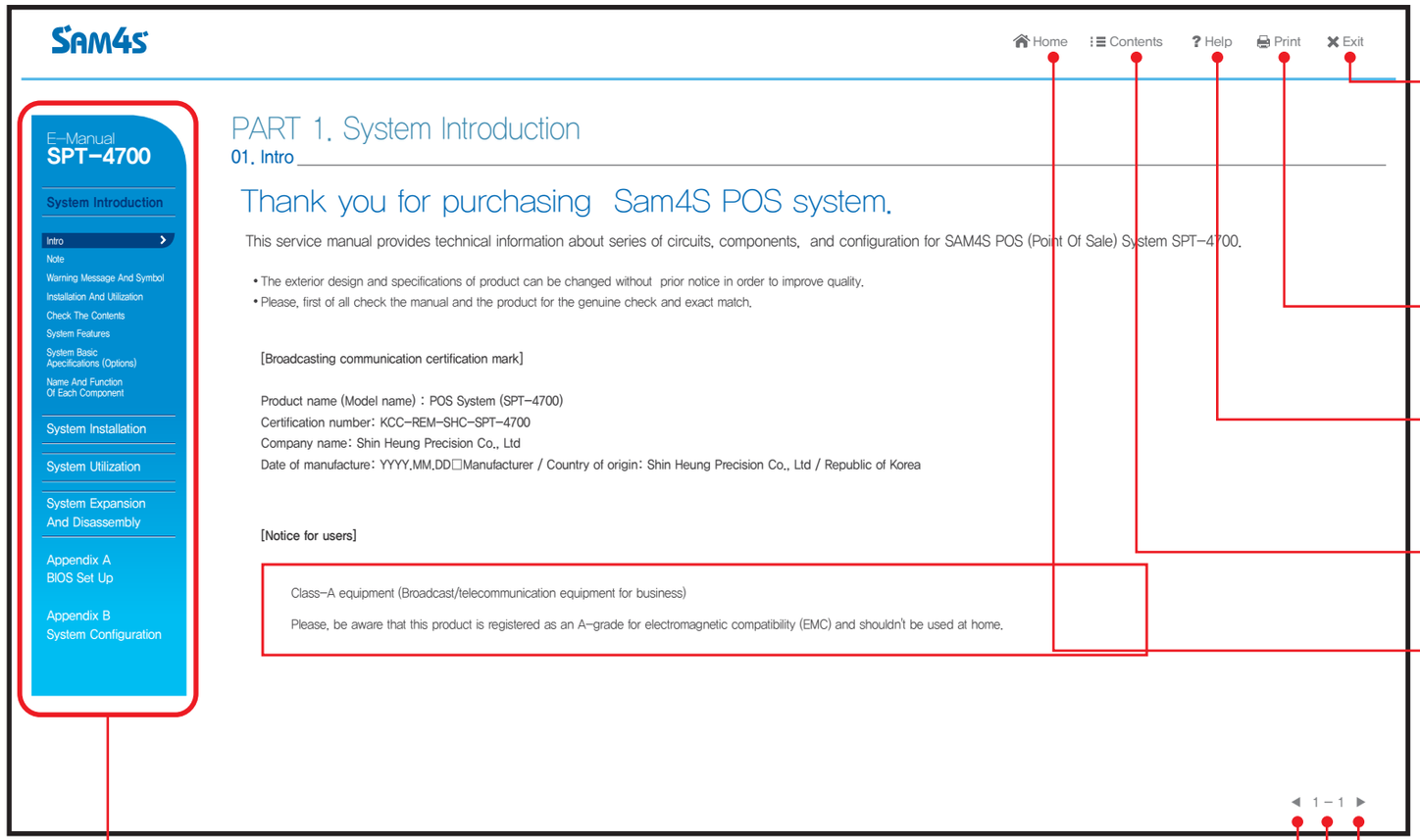
SAM4S Rev.1.00.1211.E

POS System Electronic Manuals

SPT — 4700series

This manual consists of system introduction, system installation, system use, system expansion and appendix A/B

Guideline of POS e-Manual



You can move on to each chapter by clicking them.

Shut down e–manual.
This button will close the manual.
Acrobat Reader will remain open until closed separately or enter (CTRL)+(Q) to end both

You can print.

You can easily get an advice about the e–manual.

By clicking the List icon you can get the full contents of e–manual.

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Electronic Manual
SPT-4700 series

This manual consists of system introduction, system installation, system use, system expansion and disassembly, appendix A (BIOS set up) and appendix B (system configuration).

Contents

PART 1. System Introduction

01. Intro

Thank you for purchasing a SAM4s POS system.

This service manual provides technical information about series of circuits, components, and configuration for SAM4S POS (Point Of Sale) System SPT-4700.

- The exterior design and specifications of product can be changed without prior notice in order to improve quality.
- Please, first of all check the manual and the product for the genuine check and Please clarify.

[Broadcasting communication certification mark]

Product name (Model name) : POS System (SPT-4700)
Certification number: EMC-FCC-1709 / EMC-CE-3489
Company name: Shin Heung Precision Co., Ltd
Date of manufacture: YYYY.MM.DD
Manufacturer / Country of origin: Shin Heung Precision Co., Ltd / Republic of Korea

[Notice for users]

Class-A equipment (Broadcast/telecommunication equipment for business)

Please, be aware that this product is registered as an A-grade for electromagnetic compatibility (EMC) and shouldn't be used at home.

PART 1. System Introduction

02. Note

- This product is based on superior technology and has been extensively tested for reliable performance.
- This manual or a part of it can not be copied without permission.
- The copyright of this manual belongs to Shin Heung Precision Co.,Ltd.
- Contents of this manual can vary somewhat depending on purchased model type.
- Read this manual carefully and observe the methods and precautions stated here. Be aware that we will not be responsible for damage or impairment due improper use of the product.
- If you have any question, please contact your dealer.

PART 1. System Introduction

03. Warning Messages and Symbols

• Warning messages are expressed by several symbols in this manual. Warning messages are imperative sentences as below.

⚠ DANGER This symbol means there may be a risk of serious injury if not used properly.

⚠ WARNING This symbol means that there may be risk of damage or injury if not used properly.

⚠ CAUTION This symbol means that there may be a risk of minor injury or damage if not used properly.

IMPORTANT This symbol highlights important information.

PART 1. System Introduction

04. Safety Notices Before Installation or Use.

• Read these cautions to avoid damage or injury.

Cautions!

Keep rated voltage.
The product can be damaged or burned by overvoltage.

Do not use damaged components.
The product may be damaged unless it is repaired at service center.

Install the product in a clean and dry place.
The product may not work properly in moist or dusty environments.

Always copy important files.
Always copy important files because data loss cannot be guaranteed by manufacturer.

Turn off the system and Remove the power cable before the product is removed.
You may get an electric shock.

Do not use loose or damaged power cables.
There may be electric shock or fire.

Always connect power cable to a grounded 3-wire outlet.
It prevents electric shock from electrical short.

Install the product at a place with good ventilation.
The product may be transformed or burned by overheating if air vent is blocked.

Use power strips designed for computers.
There may be fire caused by overvoltage.

Use the cleaner which is only for computer.
Do not use benzene, thinner and alcohol or the product may be damaged.

Keep the product away from heaters.
The product may be damaged, overheated or burned.

Turn on the system after turning on peripheral device. Turn off peripheral device after turn off the system.
The product may be damaged.

Install the product in a safe, stable place.
The product may be damaged or you may get injured if the product is dropped.

Keep the product away from magnetic materials.
The contents of HDD may be erased or the electronic components may be damaged.

Carefully store or dispose of plastic packing material
It is dangerous if children put their head on it.

Do not touch the power plug with a wet hand.
You may get an electric shock.

Do not touch modem, telephone line or exposed terminal during electrical storms.
There may be electric shock or fire.

Upgrade the system after shutting off the power of system and its peripheral device.
The product may be damaged.

PART 1. System Introduction

05. Contents

〈Main Body〉

〈Mouse/Mouse Pad (option)〉

〈Keyboard (option)〉

〈Quick Manuals〉

〈Magnetic DALLAS (option)〉

〈Power Cable/Adaptor〉

PART 1. System Introduction

06. System Features

System Introduction

- This product has passed rigorous quality testing.
- This product has a sophisticated design to arrange power and peripheral cables neatly and safely in any environment.
- The all-in-one design incorporates the touch screen, credit card reader, smart card reader and various customer displays for clean and simple installations.
- It is convenient to change Hard Disk and memory.
- It offers basic supports like OS restore and anti-virus vaccine.

System Features

- 15" TFT LCD Touch Screen
- Supplying MSR(Magnetic Stripe Reader) (option)
- Smart IC Card Reader (option)
- All-in-One 15" or 7" or CDP all-in one customer display (option)
- Finger printer reader (option)
- Cfast module (option)
- System that can be attached to the wall by wall bracket

PART 1. System Introduction

07. System General Specification (Options)

General Specifications

Processor	Intel Atom Cedarview D2550 1.86GHZ Without FAN
Chip sets	Intel NM10
Graphic	Intel Embedded Graphics
Data storage device	SATA-II (3.0Gb/s) 2.5" HDD / SSD / Cfast
Memory	DDR III SODIMM 2 Slot (Up to 4GB)
BIOS	AMI (America Megatrends Inc.) UEFI BIOS
Display	Size: 15" (38.1cm) 1024 X 768 resolution TFT LCD Support Colors : 32 bit Color Contrast Ratio : 450 : 1 Viewing Angle : Left-Right 150˚ / Up-Down 130˚ Backlight : 250 cd/㎡, 50,000 hours of product life (CCFL type)
Touch Panel	15" 5 – Wire Resistive Type Interface : Serial COM5 Transparency : 80% Surface Hardness : 3H Hitting Life : 35 million times
OS	Windows XP / 2000 / WEPOS / POSReady 2009 / POSReady 7 Etc.
I/O Interface	COM (Serial) port : D-SUB 9P x 3 Ports / RJ – 45 x 1Port 5V / 12V or RI outputs through COM 1. 2. 3. 4 (BIOS setup) PARALLEL port : D-SUB 25P x 1port USB port : USB 2.0 side x 2 Ports / back x 4 Ports Ethernet port : 10M / 100M / 1GB LAN RJ-45 x 1Port VGA Port : D-SUB 15P x 1 DC-OUTPUT port : 12V DC-OUT 2.5 Φ x 1Port Audio port : Line-in x 1 / Line-out x 1 / Mike-in x 1Port
Booting device	HDD, SSD, Cfast memory, external CD / DVD-ROM, USB memory etc.
Power supply	AC INPUT : AC 100~240V / 50~60Hz, 1.5A DC OUTPUT : 12V / 5.0A(60W)

PART 1. System Introduction

07. System General Specification (Options)

Optional Specifications

Magnetic Swipe Reader (MSR)	Read Track: ISO track 1, 2, 3 Interface: Internal USB Performance: 10~150 cm/sec Head Reliability: 500,000 times Error rate: Less than 0.5%
Wall Mount	The device for attaching SPT-4700 on the wall
DALLAS KEY	Magnet type
Customer Display	VFD : 5 x 7 Dot 20 x 2 Character type Graphic type 256 x 32 LCD : 7" (17.78cm) 800 x 480 16: 9 type 15" (38.1cm) 1024 x 768 4:3 type
CASH DRAWER	RJ11 Port 1 (6 Pin), 12 V or 24 V can be used
Finger Printer Reader	Biometric fingerprint reader, USB connection
Cfast Socket	Cfast memory card can be used
RAISER CARD	XV 400 PCI DVR can be mounted
Smart Card Reader	IC card can be used, USB connection

PART 1. System Introduction

08. Name And Function Of Each Component

Front View

Credit card recognition lamp
When the card reader recognizes a credit card, the light is on.

Payment/ Security module (option)
MSR/ SCR/ Fingerprint reader/ Dallas key can be used

Indicating lamp for power supply
The light is on when the system is on.

Indicating lamp for HDD
The light is on when data in HDD is being used or read.

Indicating lamp for LAN connection
The light is on when internet is connected.

Stand

PART 1. System Introduction

08. Name And Function Of Each Component

Side View

PART 1. System Introduction

08. Name And Function Of Each Component

I/O

1. Setting switch of Cash drawer voltage (Option)
   You can switch the power (12V/24V) for a cash drawer.
2. RJ-11 6pin Cash Drawer port (Option)
   Can connect the cash drawer.
3. D-SUB 25pin printer (Parallel) port
   Can connect parallel device such as a printer.
4. DVR card port (Option)
5. Audio port (Line-in / Line-out/ Mike-in)
   Can connect the external speakers.
6. USB 2.0 port
   Can be used to connect devices such as the USB scanner, USB keyboard, USB printer.
7. RJ-45 LAN (ETHERNET) port
   Can connect RJ45 cable for 100/1000 Mbps Ethernet connection.
8. D-SUB 9pin COM (Serial) port
   You can connect serial devices such as barcode scanners, printers.
9. RJ-45 8pin Serial Port
   You can connect parallels device, such as a printer.
10. D-SUB 15pin VGA port
    You can connect an external monitor.
11. 2.5Φ 12V DC Output (for Rear display)
    System connected to an external DC power cable to the power that can be an output jack.
12. DIN 4pin 12V DC Input (Input power connection)
    Jack is connected to the adapter to supply power to the system.

PART 1. System Introduction

08. Name And Function Of Each Component

Rear View

Integrated customer display cover
Can be equipped with integrated customer display and enhance this cover.

VFD (all-in-one customer display) – option

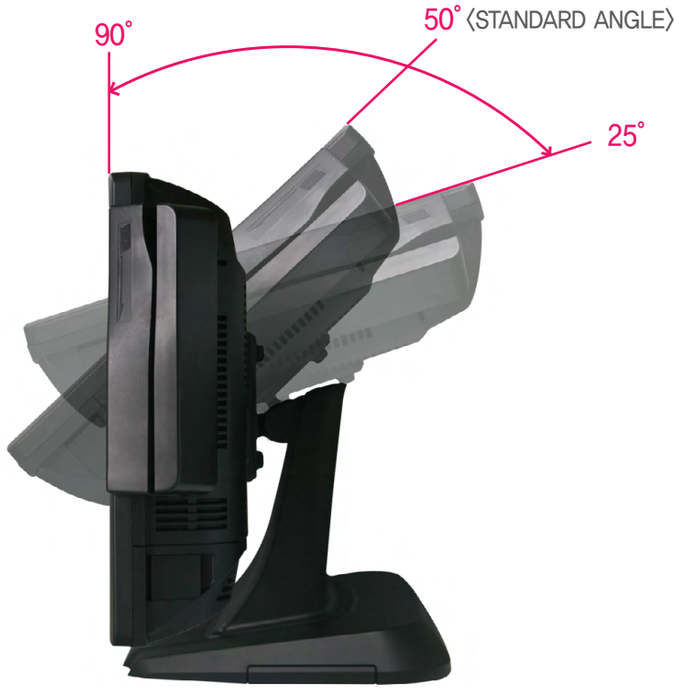
7inch Display (all-in-one customer display) – option

PART 2. System Installation

01. Checking The Location For Installation

It is important to choose a safe and secure place to install the terminal.

- Choose a desk or table big and strong enough to support the weight of the system and peripherals.
- Choose a flat, hard surface. Carpeted area can generate static electricity that can alter memory or damage system components.
- Make sure a system installed in a well-ventilated place and keep the space free around the system.
- Choose appropriate environmental conditions such as cool and dry places. Avoid humid and dusty places. Also avoid direct sunlight, rapidly changing temperatures, or placing the system near heat sources.
- Select the appropriate voltage. Connect all the equipment into an isolated outlet to prevent static electricity and short circuit.
- Install where sufficient power outlets are available for printers and other peripheral devices.
- Do not install near electromagnetic and electrical devices, such as phones and electric moters, that can cause system damage.



Note | Adjust the system depending on the condition and use it with the exact angle.
Adjustable angle shown in the figure.

Cautions! | ▶ Use the same battery for the product (motherboard) to prevent a risk of explosion.

▶ Dispose of used battery according to the separate instruction.

PART 2. System Installation

02. Before Connecting Peripherals

To connect peripherals first remove the 'Interface cover', which is in the bottom of the system, after that remove the 'Velcro cable cover' which is in the rear of the system.

1. Interface cover release

1. Make sure that the interface cover is screwed.
   If it is screwed separate the screw first.

> **Cautions!**
> - Turn off the power of the body and connect peripherals.
> - Connecting peripherals to the corners parts of the system can cause hands injury. For your safety use the gloves.

2. After the screw removed, remove the cover. As it shown in the picture pull the cover in the direction of the arrow.

PART 2. System Installation

02. Before Connecting Peripherals

2. Removing the dummy cover for cable arrangement

1. Remove the dummy cover before start using drivers.
   Remove the dummy cover and install the system according to the place condition.

