also press the [ESC] key for this operation.

Discard Changes

Discard all changes done so far to the setup items. User can press the [F7] key for this operation.

Load Optimal Defaults

Press <Enter> on this item, it will show a confirmation dialog box with a message like below:



Pressing "Ok" to loads the factory recommended optimal setting for system operations. User can also press the [F9] key for this operation.

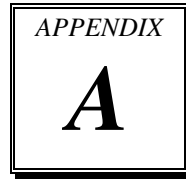
Load Failsafe Defaults

Press <Enter> on this item, it will show a confirmation dialog box with a message like below:



To use the BIOS failsafe default values, change the prompt to "Ok" and press the <Enter > key. User can also press the [F8] key for this operation.

SYSTEM ASSEMBLY



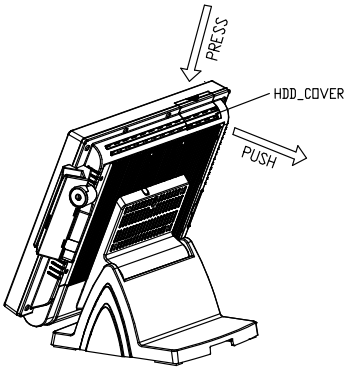
This appendix contains exploded diagrams and part numbers of the POS-6920 system.

Sections included:

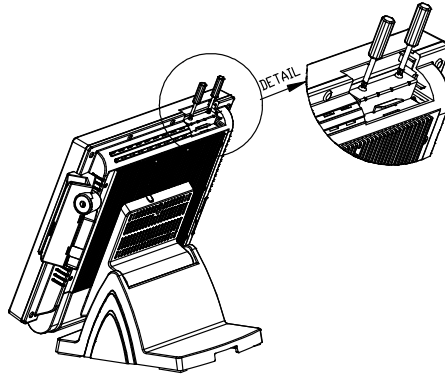
- Exploded Diagram for POS-6920 HDD Module Maintenance
- Exploded Diagram for POS-6920 M/B Case Module Assembly
- Exploded Diagram for POS-6920 HDD Module Assembly
- Exploded Diagram for POS-6920 SSD Module Assembly
- Exploded Diagram for POS-6920 Plastic Module Assembly
- Exploded Diagram for POS-6920 Heat Sink Module Assembly
- Exploded Diagram for POS-6920 Rotate Module Assembly
- Exploded Diagram for POS-6920 Stand Module Assembly
- Exploded Diagram for POS-6920 PPC & Stand Module Assembly
- Exploded Diagram for POS-6920 MSR Module Assembly
- Exploded Diagram for POS-6920 VFD Module Assembly
- Exploded Diagram for POS-6920 2ND Display Module Assembly

EXPLODED DIAGRAM FOR POS-6920 HDD MODULE MAINTENANCE

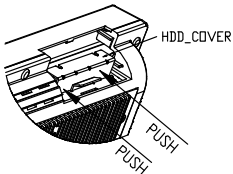
STEP1: REMOVE HDD_COVER



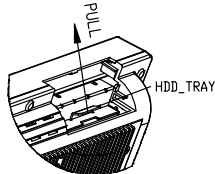
STEP2: RELEASE 2 SCREW



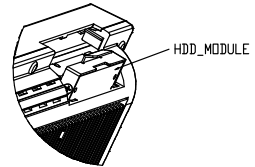
STEP3: FOLLOW ARROW TO PUSH HDD CHASSIS



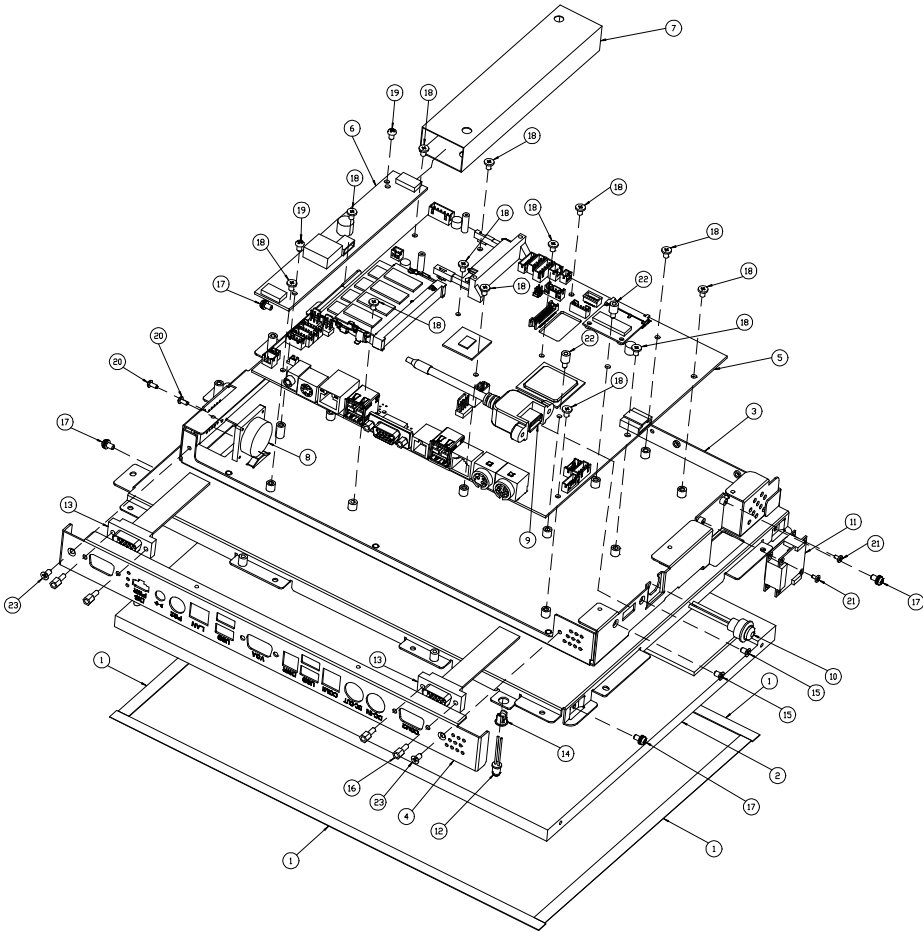
STEP4: FOLLOW ARROW TO PULL HDD TRAY



STEP5: RELEASE HDD MODULE

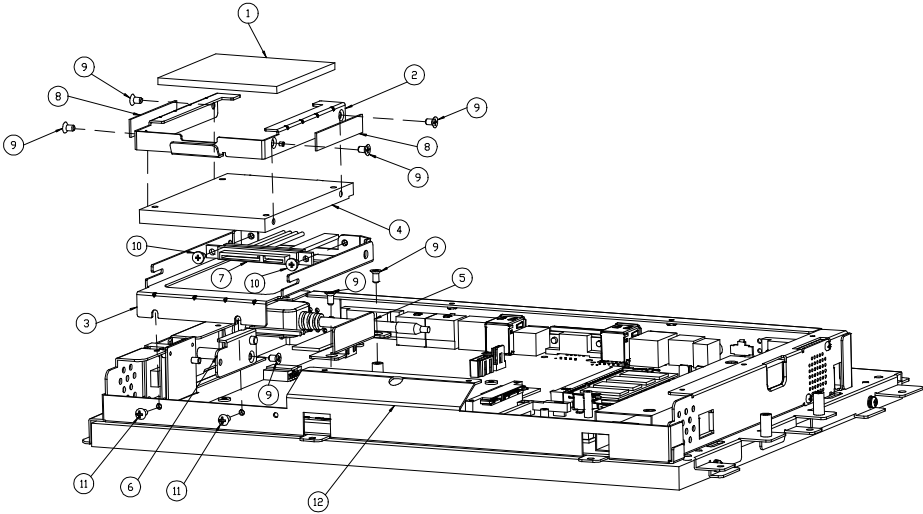


EXPLODED DIAGRAM FOR POS-6920 M/B CASE MODULE ASSEMBLY



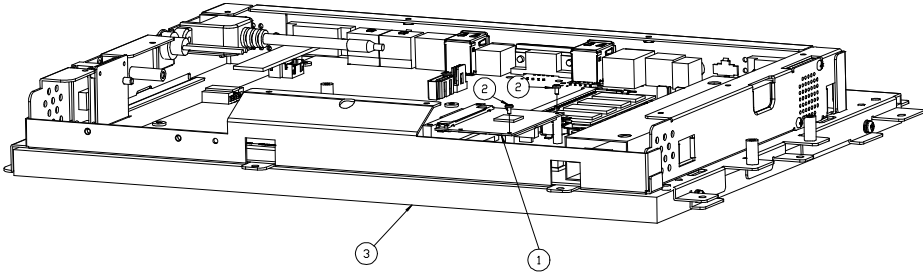
Pos	Qty	Part Name	Part No.
①	4	LCD_SPONGE(341.9x8x0.5 mm)	30-013-24100000
②	1	15" LCD_PANEL_AUO	52-351-03150302
③	1	INSIDE_CASE_ASSY	80-001-03001226
④	1	ID_PORT_PLATE	80-005-03003226
⑤	1	POS-6920 MB	PB-6151RA-A1N
⑥	1	LCD INVERTER BOARD	52-101-15020503
⑦	1	INVERTER MYLAR(154x31x19.6mm)	90-056-02100181
⑧	1	SPEAKER CABLE, L=60mm	13-500-08280018
⑨	1	USB_CABLE, L=70mm	27-006-18802111
⑩	1	POWER_SWITCH_CABLE	27-019-01202071
⑪	1	RFID_MODULE	52-151-08321015
⑫	1	LED CABLE, L=500mm	27-018-22610071
⑬	2	COM_PORT_CABLE	27-024-16502031
⑭	1	LED HOUSING(Black)	30-014-04100009
⑮	2	F_SCREW,UNC-No.4-40,L=8mm	22-315-40008019
⑯	4	HEX_CU_BOSS	22-692-40048051
⑰	4	R_S SCREW,M3.0x0.5Px6mm	22-232-30060211
⑱	13	I_Screw,M3x0.5Px4mm	82-272-30004018
⑲	2	R_Screw,M3.0x0.5Px5mm	22-230-30005811
⑳	2	P_Screw,T2.0x5mm	22-122-20005011
㉑	2	I_Screw,M2x0.4Px3.5mm	22-272-20003011
㉒	2	HEX_CU_BOSS	22-290-30006051
㉓	2	F_SCREW,M3x0.5Px5mm	22-215-30005011

EXPLODED DIAGRAM FOR POS-6920 HDD MODULE ASSEMBLY



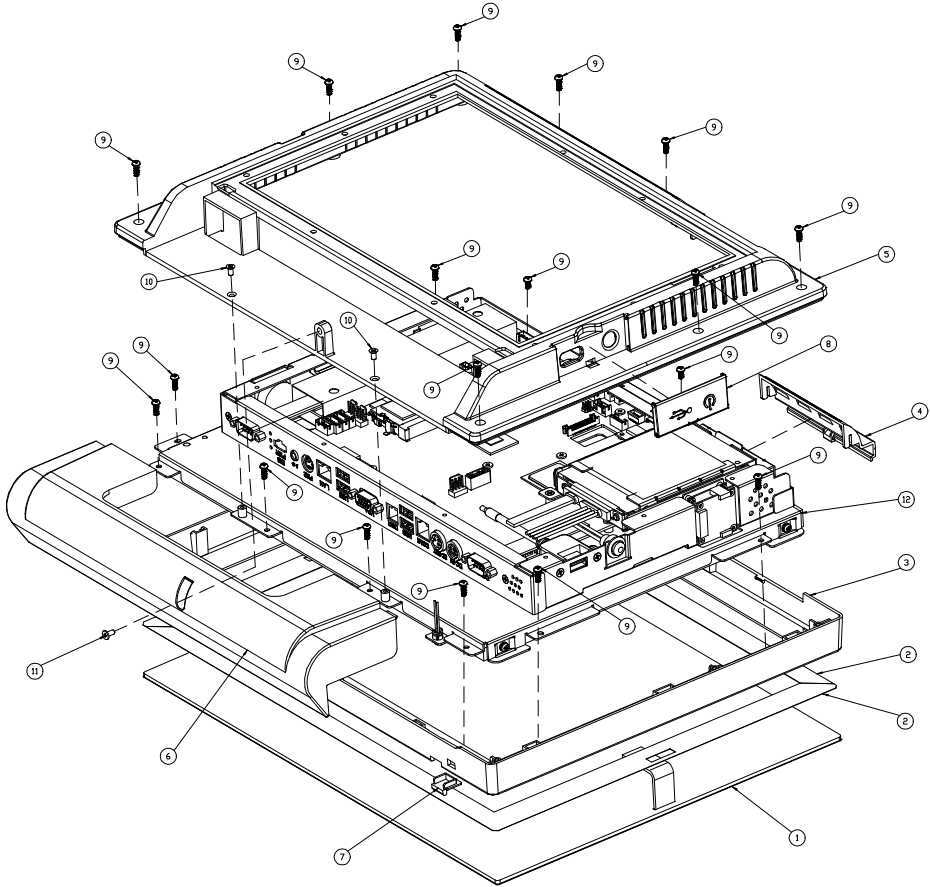
Pos	Qty	Part Name	Part No.
①	1	THERMAL_PAD(66x66x3.5mm)	81-006-86666001
②	1	HDD_TRAY	80-054-03001226
③	1	HDD_CHASSIC	80-015-03001226
④	1	320GB 2.5" SATA II HDD	52-451-20110105
⑤	1	HDD_SHAFT_PLATE_L	80-005-03002226
⑥	1	HDD_SHAFT_PLATE_R	80-005-03001226
⑦	1	SATA_HDD/POWER_CABLE	27-008-22603081
⑧	2	HDD_BOX_EVA(68x9x1mm)	90-013-15100167
⑨	7	F_SCREW,M3.0X0.5PX5mm	22-215-30005011
⑩	2	I_SCREW,M3.0X0.5PX6mm	82-275-30006018
⑪	2	R_W_SCREW,M3.0X0.5PX5mm	22-242-30005311
⑫	1	PA-6151RA_MB_MODULE_ASSY	-----

EXPLODED DIAGRAM FOR POS-6920 SSD MODULE ASSEMBLY



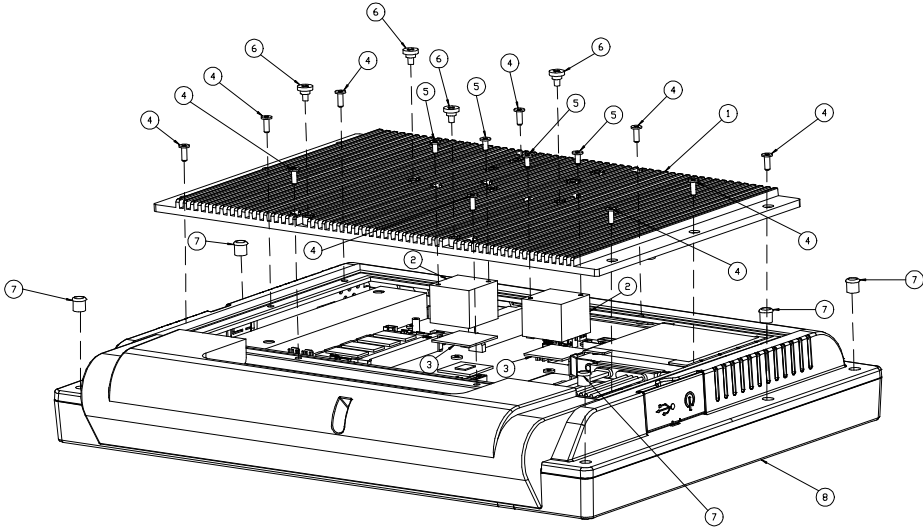
Pos	Qty	Part Name	Part No.
①	1	Half-Slim_SSD_module	-----
②	2	P_SCREW_M1.6_L3mm	22-222-16003015
③	1	POS-6920_MB_Case_module	-----

EXPLODED DIAGRAM FOR POS-6920 PLASTIC MODULE ASSEMBLY



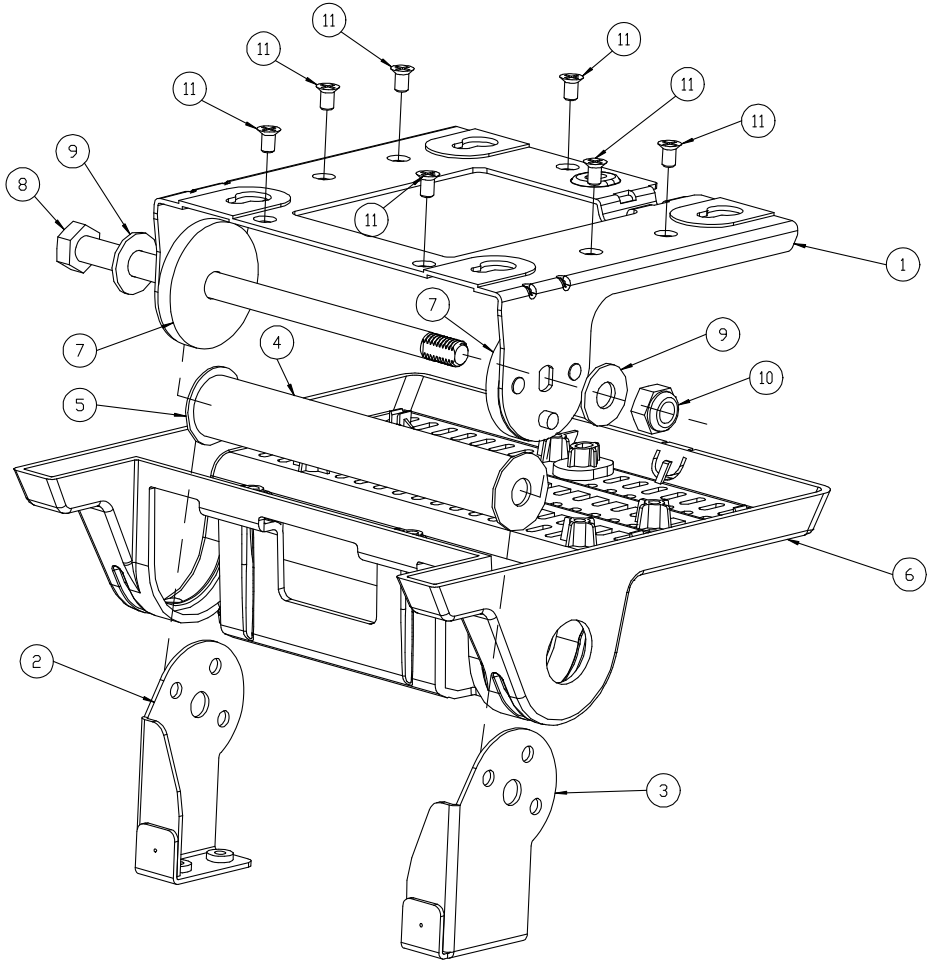
Pos	Qty	Part Name	Part No.
①	1	15" Resistive Touch Panel	52-351-03150302
②	2	DOUDLE_COATED_TAPE	94-026-04901000
③	1	PA-6151RA_FRONT_COVER	30-002-28110226
④	1	PA-6151RA_HDD_COVER	30-002-28410226
⑤	1	PA-6151RA_BACK_COVER	30-002-28210226
⑥	1	PA-6151RA_CABLE_COVER	30-002-28310226
⑦	1	PA-6151RA_LED_LENS	30-021-02130226
⑧	1	PA-6151RA_USB_COVER	30-002-28510226
⑨	19	P_SCREW,T3.0X8mm	22-122-30080011
⑩	2	F_SCREW,M3.0X0.5PX5mm	22-215-30005111
⑪	1	I_SCREW,M3.0X0.5PX6mm	82-275-30006018
⑫	1	MAIN_MODULE_ASSY	-----

EXPLODED DIAGRAM FOR POS-6920 HEAT SINK MODULE ASSEMBLY



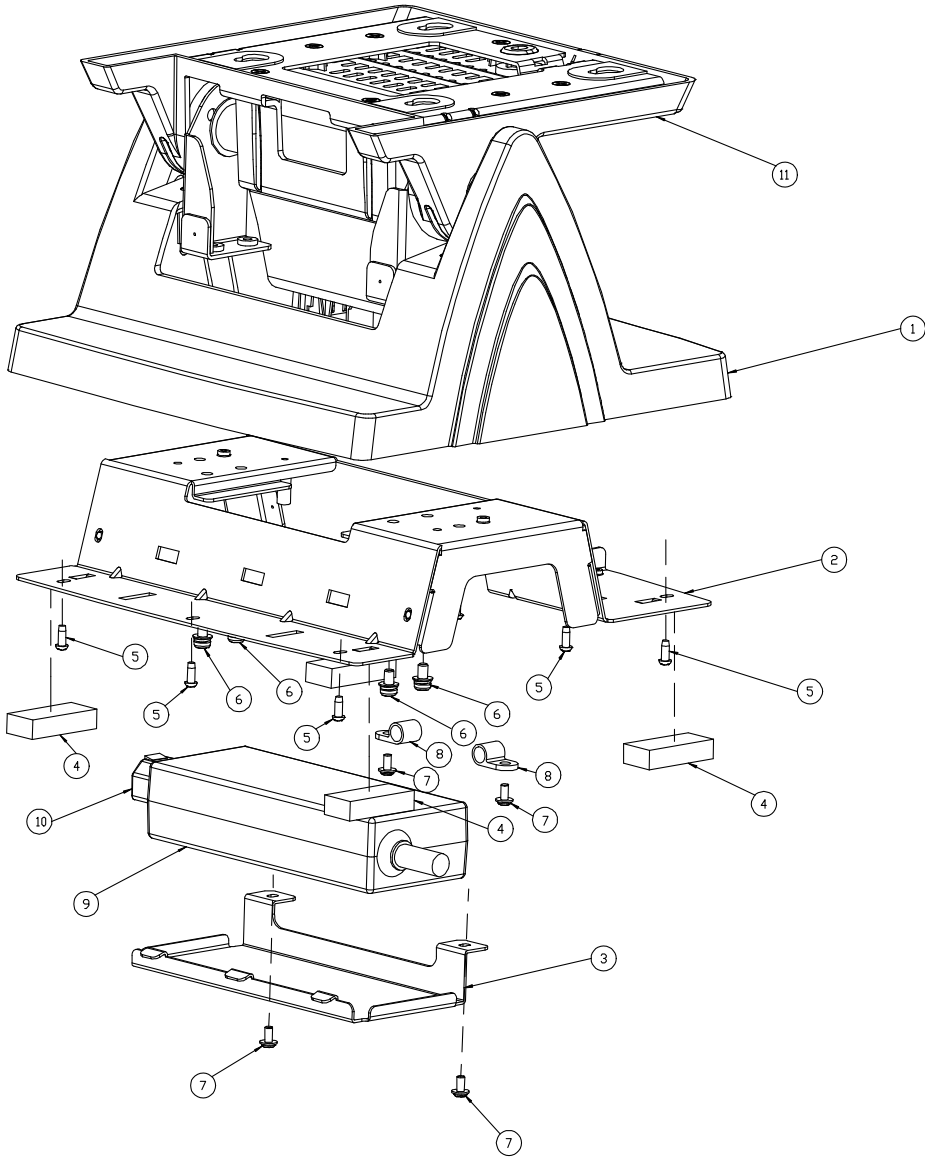
Pos	Qty	Part Name	Part No.
①	1	HEATSINK_MAIN	81-002-10471001
②	1	HEAT_SINK_BLOCK	21-002-12727006
③	2	THERMAL_PAD(26x26x1mm)	81-006-82626001
④	8	I_SCREW_M3_L8mm	22-275-30008018
⑤	4	I_SCREW_M3_L6mm	82-275-30006018
⑥	4	FILLISTR SCREW_M4_L4mm	22-272-40004911
⑦	1	SCREW HOLE RUBBER	30-062-01100197
⑧	1	MAIN_MODULE_ASSY	-----

EXPLODED DIAGRAM FOR POS-6920 ROTATE MODULE ASSEMBLY



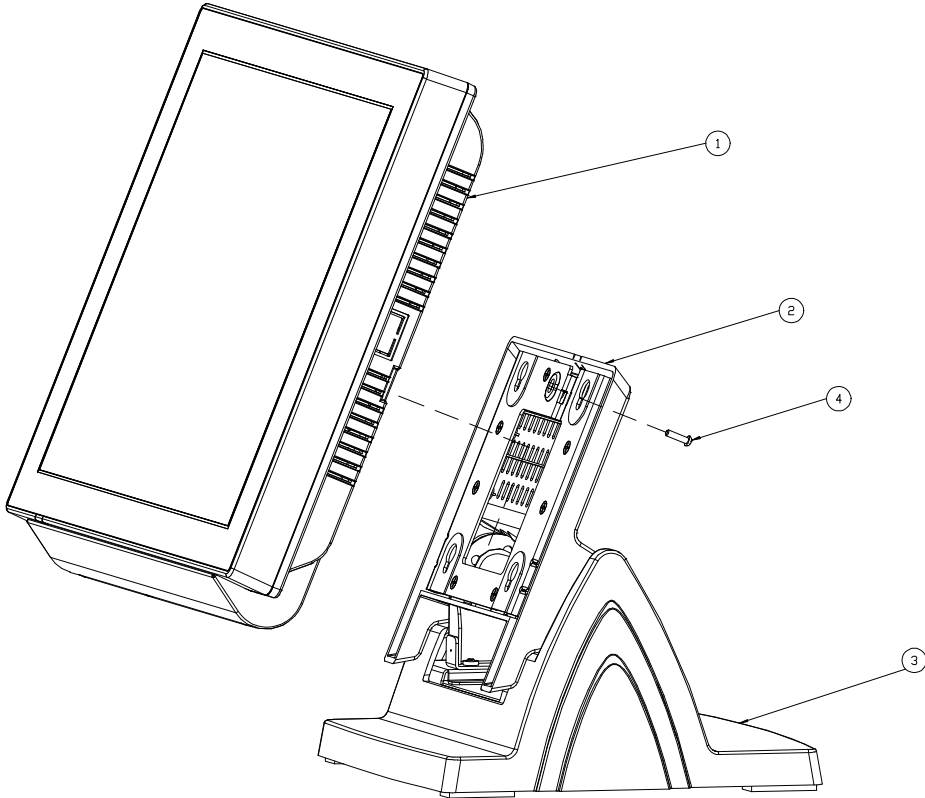
Pos	Qty	Part Name	Part No.
①	1	POS-6920_ROTATE_SUPPORT	80-002-03003226
②	1	L_SUPPORT	80-002-03002226
③	1	R_SUPPORT	80-002-03001226
④	1	POS-6920_PIPE	80-056-02001226
⑤	2	WASHER_ID_8.5_OD_24	23-202-09150247
⑥	1	POS-6920_ROTATE_COVER	30-002-28610226
⑦	2	PS5000_HINGE_SPACER	30-041-04100139
⑧	1	HEX_SCREW_M8_L154mm	22-252-80154005
⑨	2	PLAIN_WASHER_D8_D19_T1.5	23-202-08150191
⑩	1	HEX_NUTS_M8_L7.85mm	23-142-80081291
⑪	7	FLAT_SCREW_T4_L7mm	22-112-40007015