3. Customer display expansion cover

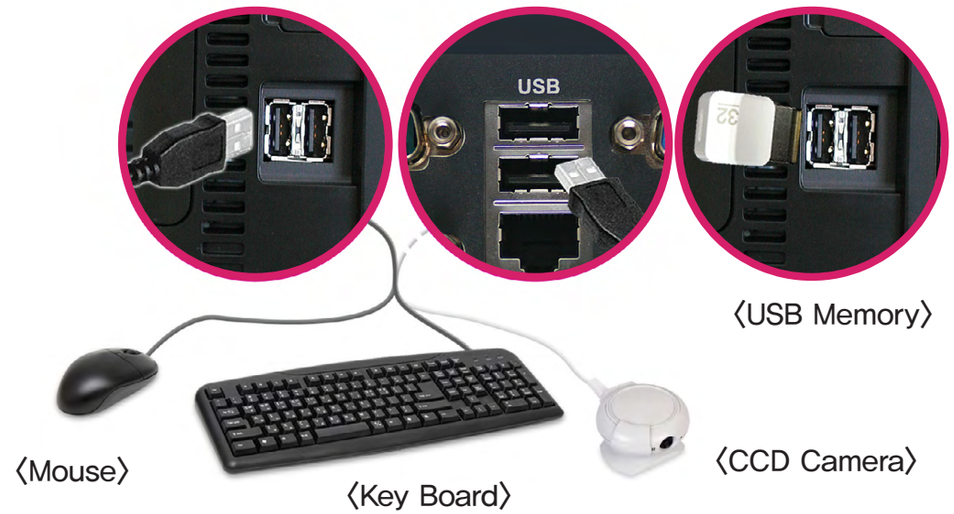
1. Before connecting dual monitor and customer display (POLE),
   Remove the customer display expansion cover as it shown in the picture.

PART 2. System Installation

03. Connecting Peripherals

1. Connecting USB device

USB connectors are located on the side of the LCD panel and the connection panel located under the display.
You can connect various USB devices such as keyboard, mouse, CCD camera, printer, etc.
(Separate device drivers may be required.)



〈USB Memory〉

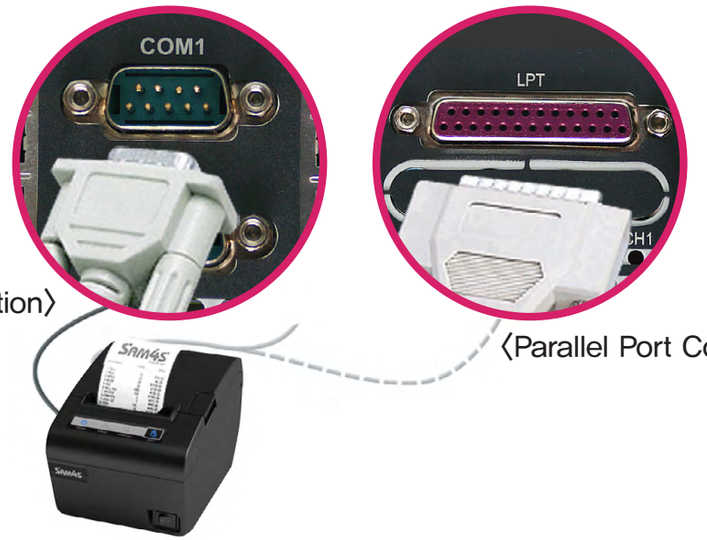
〈Mouse〉

〈Key Board〉

〈CCD Camera〉

2. Connecting Printer

System supports parallel, serial, USB interfaces to connect printer.
Connect printer to the system using the most convenient and suitable cable.



〈COM Port Connection〉

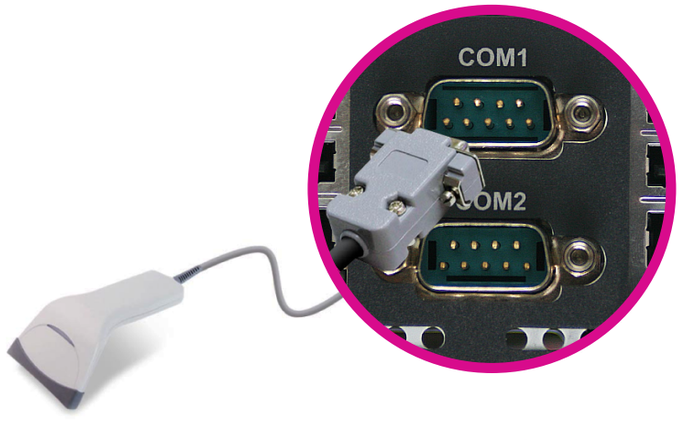
〈Parallel Port Connection〉

PART 2. System Installation

03. Connecting Peripherals

3. Connecting serial port device such as a barcode scanner

Connect to the serial port devices such as barcode scanner, serial interface and etc.
Each serial device has different specification of power supply.
COM voltage can be set 5V/12V/ RI.
BIOS voltage must be set as it explained in Appendix A (system setup).



〈Barcode Scanner〉

4. Connecting RJ-11 Cash Drawer

If you use a cash drawer, connect it to the system's built-in cash drawer port RJ-11.
(Use SAM4S Cash Drawer).

⚠ Cautions! | Cash drawer has 12V/24V types of voltage.
Voltage can be selected by the switch, see the setting method in Appendix B at the page "B-7".
Before connection voltage of the cash drawer must be checked.
There is a possibility of damage or disfunction of the cash drawer if you will connect it using different setup.

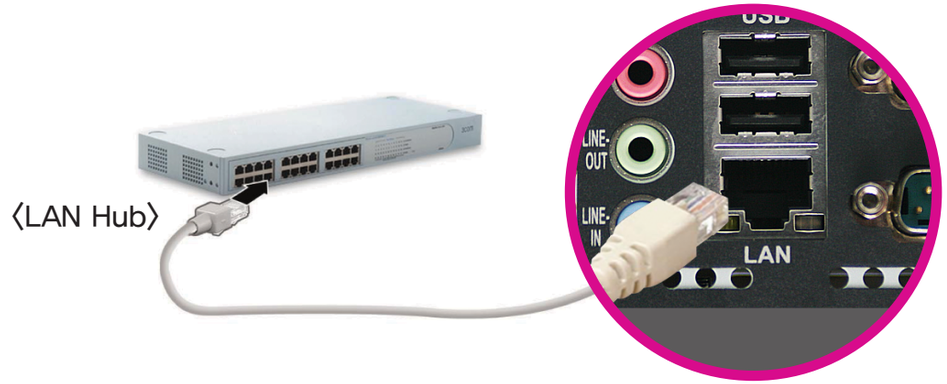
〈Cash Drawer〉

PART 2. System Installation

03. Connecting Peripherals

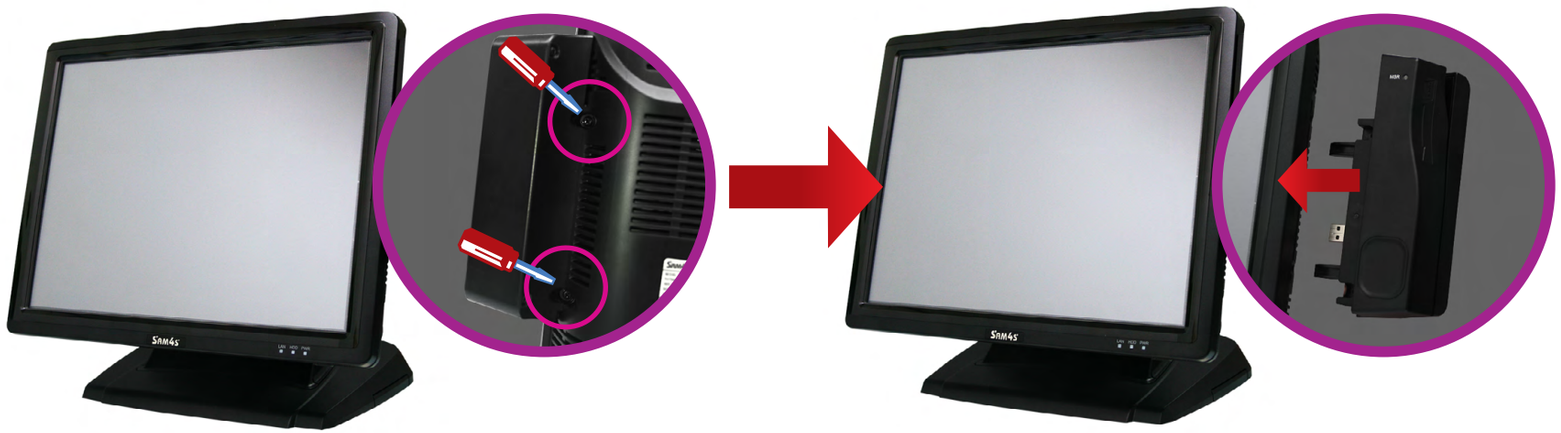
5. Connecting RJ-45 LAN cable

Connect LAN cable to RJ-45 LAN port to use internet.
It supports 100Mbps/1Gbps.



6. Connecting Payment/Security module (PC module) (optional)

In case if you use MSR or SCR, remove the cover on the right side of the LCD panel and connect the module.
The USB connector type is easy to connect.



PART 2. System Installation

03. Connecting Peripherals

7. Connecting DC power supply cable

Connect the DC power cable to the DC power input connector at the bottom of the system.
(Adapter 100V ~ 200V free voltage of the system can be used.)

Cautions !

- Only Sam4S adapter should be used for this system.
- Sam4S won't take responsibility for damages caused by using products which not made by Sam4S.

PART 2. System Installation

04. System On/Off

1. Turn on the system

According to the following procedure after the system installation is done turn on the system.

1. Turn on the power of peripheral devices which are attached to the system.
2. Press the power button which is on the right side, bottom of the LCD panel system.
3. The system power indicator (Power) illuminates on the bottom right corner of the front side LCD panel.
4. The Windows initial screen appears after a while.

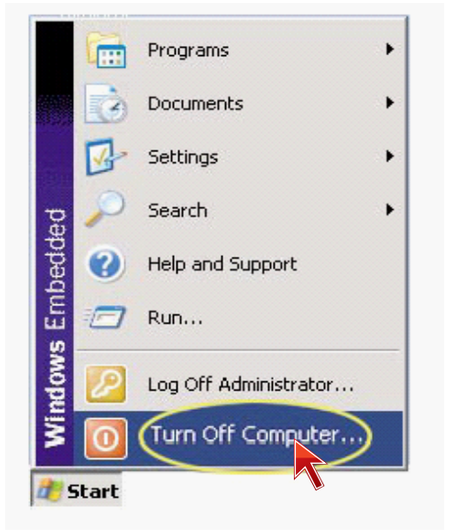
PART 2. System Installation

04. System On/Off

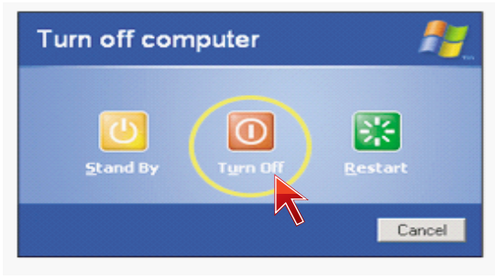
2. Turn off the system

1. Shut down all the application you are using.

2. Click the Windows 〈Start〉 button in the initial screen, then select the “turn off”.



3. The system will shut down by clicking the 〈turn off〉 button on the screen.



PART 3. System Utilization

01. Keyboard Usage

- Keyboard is used as a device to enter data into the system. Keyboard composed of character, numeric and special function keys. Separate keyboard functions vary depending on the purchased type of model.
  - The table below shows the typical functions of the keys on the keyboard. Functions may vary according to the keyboard of a product you use.

Key	Explanation
Tab	Pressing the cursor to the right, such as the Shift key and move the cursor to the left.
Caps Lock	Press the Caps Lock, LED lights up and if you enter alphabetic character key it will be capitalized. If you need go back to lowercase, press the same button again. It does not affect the Hangul.
Shift	When used as character keys, numeric keys, and enter the key on the top of a character. Is entered and the case of alphabetic characters to uppercase, if you will be entered into on the top of the key characters of Hangul.
Ctrl	Conjunction with other keys to perform a specific function.
Alt	Replacement character code input or in conjunction with other keys to perform the special features.Erasing the previous character.
Backspace	Erasing the previous character.
Enter	Enter the command, press this key to run the command.
Insert	Insert mode on / off.
Delete	Clears the character.
Home, End, PgUp, PgDn, ↑, ↓, ←, →	Application allows to move the cursor. ↑, ↓, ←, → Move the key phase position: up, down, left or right .
Num Lock	There are editing and numeric keys on the right side (numeric keypad). Press the Num Lock key, Led lights up instead of numbers edit keys are activated.
F1 – F12	The special features in the application.
Print Screen	Capture the screen contents to the clipboard. Press the Alt key and capture the active window.
	Press this key select 〈start〉 button and "Start menu" appears.
	The location of the mouse cursor from the pop-up menu appears, click the right mouse button, and the same as if you press this key.

※ The Caps Lock, Num Lock, Scroll Lock key are the toggle keys. The function is disabled if you press the button one more time. Feature is available when the keyboard indicator light is on.

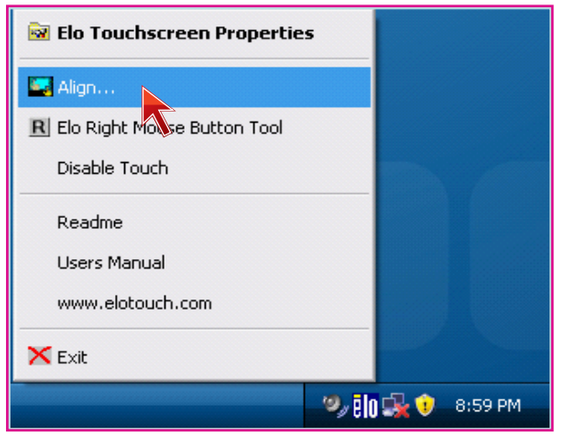
PART 3. System Utilization

02. Touch screen Usage

- Recalibrate if it is not accurate on touch points.

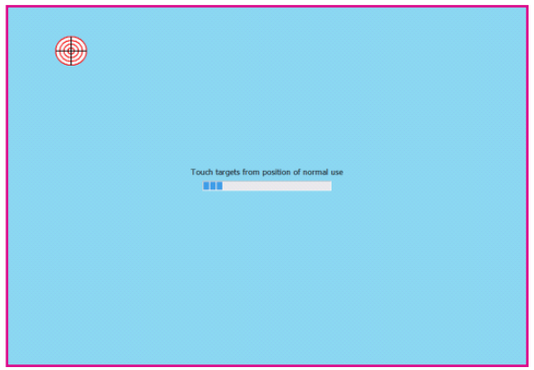
1. Touch screen usage

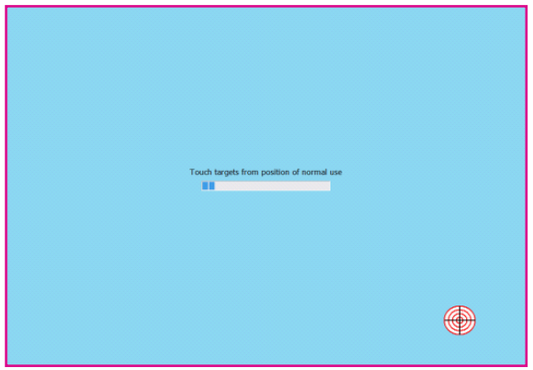
1. In the right corner bottom of the Window click on "Elo" icon (right button of mouse) and select "Align..." item.

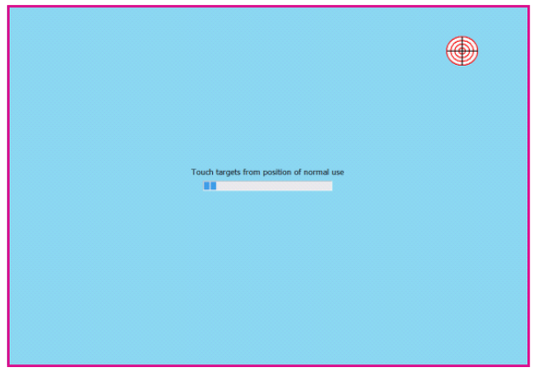


2. If the following screed appears, touch the center of the red circle for 2 seconds and then remove your finger. Repeat the procedure if the red circle appears again.

> ⚠ Caution! | Ball point pens or sharp tools may damage the surface of the touch screen.







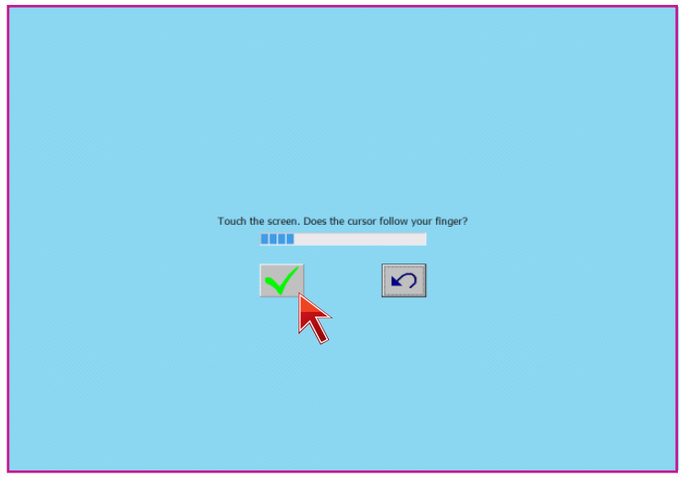
PART 3. System Utilization

03. Touch screen Usage

- Recalibrate if it is not accurate on touch points.

1. Touch screen usage

3. If the recalibration is finished, click the green check button and shut down the recalibration program.



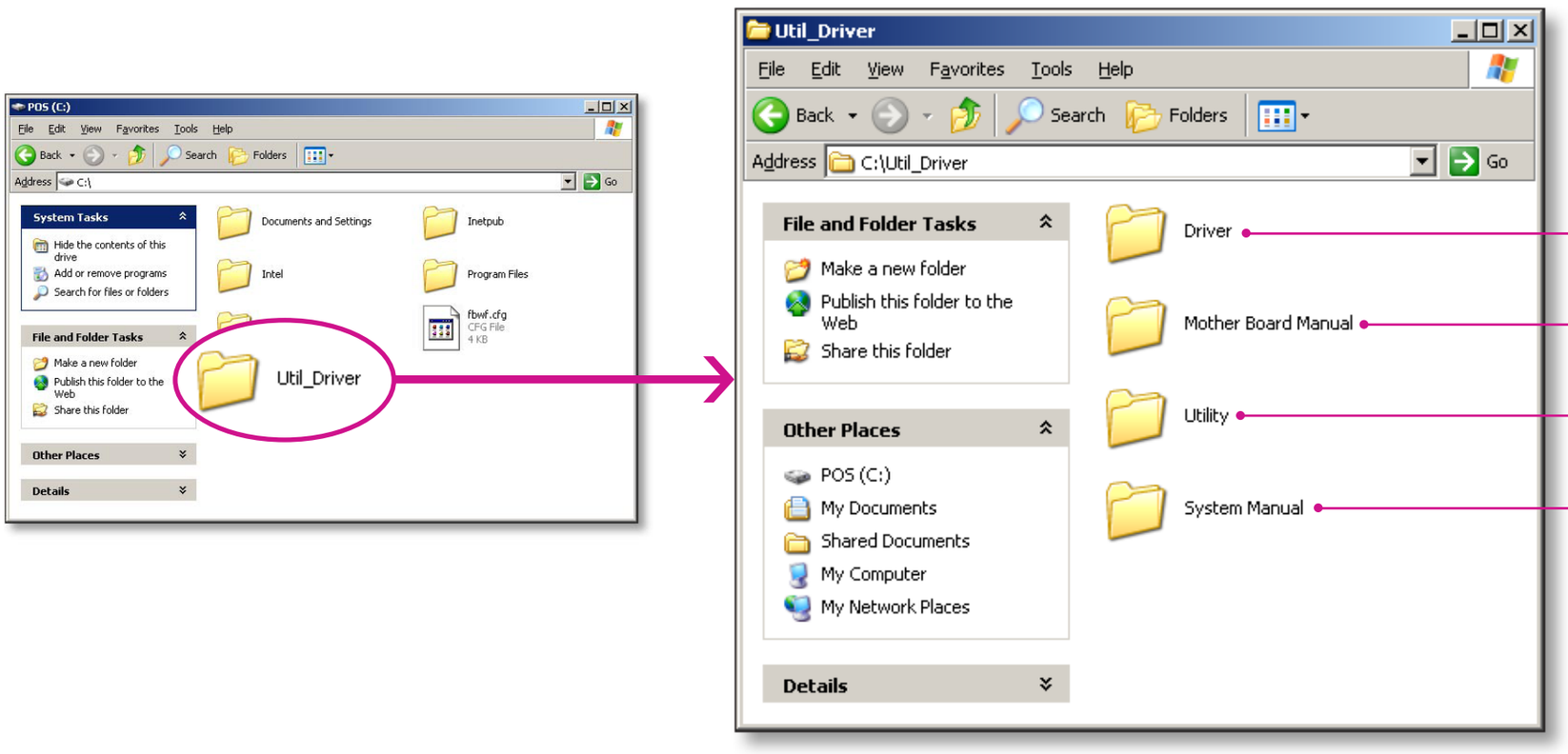
Note! | Recalibration is not needed when setting up Extended Screen Mode after connecting a dual monitor.
is also not needed when changing to Single Screen Mode (LVDS only) while using Extended Screen Mode.

PART 3. System Utilization

04. POS Driver and Utility Introduction

1. POS Driver and Utility introduction

POS Driver & Other utilities are located in hard disk drive C: Util_Driver folder.

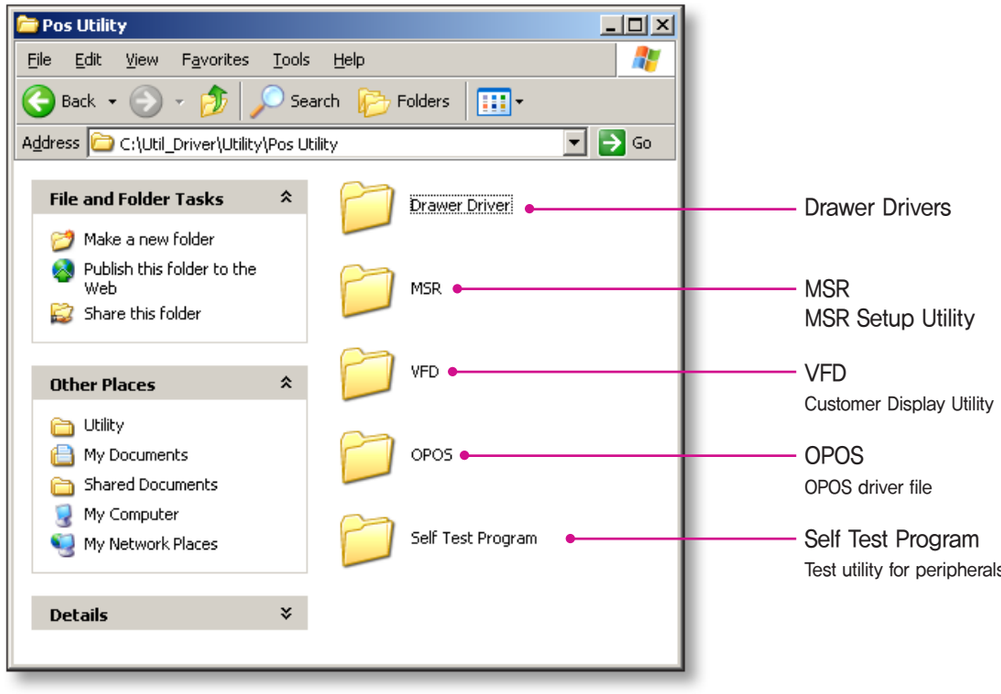


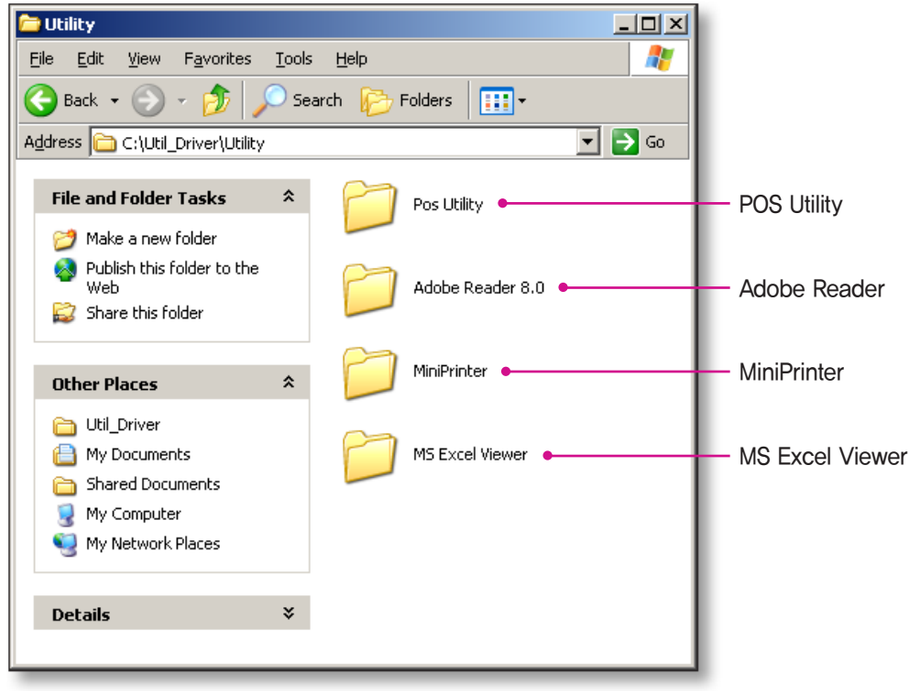
PART 3. System Utilization

04. POS Driver and Utility Introduction

1. POS Driver and Utility introduction

C:\Util_Driver\Utility





PART 3. System Utilization

04. POS Driver and Utility Introduction

1. POS Driver and Utility introduction

▪ OPOS or OLE Retail POS consists of an architecture for win32-based POS device access.
The current OPOS driver has been developed in accordance with OPOS Specification Version 1.10 and continues to support the OPOS version.

• Support OS : WEPOS, Win XP Pro, POSReady 2009, POSReady 7, Win 7 Pro, Win 7 Ult

▪ Support Peripherals (The model name written on the bottom of the product)

• LineDisplay (Customer Display) : Q202LD
• Cash Drawer (Cash Drawer) : S4700CD
• POSPrinter (Printer) : ELLIX Series

▪ The location of installation file

• The file is located on the hard disk
(C:\Util_Driver\Utility\Pos Utility\OPOS)

▪ The installation method

① Execute 'SAM4SOPOSSet_Vx.xx.exe' file in OPOS folder.
② All components will be automatically registered & set up according to the system configuration.

PART 3. System Utilization

05. Dual Monitor Usage

- Additional monitor can be connected to the VGA connector.
  This contents is written based on Windows 7 OS.

1. Dual Monitor usage

The system supports dual monitor system, which is using two monitors for one system. Sub-monitor's screen can be displayed as a copy from the main monitor (Windows desktop) or as an extended screen (Windows desktop).

1. Connect the external monitor when the system is off.
   (Remove the "Interface cover" at the rear bottom of the system and you will see a VGA connector.)

   ① Connect the external monitor when the system is off.
   ② Connect a power cable to external monitor.

2. Press a power button of the system and the external monitor.

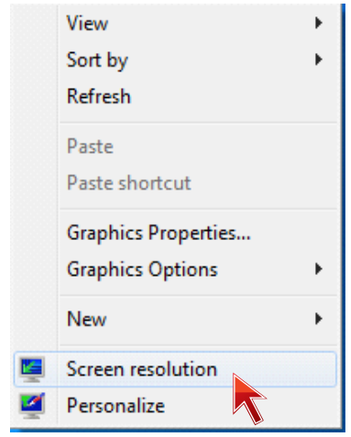
PART 3. System Utilization

05. Dual Monitor Usage

- Additional monitor can be connected to the VGA connector.
  This contents is written based on Windows 7 OS.

1. Dual Monitor usage

3. Click the right button of mouse on Windows desktop screen and select "Screen resolution" from a popup menu.



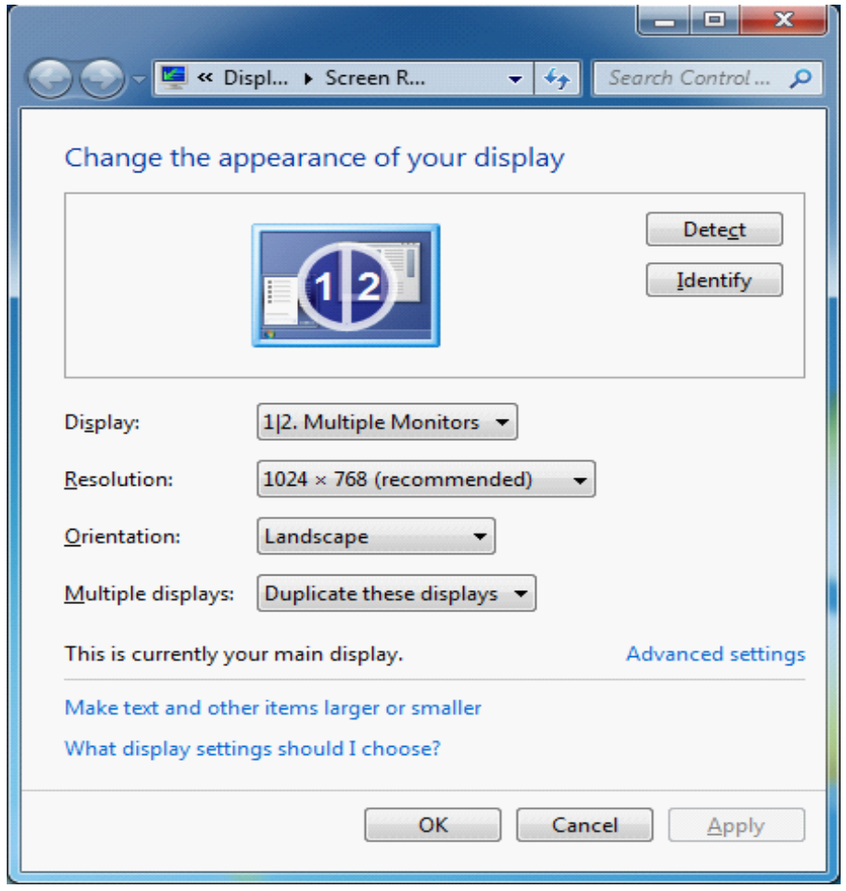
PART 3. System Utilization

05. Dual Monitor Usage

- Additional monitor can be connected to the VGA connector.
  This contents is written based on Windows 7 OS.

1. Dual Monitor usage

4. The following dialog window "Change display appearance" display option are set us 1|2 Multiple Monitor (S) and Multiple display (M) option is set as duplicate these displays.
   (In this case, the dual monitor shows a duplicated screen.)



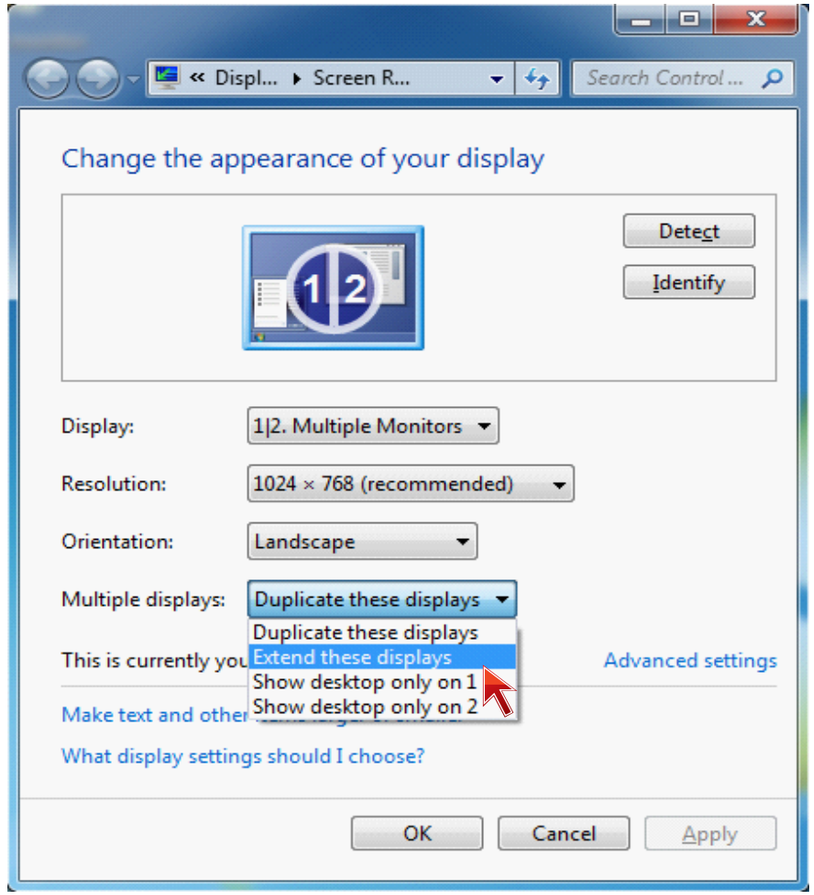
PART 3. System Utilization

05. Dual Monitor Usage

- Additional monitor can be connected to the VGA connector.
  This contents is written based on Windows 7 OS.