EXPLODED DIAGRAM FOR POS-6920 STAND MODULE ASSEMBLY



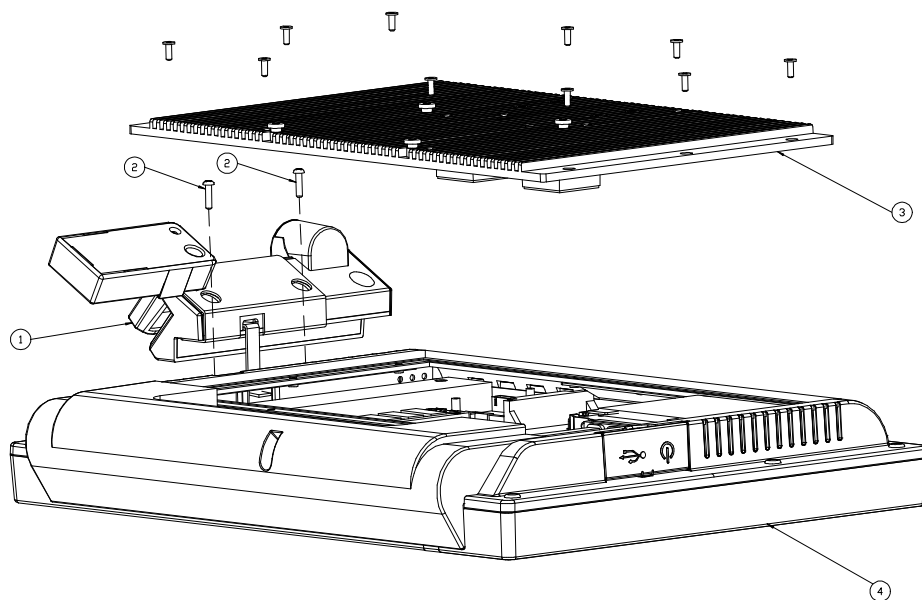
Pos	Qty	Part Name	Part No.
①	1	POS-6920-STAND-COVER	30-002-28710226
②	1	POS-6920-STAND-BASE	80-032-03001226
③	1	POS-6920-POWER_HOLDER	80-029-03001226
④	4	RUBBER FOOT	30-004-01600000
⑤	9	TAPPING_SCREW_T3_L8mm	22-122-30080011
⑥	4	R_S_SCREW_M4_L8mm	22-232-40008211
⑦	4	R_W_SCREW_M3_L6mm	22-232-30006311
⑧	2	CABLE CLAMP	30-023-04100143
⑨	1	ADAPTOR_SMALL	52-002-11072302
⑩	1	AC_POWER_CORD	27-013-12837119
⑪	1	POS-6920_ROTATE_MODULE	-----

EXPLODED DIAGRAM FOR POS-6920 PPC MODULE & STAND MODULE ASSEMBLY



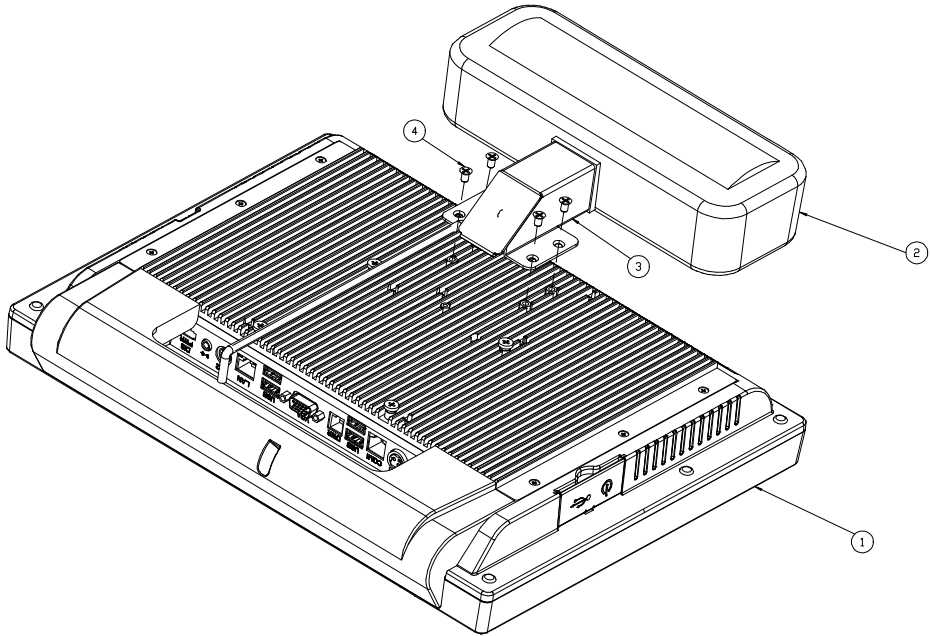
Pos	Qty	Part Name	Part No.
①	1	PA-6151_PPC_MODULE	-----
②	1	PA-6151_ROTATE_MODULE	-----
③	1	PA-6151_STAND_MODULE	-----
④	1	R_SCREW_M3_L12mm	22-275-30010011

EXPLODED DIAGRAM FOR POS-6920 MSR MODULE ASSEMBLY



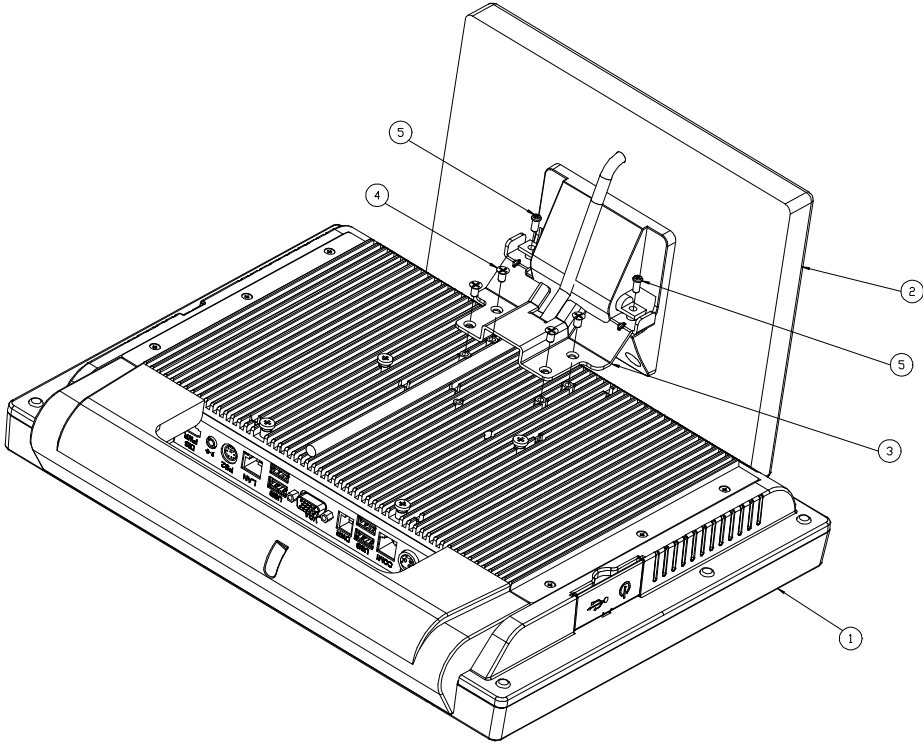
Pos	Qty	Part Name	Part No.
①	1	PA-3151 MSR_FINGER_MODUL_ASSY	PA-6151RZ-33B
②	2	R_SCREW_M3_L12mm	22-275-30010011
③	1	PA-6151 HEAT_SINK_ASSY	-----
④	1	PA-6151 MAIN_MODULE_ASSY	-----

EXPLODED DIAGRAM FOR POS-6920 VFD MODULE ASSEMBLY



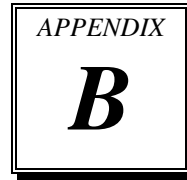
Pos	Qty	Part Name	Part No.
①	1	PA-6151_PPC	-----
②	1	VFD_DISPLAY	52-901-24001703
③	1	VFD_SUPPORT_BRACKET	80-006-03062226
④	4	F_SCREW_M4_L8mm	22-215-40008711

**EXPLODED DIAGRAM FOR POS-6920 2ND DISPLAY
MODULE ASSEMBLY**



Pos	Qty	Part Name	Part No.
①	1	POS-6920_PPC	-----
②	1	2ND_DISPLAY(8"/10.4")	52-380-06008016 52-380-01010416
③	1	2ND_DIS_SUPPORT_BRACKET	80-006-03061226
④	4	F_SCREW_M4_L8mm	22-215-40008711
⑤	2	R_SCREW_M4_L8mm	22-245-40008011

TECHNICAL SUMMARY

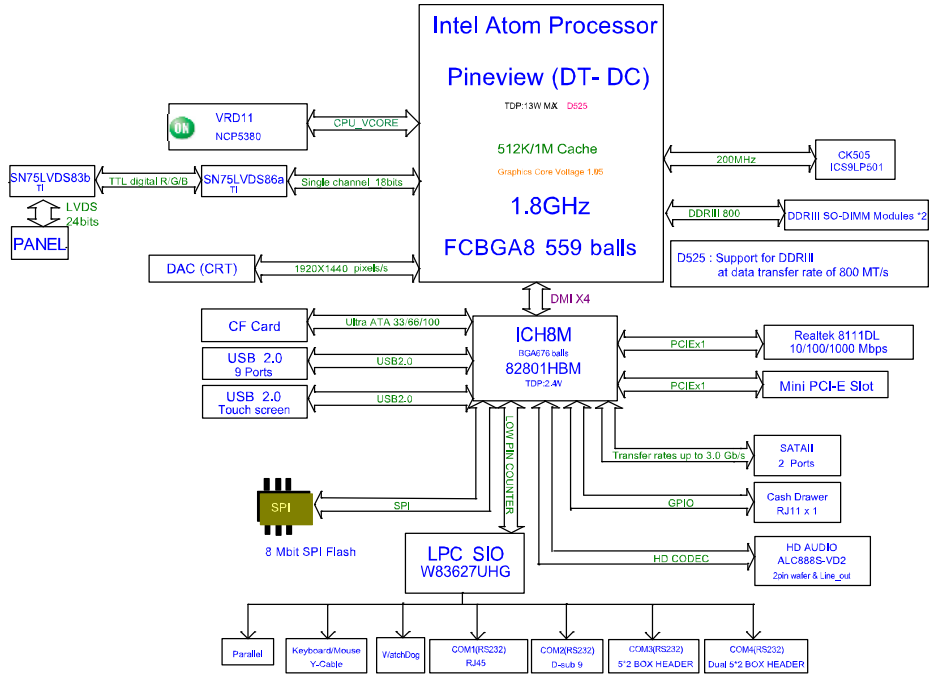


This appendix will give you a brief introduction of the allocation maps for the system resources.

Sections included:

- Block Diagram
- Interrupt Map
- DMA Channels Map
- I / O Map
- Watchdog Timer Configuration
- Flash BIOS Update

BLOCK DIAGRAM



INTERRUPT MAP

IRQ	ASSIGNMENT
0	System Timer
1	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard
3	Communications Port (COM2)
4	Communications Port (COM1)
5	Intel(R) ICH8 Family SMBus Controller - 283E
8	System CMOS/real time clock
9	Microsoft ACPI-Compliant System
10	Communications Port (COM4)
11	Communications Port (COM3)
12	Microsoft PS/2 Mouse
13	Numeric data processor
14	Primary IDE Channel
16	Intel(R) Graphics Media Accelerator 3150
16	Intel(R) ICH8 Family USB Universal Host Controller - 2834
17	Realtek PCIe GBE Family Controller
18	Intel(R) ICH8 Family USB2 Enhanced Host Controller - 283A
18	Intel(R) ICH8 Family USB Universal Host Controller - 2832
18	Intel(R) ICH8M 3 port Serial ATA Storage Controller - 2828
19	Intel(R) ICH8 Family USB Universal Host Controller - 2831
21	Intel(R) ICH8 Family USB Universal Host Controller - 2835
21	Microsoft UAA Bus Driver for High Definition Audio
22	Intel(R) ICH8 Family PCI Express Root Port 1 - 283F
23	Intel(R) ICH8 Family PCI Express Root Port 6 - 2849
23	Intel(R) ICH8 Family USB Universal Host Controller - 2830
23	Intel(R) ICH8 Family USB2 Enhanced Host Controller - 2836

DMA CHANNELS MAP

DMA Channel	Assignment
4	Direct memory access controller

I/O MAP

I/O MAP	ASSIGNMENT
0x00000040-0x00000043	System timer
0x00000061-0x00000061	System speaker
0x00000070-0x00000071	System CMOS/real time clock
0x00000060-0x00000060	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard
0x00000064-0x00000064	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard
0x0000E800-0x0000E8FF	Realtek PCIe GBE Family Controller
0x00000020-0x00000021	Programmable interrupt controller
0x000000A0-0x000000A1	Programmable interrupt controller
0x00000378-0x0000037F	Printer Port (LPT1)
0x000001F0-0x000001F7	Primary IDE Channel
0x000003F6-0x000003F6	Primary IDE Channel
0x00000000-0x00000CF7	PCI bus
0x00000D00-0x0000FFFF	PCI bus
0x000000F0-0x000000FF	Numeric data processor
0x00000010-0x0000001F	Motherboard resources
0x00000022-0x0000003F	Motherboard resources
0x00000044-0x0000005F	Motherboard resources
0x00000062-0x00000063	Motherboard resources
0x00000065-0x0000006F	Motherboard resources
0x00000072-0x0000007F	Motherboard resources
0x00000080-0x00000080	Motherboard resources
0x00000084-0x00000086	Motherboard resources
0x00000088-0x00000088	Motherboard resources
0x0000008C-0x0000008E	Motherboard resources
0x00000090-0x0000009F	Motherboard resources
0x000000A2-0x000000BF	Motherboard resources
0x000000E0-0x000000EF	Motherboard resources
0x000000F0-0x000000FF	Numeric data processor
0x000004D0-0x000004D1	Motherboard resources
0x00000500-0x0000053F	Motherboard resources
0x00000800-0x0000087F	Motherboard resources
0x00000A00-0x00000A0F	Motherboard resources

I/O MAP	ASSIGNMENT
0x0000FFA0-0x0000FFAF	Intel(R) ICH8M Ultra ATA Storage Controllers - 2850
0x0000D080-0x0000D08F	Intel(R) ICH8M 3 port Serial ATA Storage Controller - 2828
0x0000D400-0x0000D40F	Intel(R) ICH8M 3 port Serial ATA Storage Controller - 2828
0x0000D480-0x0000D483	Intel(R) ICH8M 3 port Serial ATA Storage Controller - 2828
0x0000D800-0x0000D807	Intel(R) ICH8M 3 port Serial ATA Storage Controller - 2828
0x0000D880-0x0000D883	Intel(R) ICH8M 3 port Serial ATA Storage Controller - 2828
0x0000DC00-0x0000DC07	Intel(R) ICH8M 3 port Serial ATA Storage Controller - 2828
0x0000C400-0x0000C41F	Intel(R) ICH8 Family USB Universal Host Controller - 2835
0x0000C480-0x0000C49F	Intel(R) ICH8 Family USB Universal Host Controller - 2834
0x0000C800-0x0000C81F	Intel(R) ICH8 Family USB Universal Host Controller - 2832
0x0000C880-0x0000C89F	Intel(R) ICH8 Family USB Universal Host Controller - 2831
0x0000CC00-0x0000CC1F	Intel(R) ICH8 Family USB Universal Host Controller - 2830
0x00000400-0x0000041F	Intel(R) ICH8 Family SMBus Controller - 283E
0x0000E000-0x0000EFFF	Intel(R) ICH8 Family PCI Express Root Port 6 - 2849
0x000003B0-0x000003BB	Intel(R) Graphics Media Accelerator 3150
0x000003C0-0x000003DF	Intel(R) Graphics Media Accelerator 3150
0x0000C080-0x0000C087	Intel(R) Graphics Media Accelerator 3150
0x00000274-0x00000277	ISAPNP Read Data Port
0x00000279-0x00000279	ISAPNP Read Data Port
0x00000000-0x00000CF7	Direct memory access controller
0x00000081-0x00000083	Direct memory access controller
0x00000087-0x00000087	Direct memory access controller
0x00000089-0x0000008B	Direct memory access controller
0x0000008F-0x0000008F	Direct memory access controller
0x000000C0-0x000000DF	Direct memory access controller
0x000002E8-0x000002EF	Communications Port (COM4)
0x000003E8-0x000003EF	Communications Port (COM3)
0x000002F8-0x000002FF	Communications Port (COM2)
0x000003F8-0x000003FF	Communications Port (COM1)

WATCHDOG TIMER CONFIGURATION

Watchdog timer can be configured via I/O port address 2E (hex) and 2F (hex). 2E (hex) is the address port. 2F (hex) is the data port. User can assign the target offset by writing value into address port 2E (hex) and then write/read data to/from the target offset by data port 2F (hex).

Configuration Sequence

Please follow the following steps to program [W83627UHG](#) configuration registers.

- (1) Enter the extended function mode.
- (2) Configure the configuration registers.
- (3) Exit the extended function mode.

(1) Enter the extended function mode

To place [W83627UHG](#) into the Extended Function Mode, two successive writes of 0x87 must be applied to Extended Function Enable Registers (EFERs, i.e. 2Eh or 4Eh).

(2) Configure the configuration registers

User must select to the desired Logical Device number and activates the desired Logical Devices through Extended Function Index Register (EFIR) and Extended Function Data Register (EFDR). The EFIR is located at the same address as the EFER, and the EFDR is located at address (EFIR+1). First, write the Logical Device Number (i.e. 0x07) to the EFIR and then write the number of the desired Logical Device to the EFDR. If accessing the Chip (Global) Control Registers, this step is not required. Secondly, write the address of the desired configuration register within the Logical Device to the EFIR and then write (or read) the desired configuration register through the EFDR.

(3) Exit the extended function mode

To exit the Extended Function Mode, writing 0xAA to the EFER is required. Once SuperIO exits the Extended Function Mode, it goes back to the normal running mode.

Code example for watch dog timer

Enable watchdog timer and set timeout interval to 30 seconds.

```
;----- Enter to extended function mode -----
mov    dx,    2Eh
mov    al,    87h
out    dx,    al
out    dx,    al
;----- Select Logical Device 8 of watchdog timer -----
mov    al,    07h
out    dx,    al
inc    dx
mov    al,    08h
out    dx,    al
;----- Logic device activation for watch dog timer -----
dec    dx
mov    al,    030h
out    dx,    al
inc    dx
mov    al,    01h
out    dx,    al
;----- Set second as counting unit -----
dec    dx
mov    al,    0F5h
out    dx,    al
inc    dx
in     al,    dx
and    al,    not 08h
out    dx,    al
;----- Set timeout interval as 30seconds and start counting -----
dec    dx
mov    al,    0F6h
out    dx,    al
inc    dx
mov    al,    30
out    dx,    al
;----- Exit the extended function mode -----
dec    dx
mov    al,    0AAh
out    dx,    al
```


Flash BIOS Update

I. Before System BIOS Update

1. Prepare a bootable media (ex. USB storage device) which can boot system to DOS prompt.
2. Get flash utility (AFUDOS.exe) and BIOS file (ex. 69200P01.ROM) from CD then save them to a bootable device.
3. Make sure the target system can first boot to the bootable device.
 - (1) Connect the bootable USB device.
 - (2) Turn on the system and press key during BIOS POST procedure.
 - (3) System will go into the BIOS setup menu.
 - (4) Select [Boot] menu.
 - (5) Select [Boot Devices Priority] sub-menu, set the USB bootable device to be the 1st boot device.
 - (6) Press <F10> key to save configuration and exit the BIOS setup menu.

BIOS SETUP UTILITY	
Boot	
<p>Boot Device Priority</p> <hr style="border: 0.5px solid black; margin: 5px 0;"/> <p>1st Boot Device [USB: JetFlash TS512] 2nd Boot Device [SATA: PM-WDC WD1600]</p>	<p>Specifies the boot sequence from the available devices.</p> <p>A device enclosed in parenthesis has been disabled in the corresponding type menu.</p> <p>←→ Select Screen ↓↑ Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit</p>
v02.68 (C)Copyright 1985-2009, American Megatrends, Inc.	

II. AFUDOS Command for System BIOS Update

AFUDOS.exe is the AMI firmware update utility; the command line is shown as below:

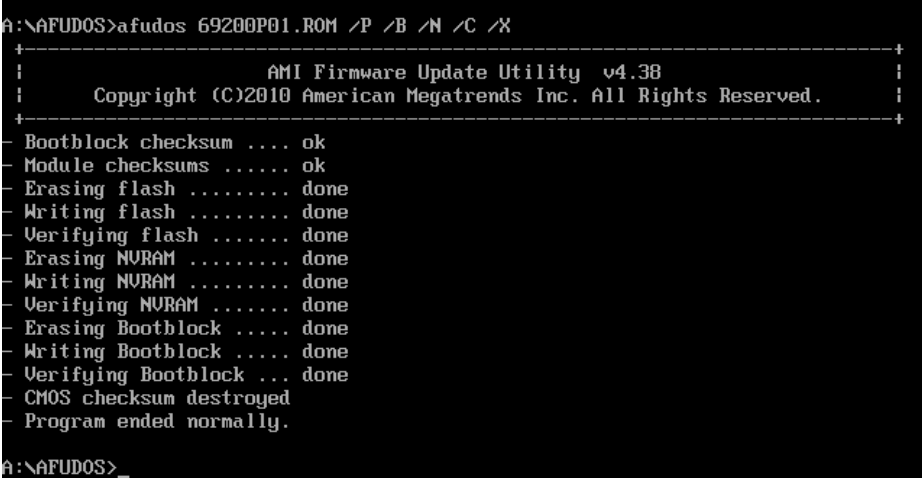
AFUDOS <ROM File Name> [option1] [option2]....

User can type “AFUDOS/?” to see all the definition of each control options. The recommended options for BIOS ROM update include following parameters:

- /P**: Program main BIOS image
- /B**: Program Boot Block
- /N**: Program NVRAM
- /C**: Destroy CMOS checksum
- /X**: Don't check ROM ID

III. BIOS Update Procedure

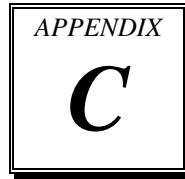
1. Use the bootable USB storage to boot up system into the DOS command prompt.
2. Type "**AFUDOS 6920xxxx.ROM /p /b /n /c /x**" and press enter to start the flash procedure.
(Note that **xxxx** means the BIOS revision part, ex. 0P03...)
3. During the update procedure, you will see the BIOS update process status and its percentage. Beware! Do not turn off system power or reset your computer if the whole procedure are not complete yet, or it may crash the BIOS ROM and make system unable to boot up next time.
4. After BIOS update procedures is complete, the messages should be like the figure shown below.



```
A:\AFUDOS>afudos 69200P01.ROM /P /B /N /C /X
+-----+
|                               AMI Firmware Update Utility  v4.3B                               |
|                               Copyright (C)2010 American Megatrends Inc. All Rights Reserved.   |
+-----+
- Boothlock checksum .... ok
- Module checksums ..... ok
- Erasing flash ..... done
- Writing flash ..... done
- Verifying flash ..... done
- Erasing NVRAM ..... done
- Writing NVRAM ..... done
- Verifying NVRAM ..... done
- Erasing Boothlock .... done
- Writing Boothlock .... done
- Verifying Boothlock .. done
- CMOS checksum destroyed
- Program ended normally.
A:\AFUDOS>_
```

5. User can restart the system and boot up with new BIOS now.

QUICK MANUAL



This appendix contains the assembly procedures of the VFD and 2nd Display and the i-Button Decoder API function guide.

Sections included:

- Assembly Procedure of VFD
- Assembly Procedure of 2nd Display
- i-Button Decoder API

Assembly Procedure of VFD

Packing Checklist:

Items	Quantity
VFD Module (w/ RJ45 Cable)	1
VFD Support Bracket	1
Screws	4

Step 1. Make sure all parts are ready.

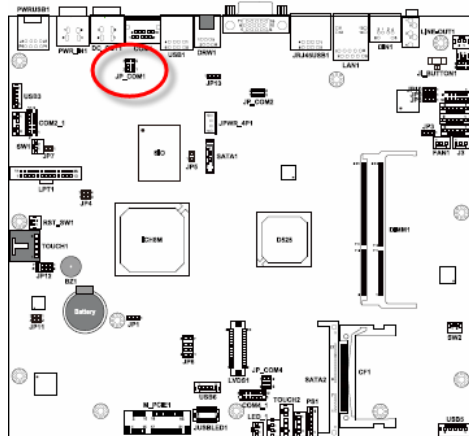


Step 2. Thread the VFD Module cable through the VFD Support Bracket, and then insert the module into the bracket until it clicks into place.



Step 3. Refer to **COM1 RI & Voltage Selection** table as shown and set the COM1 jumper to “VCC12” (12V DC).

Selection	Jumper Settings	Jumper Illustration
RI	1-2	
VCC12	3-4	
VCC	5-6	



Step 4. Find the four screw holes for VFD on the Heatsink.



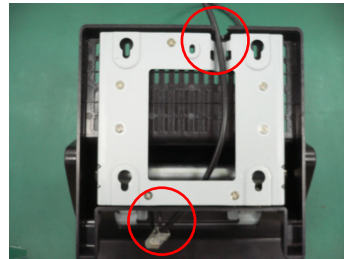
Step 5. Pull out the VFD cable from the bottom left of VFD Support Bracket, and then secure the VFD to Heatsink with four screws.



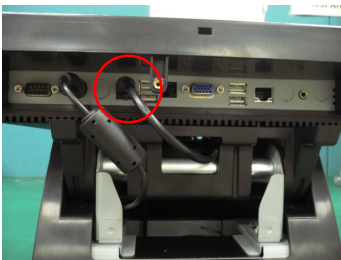
Step 6. Remove the notch cover on the rotate cover of the stand.



Step 7. Pass the VFD cable through the top notch and then reach down inside the bracket.



Step 8. Plug the VFD cable into the COM1 Connector.



Step 9. Put back the cable cover.

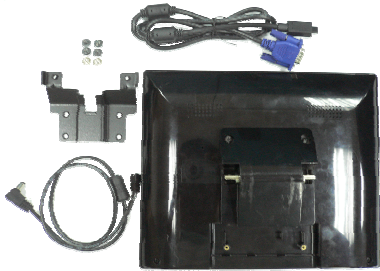


Assembly Procedure of 2nd Display

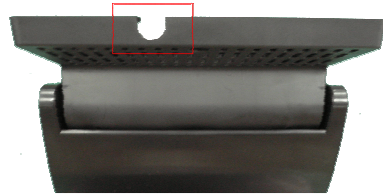
Packing Checklist:

Items	Quantity
8"/ 10.4" 2 nd Display (w/ Hinges)	1
2 nd Display Support Bracket	1
D-sub to D-sub VGA Cable for 8"	1 (D-sub to Mini-VGA Cable for 10.4")
Power Adaptor	1
Screws	6 (4 for bracket, 2 for hinges)

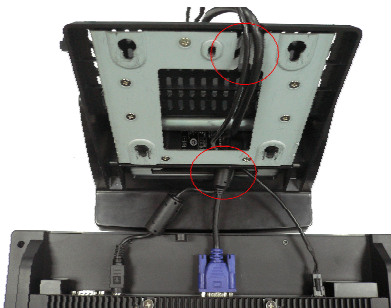
Step 1. Make sure all parts are ready.



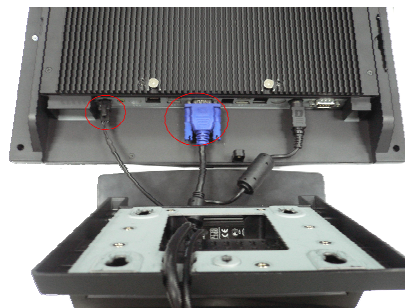
Step 2. Remove the notch cover on the rotate cover of the stand.



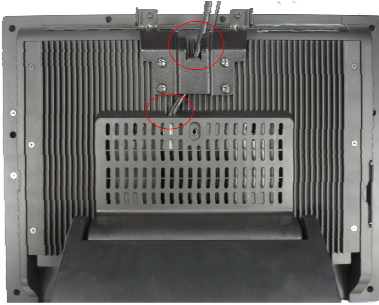
Step 3. Thread the VGA Cable and the 2nd Display Power Cable through the top notch and then reach both down inside the bracket.



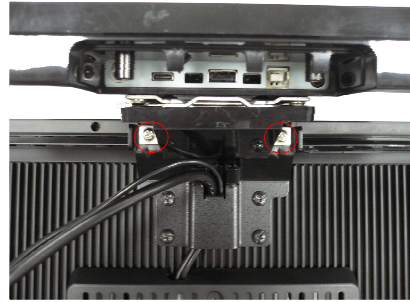
Step 4. Plug the VGA Cable and the 2nd Display Power Cable into the VGA Connector.



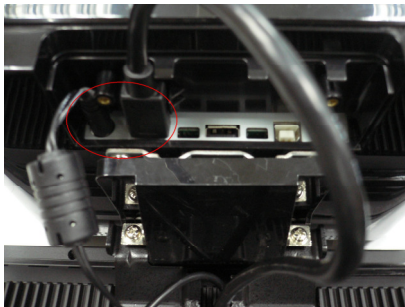
Step 5. Pull out the VGA Cable and the 2nd Display Power Cable from the bottom left of the 2nd Display Support Bracket; then secure the support bracket to Heatsink with four screws.



Step 6. Secure the 2nd Display Hinges to the support bracket with the two hinge screws.



Step 7. Plug the VGA Cable and the 2nd Display Power Cable into the 2nd Display, and secure the 2nd Display cover (cover for 10.4" display only).



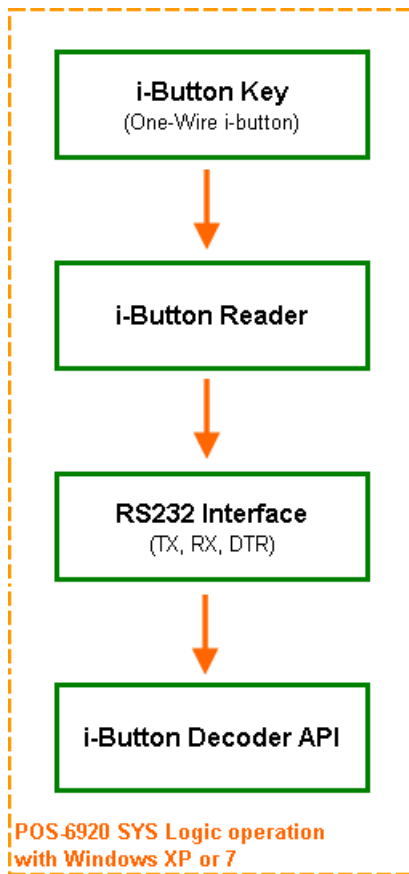
Step 8. Put back the cable cover.



I-BUTTON DECODER API

I. FUNCTION DESCRIPTION



The i-Button Decoder API program must run on a Windows platform, XP or 7. Users can get the i-Button key serial number of the POS-6920 system through the application programming interface.



II. FUNCTION DEMO

STEP 1: Hardware (Motherboard) Setup

1-1. Refer to the **i-Button Function Selection** table as shown below and set the jumpers to “i-Button”.

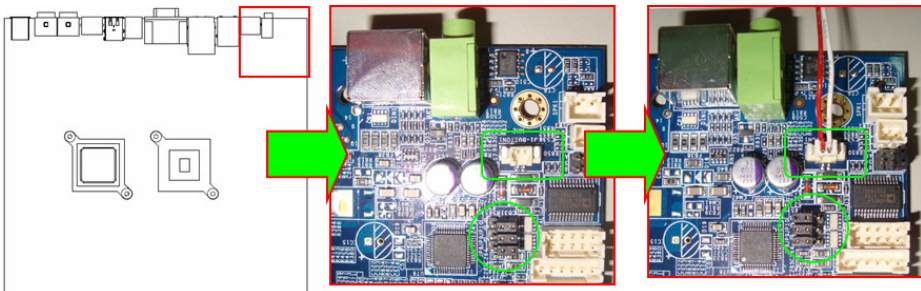
SELECTION	JUMPER SETTINGS	JUMPER ILLUSTRATION
i-Button	2-3	
COM 3 (default)	1-2	

*** Manufacturing Default – COM3

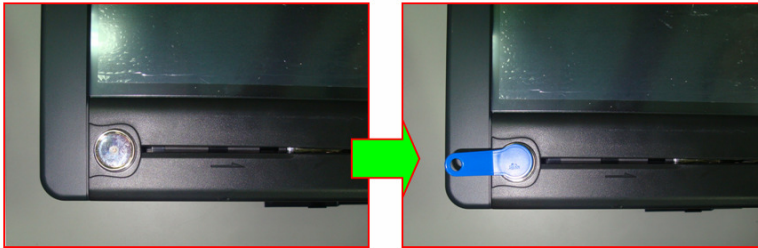
1-2. Refer to the **J1_BUTTON1 Pin Assignment** table as shown and connect the i-Button cables to the J1_BUTTON1 connector.

PIN	ASSIGNMENT
1	COM3_DTR_R_I
2	COM3_RXD_R_I

Illustration:

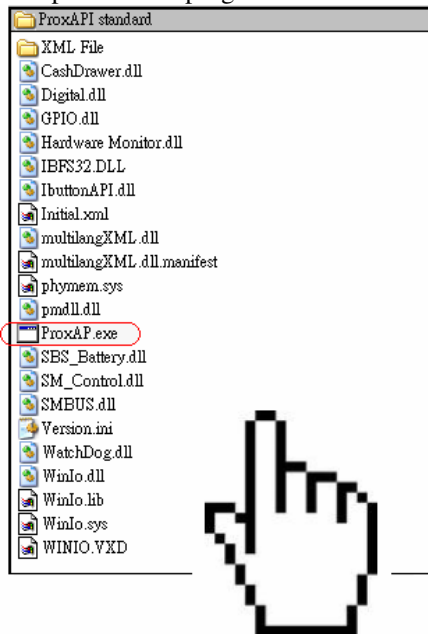


1-3. Place the i-Button key on the POS-6920 as shown below.



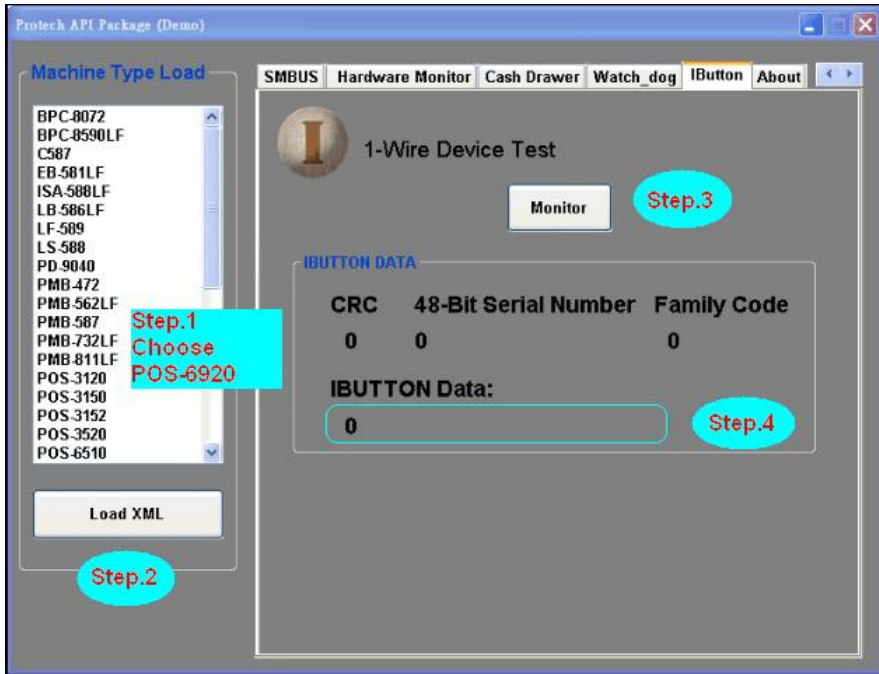
STEP 2: Run Demo Program

2-1. Enter the “ProxAPI standard” folder and double-click the executable file “ProxAP.exe” to open the API program.



Note: (1) .Net Framework 2.0 or above must be installed on the operating system before running the API program, and (2) do not remove any file under the “ProxAPI standard” folder.

STEP 3: API Setting




- 3-1. Choose “POS-6920” from the Machine Type Load list on the left pane.
- 3-2. Tap [Load XML].
- 3-3. Switch to the “IButton” tab, and then tap [Monitor].
- 3-4. The i-Button serial number will be displayed below the **IBUTTON DATA** field.

III. API INFORMATION

Function Files:

Directory	File Name	Description
ProxAPI standard\	IbuttonAPI.dll	Driver to get i-Button
	IBFS32.dll	
	multilangXML.dll	Driver to open XML file
	XML Files\Model Name\Initial.xml	XML file for each model

 Model Name is dependent on your machine type.

Function Parameter:

Decode_Ibutton_Process

bool Decode_Ibutton_Process(short[] **buffer)**

Purpose Get the i-Button data.
Value Buffer = i-Button read will sent to this buffer
Return True (1) on success, False (0) on failure

USER'S MANUAL

POS-6920 Series

POS System Powered by

Intel® Atom® Platform

POS-6920 Series M4

POS-6920 Series POS System With LCD/Touchscreen

PREFACE

COPYRIGHT NOTICE

This user's manual is meant to assist users in installing and setting up the system. The information contained in this document is subject to change without any notice.

This manual is copyrighted Feb. 2012 (Revised Edition: May 2014). You may not reproduce or transmit in any form or by any means, electronic, or mechanical, including photocopying and recording.

ACKNOWLEDGEMENTS

All trademarks and registered trademarks mentioned herein are the property of their respective owners.

CE NOTICE

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

FCC NOTICE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any change or modifications to the equipment not expressly approve by the party responsible for compliance could void your authority to operate such equipment.

CAUTION! Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

WARNING! Some internal parts of the system may have high electrical voltage. And therefore we strongly recommend that qualified engineers can open and disassemble the system.

The LCD and Touchscreen are easily breakable, please handle them with extra care.

TABLE OF CONTENTS

CHAPTER 1 INTRODUCTION

1-1	About This Manual	1-2
1-2	POS System Illustration	1-3
1-3	System Specifications	1-5
1-4	Safety Precautions	1-7

CHAPTER 2 SYSTEM CONFIGURATION

2-1	Jumper & Connector Quick Reference Table	2-2
2-2	Component Locations	2-3
2-3	How to Set the Jumpers	2-4
2-4	COM Port Connector	2-6
2-5	COM Port RI and Voltage Selection	2-8
2-6	VGA Connector	2-9
2-7	I-Button Connector	2-10
2-8	I-Button Function Selection	2-10
2-9	LAN Connector	2-11
2-10	USB Connector	2-12
2-11	PS/2 Keyboard & Mouse Connector	2-14
2-12	Reset/ NMI Watchdog Selection	2-14
2-13	Cash Drawer Connector	2-15
2-14	Cash Drawer Power Selection	2-15
2-15	LED Connector	2-16
2-16	Fan Connector	2-17
2-17	Power Connector	2-17
2-18	Power Switch Connector	2-17
2-19	Reset Switch Connector	2-18
2-20	Power for Thermal Printer Connector	2-18
2-21	External Speaker Connector	2-18
2-22	Inverter Connector	2-19
2-23	Backlight Type Selection	2-19
2-24	MSR/ Card Reader Connector	2-20
2-25	LVDS Connector	2-20
2-26	SATA & SATA Power Connector	2-21
2-27	Touch Panel Connector	2-23
2-28	Touch Panel Selection	2-24
2-29	Clear CMOS Data Selection	2-25
2-30	Compact Flash Connector	2-26

2-31 Printer Connector 2-27

CHAPTER 3 SOFTWARE UTILITIES

3-1 Introduction 3-2
3-2 Intel® Chipset Software Installation Utility 3-3
3-3 VGA Driver Utility 3-4
3-4 LAN Driver Utility 3-5
3-5 Sound Driver Utility 3-6
3-6 Touch Screen Driver Utility 3-7
3-7 Fingerprinter Driver Utility (Optional) 3-8
3-8 RFID Module Driver Utility (Optional) 3-9

CHAPTER 4 AMI BIOS SETUP

4-1 Introduction 4-2
4-2 Entering Setup 4-3
4-3 Main 4-5
4-4 Advanced 4-6
4-5 Boot 4-18
4-6 Security 4-22
4-7 Chipset 4-23
4-8 Exit 4-28

APPENDIX A SYSTEM ASSEMBLY

Exploded Diagram for POS-6920 HDD Module Maintenance A-2
Exploded Diagram for POS-6920 M/B Case Module Assembly A-3
Exploded Diagram for POS-6920 HDD Module Assembly A-5
Exploded Diagram for POS-6920 SSD Module Assembly A-6
Exploded Diagram for POS-6920 Plastic Module Assembly ... A-7
Exploded Diagram for POS-6920 Heat Sink Module Assembly A-9
Exploded Diagram for POS-6920 Rotate Module Assembly ... A-10
Exploded Diagram for POS-6920 Stand Module Assembly A-12
Exploded Diagram for POS-6920 PPC & Stand Module Assembly A-14
Exploded Diagram for POS-6920 MSR Module Assembly A-15
Exploded Diagram for POS-6920 VFD Module Assembly A-16
Exploded Diagram for POS-6920 2nd Display Module Assembly A-17

APPENDIX B TECHNICAL SUMMARY

Block Diagram B-2

Interrupt Map	B-3
DMA Channels Map	B-4
I/O Map	B-5
Watchdog Timer Configuration	B-7
Flash BIOS Update	B-9

APPENDIX C QUICK MANUAL

Assembly Procedure of VFD	C-2
Assembly Procedure of 2nd Display	C-4
i-Button Decoder API	C-6



INTRODUCTION

CHAPTER

1

This chapter gives you the information for the POS-6920. It also outlines the system specifications.

Sections included:

- About This Manual
- POS System Illustration
- System Specifications
- Safety Precautions

Experienced users can jump to chapter 2 on page 2-1 for a quick start.

1-1. ABOUT THIS MANUAL

Thank you for purchasing our POS-6920 Series System. The POS-6920 is an updated system designed to be comparable with the highest performance of IBM AT personal computers. The POS-6920 provides faster processing speed, greater expandability and can handle more tasks than before. This manual is designed to assist you how to install and set up the whole system. It contains four chapters and three appendixes. Users can configure the system according to their own needs.

Chapter 1 Introduction

This chapter introduces you to the background of this manual. It also includes illustrations and specifications for the whole system. The final section of this chapter indicates some safety reminders on how to take care of your system.

Chapter 2 System Configuration

This chapter outlines the location of motherboard components and their function. You will learn how to set the jumper and configure the system to meet your own needs.

Chapter 3 Software Utilities

This chapter contains helpful information for proper installations of the Intel Utility, VGA Utility, LAN Utility, Sound Utility, and Touch Screen Utility. It also describes the optional Fingerprinter and RFID module Utilities.

Chapter 4 AMI BIOS Setup

This chapter indicates you how to change the BIOS configurations.

Appendix A System Assembly

This appendix gives you the exploded diagrams and part numbers of the POS-6920.

Appendix B Technical Summary

This appendix gives you the information about the allocation maps for the system resources, Watchdog Timer Configuration, and Flash BIOS Update.

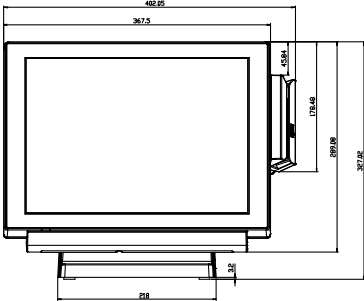
Appendix C Quick Manual

This appendix gives you the information about the VFD and 2nd Display assembly procedures and the i-Button decoder API.

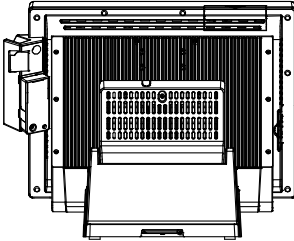
1-2. POS SYSTEM ILLUSTRATION

POS-6920 with Stand

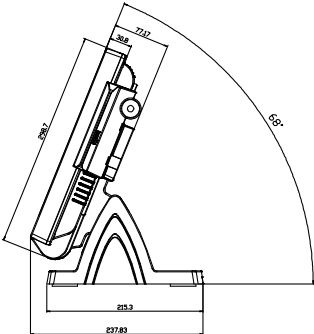
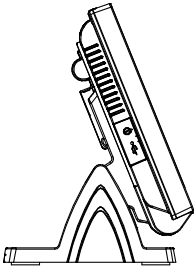
Front View



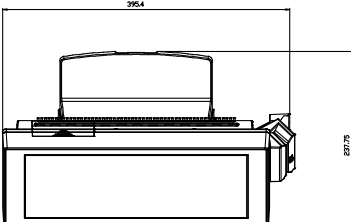
Rear View



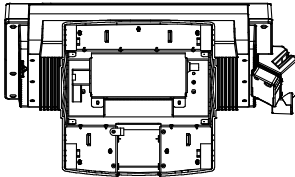
Side View



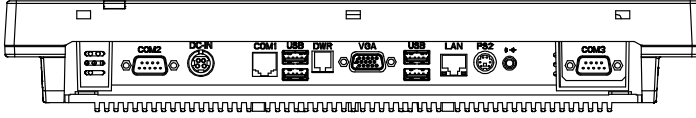
Top View



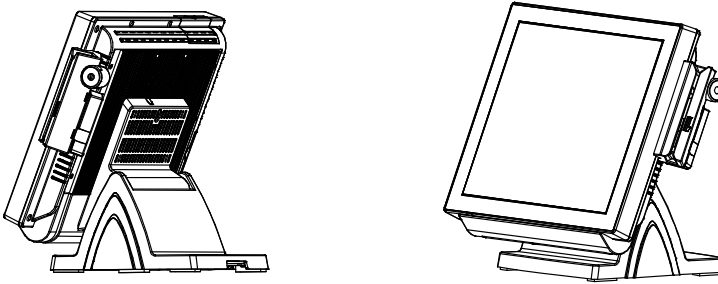
Bottom View



I/O View



Quarter View



1-3. SYSTEM SPECIFICATIONS

MAINBOARD (PROX-A6920LF)

- **CPU Type (with North Bridge):**
Intel® ATOM Pineview D525
- **Chipset:**
Intel® ICH8M
- **Memory:**
One 204-pin DDRIII SO-DIMM socket on board, up to 4GB
- **Cache:**
Depended on CPU
- **Real-Time Clock / Calendar:**
Embedded in Intel® ICH8M South Bridge
- **BIOS:**
AMI SPI BIOS
8Mbits with VGA BIOS
- **Keyboard & Mouse Connector:**
PS/2 Keyboard, combined with mini DIN connector on rear panel.
- **Serial Port:**
1 x RJ45 (COM1), 2 x DB-9(COM 2/3), 1 x Wafer (COM4_1)
+5/12V Selectable (COM 1~4)
- **Universal Serial Bus Port:**
4 x USB2.0 ports
1 x USB2.0 on side bezel
- **LAN Function:**
1 x 10/100/1000 Mbps
- **Audio Function:**
1 x 2W Speaker

- **VGA Function:**
1 x DB-15 VGA Interface
- **Dimension (W x H x D):**
368mm x 327mm x 238mm
- **System Weight:**
11 kg

- **LCD Panel:**

Type	XGA
Max. Resolution	1024 x 768
Size/Type	15" / TFT
Viewing Angel (degree)	0~65 degrees
Pixel Pitch	0.297(H) x 0.297(V)
Brightness	250 cd / m ²
Signal Interface (bit)	TTL (24-bit)

- **Touch Panel:**
15" 5wire True Flat Resistive
- **WIRELESS LAN (Optional):**
Mini PCI-e Wireless LAN Module (802.11b/g)
- **MSR / i-Button / Fingerprint (Optional):**
External vertical module, MSR, Read only, ISO Tracker 1+2+3 (PS/2 KB Interface); i-button (COM Interface) + Fingerprint (USB Interface)
- **MSR / i-Button / Fingerprint (Optional):**
External vertical module, MSR, Read only, JIS-I or II, ISO Tracker 1+2+3; i-button (PS/2 KB Interface) + Fingerprint (USB Interface)
- **RFID (Optional):**
Read / Write, ISO 14443A 13.56MHz (USB Interface)

1-4. SAFETY PRECAUTIONS

The following messages are safety reminders on how to protect your systems from damages, and extending the life cycle of the system.

1. Check the Line Voltage

- a. The operating voltage for the power supply should be within the range of 100V to 240V AC; otherwise the system may be damaged.

2. Environmental Conditions

- a. Place your POS-6920 on a sturdy, level surface. Be sure to allow enough space around the system to have easy access needs.
- b. Avoid installing your POS-6920 Series POS system in extremely hot or cold places.
- c. Avoid exposure to sunlight for a long period of time (for example, in a closed car in summer time. Also avoid the system from any heating device.). Or do not use the POS-6920 when it has been left outdoors in a cold winter day.
- d. Bear in mind that the operating ambient temperature is between 0°C and 35°C (32°F and 95°F).
- e. Avoid moving the system rapidly from a hot place to a cold place, and vice versa, because condensation may occur inside the system.
- f. Protect your POS-6920 against strong vibrations, which may cause hard disk failure.
- g. Do not place the system too close to any radio-active device. Radio-active device may cause signal interference.
- h. Always shutdown the operating system before turning off the power.

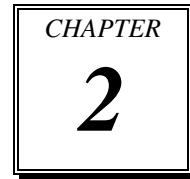
3. Handling

- a. Avoid placing heavy objects on the top of the system.
- b. Do not turn the system upside down. This may cause the hard drive to malfunction.
- c. Do not allow any objects to fall into this product.
- d. If water or other liquid spills into the product, unplug the power cord immediately.

4. Good Care

- a. When the outside case gets stained, remove the stains using neutral washing agent with a dry cloth.
- b. Never use strong agents such as benzene and thinner to clean the surface of the case.
- c. If heavy stains are present, moisten a cloth with diluted neutral washing agent or alcohol and then wipe thoroughly with a dry cloth.
- d. If dust is accumulated on the case surface, remove it by using a special vacuum cleaner for computers.

SYSTEM CONFIGURATION



Helpful information that describes the jumper and connector settings, and component locations.

Sections included:

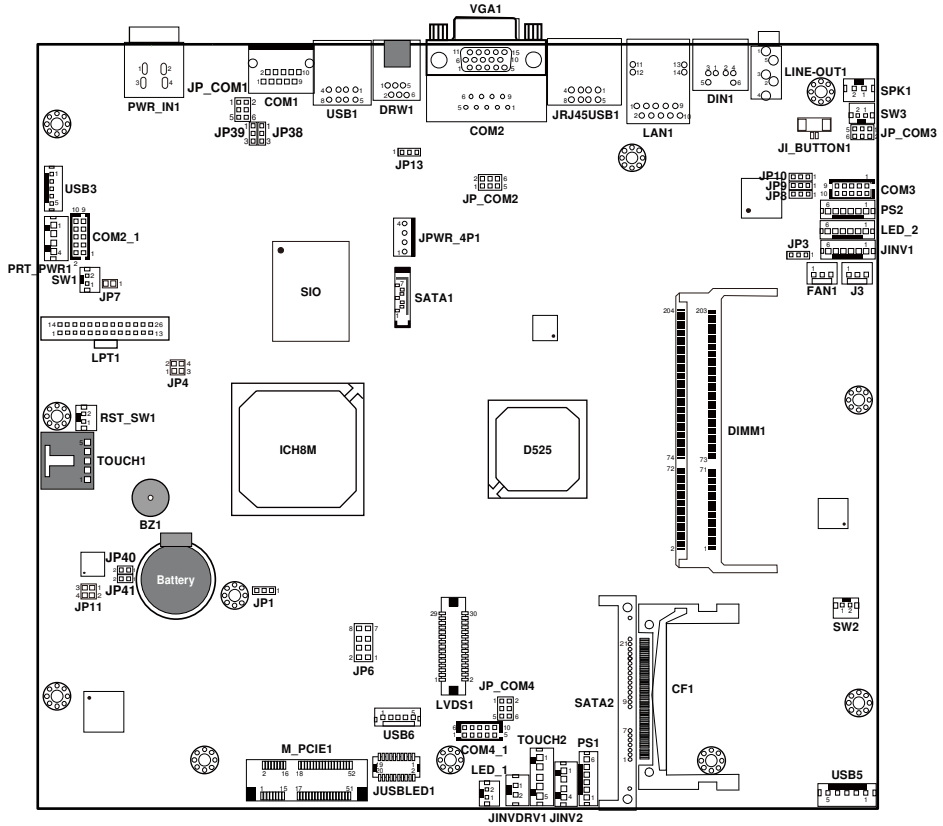
- Jumper & Connector Quick Reference Table
- Component Locations
- Configuration and Jumper settings
- Connector Pin Assignments

2-1. JUMPER & CONNECTOR QUICK REFERENCE TABLE

Connector & Jumper	Name	Page
COM Port Connector	COM1, COM2_1, COM3, COM4_1	2-6
COM Port RI and Voltage Selection	JP_COM1, JP_COM2, JP_COM3, JP_COM4	2-8
VGA Connector	VGA1	2-9
I-Button Connector	JI-BUTTON1	2-10
I-Button Function Selection	JP8, JP9, JP10	2-10
LAN Connector	LAN1	2-11
USB Connector	JRJ45USB1, USB1, USB3, USB5	2-12
PS/2 Keyboard & Mouse Connector	DIN1	2-14
RESET/NMI Watchdog Selection	JP4	2-14
Cash Drawer Connector	DRW1	2-15
Cash Drawer Power Selection	JP13	2-15
LED Connector	LED_1, LED_2, JUSBLED1	2-16
Fan Connector	FAN1	2-17
Power Connector	J3	2-17
Power Switch Connector	SW1, SW2, SW3	2-17
Reset Switch Connector	RST_SW1	2-18
Power for Thermal Printer Connector	PRT_PWR1	2-18
External Speaker Connector	SPK1	2-18
Inverter Connector	JINV1, JINV2	2-19
Backlight Type Selection	JP3	2-19
MSR / Card Reader Connector	PS1, PS2	2-20
LVDS Connector	LVDS1	2-20
SATA & SATA Power Connector	SATA1, JPWR_4P1, SATA2	2-21
Touch Panel Connector	TOUCH1, TOUCH2	2-23
Touch Panel Interface Type Selection	JP38, JP39, JP40, JP41	2-24
Clear CMOS Data Selection	JP1	2-25
Compact Flash Connector	CF1	2-26
Printer Connector	LPT1	2-27

2-2. COMPONENT LOCATIONS

M/B: PB-6055



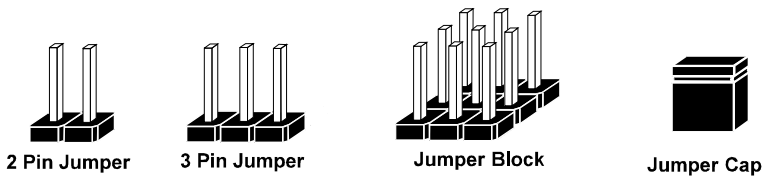
POS-6920 Mainboard Connector, Jumper and Component locations

2-3. HOW TO SET THE JUMPERS

You can configure your board by setting the jumpers. Jumper is consists of two or three metal pins with a plastic base mounted on the card, and by using a small plastic "cap", Also known as the jumper cap (with a metal contact inside), you are able to connect the pins. So you can set-up your hardware configuration by "opening" or "closing" pins.