1. Dual Monitor usage

5. If you want to change to an extended screen, set Multiple displays option as Extend these displays on "Change the appearance" of your display dialog. (In this case, two different extended screen monitors are shown.)



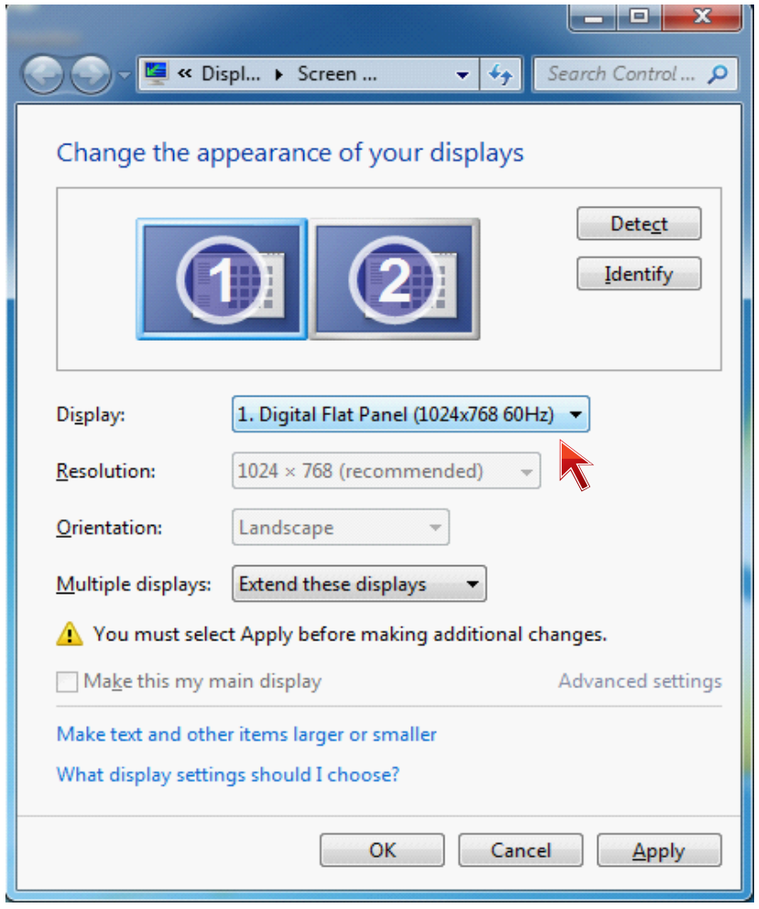
PART 3. System Utilization

05. Dual Monitor Usage

- Additional monitor can be connected to the VGA connector.
  This contents is written based on Windows 7 OS.

1. Dual Monitor usage

6. Set Display option as 1. Digital Flat Panel (1024x768 60 Hz) and click 〈Apply〉 button.



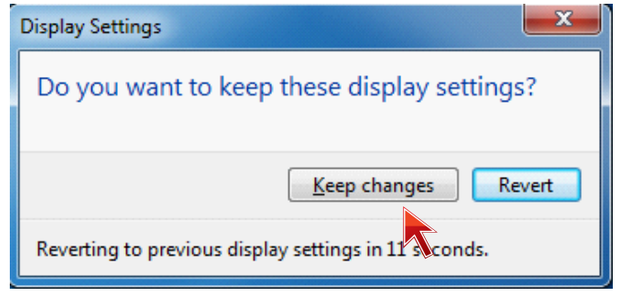
PART 3. System Utilization

05. Dual Monitor Usage

- Additional monitor can be connected to the VGA connector.
  This contents is written based on Windows 7 OS.

1. Dual Monitor usage

7. Select 〈Keep changes〉 button on 'Display Settings' dialog to keep the current settings.



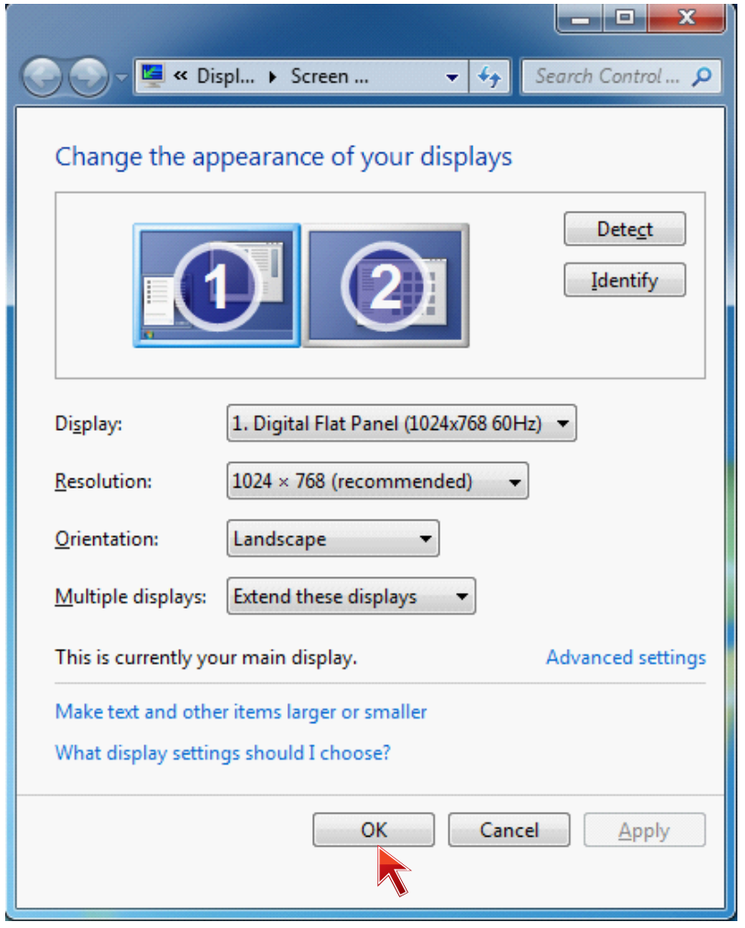
PART 3. System Utilization

05. Dual Monitor Usage

- Additional monitor can be connected to the VGA connector.
  This contents is written based on Windows 7 OS.

1. Dual Monitor usage

7. If the configuration is finished, click 〈OK〉 button to close the "Change the appearance" dialog window



PART 3. System Utilization

05. Dual Monitor Usage

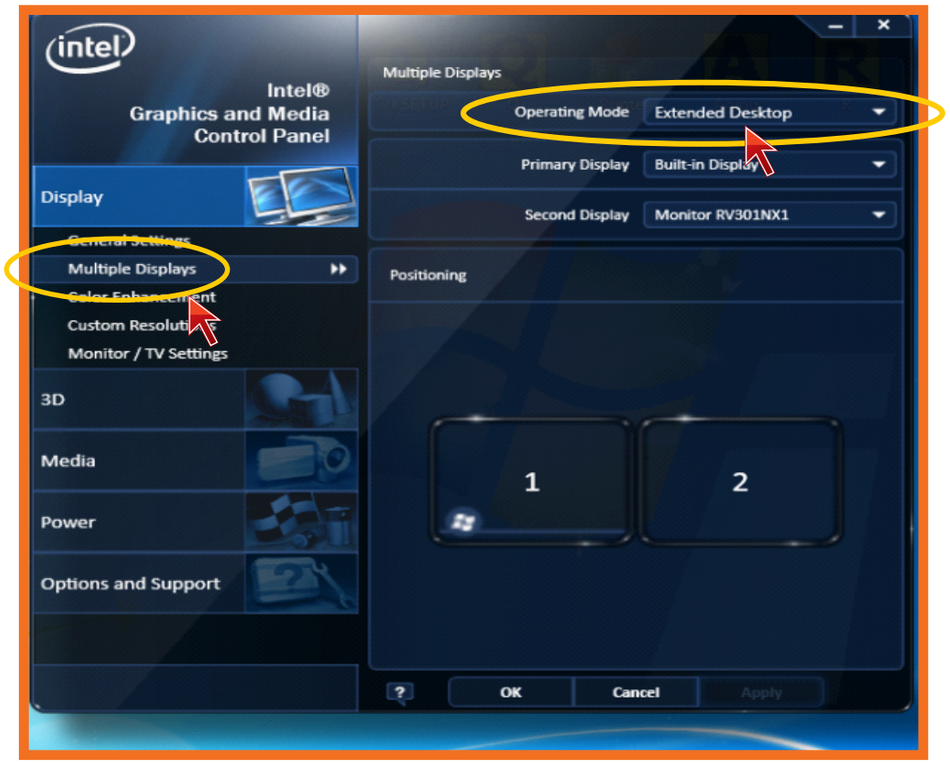
- Additional monitor can be connected to the VGA connector.
  This contents is written based on Windows 7 OS.

1. Dual Monitor usage

Note! | ▶ How to check dual monitor's settings
If dual monitors don't work properly, refer to the following procedure.

- **Method 1** Check the BIOS setup(Appendix A)
  Make sure that 'Chipset 〉 Host Bridge 〉 Intel IGD Configuration 〉 Boot Display Device' menu is selected as 'D-SUB + LVDS'

- **Method 2** Click the right button of mouse on 'Intel Graphic icon' of Windows tray area and select 'Graphic Properties' menu. Make sure that 'Operating Mode' of 'Multiple Displays' is set as 'Extended Desktop'.



PART 4. System Expansion And Disassembly

01. System Disassembly

1. Make sure the system & peripherals power are off.

2. Take off the screws first in case the Interface cover is fixed at the bottom of system.

3. Press the hook to remove the Interface cover.

4. Disconnect cables for peripherals & DC power supply jack from the system.

Note! | When disconnecting DC power supply jack, the neck point of it should gently be pulled out before fully disconnected.

PART 4. System Expansion And Disassembly

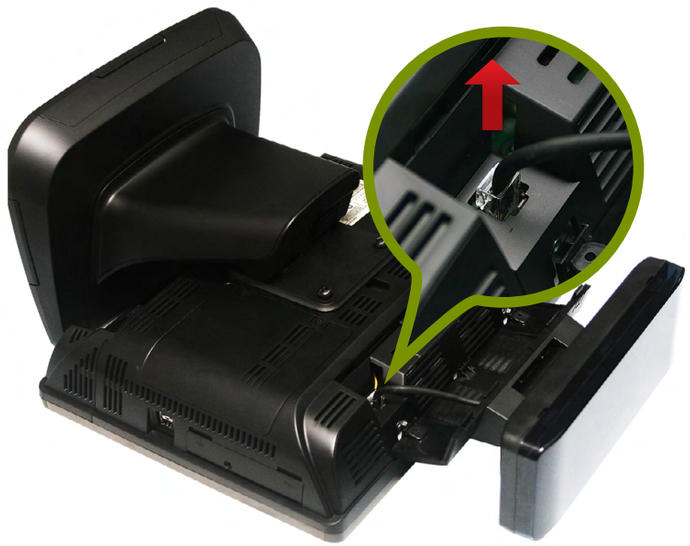
01. System Disassembly

★ Customer display disassembly

5. Lay down the system on the side with care as shown in the picture not to damage LCD panel.

6. Press the "PUSH" button at the bottom of customer display to separate in case it is fixed.

7. Lift up the customer display first and disconnect the connector.



PART 4. System Expansion And Disassembly

01. System Disassembly

8. Remove four screws which are fixing the base.

9. To disassemble the base, push it down and lift it up as shown in the picture.

PART 4. System Expansion And Disassembly

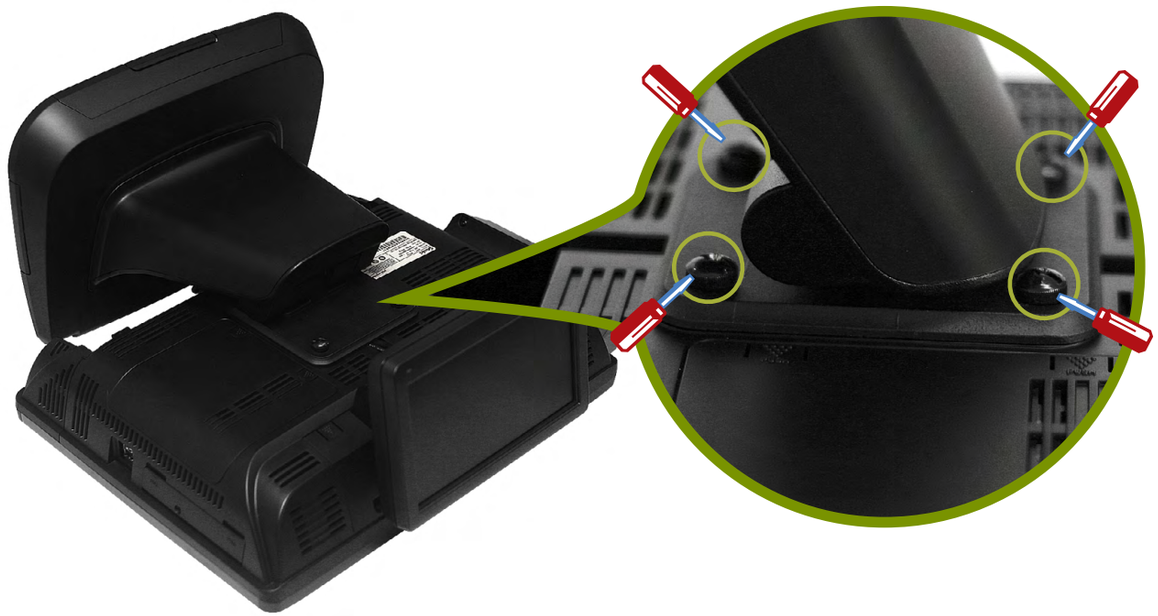
01. System Disassembly

★ 7-inch display disassembly

10. Lay down the system on the side with care as shown in the picture not to damage LCD panel.

11. Remove four screws which are fixing the base.

12. To disassemble the base, push it down and lift it up as shown in the picture.



PART 4. System Expansion And Disassembly

01. System Disassembly

★ 7-inch display disassembly

13. Press the "PUSH" button at the bottom of 7-inch display to separate in case it is fixed.

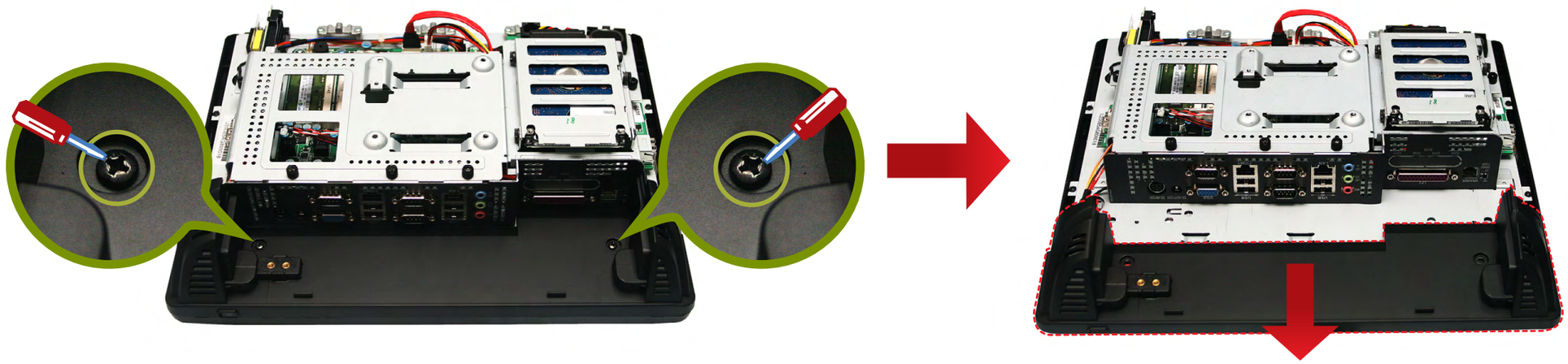
14. Lift up the 7-inch display in the direction of the arrow as shown in the picture first and disconnect the connector.

PART 4. System Expansion And Disassembly

01. System Disassembly

15. After unwinding the rear cover screw of the system and MSR rear two screws, remove the MSR from the main body and slide the cover upward to disassemble.