The jumper can be combined into sets that called jumper blocks. When the jumpers are all in the block, you have to put them together to set up the hardware configuration. The figure below shows how this looks like.

JUMPERS AND CAPS

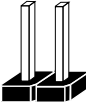


If a jumper has three pins for example, labelled PIN1, PIN2, and PIN3. You can connect PIN1 & PIN2 to create one setting and shorting. You can either connect PIN2 & PIN3 to create another setting. The same jumper diagrams are applied all through this manual. The figure below shows what the manual diagrams look and what they represent.

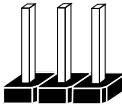
JUMPER DIAGRAMS



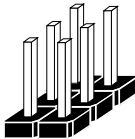
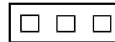
Jumper Cap looks like this



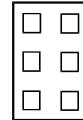
2 pin Jumper looks like this



3 pin Jumper looks like this



Jumper Block looks like this



JUMPER SETTINGS



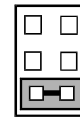
2 pin Jumper closed(enabled)
looks like this



3 pin Jumper
2-3 pin closed(enabled)
looks like this



Jumper Block
1-2 pin closed(enabled)
looks like this



2-4. COM PORT CONNECTOR

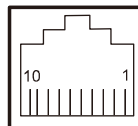
There are four COM ports enhanced in this board namely: COM1, COM2_1, COM3 and COM4_1.

Caution: When using a 72W power adaptor, do not set the voltage at “12V” for three COM ports or above; otherwise, the system may shut down due to power deficiency.

COM1: COM1 Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	DCD1
2	RXD1
3	TXD1
4	DTR1
5	GND
6	DSR1
7	RTS1
8	CTS1
9	RI / +5V / +12V selectable
10	NC

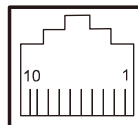


COM1

COM2: COM2 Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	DCD2/3/4
2	RXD2/3/4
3	TXD2/3/4
4	DTR2/3/4
5	GND
6	DSR2/3/4
7	RTS2/3/4
8	CTS2/3/4
9	RI / +5V / +12V selectable



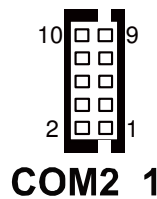
COM1

Note: The COM4 connector can be optional Wafer or DB-9 as request.

COM2_1/ COM3: COM2_1/ COM3 Wafer

The pin assignments are as follows:

PIN	ASSIGNMENT
1	DCD2/3
2	RXD2/3
3	TXD2/3
4	DTR2/3
5	GND
6	DSR2/3
7	RTS2/3
8	CTS2/3
9	RI / +5V / +12V selectable
10	NC



The COM3 connector will not function when the jumpers are set as “i-Button”. Refer to the section **2-8 i-Button Function Selection**.

COM4_1: COM4_1 Wafer

The pin assignments are as follows:

PIN	ASSIGNMENT
1	DCD4
2	RXD4
3	TXD4
4	DTR4
5	GND
6	DSR4
7	RTS4
8	CTS4
9	RI / +5V / +12V selectable
10	NC



The COM4_1 connector will not function when the VFD cable is plugged in. Refer to the Pole VFD assembly procedures in **Appendix C Quick Manual**.






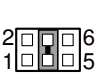
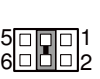


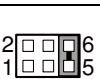
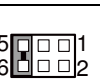

All COM ports are selectable for RI, +5V and +12V. Refer to the section **2-5 COM Port RI & Voltage Selection**.

2-5. COM PORT RI & VOLTAGE SELECTION

JP_COM1 , JP_COM2, JP_COM3, JP_COM4:

COM Port RI & Voltage Selection

The jumper settings are as follows:

SELECTION	JUMPER SETTINGS	JUMPER ILLUSTRATION			
RI (default)	1-2	 JP_COM1	 JP_COM2	 JP_COM3	 JP_COM4
VCC12	3-4	 JP_COM1	 JP_COM2	 JP_COM3	 JP_COM4
VCC	5-6	 JP_COM1	 JP_COM2	 JP_COM3	 JP_COM4

*** Manufacturing Default – RI

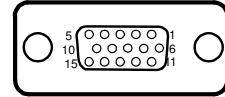
Caution: When using a 72W power adaptor, do not set the voltage at “12V” for three COM ports or above; otherwise, the system may shut down due to power deficiency.

2-6. VGA CONNECTOR

VGA1: VGA Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	RED
2	GREEN
3	BLUE
4	NC
5	GND
6	GND
7	GND
8	GND
9	+5V
10	GND
11	NC
12	DDCA DATA
13	HSYNC
14	VSYNC
15	DDCA CLK

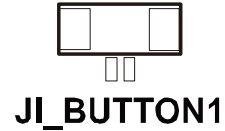


VGA1

2-7. I-BUTTON CONNECTOR

JI-BUTTON1: i-Button Connector
 The pin assignments are as follows:

PIN	ASSIGNMENT
1	COM3_DTR_R_I
2	COM3_RXD_R_I



2-8. I-BUTTON FUNCTION SELECTION

JP8, JP9, JP10: i-Button Function Selection
 The jumper settings are as follows:

SELECTION	JUMPER SETTINGS	JUMPER ILLUSTRATION
i-Button	2-3	<p>1 JP10 JP9 JP8</p>
COM 3 (default)	1-2	<p>1 JP10 JP9 JP8</p>

*** Manufacturing Default – COM3

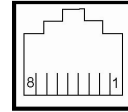
When the jumpers are set as 'i-Button', the COM3 connector is not functional.

2-9. LAN CONNECTOR

LAN1: LAN Connector.

The pin assignments are as follows:

PIN	ASSIGNMENT
1	LAN1_MDIP0
2	LAN1_MDIN0
3	LAN1_MDIP1
4	LAN1_MDIN1
5	LAN1_MDIP2
6	LAN1_MDIN2
7	LAN1_MDIP3
8	LAN1_MDIN3



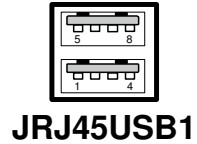
LAN1

2-10. USB CONNECTOR

JRJ45USB1: USB Connector

The pin assignments are as follows:

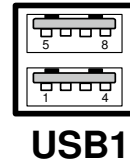
PIN	ASSIGNMENT
1	5V
2	USB0-
3	USB0+
4	GND
5	5V
6	USB1-
7	USB1+
8	GND



USB1: USB Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	5V
2	USB2-
3	USB2+
4	GND
5	5V
6	USB3-
7	USB3+
8	GND



USB3: Internal USB Connector

The pin assignments are as follows:

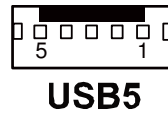
PIN	ASSIGNMENT
1	USB6-
2	USB6+
3	GND
4	VCC5
5	GND



USB5: USB Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	USB8-
2	USB8+
3	GND
4	VCC5
5	GND



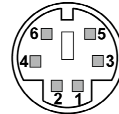
2-11. PS/2 KEYBOARD & MOUSE CONNECTOR

DIN1: Keyboard or PS/2 Mouse Connector

DIN connector can support keyboard, Y-cable, or PS/2 Mouse, user may select the right device to use on “Keyboard or PS/2 Mouse Selection”.

The pin assignments are as follows:

PIN	ASSIGNMENT
1	KDAT
2	MDAT
3	GND
4	V5SB
5	KCLK
6	MCLK



DIN1

2-12. RESET/NMI WATCHDOG SELECTION

JP4: Reset/NMI Watchdog Selection

The jumper settings are as follows:

SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION
Reset (default)	1-2	<p>JP4</p>
NMI	3-4	<p>JP4</p>

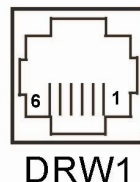
***Manufacturing Default – Reset

2-13. CASH DRAWER CONNECTOR

DRW1: Cash Drawer Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	GND
2	Drawer Open
3	Drawer Sense
4	+12V
5	NC
6	GND



PROX-A6920LF cash drawer control in GPIO port

To Open Drawer1 (GPIO 7)

Write "0" to I/O space register "50C" Bit 7

To Close Drawer1

Write "1" to I/O space register "50C" Bit 7

Detect Drawer1 Status

Read I/O space register "50E" (GPIO 20)

Definition (bit4)

2-14. CASH DRAWER POWER SELECTION

JP13: Cash Drawer Power Selection

The jumper settings are as follows:

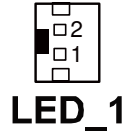
SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION
+12V	2-3	<p>JP13</p>
+24V (default)	1-2	<p>JP13</p>

*** Manufacturing Default – +24V

2-15. LED CONNECTOR

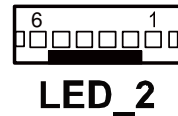
LED_1: Power indication LED Connector.
The pin assignments are as follows:

PIN	ASSIGNMENT
1	GND
2	PWR_LED



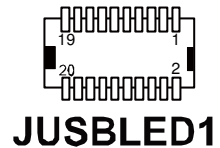
LED_2: Power, HDD, LAN indication LED Connector
The pin assignments are as follows:

PIN	ASSIGNMENT
1	PWR_LED
2	GND
3	HDD_LED
4	GND
5	LAN_Link
6	GND



JUSBLED1: Power, HDD, LAN indication LED Connector
The pin assignments are as follows:

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	NC	11	GND
2	NC	12	GND
3	NC	13	PWR_LED
4	NC	14	GND
5	NC	15	HDD_LED
6	NC	16	GND
7	NC	17	LAN_Link
8	NC	18	GND
9	GND	19	LAN_State
10	GND	20	GND



2-16. FAN CONNECTOR

FAN1: Fan Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	GND
2	12V
3	CPUFAN

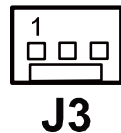


2-17. POWER CONNECTOR

J3: Provide 12 Voltage Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	VCC12
2	GND
3	VCC12

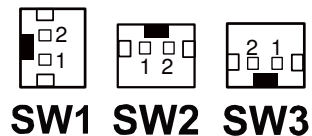


2-18. POWER SWITCH CONNECTOR

SW1, SW2, SW3: Power Switch Connector

The pin assignments are as follows:

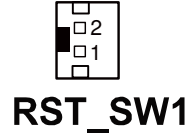
PIN	ASSIGNMENT
1	PWR_SW
2	GND



2-19. RESET SWITCH CONNECTOR

RST_SW1: Reset Switch Connector
The pin assignments are as follows:

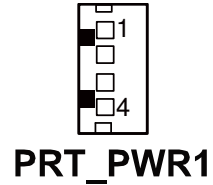
PIN	ASSIGNMENT
1	RST_SW
2	GND



2-20. POWER FOR THERMAL PRINTER CONNECTOR

PRT_PWR1: Power for Thermal Printer Connector
The pin assignments are as follows:

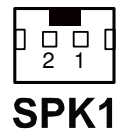
PIN	ASSIGNMENT
1	VCC24SB
2	VCC24SB
3	GND
4	GND



2-21. EXTERNAL SPEAKER CONNECTOR

SPK1: External Speaker Connector
The pin assignments are as follows:

PIN	ASSIGNMENT
1	SPK_GND
2	SPK_OUT



2-22. INVERTER CONNECTOR

JINV1: Inverter Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	+12V
2	GND
3	GND
4	BRCTR
5	LVDS_BKLTEN
6	+12V

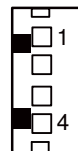


JINV1

JINV2: Inverter Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	+12V
2	GND
3	LVDS_BKLTEN
4	BRCTR



JINV2

2-23. BACKLIGHT TYPE SELECTION

JP3: Backlight Type Selection

The jumper settings are as follows:

SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION
CCFL (default)	2-3	<p>JP3</p>
LED	1-2	<p>JP3</p>

*** Manufacturing Default – CCFL

2-24. MSR/ CARD READER CONNECTOR

PS1 & PS2: MSR/ Card Reader Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	KB_CLK (Output)
2	KB_CLK_C (Input)
3	KB_DATA_C (Input)
4	KB_DATA (Output)
5	+5V
6	GND



PS1



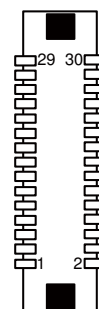
PS2

2-25. LVDS CONNECTOR

LVDS1: LVDS connector

The pin assignments are as follows:

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	LVDS_VCC	2	GND
3	NC	4	NC
5	GND	6	NC
7	NC	8	GND
9	NC	10	NC
11	NC	12	NC
13	NC	14	NC
15	GND	16	CLKO+
17	CLKO-	18	GND
19	RINO2+	20	RINO2-
21	GND	22	RINO1+
23	RINO1-	24	GND
25	RINO0+	26	RINO0-
27	RINO3+	28	RINO3-
29	LVDS_VCC	30	LVDS_VCC



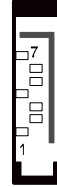
LVDS1

2-26. SATA & SATA POWER CONNECTOR

SATA1: Serial ATA Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	G1
2	TX+
3	TX-
4	G2
5	RX-
6	RX+
7	G3



SATA1

JPWR_4P1: Serial ATA Power Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	VCC
2	GND
3	GND
4	VCC12

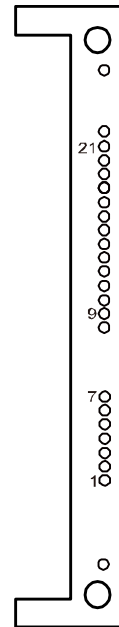


JPWR_4P1

SATA2: Serial ATA and Serial ATA Power Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	G1
2	TX+
3	TX-
4	G2
5	RX-
6	RX+
7	G3
8	N/A
9	N/A
10	N/A
11	GND
12	GND
13	GND
14	VCC5
15	VCC5
16	VCC5
17	GND
18	N/A
19	GND
20	VCC12
21	VCC12
22	VCC12



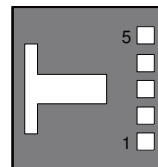
SATA2

2-27. TOUCH PANEL CONNECTOR

TOUCH1: Touch Panel Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	LR (Low Right)
2	LL (Low Left)
3	Probe
4	UR (Up Right)
5	UL (Up Left)

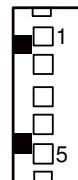


TOUCH1

TOUCH2: Touch Panel Connector

The pin assignments are as follows:

PIN	ASSIGNMENT
1	LR (Low Right)
2	LL (Low Left)
3	Probe
4	UR (Up Right)
5	UL (Up Left)





TOUCH2

2-28. TOUCH PANEL INTERFACE TYPE SELECTION

JP38, J39: USB or RS-232 interface selection for touch panel



The jumper settings are as follows:

SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION
RS-232	1-2	 JP38/ JP39
USB	2-3	 JP38/ JP39

*** Manufacturing Default – USB

JP40, JP41: USB or RS-232 interface selection for touch panel

The jumper settings are as follows:



SELECTION	JUMPER SETTING	JUMPER ILLUSTRATION
RS-232	Open	 JP40/ JP41
USB	Close	 JP40/ JP41

*** Manufacturing Default – USB


2-29. CLEAR CMOS DATA SELECTION

JP1: Clear CMOS Data Selection

The jumper settings are as follows:

FUNCTION	JUMPER SETTING (pin closed)	JUMPER ILLUSTRATION
Clear CMOS	2-3	 JP1
Normal (default)	1-2	 JP1

*** Manufacturing Default – Normal

 To clear CMOS data, users must power-off the computer and set the jumper to “Clear CMOS” as illustrated above. After five to six seconds, set the jumper back to “Normal” and power-on the computer.

2-30. COMPACT FLASH CONNECTOR

CF1: Compact Flash Connector

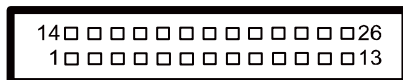
The pin assignments are as follows:

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	GND	26	GND
2	D03	27	D11
3	D04	28	D12
4	D05	29	D13
5	D06	30	D14
6	D07	31	D15
7	CSJ1	32	CSJ3
8	GND	33	GND
9	GND	34	SDIORDJ
10	GND	35	SDIOWRJ
11	GND	36	+5V
12	GND	37	IRQ14
13	+5V	38	+5V
14	GND	39	-CSEL
15	GND	40	NC
16	GND	41	RESETJ
17	GND	42	IORDJ
18	A02	43	REQ
19	A01	44	ACKJ
20	A00	45	CF_LEDJ
21	D00	46	-PDIAG
22	D01	47	D08
23	D02	48	D09
24	NC	49	D10
25	GND	50	GND

2-31. PRINTER CONNECTOR

LPT1: Printer Connector

The pin assignments are as follows:



LPT1

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	STBJ	14	ALFJ
2	PDR0	15	ERRJ
3	PDR1	16	PAR_INITJ
4	PDR2	17	SLCTINJ
5	PDR3	18	GND
6	PDR4	19	GND
7	PDR5	20	GND
8	PDR6	21	GND
9	PDR7	22	GND
10	ACKJ	23	GND
11	BUSY	24	GND
12	PE	25	GND
13	SLCTJ	26	NC

SOFTWARE UTILITIES

CHAPTER

3

This chapter provides the detailed information users need to install driver utilities for the system.

Sections included:

- Intel® Chipset Software Installation Utility
- VGA Driver Utility
- LAN Driver Utility
- Sound Driver Utility
- Fingerprinter Driver (Optional)
- RFID Module Driver (Optional)

3-1. INTRODUCTION

Enclosed with the POS-6920 Series package is our driver utilities, which comes in a CD ROM format. Refer to the following table for driver locations.

Filename (Assume that CD ROM drive is D:)	Purpose
D:\Driver\Plaform\XP,POSReady2009 (32-bit)\Main Chip or D:\Driver\Plaform\Win7,POSReady7(32-bit)\Main Chip	Intel® Chipset Software Installation Utility
D:\Driver\Plaform\XP,POSReady2009 (32-bit)\VGA or D:\Driver\Plaform\Win7,POSReady7(32-bit)\VGA	Intel® Graphics Media Accelerator 3150 for VGA driver installation
D:\Driver\Plaform\XP,POSReady2009 (32-bit)\LAN or D:\Driver\Plaform\Win7,POSReady7(32-bit)\LAN	<ul style="list-style-type: none"> ▪ For mainboard RB version: Realtek® 8119CG for LAN Driver installation ▪ For mainboard RA version: Realtek® 8111DL for LAN Driver installation
D:\Driver\Plaform\XP,POSReady2009 (32-bit)\Sound or D:\Driver\Plaform\Win7,POSReady7(32-bit)\Sound	Realtek® ALC888 for Sound driver installation
D:\Driver\Device	Driver installation for touchscreen, embedded printer, wireless, MSR, etc.

🔔 Users must install the driver utilities right after the OS is fully installed.

3-2. INTEL® CHIPSET SOFTWARE INSTALLATION UTILITY

3-2-1. Introduction

The Intel® Chipset Software Installation Utility installs to the target system the Windows* INF files that outline to the operating system how the chipset components will be configured. This is needed for the proper functioning of the following features.

- SATA Storage Support (SATA & SATA II)
- USB Support (1.1 & 2.0)
- Identification of Intel® Chipset Components in Device Manager

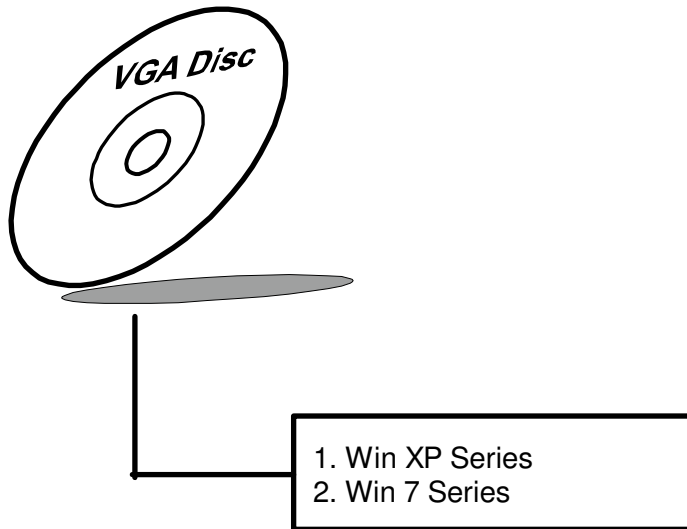
3-2-2. Installation of Intel® Chipset Driver

The utility pack is to be installed only for Windows XP/ 7 series, and it should be installed right after the OS installation. Please follow the steps below:

1. Connect the USB-CD ROM device to the POS-6920 and insert the driver disk inside.
2. Enter the “Main Chip” folder where the Chipset driver is located (depending on your OS platform).
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart the POS-6920 for the changes to take effect.

3-3. VGA DRIVER UTILITY

The VGA interface embedded with the POS-6920 series can support a wide range of display types. You can have dual displays via CRT and LVDS interfaces work simultaneously.



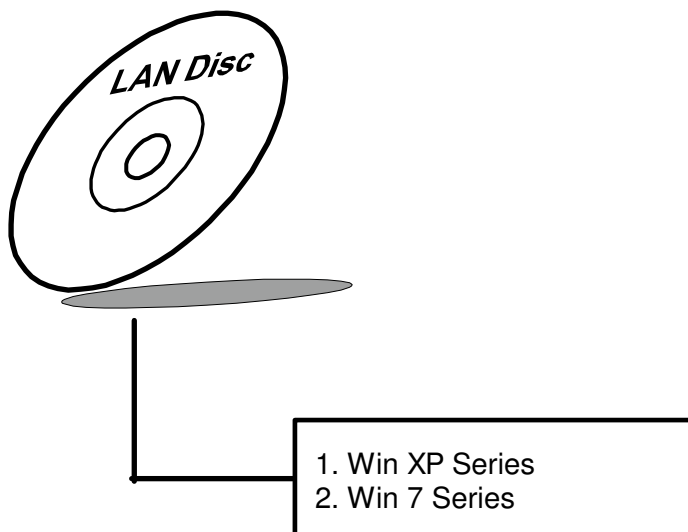
3-3-1. Installation of VGA Driver

To install the VGA Driver, follow the steps below:

1. Connect the USB-CD ROM device to the POS-6920 and insert the driver disk inside.
2. Enter the "VGA" folder where the VGA driver is located (depending on your OS platform).
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart the POS-6920 for the changes to take effect.

3-4. LAN DRIVER UTILITY

The POS-6920 Series is enhanced with LAN function that can support various network adapters. Installation platform for the LAN driver is listed as follows:



For more details on the Installation procedure, please refer to the Readme.txt file found on LAN Driver Utility.

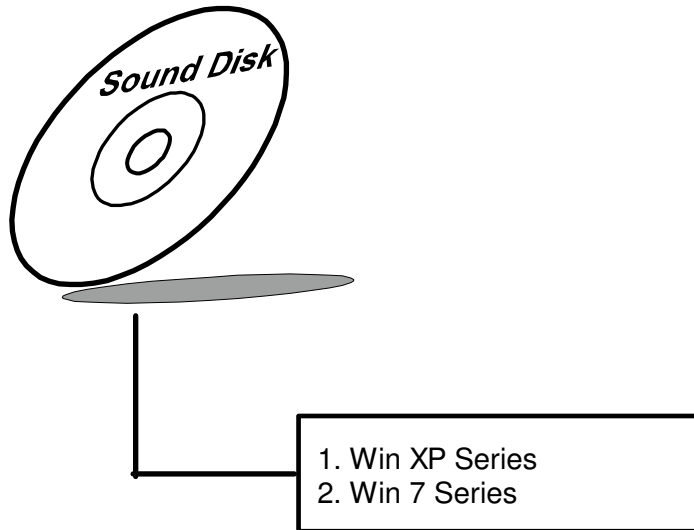
3-4-1. Installation of LAN Driver

To install the LAN Driver, follow the steps below:

1. Connect the USB-CD ROM device to the POS-6920 and insert the driver disk inside.
2. Enter the "LAN" folder where the LAN driver is located (depending on your OS platform).
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart the POS-6920 for the changes to take effect.

3-5. SOUND DRIVER UTILITY

The sound function enhanced in this system is fully compatible with Windows XP/7 series. Below, you will find the content of the Sound driver.



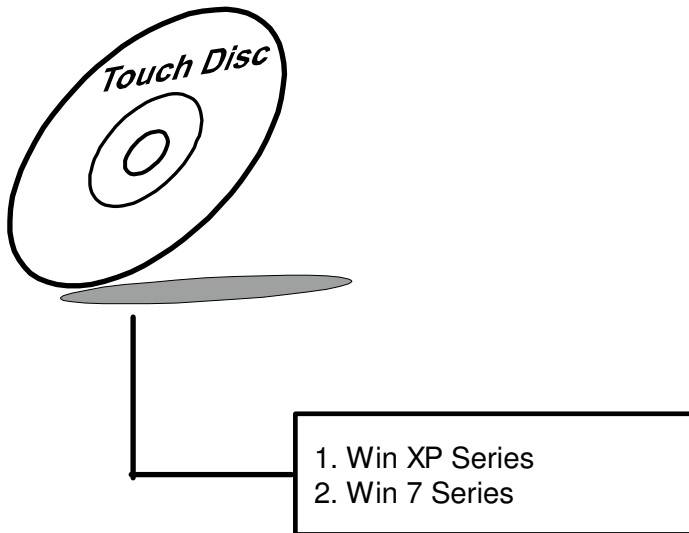
3-5-1. Installation of Sound Driver

To install the Sound Driver, follow the steps below:

1. Connect the USB-CD ROM device to the POS-6920 and insert the driver disk inside.
2. Enter the "Sound" folder where the Sound driver is located (depending on your OS platform).
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart the POS-6920 for the changes to take effect.

3-6. TOUCHSCREEN DRIVER UTILITY

The touchscreen driver utility can only be installed on a Windows platform (XP/7 series), and it should be installed right after the OS installation.



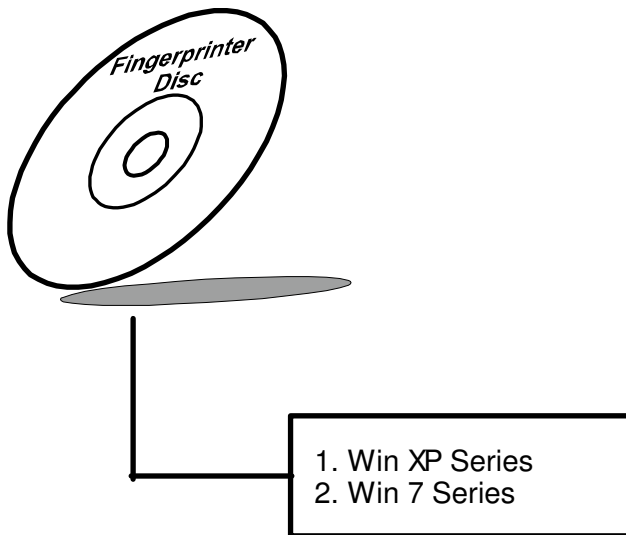
3-6-1. Installation of Touchscreen Driver

To install the Touchscreen Driver, follow the steps below:

1. Connect the USB-CD ROM device to the POS-6920 and insert the driver disk inside.
2. Enter the "Device/Touchscreen" folder where the Touchscreen driver is located.
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart the POS-6920 for the changes to take effect.

3-7. FINGERPRINTER DRIVER UTILITY (OPTIONAL)

The fingerprinter driver utility can only be installed on a Windows platform (XP/7 series), and it should be installed right after the OS installation.



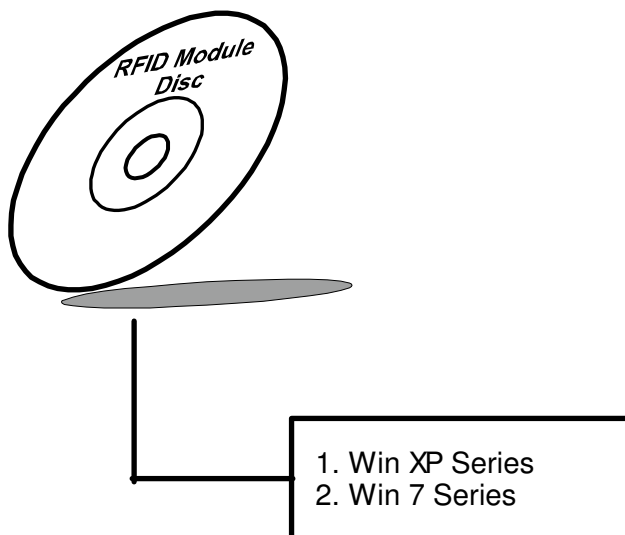
3-7-1. Installation of Fingerprinter Driver

To install the Fingerprinter Driver, follow the steps below:

1. Connect the USB-CD ROM device to the POS-6920 and insert the driver disk inside.
2. Enter the "Device/Embedded Fingerprint" folder where the Fingerprinter driver is located.
3. Click **Setup.exe** file for driver installation.
4. Follow the on-screen instructions to complete the installation.
5. Once installation is completed, shut down the system and restart the POS-6920 for the changes to take effect.

3-8. RFID MODULE DRIVER UTILITY (OPTIONAL)

The RFID Module driver utility can only be installed on a Windows platform (XP/7 series), and it should be installed right after the OS installation.



3-7-1. Installation of RFID Module Driver

To install the RFID Module Driver, follow the steps below:

1. Connect the USB-CD ROM device to the POS-6920 and insert the driver disk inside.
2. Enter the "Device/Embedded RFID Module" folder where the RFID Module driver is located.
3. Click **Autorun.exe** file for driver installation.
4. Select **Mifare Demo Software V1.5R8**.
5. Follow the on-screen instructions to complete the installation.
6. Once installation is completed, shut down the system and restart the POS-6920 for the changes to take effect.

AMI BIOS SETUP

CHAPTER

4

This chapter shows how to configure the AMI BIOS settings.

Sections included:

- Introduction
- Entering Setup
- Main
- Advanced
- Boot
- Security
- Chipset
- Exit

4-1. INTRODUCTION

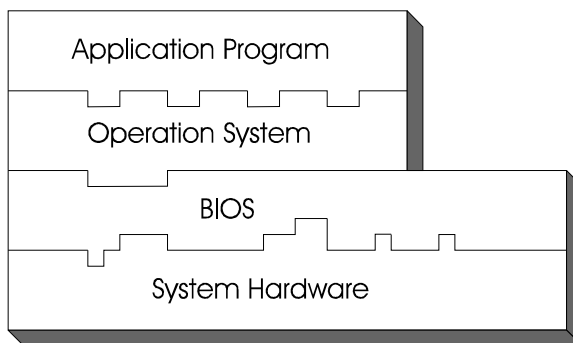
This chapter will illustrate functions of the BIOS (Basic Input/Output System) in managing the features of your system. The **6920LF** motherboard is equipped with the BIOS from AMI (American Megatrends Inc). Following pages describe how to use the BIOS in order to configure system hardware by BIOS setup menu.

When the PC starts up, its first job for the BIOS is to initialize and identify all system devices such as the video display card, keyboard and mouse, hard disk, CD/DVD drive and other hardware. The BIOS then locates operating system(s) saved on storage device (designated as a 'boot device'), be it a hard disk, USB flash disk or a CD/DVD, and loads and executes that operating system, giving it control over the PC.

BIOS code is stored on a non-volatile, ROM chip built into the system, on the mother board and the BIOS software is specifically designed to work with the particular type of system in question. That includes having understanding of principles for each devices included in the PC.

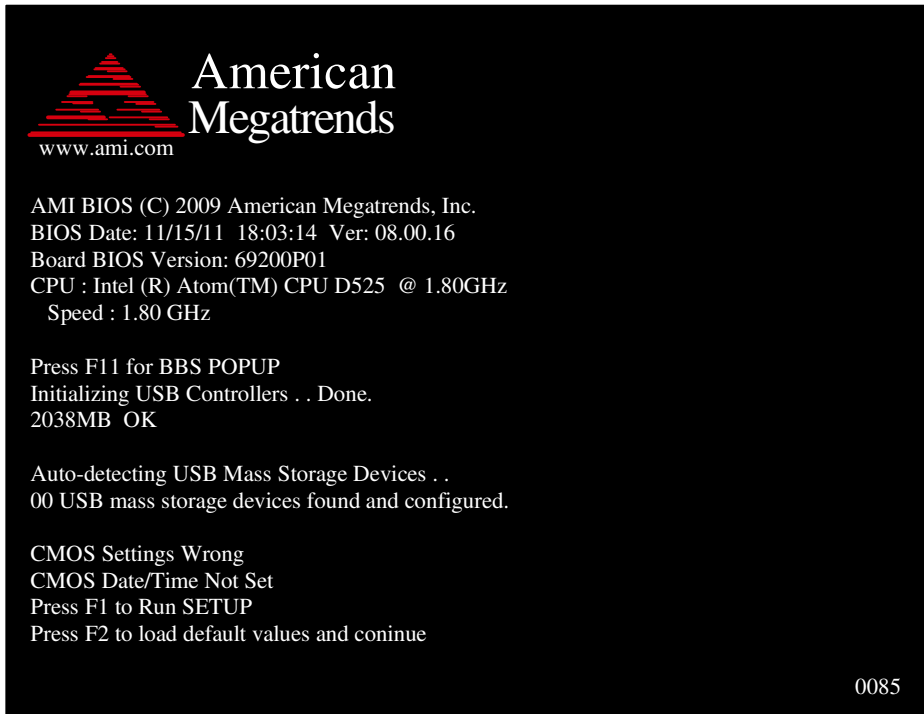
BIOS also provides an user interface—in this document referent to as setup menu—in a form of a menu system accessed by pressing a certain key on the keyboard when the PC starts. In the BIOS setup menu, a user can configure hardware, set the system clock, enable or disable system components, and most importantly, select which devices are eligible to be a potential boot device. It is also possible to set various password prompts, for instance a password for securing access to the BIOS setup menu functions itself and preventing unauthorized users from booting undesirable operating systems from peripheral devices.

Following diagram illustrates the relationships between system hardware, BIOS, operating system, and application program:



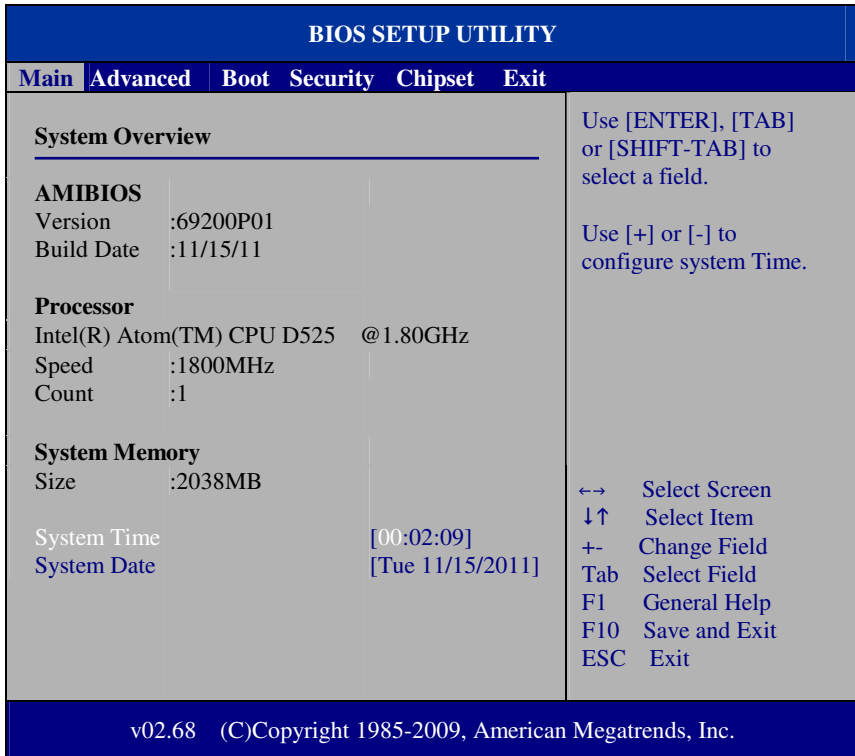
4-2 ENTERING SETUP

When system powered on, BIOS will enter the Power-On Self Test (POST) routines and displays below message on the screen:



POST Screen

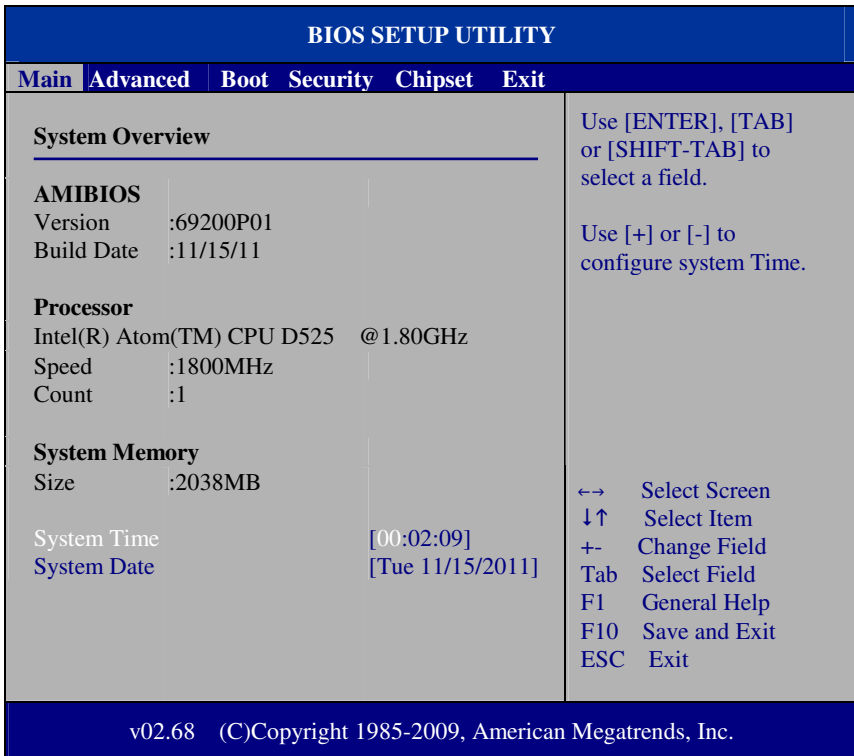
As long as this logo is present on the screen you may press the key (the one that shares the decimal point at the bottom of the number keypad) to enter the BIOS setup program. In a moment, the main menu of the AMI SETUP program will be shown on the screen:



Setup program initial screen

You may move the cursor by up/down keys to highlight the individual menu items. As you highlight each item, a brief description of the highlighted selection will appear at the right side of the screen.

4-3. Main

**Main Screen**

use <↑> or <↓> arrow keys to highlight the item and key in the value you want in each item. This menu provides basic system configurations, such as time and date.

AMI BIOS, Processor, System Memory

This items show the BIOS version, BIOS build up date, processor and system memory information of your system.

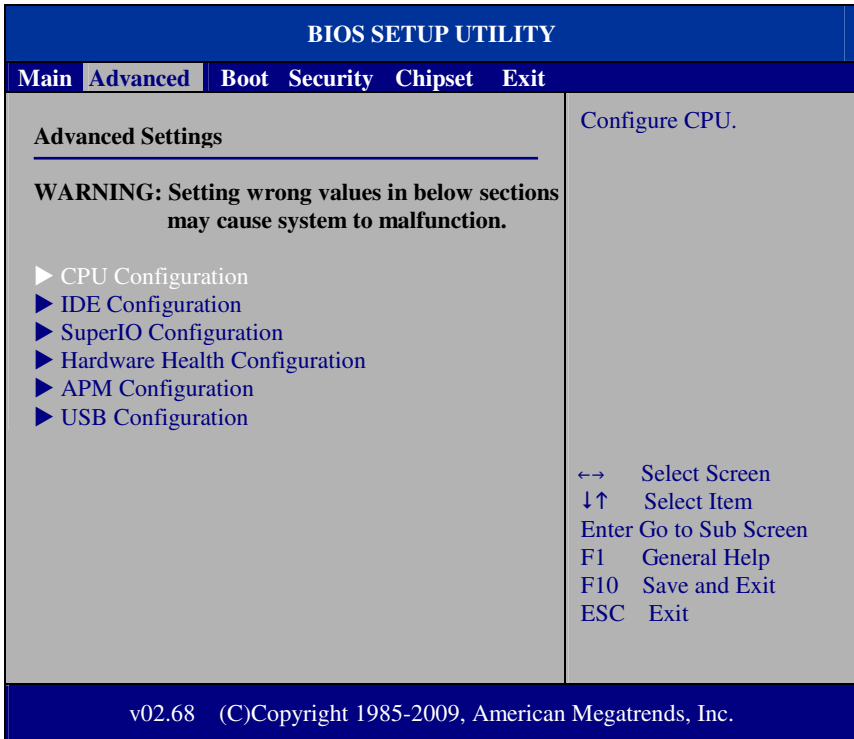
System Time

This setting allows you to set the system time. The format is [Hour: Minute: Second]. User can directly key-in value or use <+> or <-> arrow keys to increase/decrease it.

System Date

This setting allows you to set the system date. The format is [Day: Month: Date: Year]. User can directly key-in value or use <+> or <-> arrow keys to increase/decrease it.

4-4. Advanced



Advanced Screen

This menu provides advanced configurations such as CPU Configuration, IDE Configuration, Super I/O Configuration, etc.

4-4.1. CPU Configuration

BIOS SETUP UTILITY	
Advanced	
Configure advanced CPU settings Module Version: 3F.1C	
Manufacturer :Intel Intel(R) Atom(TM) CPU D525 @ 1.80GHz Frequency :1.80GHz FSB Speed :800MHz Cache L1 :48 KB Cache L2 :1024 KB Ratio Actual Value :9	Enabled for Windows XP and Linux4 (OS optimized for Hyper Threading Technology) and disabled for other OS (OS not optimized for Hyper-Threading Technology)
Hyper Threading Technology [Enabled]	↔ Select Screen ↓↑ Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit
v02.68 (C)Copyright 1985-2009, American Megatrends, Inc.	

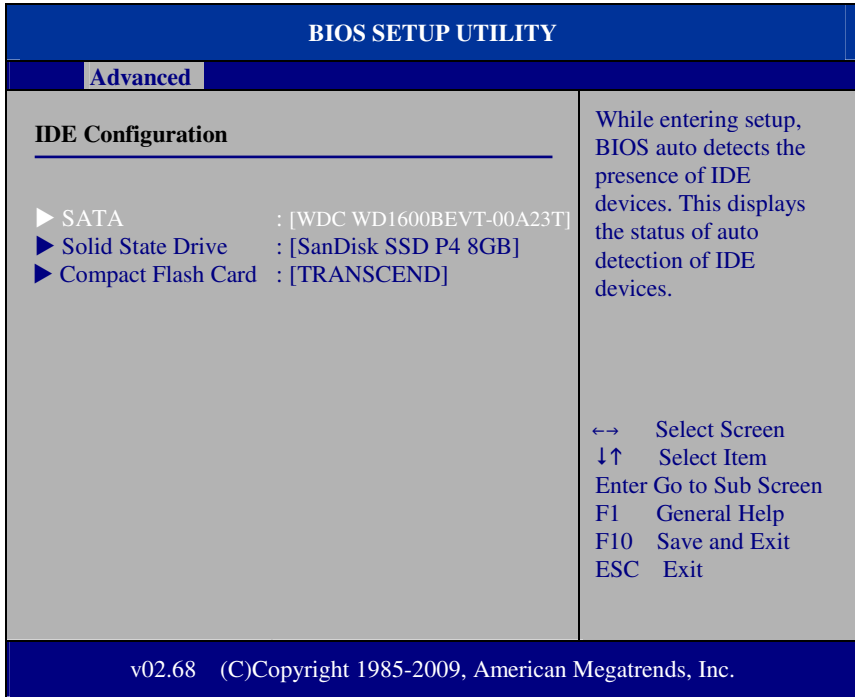
CPU Configuration Screen

This menu provides advanced CPU settings and some information about CPU.

Hyper Threading Technology

Hyper Threading is Intel's term for its simultaneous multithreading implementation in their CPUs. Enable this function will improve parallelization of computation performed on PC microprocessor. For each processor core that is physically present, the operation system addresses two virtual processors, and shares the workload between them when possible.

4-4.2. IDE Configuration



IDE Configuration Screen

This menu provides advanced IDE configuration for hard drive. The control items of SATA / Solid State Drive (SSD)/Compact Flash (CF) Card are all the same and describe in next section.

SATA / Solid State Drive (SSD)/Compact Flash (CF) Card

This setting displays the status of storages.

4-4.2.1 SATA / Solid State Drive (SSD)/Compact Flash (CF) Card

BIOS SETUP UTILITY	
Advanced	
SATA 1	
Device	:Hard Disk
Vendor	:FUJITSU MHY2040BH ESW
Size	:40.0GB
LBA Mode	:Supported
Block Mode	:16Sectors
PIO Mode	:4
Async DMA	:MultiWord DMA-2
Ultra DMA	:Ultra DMA-5
S.M.A.R.T.	:Supported
Type	[Auto]
LBA/Large Mode	[Auto]
Block (Multi-Sector Transfer)	[Auto]
PIO Mode	[Auto]
DMA Mode	[Auto]
S.M.A.R.T.	[Auto]
32Bit Data Transfer	[Enabled]
Select the type of device connected to the system.	
↔	Select Screen
↓↑	Select Item
+ -	Change Option
F1	General Help
F10	Save and Exit
ESC	Exit
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SATA Screen

Type

Select the type of device connected to the system.

LBA/Large Mode

Enabling LBA causes Logical Block Addressing to be used in place of Cylinders, Heads and Sectors.

Block (Multi-Sector Transfer)

Any selection except Disabled determines the number of sectors transferred per block.

PIO Mode

Configure the type of PIO (Programmed Input/Output) mode 0-4 for IDE device. Mode 0 through 4 provides successively increased performance.

DMA Mode

Select the type of Ultra DMA mode on a hard drive.

S.M.A.R.T

This allows you to activate the S.M.A.R.T. (Self-Monitoring Analysis & Reporting Technology) capability for the hard disks. S.M.A.R.T is a utility that monitors your disk status to predict hard disk failure. This gives you an opportunity to move data from a hard disk that is going to fail to a safe place before the hard disk becomes offline.

32Bit Data Transfer

Enables/Disable 32-bit data transfer.

4-4.3. Super I/O Configuration

BIOS SETUP UTILITY	
Advanced	
Configure Win627UHG Super IO Chipset	
Watchdog Function	[Disabled]
Serial Port1 Address	[3F8]
Serial Port1 IRQ	[IRQ4]
Serial Port2 Address	[2F8]
Serial Port2 IRQ	[IRQ3]
Serial Port3 Address	[3E8]
Serial Port3 IRQ	[IRQ11]
Serial Port4 Address	[2E8]
Serial Port4 IRQ	[IRQ10]
Parallel Port Address	[378]
Parallel Port Mode	[Normal]
Parallel Port IRQ	[IRQ7]
Allows BIOS to set WDTO function.	
↔ Select Screen ↓↑ Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit	
v02.68 (C)Copyright 1985-2009, American Megatrends, Inc.	

Super I/O Configuration Screen**WatchDog function**

If system hang or not respond for user, enable watchdog function can triggers a system reset by an user given value count down to zero.

Serial Port1~4 Address

Select IO address as serial ports default resource.

Serial Port1~4 IRQ

Select IO IRQ as serial ports default resource.

Parallel Port Address

Select IO address for parallel ports resource allocation.

Parallel Port Mode

Select the operation mode for parallel port.

Parallel Port IRQ

Select IRQ for parallel ports resource allocation.

4-4.4. Hardware Health Configuration

BIOS SETUP UTILITY	
Advanced	
Hardware Health Configuration	
System Temperature	: 43°C / 109°F
CPU Temperature	: 51°C / 123°F
Vcore	: 1.104 V
12V	: 11.776 V
5V	: 5.024 V
1.05V	: 1.080 V
VSB	: 5.049 V
	↔ Select Screen ↓↑ Select Item F1 General Help F10 Save and Exit ESC Exit
v02.68 (C)Copyright 1985-2009, American Megatrends, Inc.	

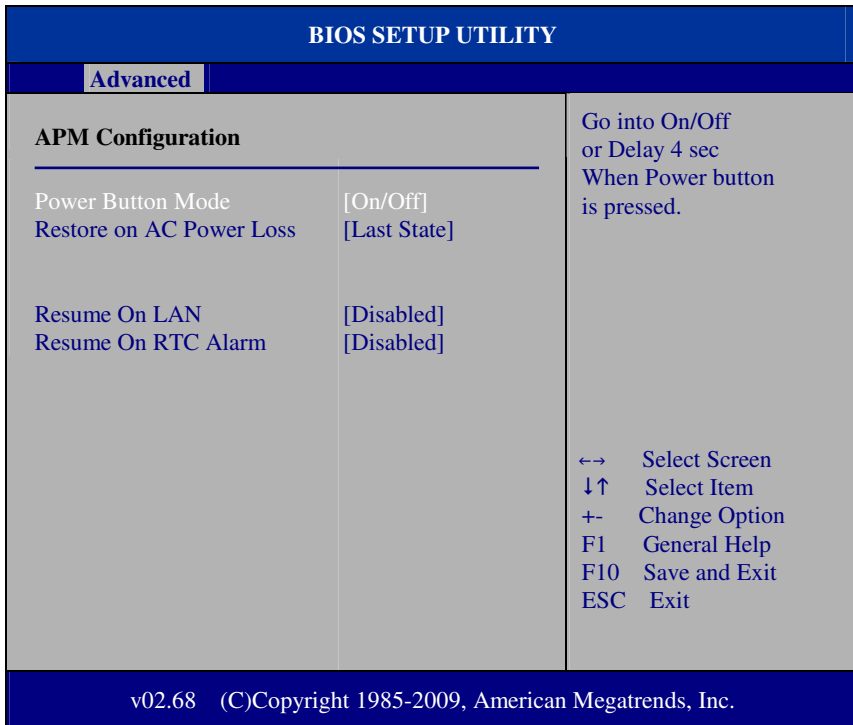
Hardware Health Configuration Screen**System Temperature / CPU Temperature**

Both sections show System and CPU current temperature.

VCORE / 12V / 5V / 1.05V / VSB

These items provide hardware health information.

4-4.5. APM Configuration



APM Configuration Screen

Power Management/APM

This is the main control item for enable/disable below APM functions.

Power Button Mode

This setting controls shutdown action by pressing power button. The system will be shutdown immediately after pressing power button when set to “On/Off”. If set the power button mode to “Delay 4 seconds”, system will be shutdown after pressing and hold the power button over 4 seconds.

Restore on AC/Power Loss

Once a power failure situation happens, this item decides the system power state after AC power restore back.

Resume On LAN

When user set this option to [Enable], System can be wake up from sleep state and boot into OS once received an incoming message from LAN device.

Resume On RTC Alarm

When user set this option to [Enable], it allows system to be wake up at specific date/time.

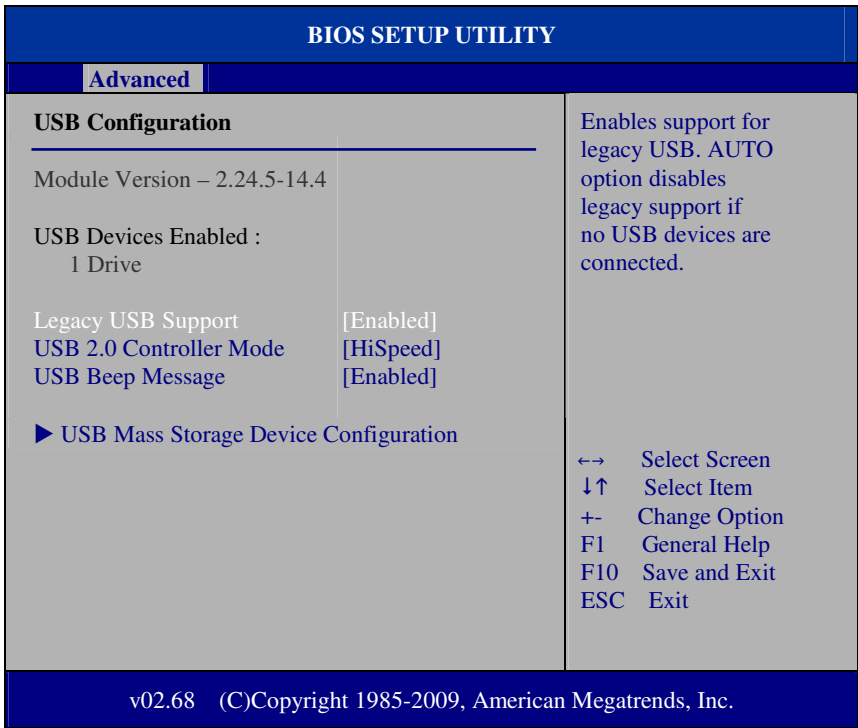
RTC Alarm Date (Days)

Set a specific date value for RTC alarm function to wakeup system from soft off state.

System Time

Set a specific time value for RTC alarm function to wakeup system from soft off state.

4-4.6 USB Configuration



USB Configuration Screen

Legacy USB Support

Set to [Enabled] if you want to use USB device in the legacy operating system, such as MS-DOS or SCO Unix.

USB 2.0 Controller Mode

Configure the onboard USB 2.0 controller operation mode to high Speed or full speed mode.

USB Beep Message

System will generate beep sound during USB device enumeration.