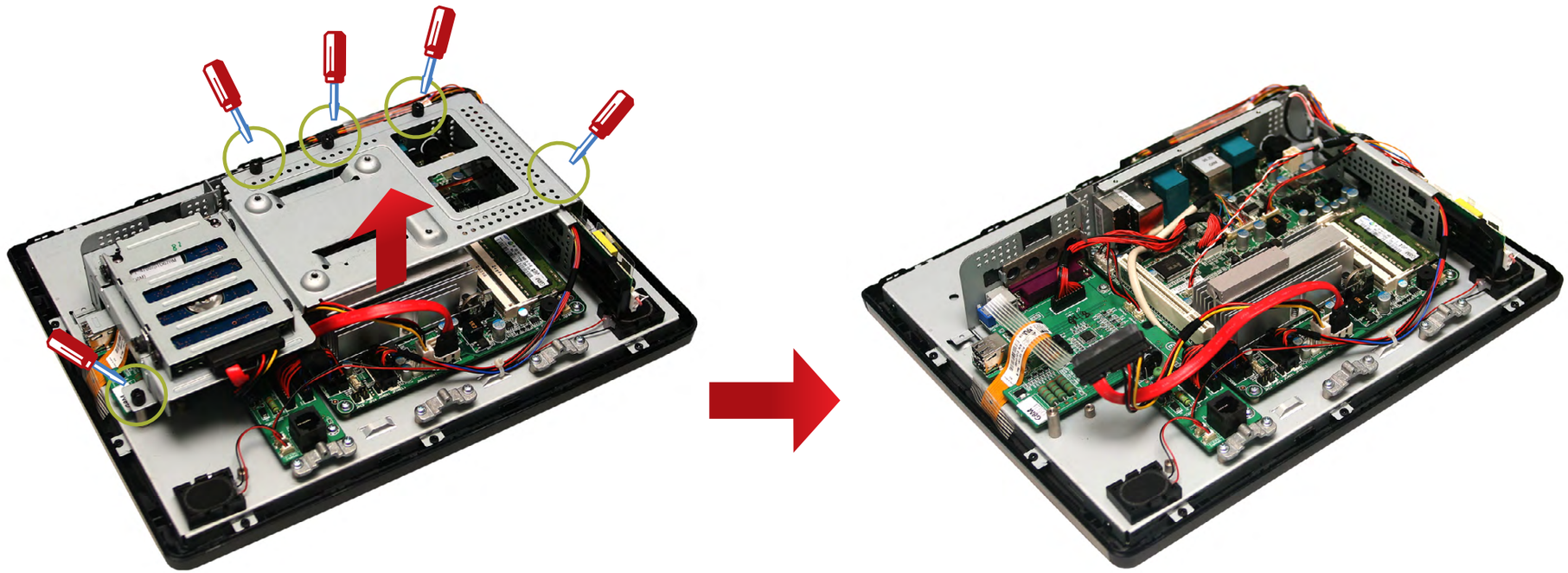
16. Slide downward the rear dummy cover after removing two screws of rear dummy cover.



PART 4. System Expansion And Disassembly

01. System Disassembly

17. Remove five screws from the cover's bracket and then disassemble the bracket cover as shown in the picture.



02. System Assembly

1. After assembling the system in reverse order, connect with peripheral cables and DC power supply jack.

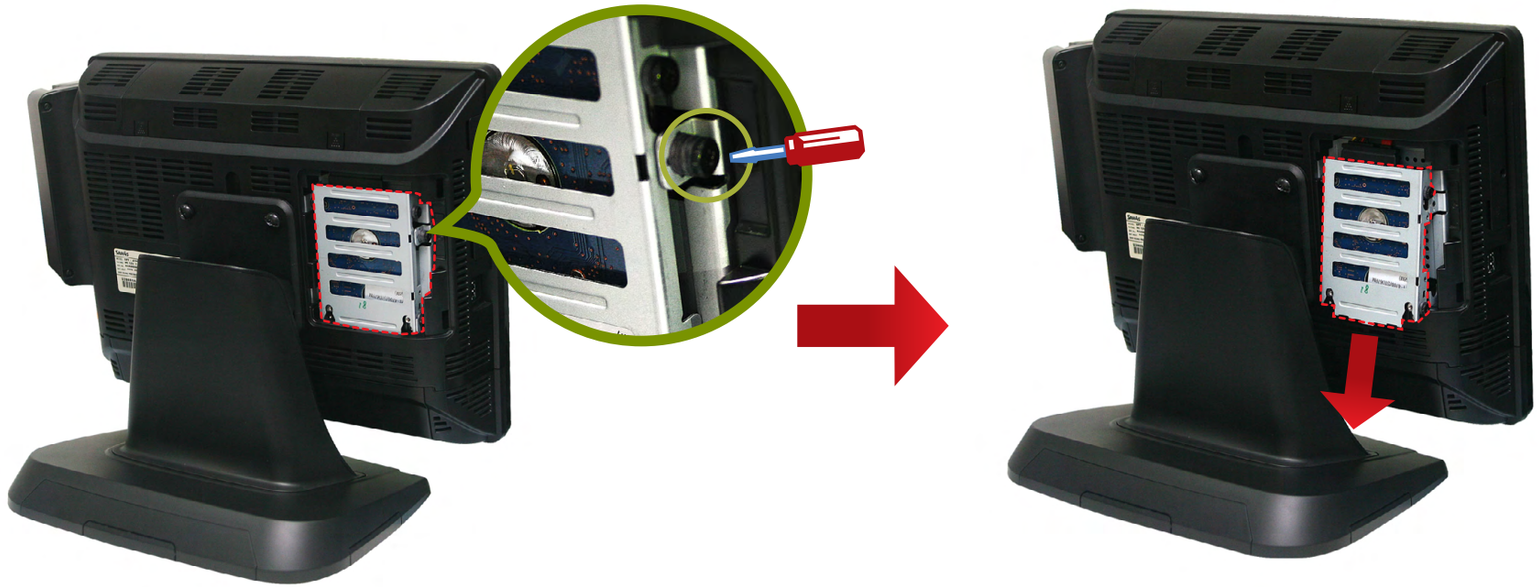
PART 4. System Expansion And Disassembly

02. HDD Replacement

1. Shut down the system to replace the hard disk.

2. Press the "PUSH" button on the back of the system to remove the cover as shown in the picture.

3. After unwinding the screw and pulling out the HDD upward, disconnect the power supply and data cables.

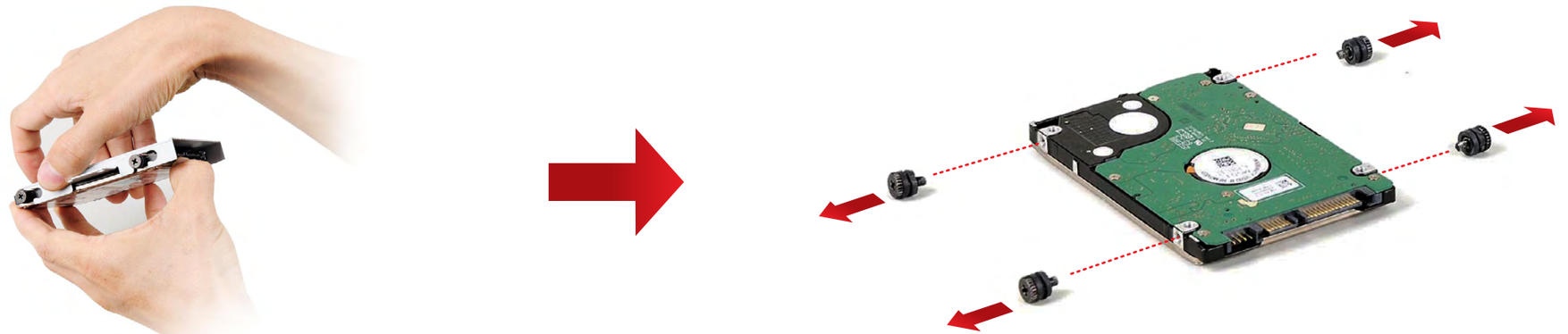


PART 4. System Expansion And Disassembly

02. HDD Replacement

4. Separate the bracket from the HDD.

5. Remove four screws from the HDD.



6. After assembling in reverse order, connect the peripheral cables and DC power supply jack.

7. After starting the system by pressing the power button, verify if the new HDD is connected properly referring to system setup (see Appendix A).

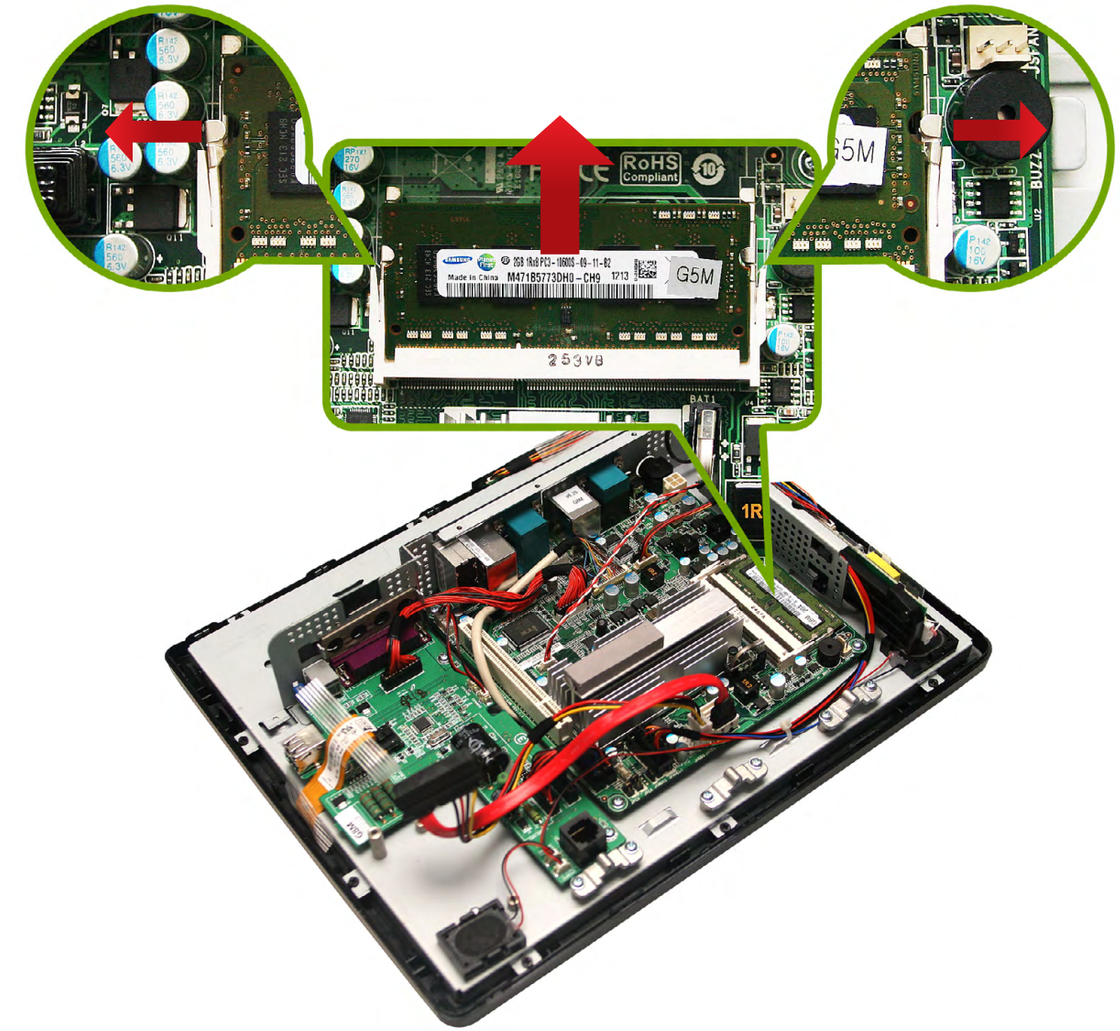
PART 4. System Expansion And Disassembly

04. Main Memory Replacement

You might need to expand the capacity of the main memory while using the system.
If you want to extend the main memory capacity, you should check the sizes of currently installed and additionally installed main memory.

SPT-4700 can be equipped with up to 4GB memory. As you insert the memory, the BIOS automatically detects the memory type, capacity, and speed.

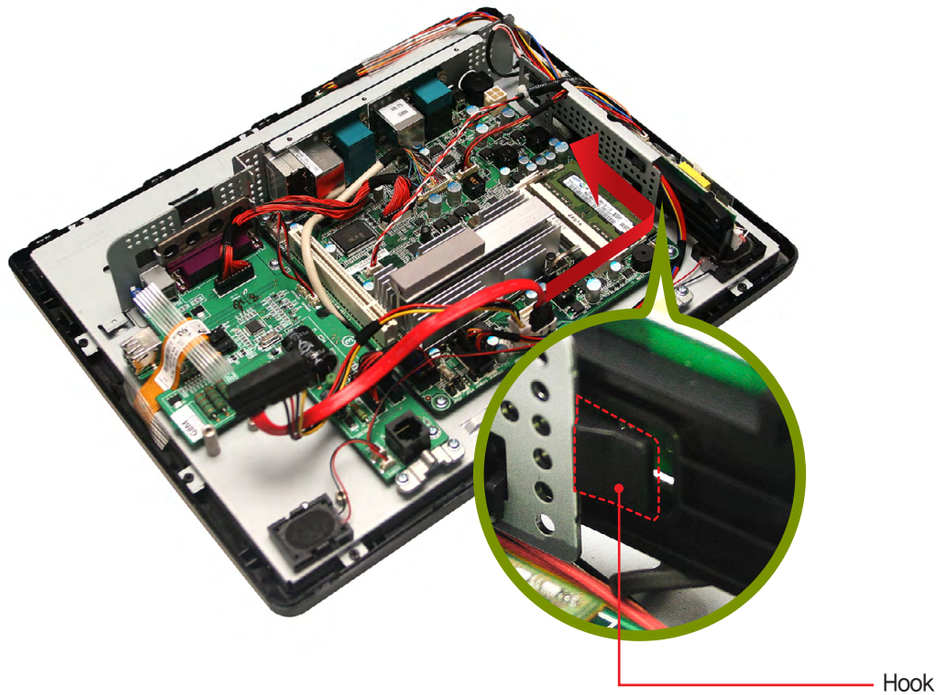
1. Shut down the system in order to extend the main memory.
   ※ Make sure to disconnect the power supply and peripheral cables in advance before disassembling the system.
2. Remove the rear cover of the system referring to the 'System disassembly' contents of this manual.
3. Pull both lever in the direction of the arrow as shown in the picture and take out the memory upward.

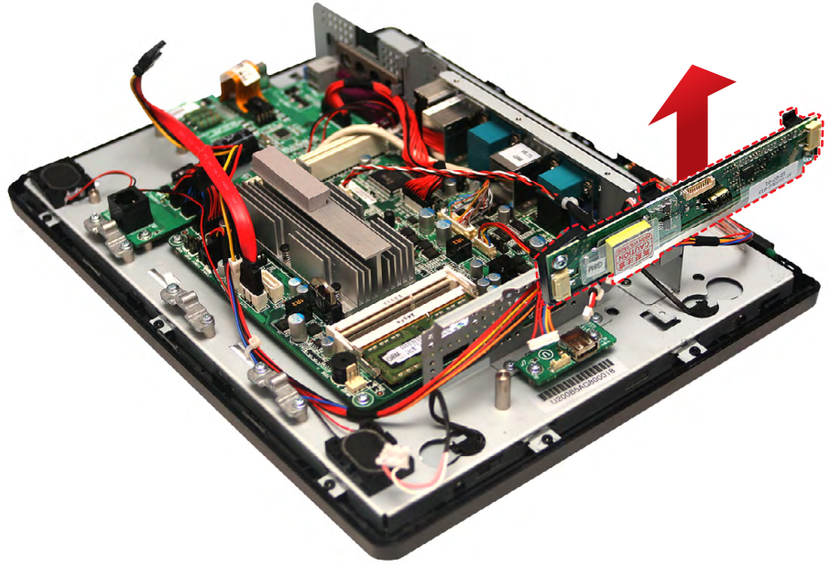


PART 4. System Expansion And Disassembly

05. Inverter Replacement

1. Remove the rear cover of the system and the bracket referring to the 'System disassembly' contents of this manual.
2. Remove all cables connected to the inverter.
3. Push the Hook on the inside the inverter and gently push it forward. Then the inverter is disconnected.