4-4.6.1 USB Mass Storage Device Configuration

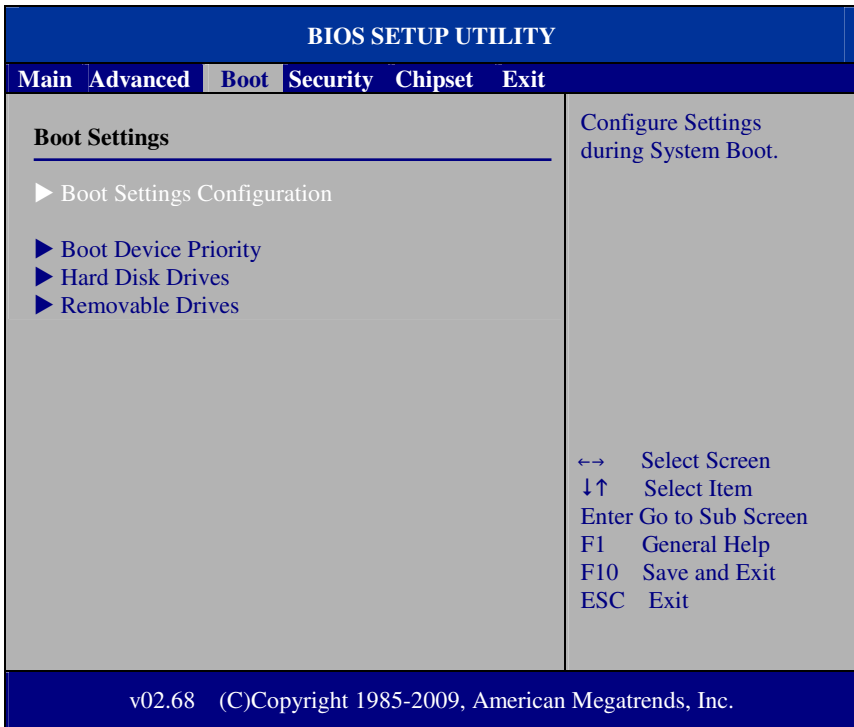
BIOS SETUP UTILITY	
Advanced	
USB Mass Storage Device Configuration	
Device #1 Emulation Type	USB2.0 USB Flash Disk [Auto]
<p>If Auto, USB devices less than 530MB will be emulated as Floppy and remaining as hard drive. Forced FDD option can be used to force a HDD formatted drive to boot as FDD (Ex. ZIP drive).</p> <p>↔ Select Screen ↓↑ Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit</p>	
v02.68 (C)Copyright 1985-2009, American Megatrends, Inc.	

USB Mass Storage Device Configuration Screen

Emulation Type

Select which type of device that USB mass storage emulation. When user select to [Auto], the USB storage size less than 530MB will be emulated as floppy drive and remaining as hard drive.

4-5. Boot



Boot Screen

This menu provides control items for system boot configuration.

4-5.1 Boot Settings Configuration

BIOS SETUP UTILITY	
Boot	
Boot Settings Configuration <hr/> Quick Boot [Enabled] Quiet Boot [Disabled] Parity Check [Disabled]	Allows BIOS to skip certain tests while booting. This will decrease the time needed to boot the system.
	↔ Select Screen ↓↑ Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit
v02.68 (C)Copyright 1985-2009, American Megatrends, Inc.	

Boot Settings Configuration Screen**Quick Boot**

Enable this item allows BIOS POST to skip some tests during boot-up for saving boot time.

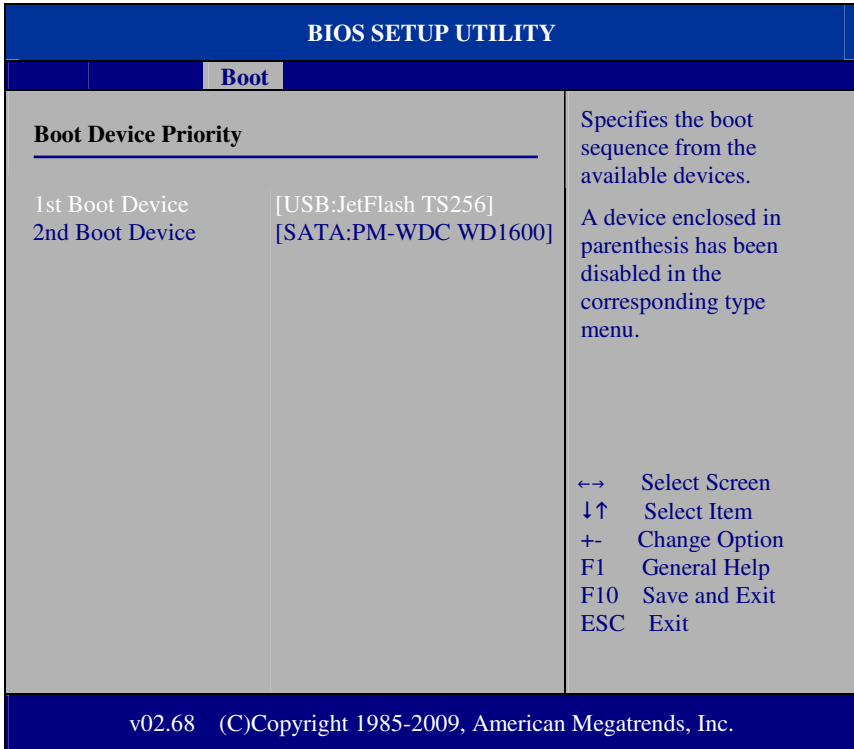
Quiet Boot

When set this option to [disabled], BIOS will display normal POST messages.

Parity Check

This setting enables or disables memory or parity error check.

4-5.2 Boot Device Priority

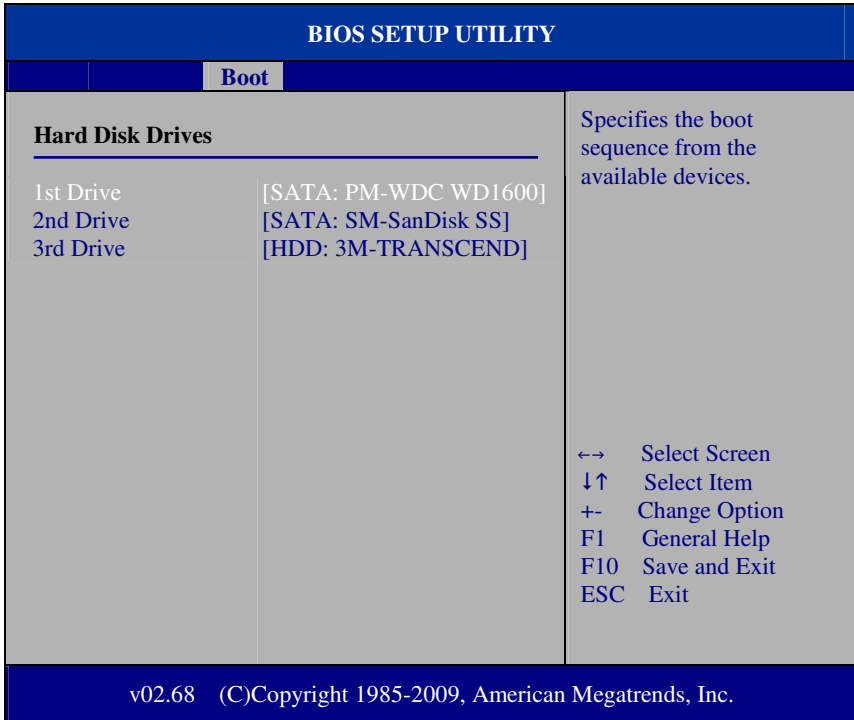


Boot Device Priority Screen

1st / 2nd / 3rd ...Boot Device

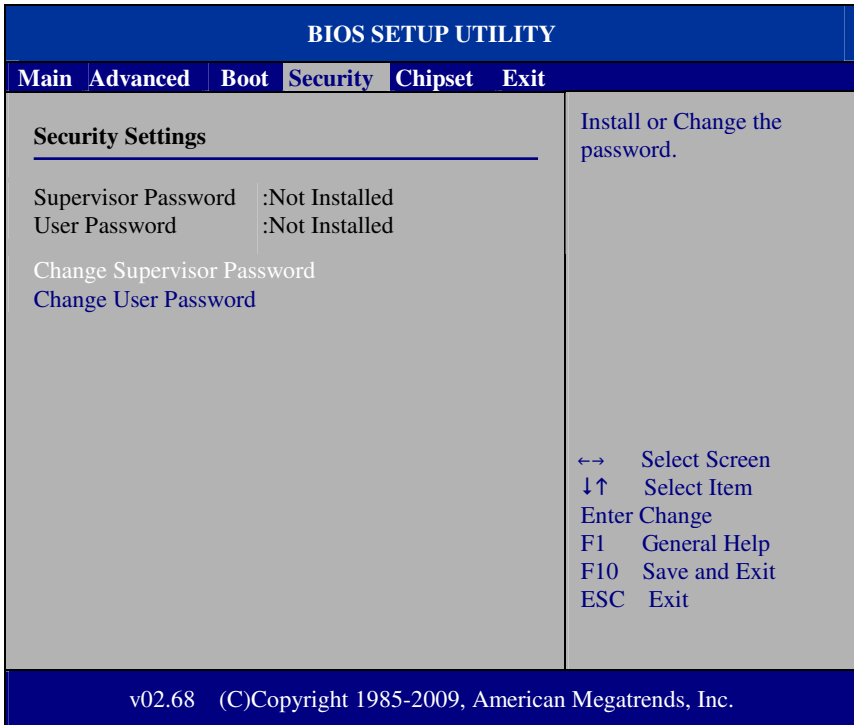
Choose the boot sequence from the available devices.

4-5.3 Hard Disk Drives

**Hard Disk Drives Screen****1st / 2nd ...Drive**

This setting allows user to set the priority of hard drive or another bootable USB storages. Press <Enter> to enter the sub-menu and press <↑> or <↓> arrow keys to select the device. Another way is to press <+> or <-> to move it up/down in the priority list.

4-6. Security



Security Settings Screen

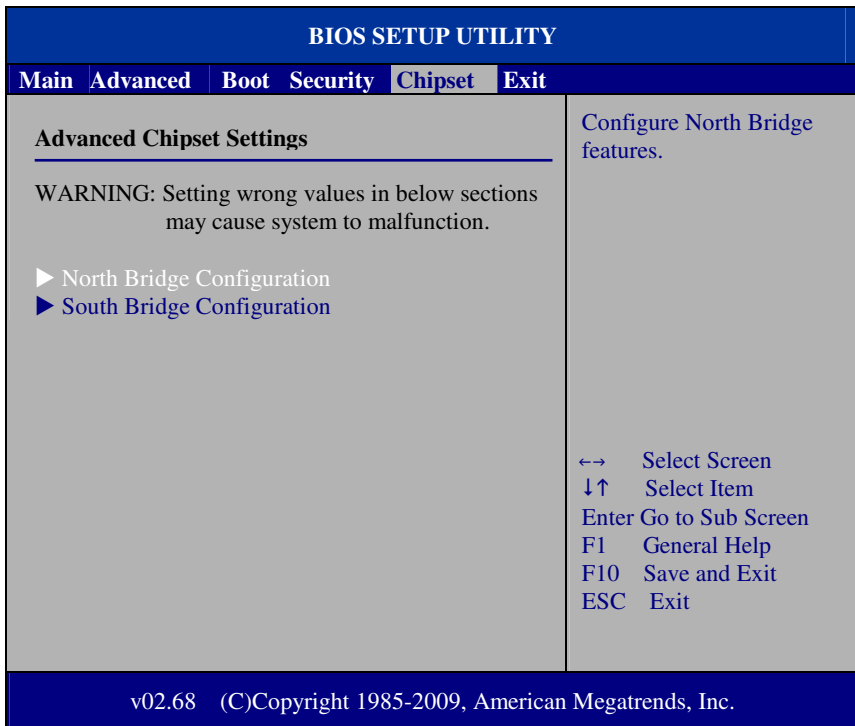
Change Supervisor Password

Supervisor Password controls the access right to the BIOS Setup utility. These settings allow user to set or change the supervisor password.

Change User Password

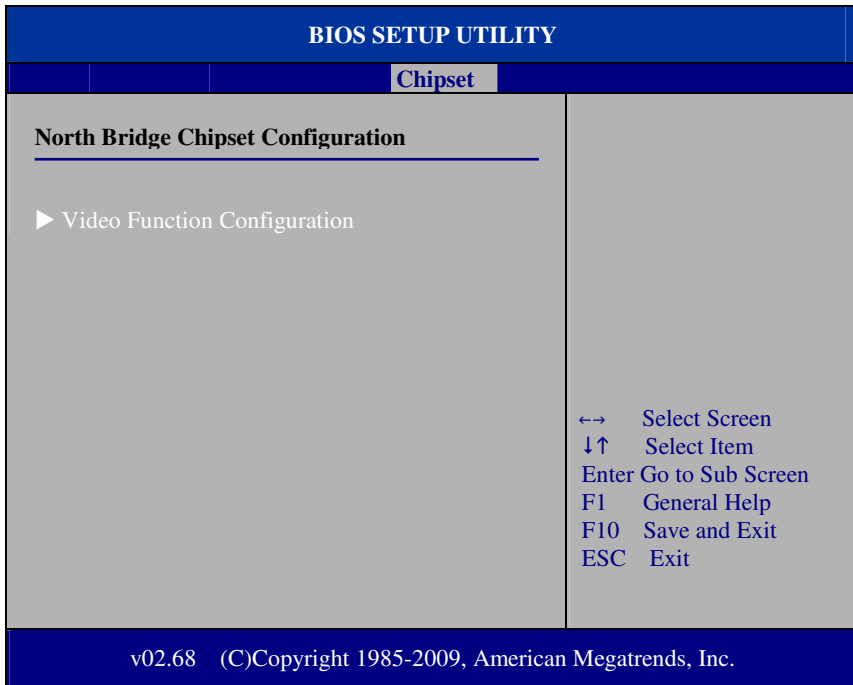
User Password controls system access right when power on. These settings allow user to set or change the user password.

4.7 Chipset



Advanced Chipset Settings Screen

4-7.1 North Bridge Chipset Configuration



North Bridge Chipset Configuration

4-7.1.1 Video Function Configuration

BIOS SETUP UTILITY		
	Chipset	
Video Function Configuration		Options
DVMT Mode Select	[DVMT Mode]	Fixed Mode
DVMT/FIXED Memory	[256MB]	DVMT Mode
Boot Display Device	[CRT+LVDS]	
Flat Panel Type	[1024x768]	
		↔ Select Screen ↓↑ Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit
v02.68 (C)Copyright 1985-2009, American Megatrends, Inc.		

Video Function Configuration Screen

DVMT Mode Select / DVMT/ FIXED Memory

Intel's Dynamic Video Memory Technology (DVMT) allows the system to dynamically allocated memory resources according to the demands of the system at any point in time. The key idea in DVMT is to improve the efficiency of the memory allocated to either system or graphics processor. It is recommended that user select this option to DVMT Mode that system memory is dynamically allocated for optimal balance between graphics and system performance.

Boot Display Device

Choose the default boot display device by user requirement such as [CRT], [LVDS] and [CRT+LVDS].

Flat Panel Type

Select the resolution for the connected LVDS panel such as [800x600] and [1024x768].

4-7.2 South Bridge Chipset Configuration

BIOS SETUP UTILITY		
	Chipset	
South Bridge Chipset Configuration		Options
USB 2.0 Controller	[Enabled]	Enabled
HDA Controller	[Enabled]	Disabled
		↔ Select Screen ↓↑ Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit
v02.68 (C)Copyright 1985-2009, American Megatrends, Inc.		

South Bridge Chipset Configuration Screen

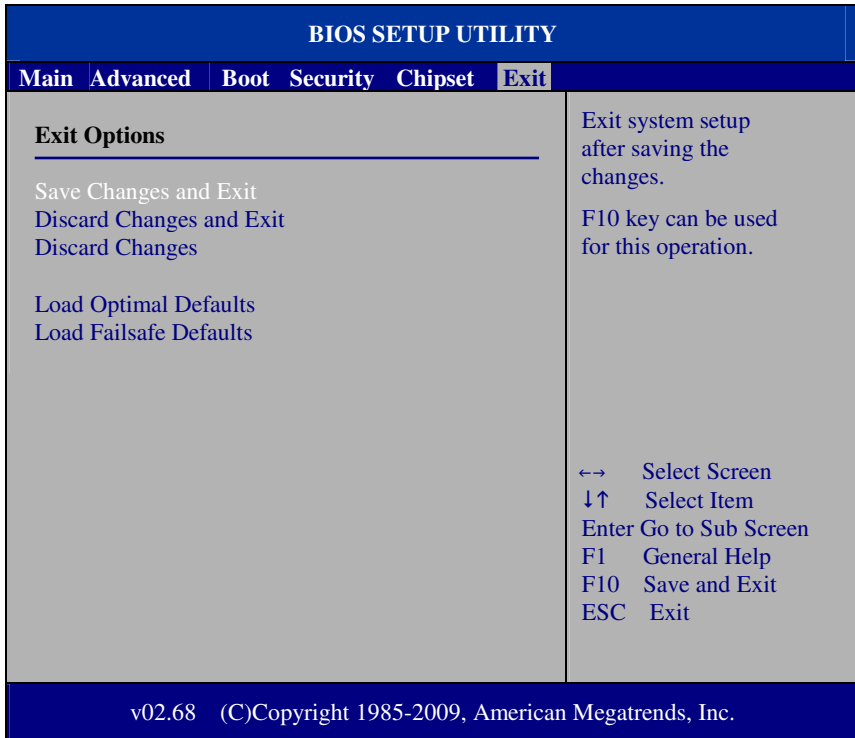
USB 2.0 Controller

Enable the USB 2.0 Controller.

HDA Controller

Enable or disable the onboard High-definition Audio controller.

4.8 Exit



Exit Screen

Save Changes and Exit

Save changes to CMOS and then exit the BIOS setup screen. User can also press the [F10] key for this operation.

Discard Changes and Exit

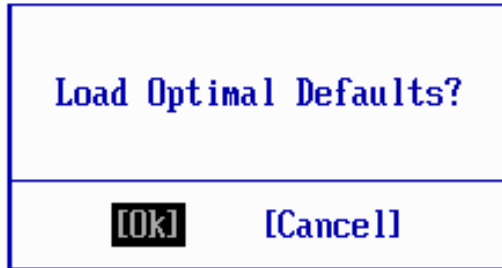
Abandon all changes and exit the BIOS setup screen. User can also press the [ESC] key for this operation.

Discard Changes

Discard all changes done so far to the setup items. User can press the [F7] key for this operation.

Load Optimal Defaults

Press <Enter> on this item, it will show a confirmation dialog box with a message like below:



Pressing "Ok" to loads the factory recommended optimal setting for system operations. User can also press the [F9] key for this operation.

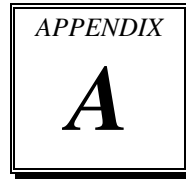
Load Failsafe Defaults

Press <Enter> on this item, it will show a confirmation dialog box with a message like below:



To use the BIOS failsafe default values, change the prompt to "Ok" and press the <Enter > key. User can also press the [F8] key for this operation.

SYSTEM ASSEMBLY



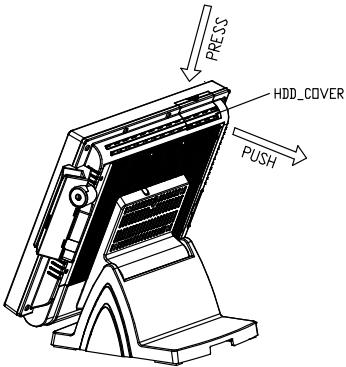
This appendix contains exploded diagrams and part numbers of the POS-6920 system.

Sections included:

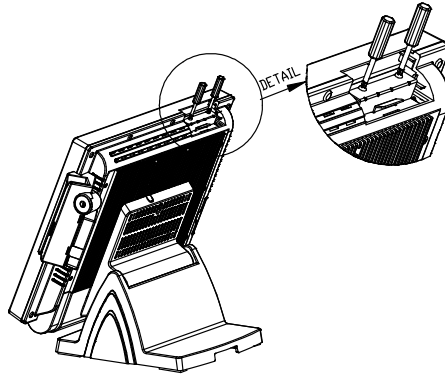
- Exploded Diagram for POS-6920 HDD Module Maintenance
- Exploded Diagram for POS-6920 M/B Case Module Assembly
- Exploded Diagram for POS-6920 HDD Module Assembly
- Exploded Diagram for POS-6920 SSD Module Assembly
- Exploded Diagram for POS-6920 Plastic Module Assembly
- Exploded Diagram for POS-6920 Heat Sink Module Assembly
- Exploded Diagram for POS-6920 Rotate Module Assembly
- Exploded Diagram for POS-6920 Stand Module Assembly
- Exploded Diagram for POS-6920 PPC & Stand Module Assembly
- Exploded Diagram for POS-6920 MSR Module Assembly
- Exploded Diagram for POS-6920 VFD Module Assembly
- Exploded Diagram for POS-6920 2ND Display Module Assembly

EXPLODED DIAGRAM FOR POS-6920 HDD MODULE MAINTENANCE

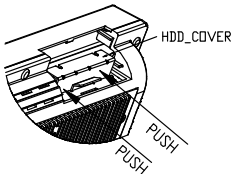
STEP1: REMOVE HDD_COVER



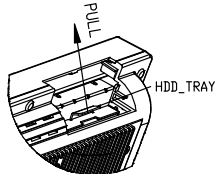
STEP2: RELEASE 2 SCREW



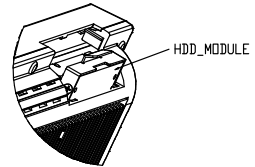
STEP3: FOLLOW ARROW TO PUSH HDD CHASSIS



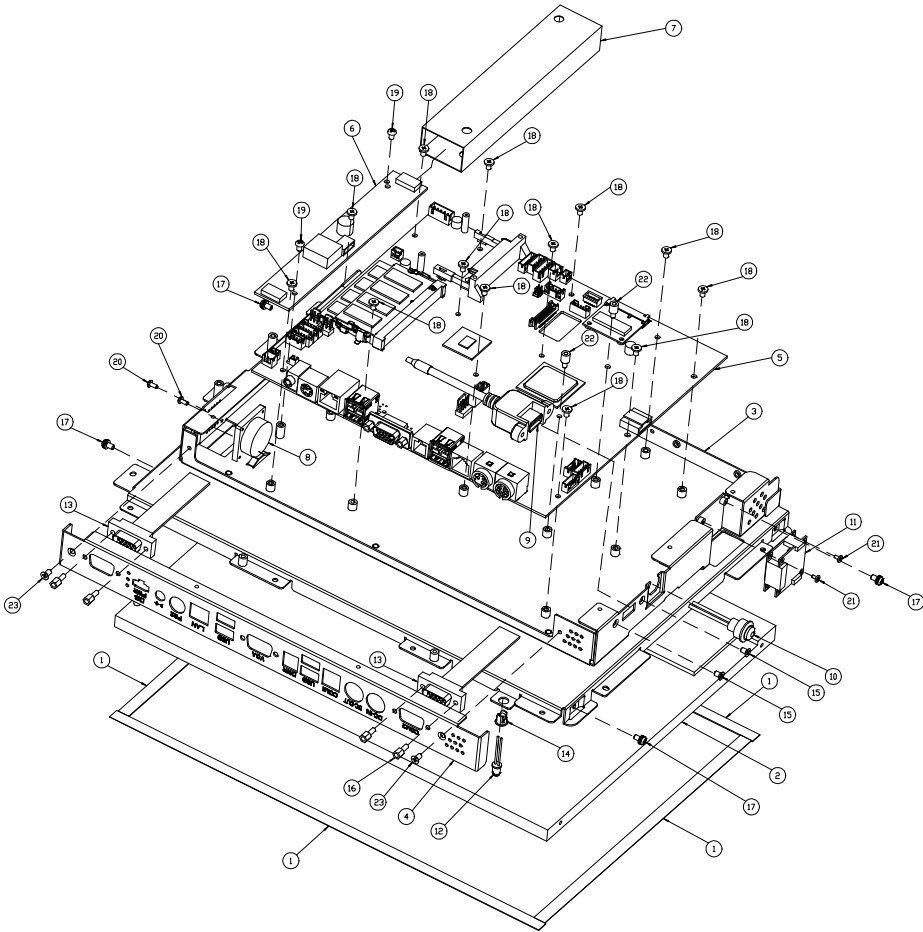
STEP4: FOLLOW ARROW TO PULL HDD TRAY



STEP5: RELEASE HDD MODULE

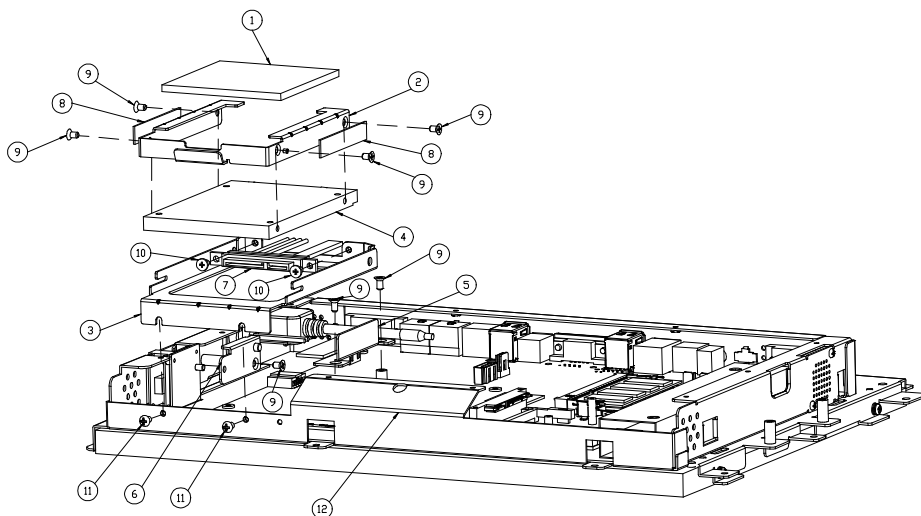


EXPLODED DIAGRAM FOR POS-6920 M/B CASE MODULE ASSEMBLY



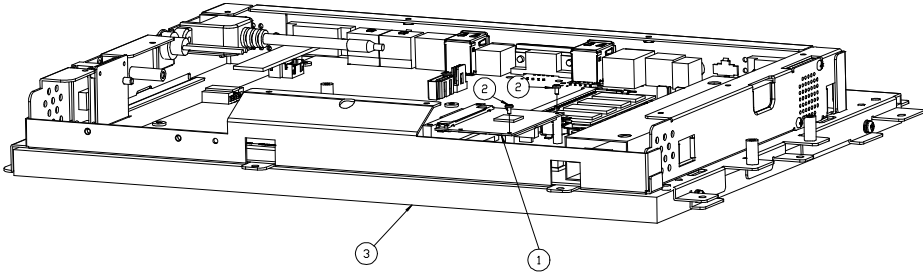
Pos	Qty	Part Name	Part No.
①	4	LCD_SPONGE(341.9x8x0.5 mm)	30-013-24100000
②	1	15" LCD_PANEL_AUO	52-351-03150302
③	1	INSIDE_CASE_ASSY	80-001-03001226
④	1	ID_PORT_PLATE	80-005-03003226
⑤	1	POS-6920 MB	PB-6151RA-A1N
⑥	1	LCD INVERTER BOARD	52-101-15020503
⑦	1	INVERTER MYLAR(154x31x19.6mm)	90-056-02100181
⑧	1	SPEAKER CABLE, L=60mm	13-500-08280018
⑨	1	USB_CABLE, L=70mm	27-006-18802111
⑩	1	POWER_SWITCH_CABLE	27-019-01202071
⑪	1	RFID_MODULE	52-151-08321015
⑫	1	LED CABLE, L=500mm	27-018-22610071
⑬	2	COM_PORT_CABLE	27-024-16502031
⑭	1	LED HOUSING(Black)	30-014-04100009
⑮	2	F_SCREW,UNC-No.4-40,L=8mm	22-315-40008019
⑯	4	HEX_CU_BOSS	22-692-40048051
⑰	4	R_S SCREW,M3.0x0.5Px6mm	22-232-30060211
⑱	13	I_Screw,M3x0.5Px4mm	82-272-30004018
⑲	2	R_Screw,M3.0x0.5Px5mm	22-230-30005811
⑳	2	P_Screw,T2.0x5mm	22-122-20005011
㉑	2	I_Screw,M2x0.4Px3.5mm	22-272-20003011
㉒	2	HEX_CU_BOSS	22-290-30006051
㉓	2	F_SCREW,M3x0.5Px5mm	22-215-30005011

EXPLODED DIAGRAM FOR POS-6920 HDD MODULE ASSEMBLY



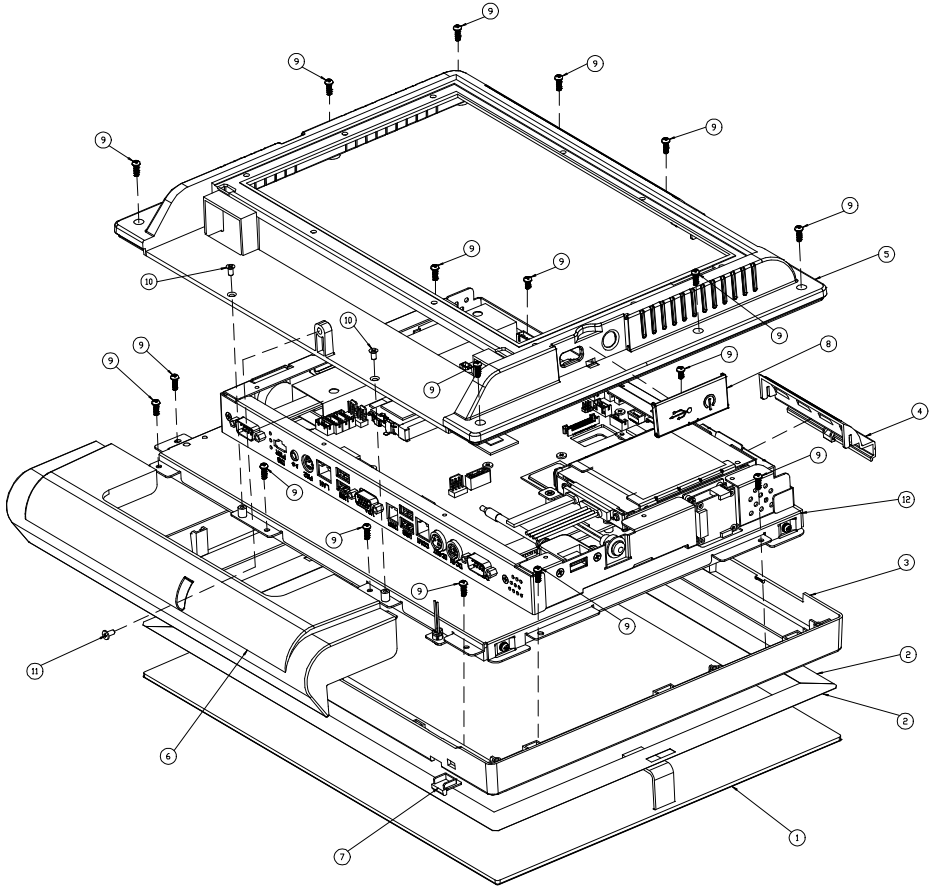
Pos	Qty	Part Name	Part No.
①	1	THERMAL_PAD(66x66x3.5mm)	81-006-86666001
②	1	HDD_TRAY	80-054-03001226
③	1	HDD_CHASSIC	80-015-03001226
④	1	320GB 2.5" SATA II HDD	52-451-20110105
⑤	1	HDD_SHAFT_PLATE_L	80-005-03002226
⑥	1	HDD_SHAFT_PLATE_R	80-005-03001226
⑦	1	SATA_HDD/POWER_CABLE	27-008-22603081
⑧	2	HDD_BOX EVA(68x9x1mm)	90-013-15100167
⑨	7	F_SCREW,M3.0X0.5PX5mm	22-215-30005011
⑩	2	I_SCREW,M3.0X0.5PX6mm	82-275-30006018
⑪	2	R_W_SCREW,M3.0X0.5PX5mm	22-242-30005311
⑫	1	PA-6151RA_MB_MODULE_ASSY	-----

EXPLODED DIAGRAM FOR POS-6920 SSD MODULE ASSEMBLY



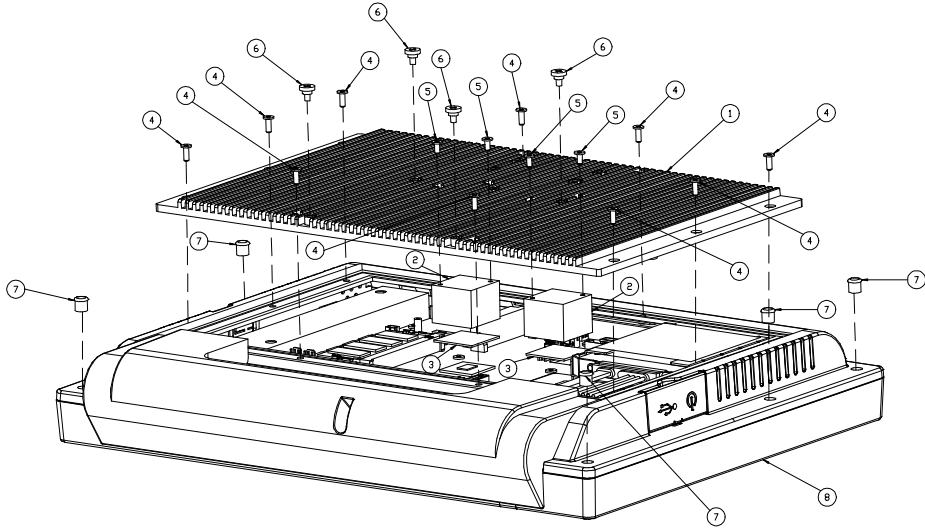
Pos	Qty	Part Name	Part No.
①	1	Half-Slim_SSD_module	-----
②	2	P_SCREW_M1.6_L3mm	22-222-16003015
③	1	POS-6920_MB_Case_module	-----

EXPLODED DIAGRAM FOR POS-6920 PLASTIC MODULE ASSEMBLY



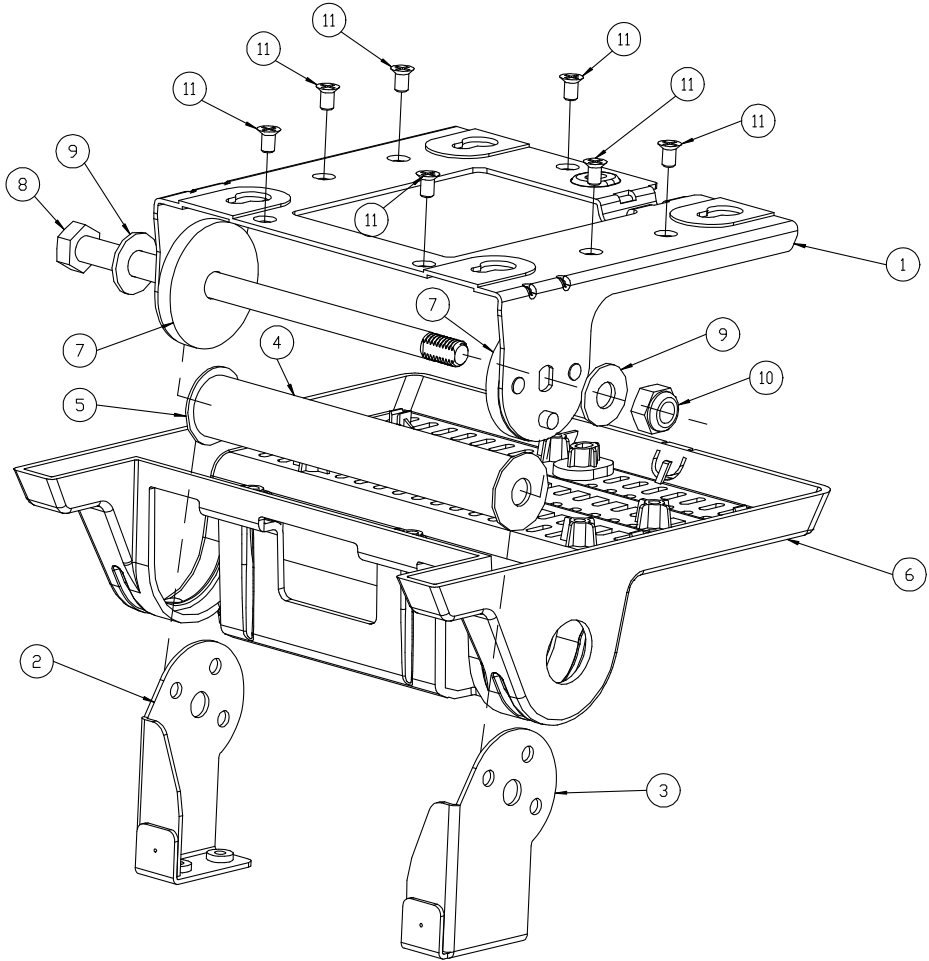
Pos	Qty	Part Name	Part No.
①	1	15" Resistive Touch Panel	52-351-03150302
②	2	DOUDLE_COATED_TAPE	94-026-04901000
③	1	PA-6151RA_FRONT_COVER	30-002-28110226
④	1	PA-6151RA_HDD_COVER	30-002-28410226
⑤	1	PA-6151RA_BACK_COVER	30-002-28210226
⑥	1	PA-6151RA_CABLE_COVER	30-002-28310226
⑦	1	PA-6151RA_LED_LENS	30-021-02130226
⑧	1	PA-6151RA_USB_COVER	30-002-28510226
⑨	19	P_SCREW,T3.0X8mm	22-122-30080011
⑩	2	F_SCREW,M3.0X0.5PX5mm	22-215-30005111
⑪	1	I_SCREW,M3.0X0.5PX6mm	82-275-30006018
⑫	1	MAIN_MODULE_ASSY	-----

EXPLODED DIAGRAM FOR POS-6920 HEAT SINK MODULE ASSEMBLY



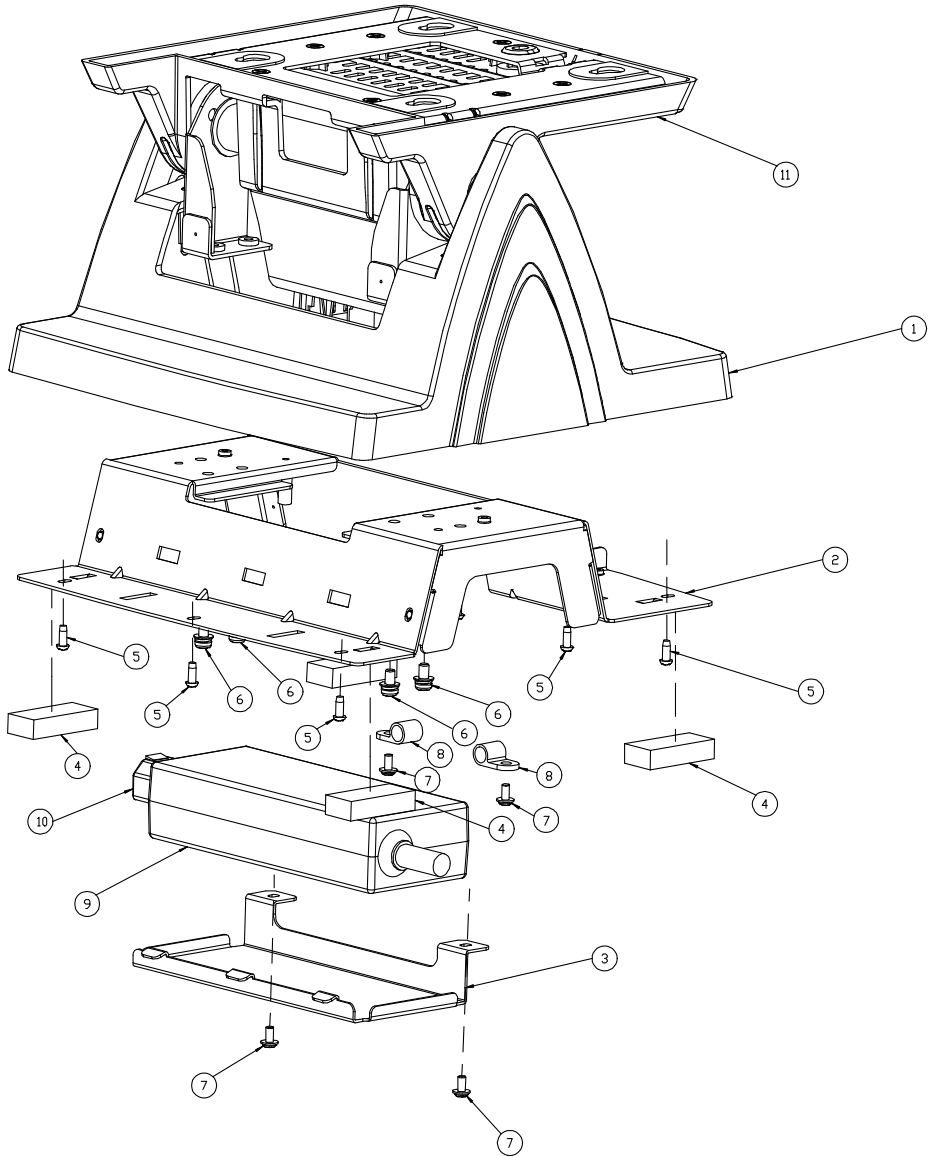
Pos	Qty	Part Name	Part No.
①	1	HEATSINK_MAIN	81-002-10471001
②	1	HEAT_SINK_BLOCK	21-002-12727006
③	2	THERMAL_PAD(26x26x1mm)	81-006-82626001
④	8	I_SCREW_M3_L8mm	22-275-30008018
⑤	4	I_SCREW_M3_L6mm	82-275-30006018
⑥	4	FILLISTR SCREW_M4_L4mm	22-272-40004911
⑦	1	SCREW HOLE RUBBER	30-062-01100197
⑧	1	MAIN_MODULE_ASSY	-----

EXPLODED DIAGRAM FOR POS-6920 ROTATE MODULE ASSEMBLY



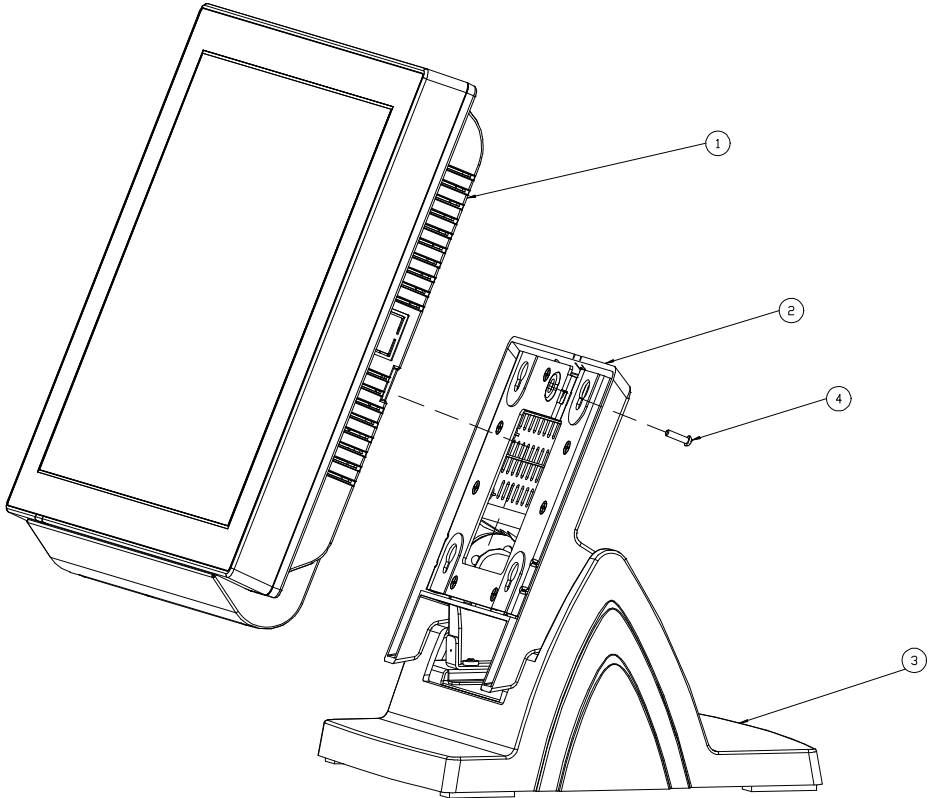
Pos	Qty	Part Name	Part No.
①	1	POS-6920_ROTATE_SUPPORT	80-002-03003226
②	1	L_SUPPORT	80-002-03002226
③	1	R_SUPPORT	80-002-03001226
④	1	POS-6920_PIPE	80-056-02001226
⑤	2	WASHER_ID_8.5_OD_24	23-202-09150247
⑥	1	POS-6920_ROTATE_COVER	30-002-28610226
⑦	2	PS5000_HINGE_SPACER	30-041-04100139
⑧	1	HEX_SCREW_M8_L154mm	22-252-80154005
⑨	2	PLAIN_WASHER_D8_D19_T1.5	23-202-08150191
⑩	1	HEX_NUTS_M8_L7.85mm	23-142-80081291
⑪	7	FLAT_SCREW_T4_L7mm	22-112-40007015

EXPLODED DIAGRAM FOR POS-6920 STAND MODULE ASSEMBLY



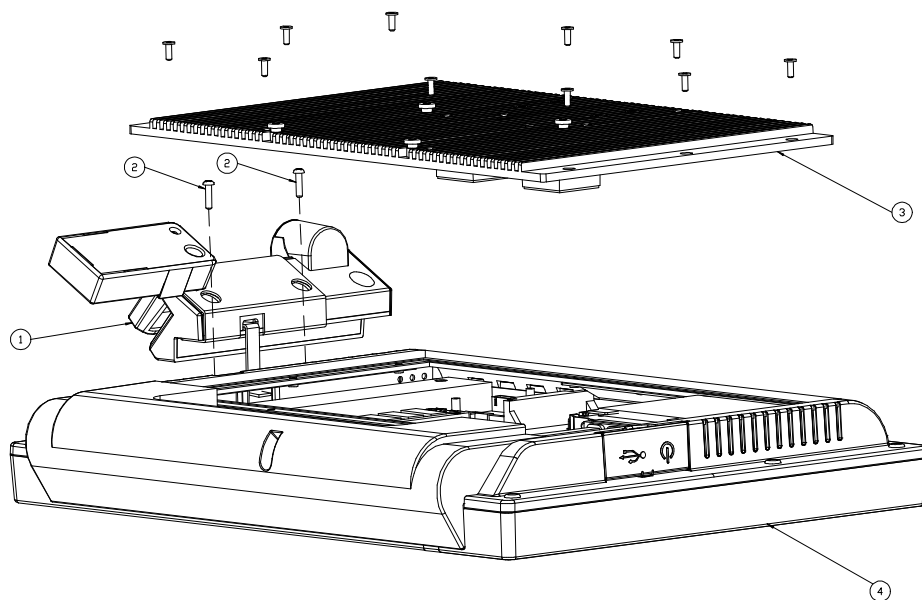
Pos	Qty	Part Name	Part No.
①	1	POS-6920-STAND-COVER	30-002-28710226
②	1	POS-6920-STAND-BASE	80-032-03001226
③	1	POS-6920-POWER_HOLDER	80-029-03001226
④	4	RUBBER FOOT	30-004-01600000
⑤	9	TAPPING_SCREW_T3_L8mm	22-122-30080011
⑥	4	R_S_SCREW_M4_L8mm	22-232-40008211
⑦	4	R_W_SCREW_M3_L6mm	22-232-30006311
⑧	2	CABLE CLAMP	30-023-04100143
⑨	1	ADAPTOR_SMALL	52-002-11072302
⑩	1	AC_POWER_CORD	27-013-12837119
⑪	1	POS-6920_ROTATE_MODULE	-----

EXPLODED DIAGRAM FOR POS-6920 PPC MODULE & STAND MODULE ASSEMBLY



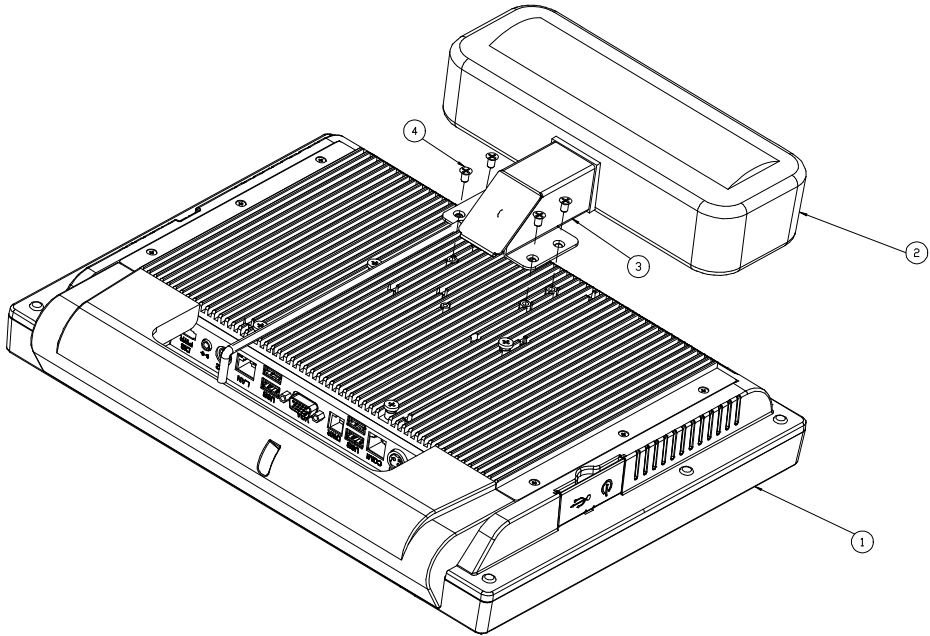
Pos	Qty	Part Name	Part No.
①	1	PA-6151_PPC_MODULE	-----
②	1	PA-6151_ROTATE_MODULE	-----
③	1	PA-6151_STAND_MODULE	-----
④	1	R_SCREW_M3_L12mm	22-275-30010011

EXPLODED DIAGRAM FOR POS-6920 MSR MODULE ASSEMBLY



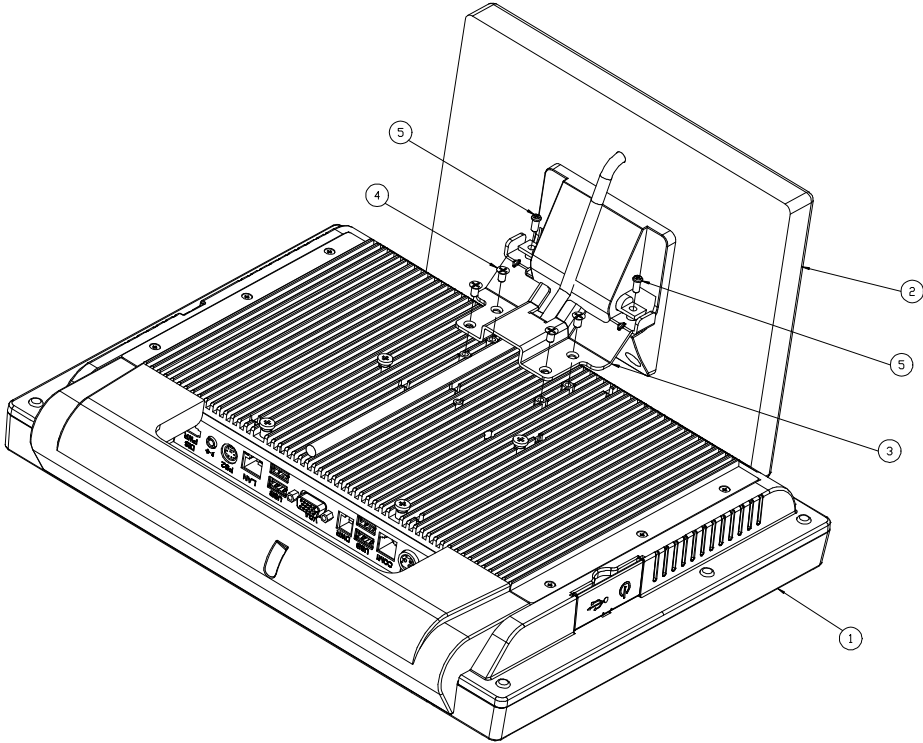
Pos	Qty	Part Name	Part No.
①	1	PA-3151 MSR_FINGER_MODUL_ASSY	PA-6151RZ-33B
②	2	R_SCREW_M3_L12mm	22-275-30010011
③	1	PA-6151 HEAT_SINK_ASSY	-----
④	1	PA-6151 MAIN_MODULE_ASSY	-----

EXPLODED DIAGRAM FOR POS-6920 VFD MODULE ASSEMBLY



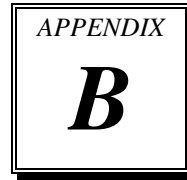
Pos	Qty	Part Name	Part No.
①	1	PA-6151_PPC	-----
②	1	VFD_DISPLAY	52-901-24001703
③	1	VFD_SUPPORT_BRACKET	80-006-03062226
④	4	F_SCREW_M4_L8mm	22-215-40008711

**EXPLODED DIAGRAM FOR POS-6920 2ND DISPLAY
MODULE ASSEMBLY**



Pos	Qty	Part Name	Part No.
①	1	POS-6920_PPC	-----
②	1	2ND_DISPLAY(8"/10.4")	52-380-06008016 52-380-01010416
③	1	2ND_DIS_SUPPORT_BRACKET	80-006-03061226
④	4	F_SCREW_M4_L8mm	22-215-40008711
⑤	2	R_SCREW_M4_L8mm	22-245-40008011

TECHNICAL SUMMARY

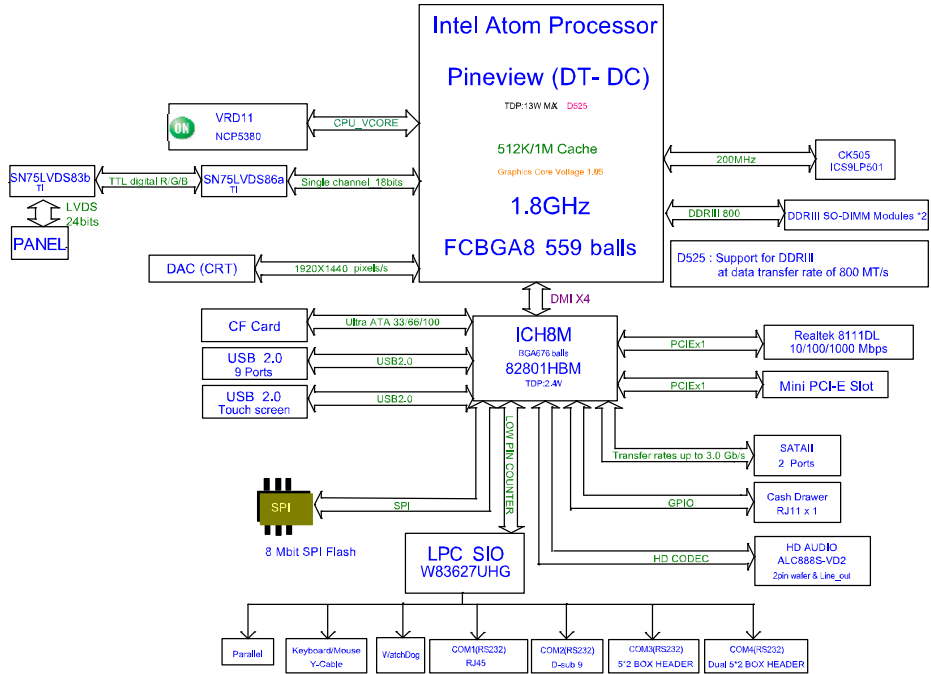


This appendix will give you a brief introduction of the allocation maps for the system resources.