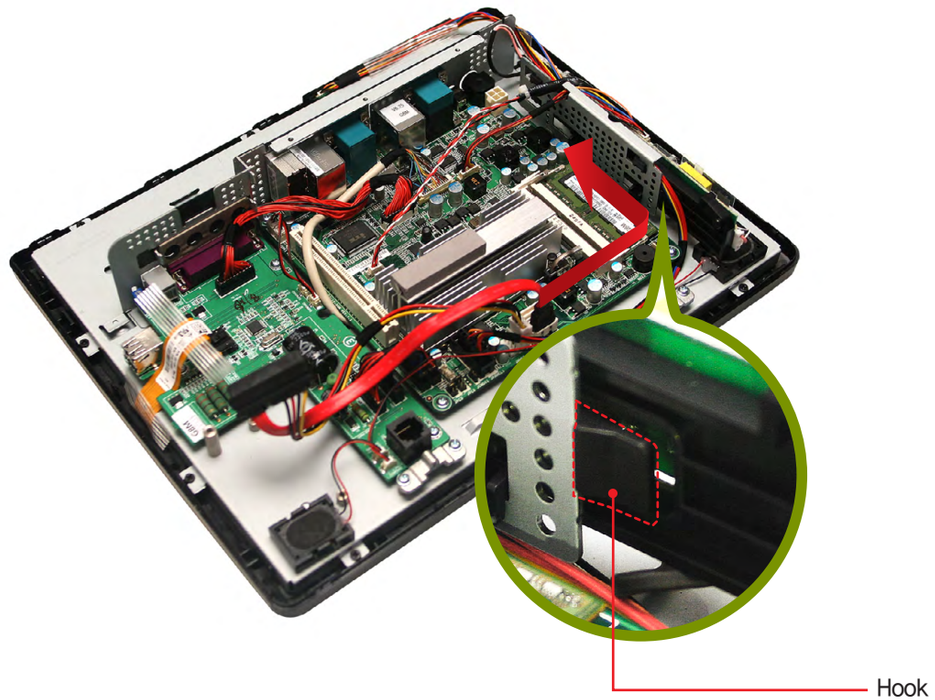




PART 4. System Expansion And Disassembly

06. Embedded Speaker Replacement

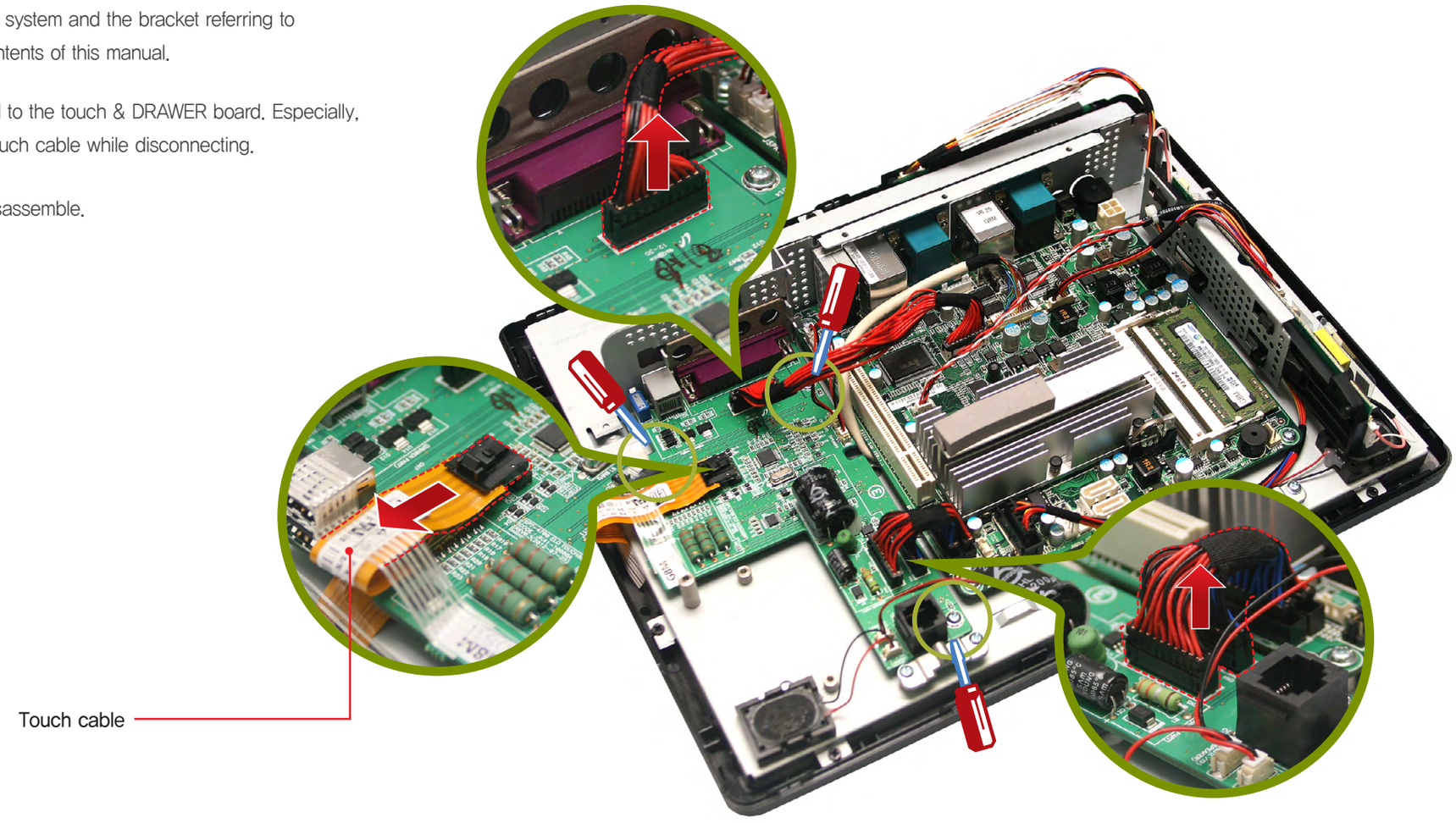
1. Remove the rear cover of the system and the bracket referring to the 'System disassembly' contents of this manual.
2. After removing the inverter as shown in the picture, remove the speaker cable.
3. Disconnect the speakers by pushing upward as shown in the picture.



PART 4. System Expansion And Disassembly

07. Touch & DRAWER Board Disassembly

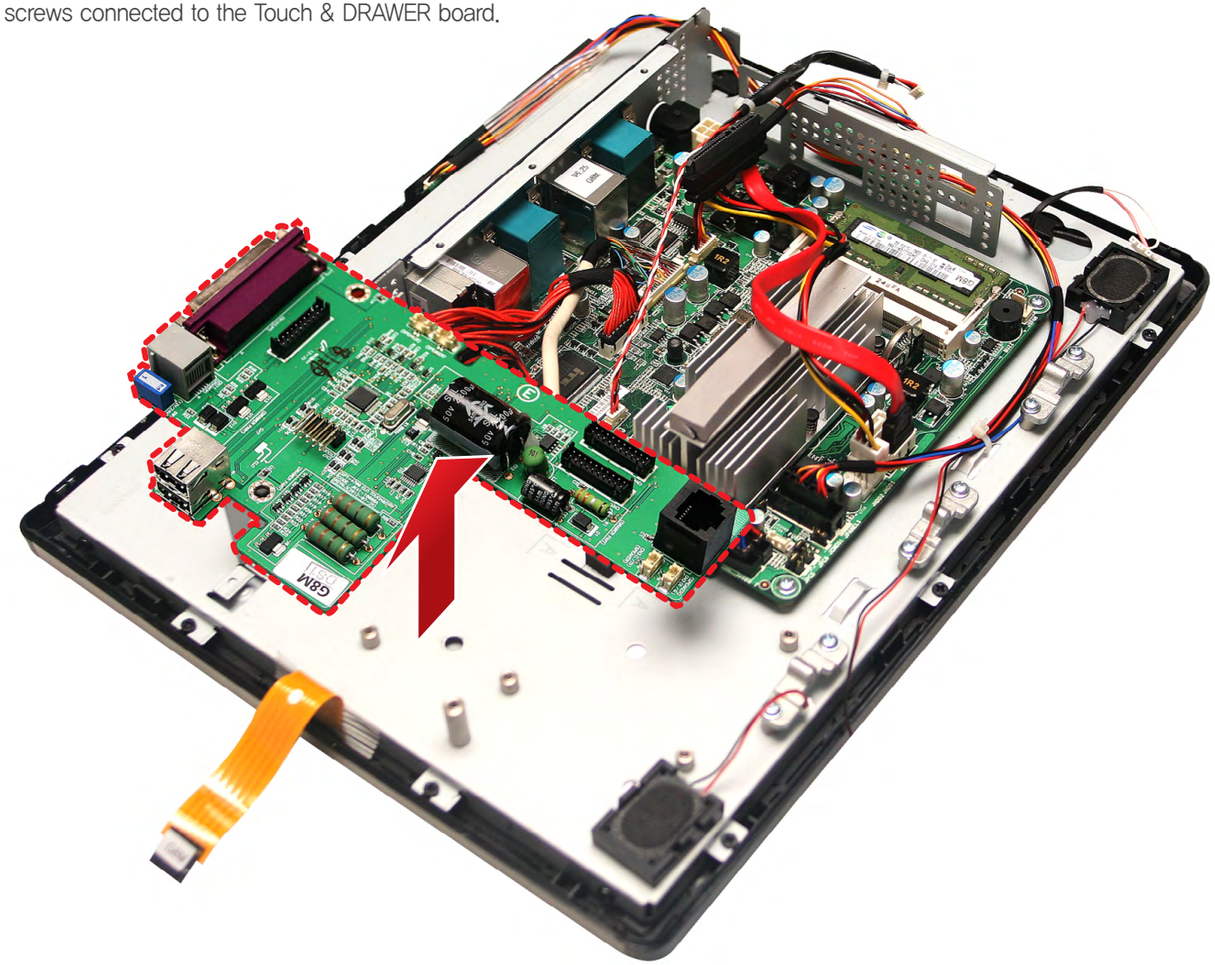
1. Remove the rear cover of the system and the bracket referring to the 'System disassembly' contents of this manual.
2. Remove all cables connected to the touch & DRAWER board. Especially, be careful not to break the touch cable while disconnecting.
3. Lift up the Joint cable and disassemble.



PART 4. System Expansion And Disassembly

07. Touch & DRAWER Board Disassembly

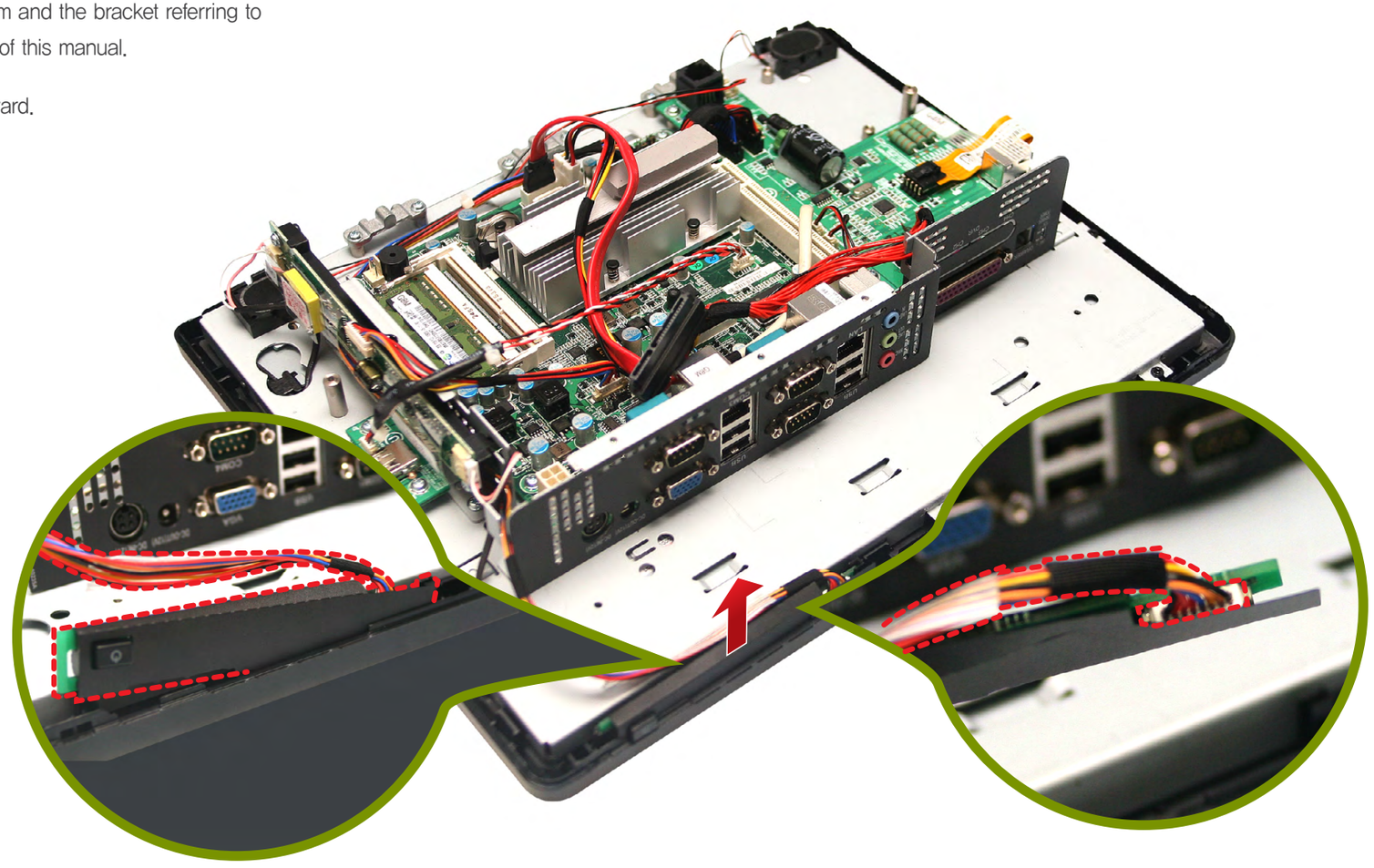
4. Disassemble the Touch & DRAWER board after removing all the screws connected to the Touch & DRAWER board.



PART 4. System Expansion And Disassembly

08. OSD Board Disassembly

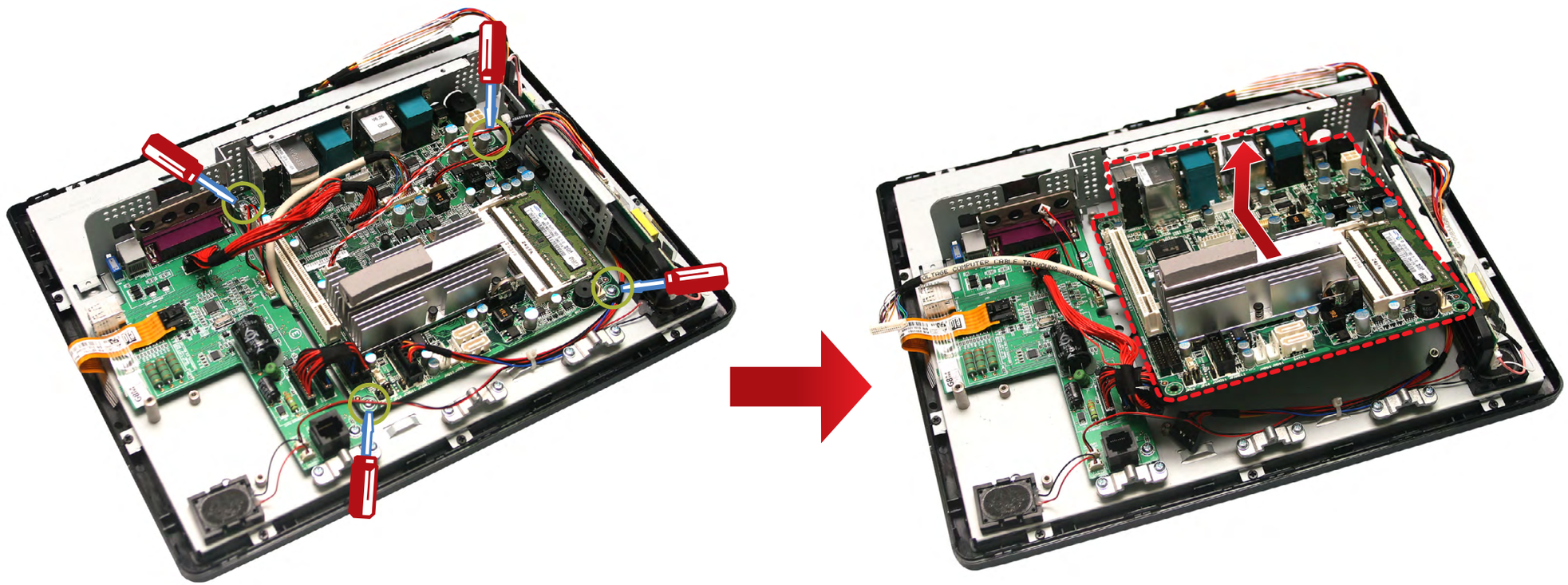
1. Remove the rear cover of the system and the bracket referring to the 'System disassembly' contents of this manual.
2. Hold the OSD board and pull it upward.
3. Disconnect the OSD board cable.



PART 4. System Expansion And Disassembly

09. Main Board Disassembly

1. Remove the rear cover of the system and the bracket referring to the 'System disassembly' contents of this manual.
2. Remove all cables and screws connected to the main board.
3. Disassemble the main board by pushing it slightly and then upward as shown in the picture.

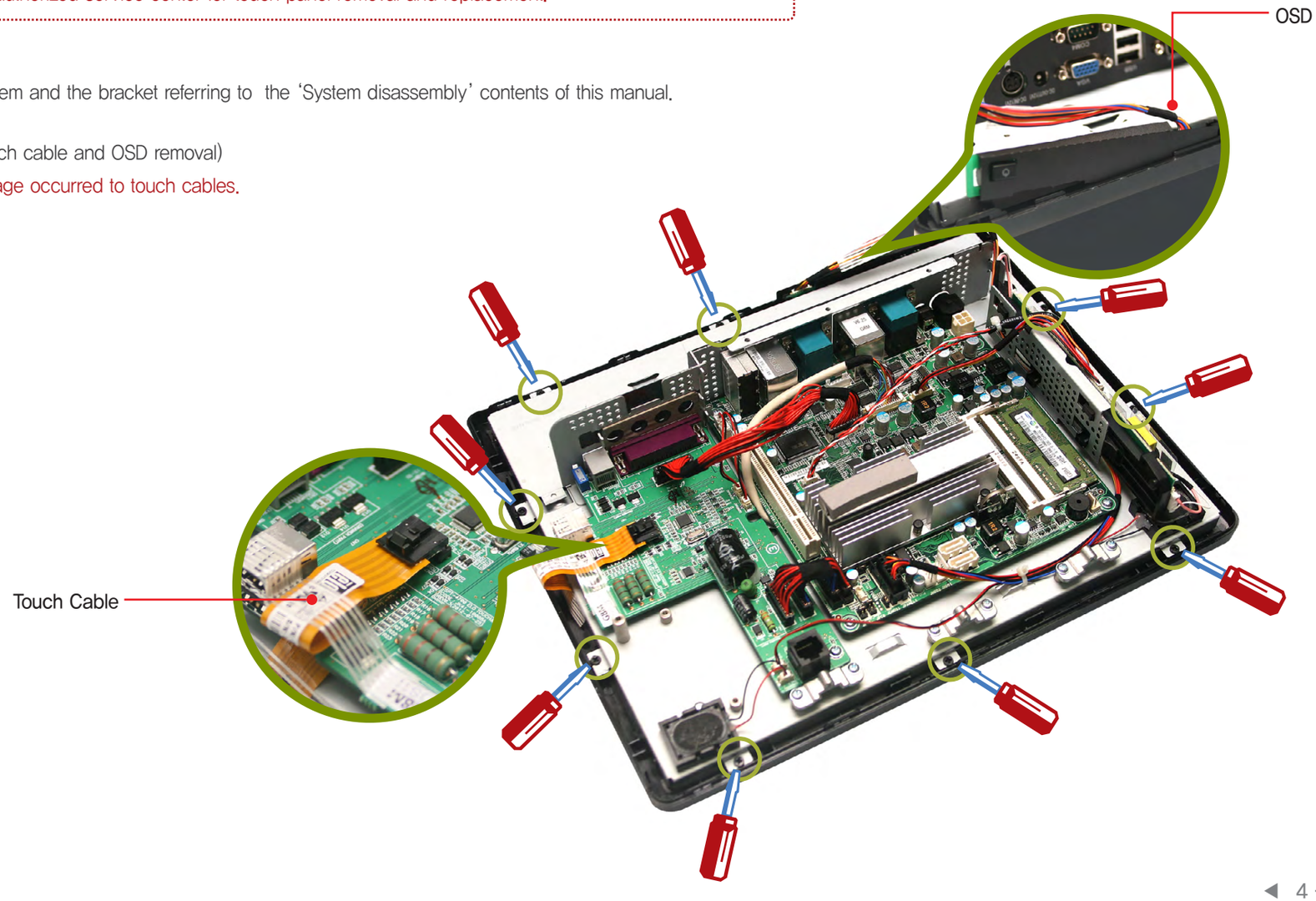


PART 4. System Expansion And Disassembly

10. Touch Panel And LCD Disassembly

⚠ Caution! | ▶ The touch panel is easily damaged from dust or mishandling while disconnecting the LCD and touch panel. Please use an authorized service center for touch panel removal and replacement.

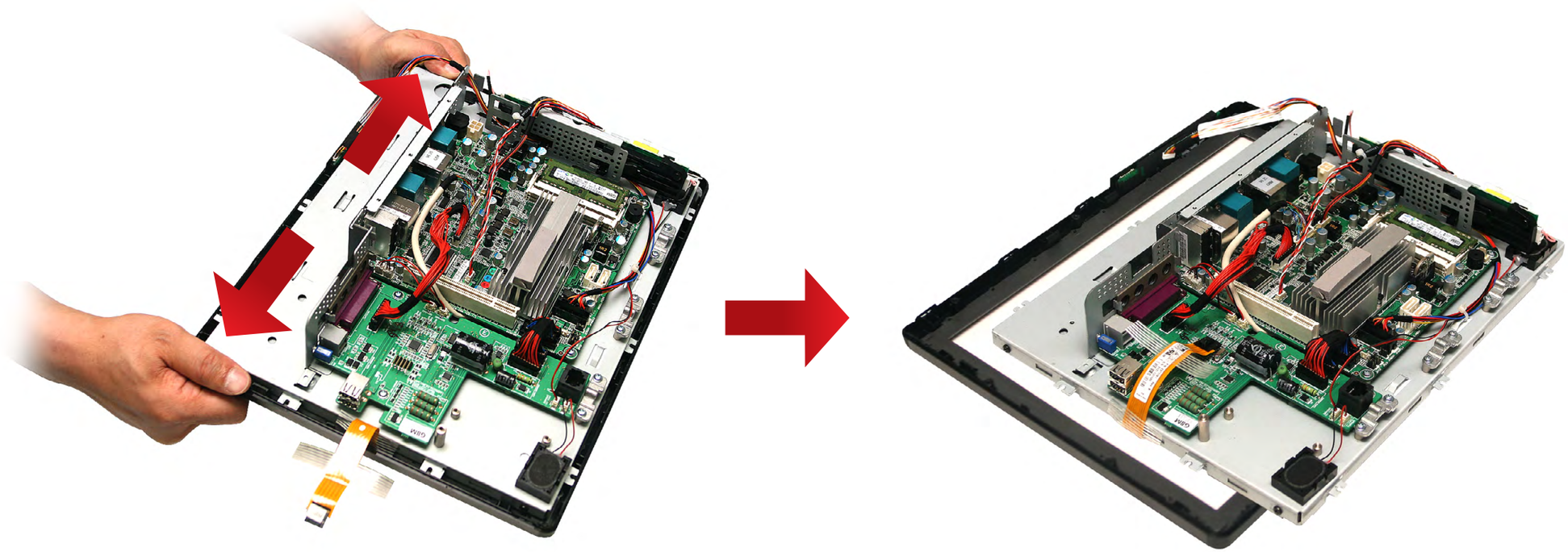
1. Remove the rear cover of the system and the bracket referring to the 'System disassembly' contents of this manual.
2. Remove fixed screws.(refer to Touch cable and OSD removal)
   ※ Be careful in case of any damage occurred to touch cables.



PART 4. System Expansion And Disassembly

10. Touch Panel And LCD Disassembly

3. Hold the front bracket and open the down part in both directions as shown in the picture. Then remove the display assembly.



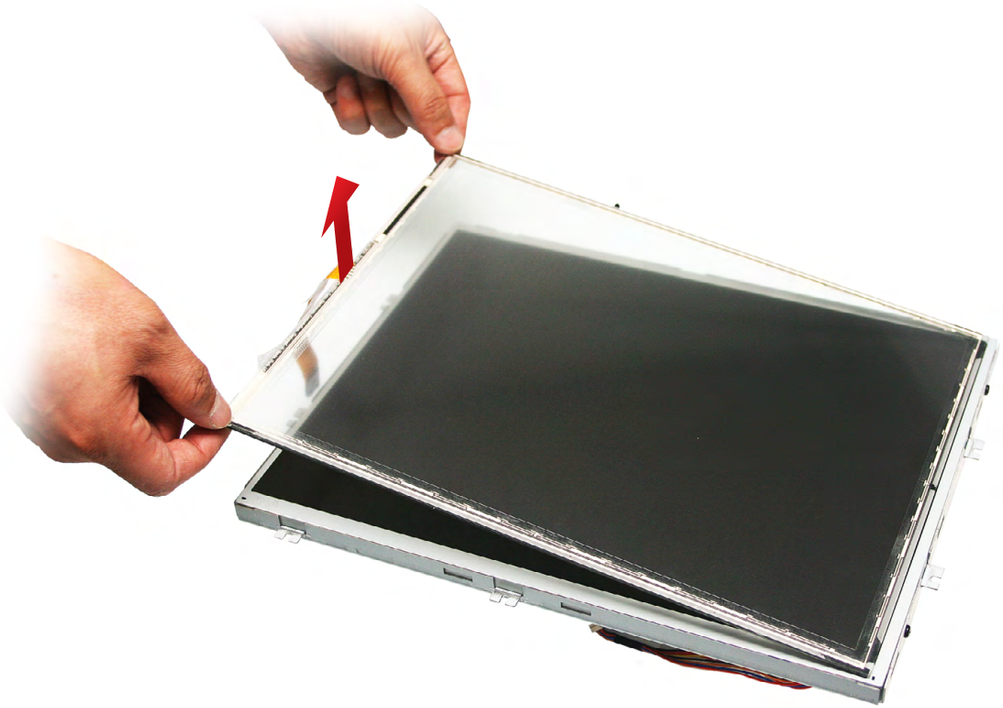
Cautions!

- Be careful not to damage the cable while operating.
- The touch panel may separate suddenly from the LCD panel due to a vacuum condition between the touch panel and LCD.
- Be careful not to damage components.
- Work in a clean environment. Dust can adhere to the surface of the LCD or touch panel and cause scratches.
- Touch panel and cables are made of sensitive materials. Take care to avoid damage.

PART 4. System Expansion And Disassembly

10. Touch Panel And LCD Disassembly

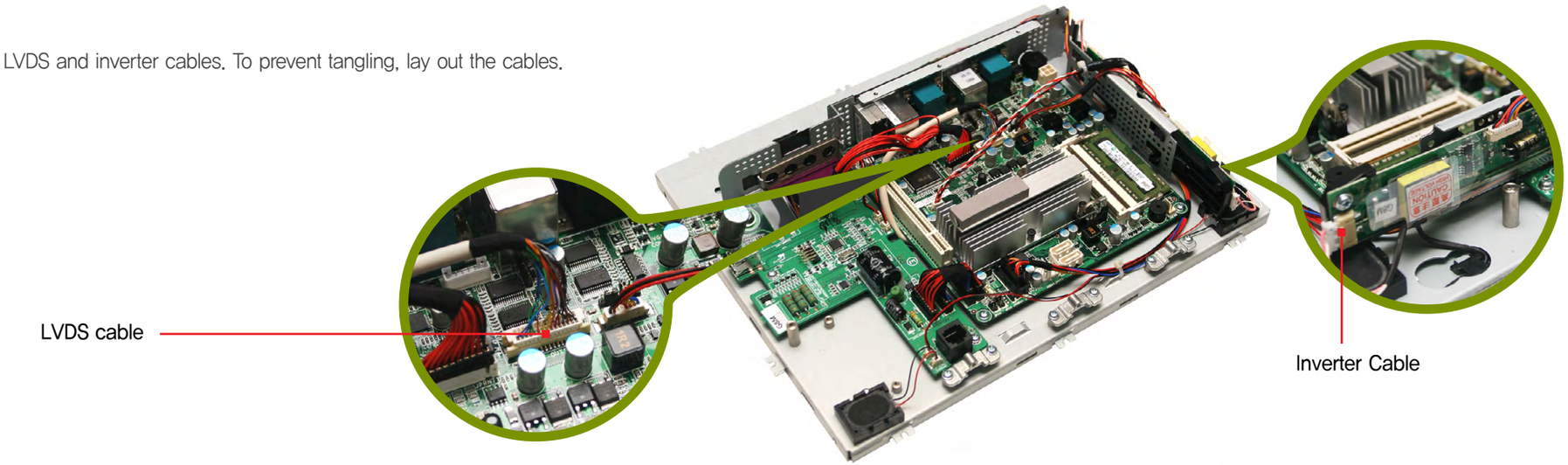
4. Separate touch glass from LCD panel as shown in the picture.



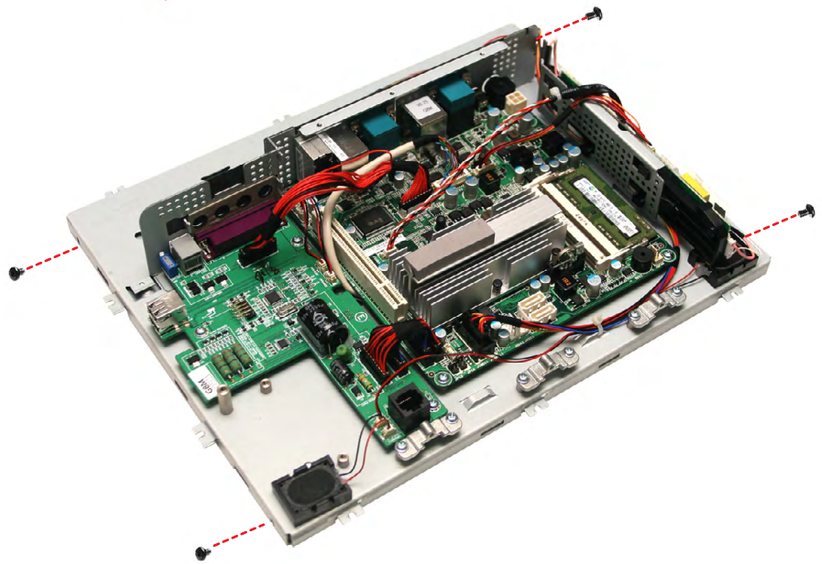
PART 4. System Expansion And Disassembly

10. Touch Panel And LCD Disassembly

5. Disconnect the LVDS and inverter cables. To prevent tangling, lay out the cables.



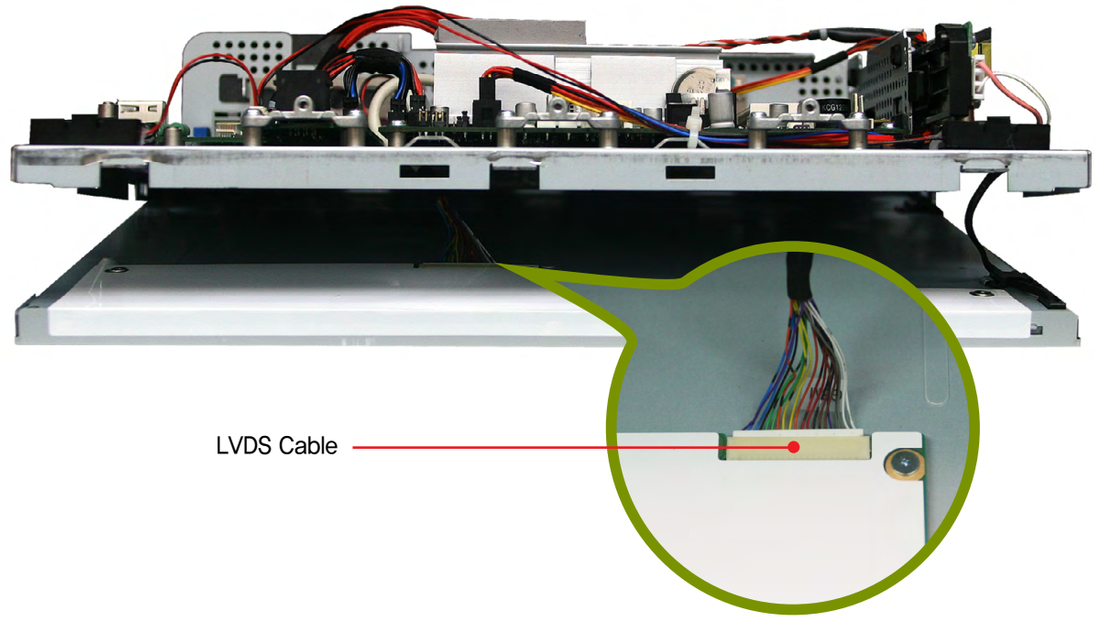
6. Remove four screws from the sides of display's bracket.



PART 4. System Expansion And Disassembly

10. Touch Panel And LCD Disassembly

7. To prevent pinching the LVDS cable, hold the front display bracket and after lifting it disconnect the LVDS cable from LCD.



Appendix A. BIOS Set up

01. Understanding BIOS Set up

- BIOS provides configuration and set-up information for driving the main board. BIOS values are saved in CMOS ROM on the main board.

BIOS (Basic Input and Output System) Set-Up is a menu-oriented software utility which enables a user to configure the system's environmental set-up, system hardware, power saving functions, etc. BIOS Set-Up values can seriously affect how the system works. Therefore, users should determine all options regarding BIOS Set-Up and configure the system accordingly.