Sections included:

- Block Diagram
- Interrupt Map
- DMA Channels Map
- I / O Map
- Watchdog Timer Configuration
- Flash BIOS Update

BLOCK DIAGRAM



INTERRUPT MAP

IRQ	ASSIGNMENT
0	System Timer
1	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard
3	Communications Port (COM2)
4	Communications Port (COM1)
5	Intel(R) ICH8 Family SMBus Controller - 283E
8	System CMOS/real time clock
9	Microsoft ACPI-Compliant System
10	Communications Port (COM4)
11	Communications Port (COM3)
12	Microsoft PS/2 Mouse
13	Numeric data processor
14	Primary IDE Channel
16	Intel(R) Graphics Media Accelerator 3150
16	Intel(R) ICH8 Family USB Universal Host Controller - 2834
17	Realtek PCIe GBE Family Controller
18	Intel(R) ICH8 Family USB2 Enhanced Host Controller - 283A
18	Intel(R) ICH8 Family USB Universal Host Controller - 2832
18	Intel(R) ICH8M 3 port Serial ATA Storage Controller - 2828
19	Intel(R) ICH8 Family USB Universal Host Controller - 2831
21	Intel(R) ICH8 Family USB Universal Host Controller - 2835
21	Microsoft UAA Bus Driver for High Definition Audio
22	Intel(R) ICH8 Family PCI Express Root Port 1 - 283F
23	Intel(R) ICH8 Family PCI Express Root Port 6 - 2849
23	Intel(R) ICH8 Family USB Universal Host Controller - 2830
23	Intel(R) ICH8 Family USB2 Enhanced Host Controller - 2836

DMA CHANNELS MAP

DMA Channel	Assignment
4	Direct memory access controller

I/O MAP

I/O MAP	ASSIGNMENT
0x00000040-0x00000043	System timer
0x00000061-0x00000061	System speaker
0x00000070-0x00000071	System CMOS/real time clock
0x00000060-0x00000060	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard
0x00000064-0x00000064	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard
0x0000E800-0x0000E8FF	Realtek PCIe GBE Family Controller
0x00000020-0x00000021	Programmable interrupt controller
0x000000A0-0x000000A1	Programmable interrupt controller
0x00000378-0x0000037F	Printer Port (LPT1)
0x000001F0-0x000001F7	Primary IDE Channel
0x000003F6-0x000003F6	Primary IDE Channel
0x00000000-0x00000CF7	PCI bus
0x00000D00-0x0000FFFF	PCI bus
0x000000F0-0x000000FF	Numeric data processor
0x00000010-0x0000001F	Motherboard resources
0x00000022-0x0000003F	Motherboard resources
0x00000044-0x0000005F	Motherboard resources
0x00000062-0x00000063	Motherboard resources
0x00000065-0x0000006F	Motherboard resources
0x00000072-0x0000007F	Motherboard resources
0x00000080-0x00000080	Motherboard resources
0x00000084-0x00000086	Motherboard resources
0x00000088-0x00000088	Motherboard resources
0x0000008C-0x0000008E	Motherboard resources
0x00000090-0x0000009F	Motherboard resources
0x000000A2-0x000000BF	Motherboard resources
0x000000E0-0x000000EF	Motherboard resources
0x000000F0-0x000000FF	Numeric data processor
0x000004D0-0x000004D1	Motherboard resources
0x00000500-0x0000053F	Motherboard resources
0x00000800-0x0000087F	Motherboard resources
0x00000A00-0x00000A0F	Motherboard resources

I/O MAP	ASSIGNMENT
0x0000FFA0-0x0000FFAF	Intel(R) ICH8M Ultra ATA Storage Controllers - 2850
0x0000D080-0x0000D08F	Intel(R) ICH8M 3 port Serial ATA Storage Controller - 2828
0x0000D400-0x0000D40F	Intel(R) ICH8M 3 port Serial ATA Storage Controller - 2828
0x0000D480-0x0000D483	Intel(R) ICH8M 3 port Serial ATA Storage Controller - 2828
0x0000D800-0x0000D807	Intel(R) ICH8M 3 port Serial ATA Storage Controller - 2828
0x0000D880-0x0000D883	Intel(R) ICH8M 3 port Serial ATA Storage Controller - 2828
0x0000DC00-0x0000DC07	Intel(R) ICH8M 3 port Serial ATA Storage Controller - 2828
0x0000C400-0x0000C41F	Intel(R) ICH8 Family USB Universal Host Controller - 2835
0x0000C480-0x0000C49F	Intel(R) ICH8 Family USB Universal Host Controller - 2834
0x0000C800-0x0000C81F	Intel(R) ICH8 Family USB Universal Host Controller - 2832
0x0000C880-0x0000C89F	Intel(R) ICH8 Family USB Universal Host Controller - 2831
0x0000CC00-0x0000CC1F	Intel(R) ICH8 Family USB Universal Host Controller - 2830
0x00000400-0x0000041F	Intel(R) ICH8 Family SMBus Controller - 283E
0x0000E000-0x0000EFFF	Intel(R) ICH8 Family PCI Express Root Port 6 - 2849
0x000003B0-0x000003BB	Intel(R) Graphics Media Accelerator 3150
0x000003C0-0x000003DF	Intel(R) Graphics Media Accelerator 3150
0x0000C080-0x0000C087	Intel(R) Graphics Media Accelerator 3150
0x00000274-0x00000277	ISAPNP Read Data Port
0x00000279-0x00000279	ISAPNP Read Data Port
0x00000000-0x00000CF7	Direct memory access controller
0x00000081-0x00000083	Direct memory access controller
0x00000087-0x00000087	Direct memory access controller
0x00000089-0x0000008B	Direct memory access controller
0x0000008F-0x0000008F	Direct memory access controller
0x000000C0-0x000000DF	Direct memory access controller
0x000002E8-0x000002EF	Communications Port (COM4)
0x000003E8-0x000003EF	Communications Port (COM3)
0x000002F8-0x000002FF	Communications Port (COM2)
0x000003F8-0x000003FF	Communications Port (COM1)

WATCHDOG TIMER CONFIGURATION

Watchdog timer can be configured via I/O port address 2E (hex) and 2F (hex). 2E (hex) is the address port. 2F (hex) is the data port. User can assign the target offset by writing value into address port 2E (hex) and then write/read data to/from the target offset by data port 2F (hex).

Configuration Sequence

Please follow the following steps to program [W83627UHG](#) configuration registers.

- (1) Enter the extended function mode.
- (2) Configure the configuration registers.
- (3) Exit the extended function mode.

(1) Enter the extended function mode

To place [W83627UHG](#) into the Extended Function Mode, two successive writes of 0x87 must be applied to Extended Function Enable Registers (EFERs, i.e. 2Eh or 4Eh).

(2) Configure the configuration registers

User must select to the desired Logical Device number and activates the desired Logical Devices through Extended Function Index Register (EFIR) and Extended Function Data Register (EFDR). The EFIR is located at the same address as the EFER, and the EFDR is located at address (EFIR+1). First, write the Logical Device Number (i.e. 0x07) to the EFIR and then write the number of the desired Logical Device to the EFDR. If accessing the Chip (Global) Control Registers, this step is not required. Secondly, write the address of the desired configuration register within the Logical Device to the EFIR and then write (or read) the desired configuration register through the EFDR.

(3) Exit the extended function mode

To exit the Extended Function Mode, writing 0xAA to the EFER is required. Once SuperIO exits the Extended Function Mode, it goes back to the normal running mode.

Code example for watch dog timer

Enable watchdog timer and set timeout interval to 30 seconds.

```
;----- Enter to extended function mode -----
mov    dx,    2Eh
mov    al,    87h
out    dx,    al
out    dx,    al
;----- Select Logical Device 8 of watchdog timer -----
mov    al,    07h
out    dx,    al
inc    dx
mov    al,    08h
out    dx,    al
;----- Logic device activation for watch dog timer -----
dec    dx
mov    al,    030h
out    dx,    al
inc    dx
mov    al,    01h
out    dx,    al
;----- Set second as counting unit -----
dec    dx
mov    al,    0F5h
out    dx,    al
inc    dx
in     al,    dx
and    al,    not 08h
out    dx,    al
;----- Set timeout interval as 30seconds and start counting -----
dec    dx
mov    al,    0F6h
out    dx,    al
inc    dx
mov    al,    30
out    dx,    al
;----- Exit the extended function mode -----
dec    dx
mov    al,    0AAh
out    dx,    al
```

Flash BIOS Update

I. Before System BIOS Update

1. Prepare a bootable media (ex. USB storage device) which can boot system to DOS prompt.
2. Get flash utility (AFUDOS.exe) and BIOS file (ex. 69200P01.ROM) from CD then save them to a bootable device.
3. Make sure the target system can first boot to the bootable device.
 - (1) Connect the bootable USB device.
 - (2) Turn on the system and press key during BIOS POST procedure.
 - (3) System will go into the BIOS setup menu.
 - (4) Select [Boot] menu.
 - (5) Select [Boot Devices Priority] sub-menu, set the USB bootable device to be the 1st boot device.
 - (6) Press <F10> key to save configuration and exit the BIOS setup menu.

BIOS SETUP UTILITY	
Boot	
<p>Boot Device Priority</p> <hr style="border: 0.5px solid black;"/> <p>1st Boot Device [USB: JetFlash TS512] 2nd Boot Device [SATA: PM-WDC WD1600]</p>	<p>Specifies the boot sequence from the available devices.</p> <p>A device enclosed in parenthesis has been disabled in the corresponding type menu.</p> <p style="font-size: small;"> ←→ Select Screen ↓↑ Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit </p>
v02.68 (C)Copyright 1985-2009, American Megatrends, Inc.	

II. AFUDOS Command for System BIOS Update

AFUDOS.exe is the AMI firmware update utility; the command line is shown as below:

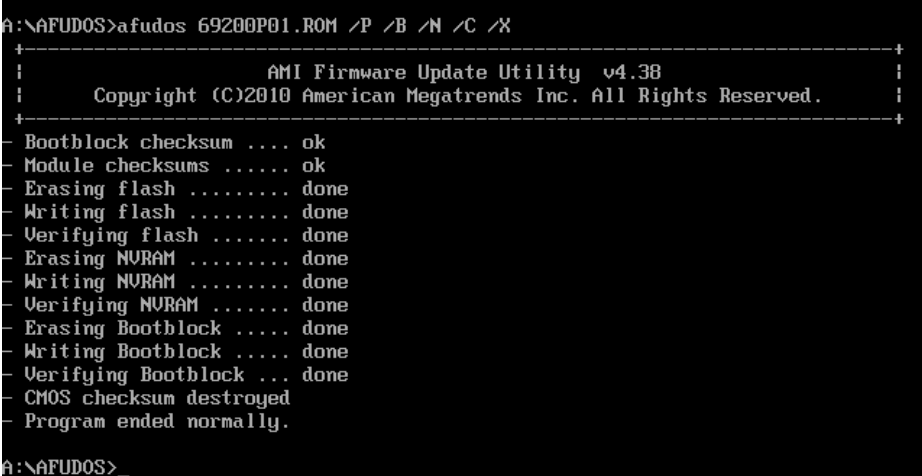
AFUDOS <ROM File Name> [option1] [option2]....

User can type “AFUDOS/?” to see all the definition of each control options. The recommended options for BIOS ROM update include following parameters:

- /P**: Program main BIOS image
- /B**: Program Boot Block
- /N**: Program NVRAM
- /C**: Destroy CMOS checksum
- /X**: Don't check ROM ID

III. BIOS Update Procedure

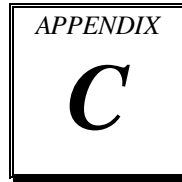
1. Use the bootable USB storage to boot up system into the DOS command prompt.
2. Type "**AFUDOS 6920xxxx.ROM /p /b /n /c /x**" and press enter to start the flash procedure.
(Note that **xxxx** means the BIOS revision part, ex. 0P03...)
3. During the update procedure, you will see the BIOS update process status and its percentage. Beware! Do not turn off system power or reset your computer if the whole procedure are not complete yet, or it may crash the BIOS ROM and make system unable to boot up next time.
4. After BIOS update procedures is complete, the messages should be like the figure shown below.



```
A:\AFUDOS>afudos 69200P01.ROM /P /B /N /C /X
+-----+
|                               AMI Firmware Update Utility  v4.3B                               |
|                               Copyright (C)2010 American Megatrends Inc. All Rights Reserved.   |
+-----+
- Boothlock checksum .... ok
- Module checksums ..... ok
- Erasing flash ..... done
- Writing flash ..... done
- Verifying flash ..... done
- Erasing NVRAM ..... done
- Writing NVRAM ..... done
- Verifying NVRAM ..... done
- Erasing Boothlock .... done
- Writing Boothlock .... done
- Verifying Boothlock .. done
- CMOS checksum destroyed
- Program ended normally.
A:\AFUDOS>_
```

5. User can restart the system and boot up with new BIOS now.

QUICK MANUAL



This appendix contains the assembly procedures of the VFD and 2nd Display and the i-Button Decoder API function guide.

Sections included:

- Assembly Procedure of VFD
- Assembly Procedure of 2nd Display
- i-Button Decoder API

Assembly Procedure of VFD

Packing Checklist:

Items	Quantity
VFD Module (w/ RJ45 Cable)	1
VFD Support Bracket	1
Screws	4

Step 1. Make sure all parts are ready.



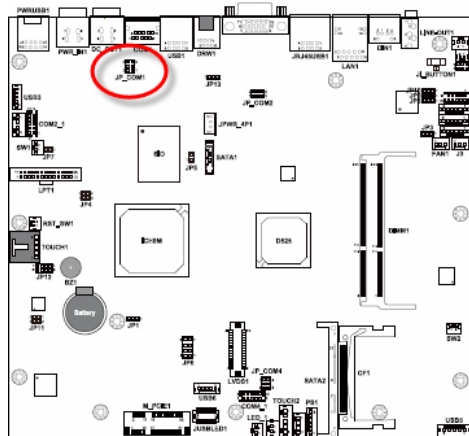
Step 2. Thread the VFD Module cable through the VFD Support Bracket, and then insert the module into the bracket until it clicks into place.



Step 3. Refer to **COM1 RI & Voltage Selection** table as shown and set the COM1 jumper to “VCC12” (12V DC).

COM1 RI & Voltage Selection

Selection	Jumper Settings	Jumper Illustration
RI	1-2	
VCC12	3-4	
VCC	5-6	



Step 4. Find the four screw holes for VFD on the Heatsink.



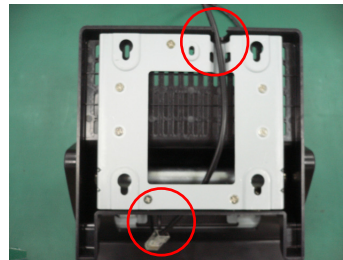
Step 5. Pull out the VFD cable from the bottom left of VFD Support Bracket, and then secure the VFD to Heatsink with four screws.



Step 6. Remove the notch cover on the rotate cover of the stand.



Step 7. Pass the VFD cable through the top notch and then reach down inside the bracket.



Step 8. Plug the VFD cable into the COM1 Connector.



Step 9. Put back the cable cover.

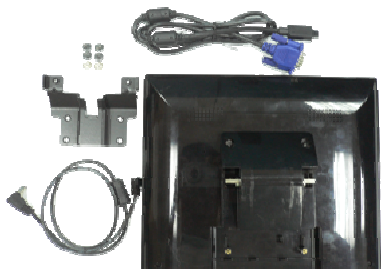


Assembly Procedure of 2nd Display

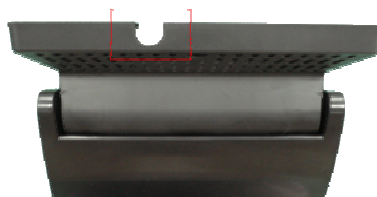
Packing Checklist:

Items	Quantity
8"/ 10.4" 2 nd Display (w/ Hinges)	1
2 nd Display Support Bracket	1
D-sub to D-sub VGA Cable for 8"	1 (D-sub to Mini-VGA Cable for 10.4")
2 nd Display Power Cable	1
Screws	6 (4 for bracket, 2 for hinges)

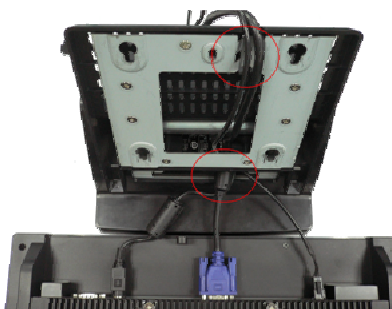
Step 1. Make sure all parts are ready.



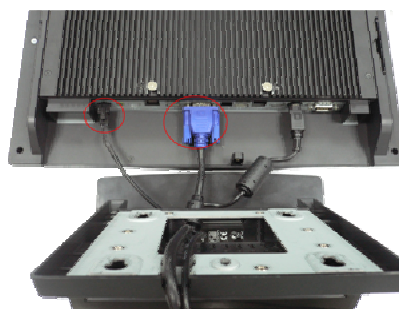
Step 2. Remove the notch cover on the rotate cover of the stand.



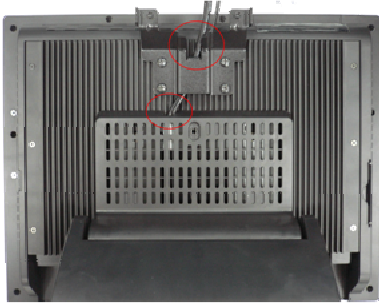
Step 3. Thread the VGA Cable and the 2nd Display Power Cable through the top notch and then reach both down inside the bracket.



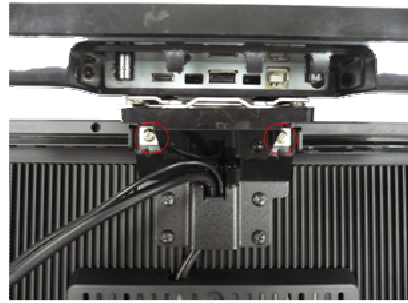
Step 4. Plug the VGA Cable and the 2nd Display Power Cable into the VGA Connector.



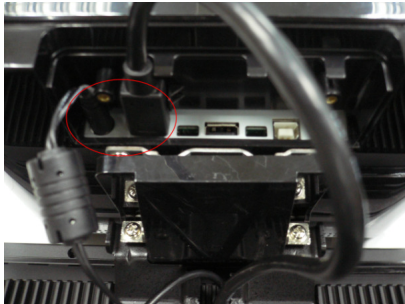
Step 5. Pull out the VGA Cable and the 2nd Display Power Cable from the bottom left of the 2nd Display Support Bracket; then secure the support bracket to Heatsink with four screws.



Step 6. Secure the 2nd Display Hinges to the support bracket with the two hinge screws.



Step 7. Plug the VGA Cable and the 2nd Display Power Cable into the 2nd Display, and secure the 2nd Display cover (cover for 10.4" display only).



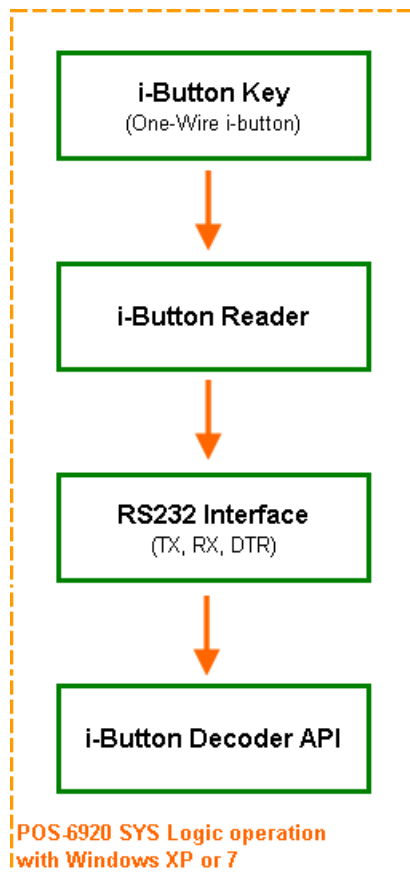
Step 8. Put back the cable cover.



I-BUTTON DECODER API

I. FUNCTION DESCRIPTION



The i-Button Decoder API program must run on a Windows platform, XP or 7. Users can get the i-Button key serial number of the POS-6920 system through the application programming interface.



II. FUNCTION DEMO

STEP 1: Hardware (Motherboard) Setup

1-1. Refer to the **i-Button Function Selection** table as shown below and set the jumpers to “i-Button”.

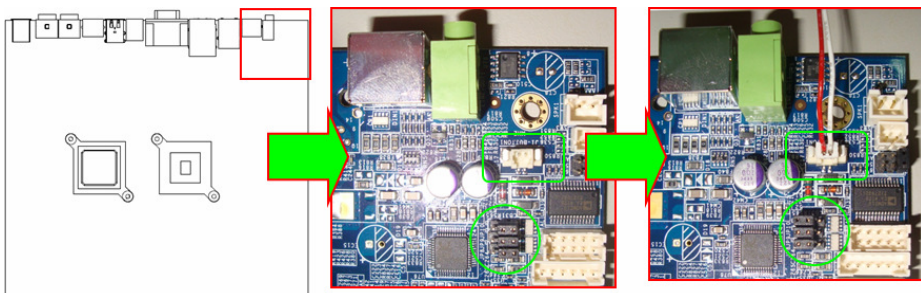
SELECTION	JUMPER SETTINGS	JUMPER ILLUSTRATION
i-Button	2-3	
COM 3 (default)	1-2	

*** Manufacturing Default – COM3

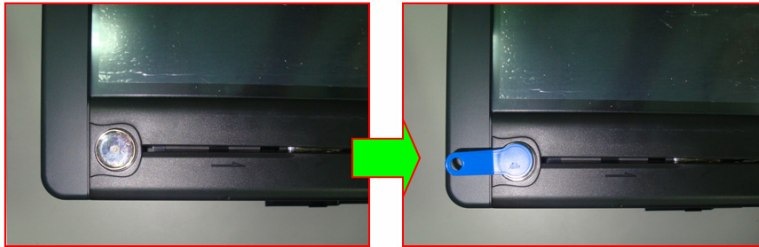
1-2. Refer to the **J1_BUTTON1 Pin Assignment** table as shown and connect the i-Button cables to the J1_BUTTON1 connector.

PIN	ASSIGNMENT
1	COM3_DTR_R_I
2	COM3_RXD_R_I

Illustration:

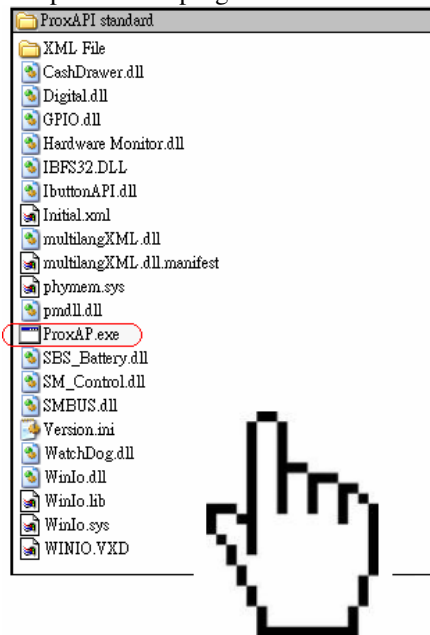


1-3. Place the i-Button key on the POS-6920 as shown below.

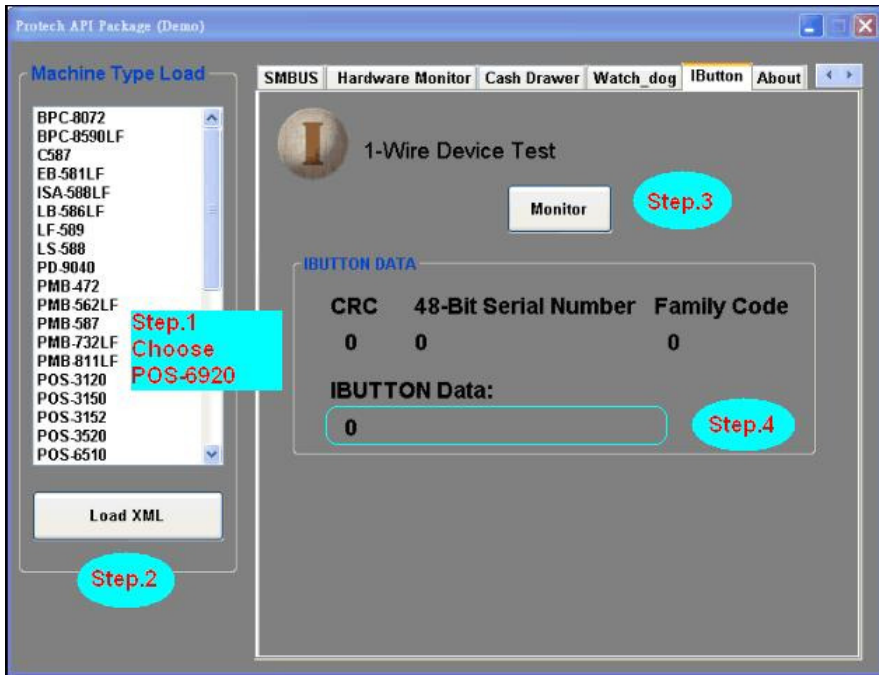


STEP 2: Run Demo Program

2-1. Enter the “ProxAPI standard” folder and double-click the executable file “ProxAP.exe” to open the API program.



Note: (1) .Net Framework 2.0 or above must be installed on the operating system before running the API program, and (2) do not remove any file under the “ProxAPI standard” folder.


STEP 3: API Setting

- 3-1. Choose “**POS-6920**” from the Machine Type Load list on the left pane.
- 3-2. Tap [**Load XML**].
- 3-3. Switch to the “IButton” tab, and then tap [**Monitor**].
- 3-4. The i-Button serial number will be displayed below the **IBUTTON DATA** field.

III. API INFORMATION

Function Files:

Directory	File Name	Description
ProxAPI standard\	IbuttonAPI.dll	Driver to get i-Button
	IBFS32.dll	
	multiLangXML.dll	Driver to open XML file
	XML Files\Model Name\Initial.xml	XML file for each model

 Model Name is dependent on your machine type.

Function Parameter:

Decode_Ibutton_Process

```
bool Decode_Ibutton_Process(short[] buffer)
```

Purpose Get the i-Button data.
Value Buffer = i-Button read will sent to this buffer
Return True (1) on success, False (0) on failure