Entering the Setup

• Turn on the system and the system will show Press 〈DEL〉 to enter SETUP message.
When this message show up, press 〈DEL〉 or 〈Delete〉 key to enter SETUP screen.

Cases of BIOS Setup

• When checking HDD type and capacity after HDD replacement
• When changing booting sequence
• When reflecting user s need on the setup
• When setting or changing a password

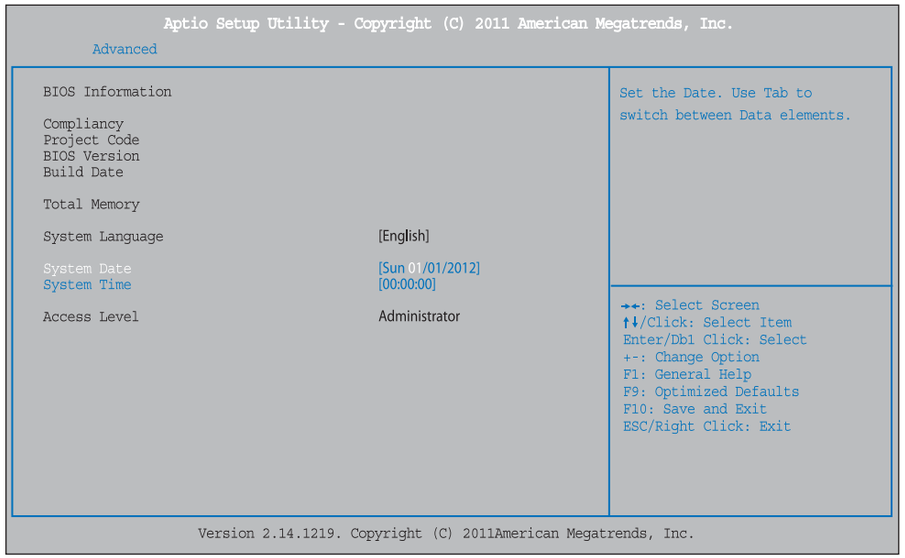
Appendix A. BIOS Set up

01. Understanding BIOS Set up

- BIOS provides configuration and set-up information for driving the main board. BIOS values are saved in CMOS ROM on the main board.

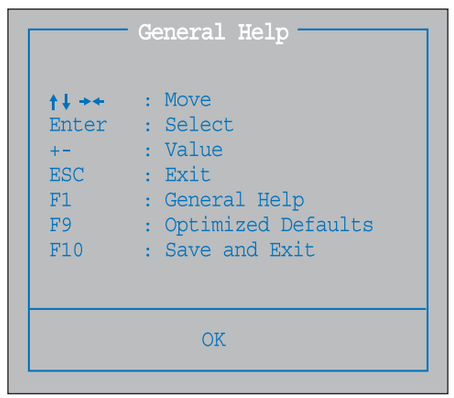
Initial Setup Screen

• Initial BIOS Set-Up Sreen has the following menu options:
Main, Advanced, Chipset, Boot, Security and Save & Exit.



Using Keys on BIOS Setup Screen.

• Press F1 key to see simple explanations on key functions.
Next slide shows key functions used on Setup.



Appendix A. BIOS Set up

01. Understanding BIOS Set up

- BIOS provides configuration and set-up information for driving the main board. BIOS values are saved in CMOS ROM on the main board.

▪ →← : Move

Move the cursor to select a screen.

▪ ↑ ↓ : Move

Move the cursor to select a menu or option tab. The color of selected menu will be changed to White.

▪ Enter : Select

Some of menus include sub-menus. You can select sub-menu by clicking 〈Enter〉 key.

▪ +- : Value

Use them for setting value.

▪ ESC : Exit

Exit setup program without saving changes.

▪ F1 : General Help

Shows a list of keys used in System Setup.

▪ F9 : Load Optimal Defaults

Load default configuration values which the mainboard manufacturer set up.

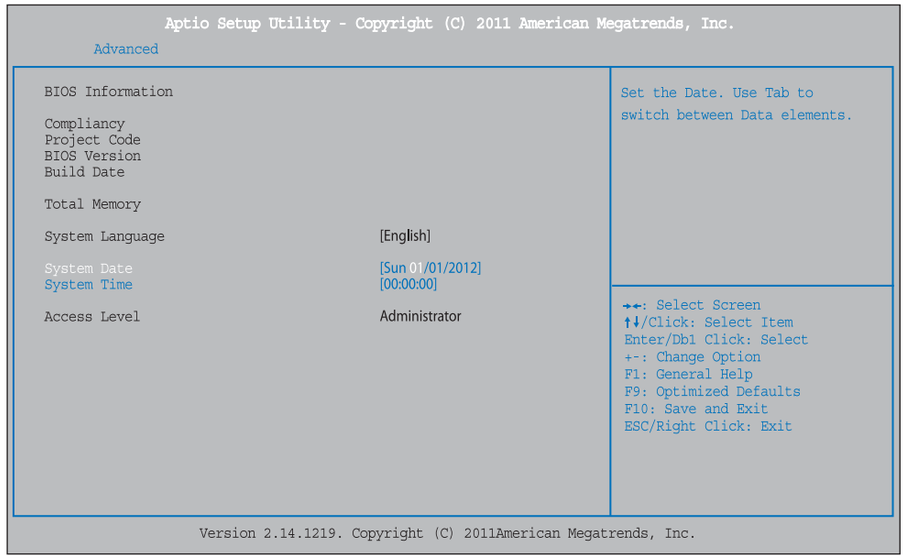
▪ F10 : Save and Exit

Save changed values and exit setup program.

Appendix A. BIOS Set up

02. Main Menu

- Use this menu for basic system setup such as time, date, system information and etc.



System Date

If needed, set up the date on System Date .
The date format is 〈Month〉 〈Day〉 〈Year〉 in order. Move to the item with 〈Tab〉 or 〈Enter〉 key and change it with 〈+〉, 〈Space〉 or 〈–〉 key.

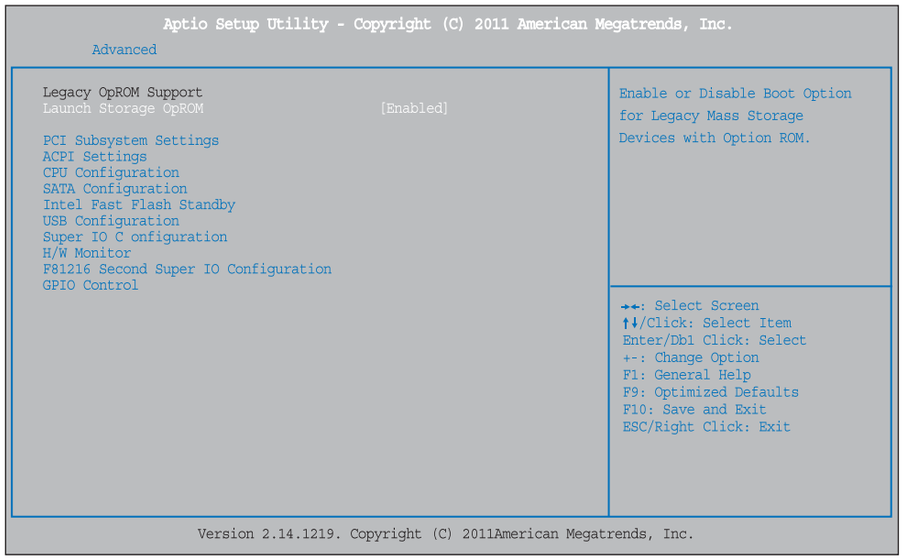
System Time

If needed, set up the time on System Time .
The time format is 〈Hour〉 〈Minute〉 〈Second〉 in order. Move to the item with 〈Tab〉 or 〈Enter〉 key and change it with 〈+〉, 〈Space〉 or 〈–〉 key.

Appendix A. BIOS Set up

03. Advanced Menu

- Use this menu to set up for system performance.



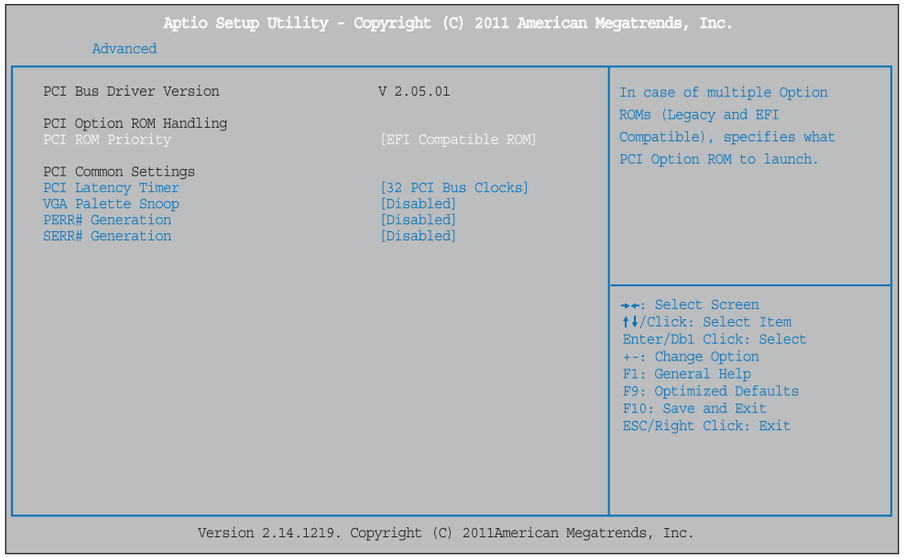
Launch Storage OpROM

This item allows you to enable or disable Boot Option for Legacy Mass Storage Devices with Option ROM.

Appendix A. BIOS Set up

03. Advanced Menu

- Use this menu to set up for system performance.



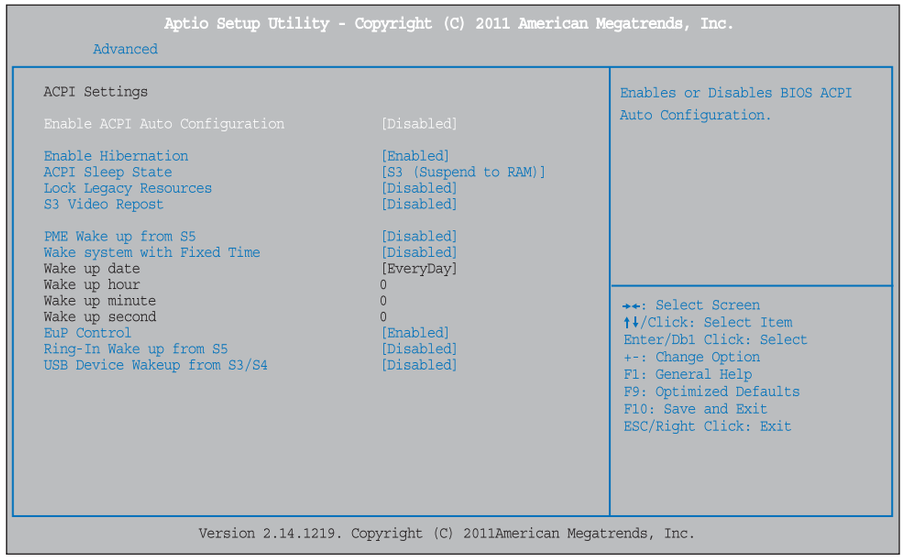
Advanced 〉PCI Subsystem Settings

- **PCI ROM Priority** — In case of multiple option ROMs (Legacy and EFI Compatible), this item specifies what PCI Option ROM to launch.
- **PCI Latency Timer** — This item sets the value to be programmed into PCI Latency Timer Register.
- **VGA Palette Snoop** — This item enables or disables VGA Palette Registers Snooping.
- **PERR# Generation** — This item enables or disables PCI Device to generate PERR#.
- **SERR# Generation** — This item enables or disables PCI Device to generate SERR#.

Appendix A. BIOS Set up

03. Advanced Menu

- Use this menu to set up for system performance.



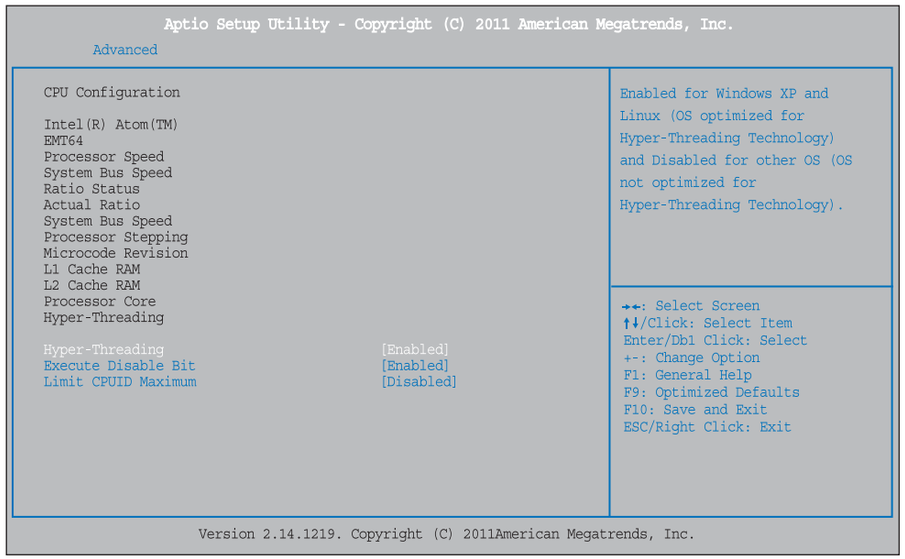
Advanced 〉ACPI Settings

- **Enable ACPI Auto Configuration** — The item enables or disables BIOS ACPI Auto Configuration.
- **Enable Hibernation** — The item enables or disables System ability to hibernate (OS/S4 Sleep State). This option may be not effective with some OS.
- **ACPI Sleep State** — This item selects the highest ACPI sleep state the system will enter when the SUSPEND button is pressed.
- **Lock Legacy Resources** — This item enables or disables Lock of Legacy.
- **S3 Video Repost** — The item enables or disables S3 Video repost.
- **PME Wake up from S5** — The item enables the system to wake from S5 using PME event.
- **Wake system with Fixed Time** — This item enables or disables the system to wake on by alarm event. When this item is enabled, the system will wake on the hr::min::sec specified.
- **Wake up date / Wake up hour / Wake up minute / Wake up second** — Sets up specific time and date that the system will wake up.
- **EuP Control** — When EuP is enabled, the system will meet EuP requirement.
- **Ring-In Wake up from S5** — This item enables the system to wake from S5 using Ring-In event.
- **USB Device Wake up from S3/S4** — This item enables the system to wake from S3/S4 using USB device.

Appendix A. BIOS Set up

03. Advanced Menu

- Use this menu to set up for system performance.



Advanced 〉 CPU Configuration

- **Hyper Threading Technology**

  Enabled for Windows XP and Linux (OS optimized for Hyper Threading Technology) and disabled for other OS (OS not optimized for Hyper Threading Technology).

- **Execute Disable Bit**

  This item allows you to configure the Execute Disabled Bit function, which protects your system from buffer overflow attacks.

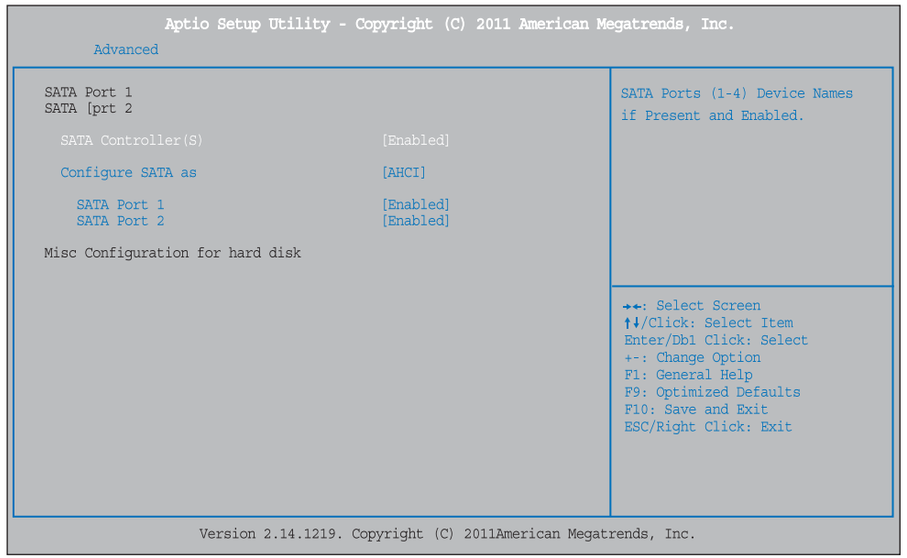
- **Limit CPUID Maximum**

  When the computer is booted up, the operating system executes the CPUID instruction to identify the processor and its capabilities. Before it can do so, it must first query the processor to find out the highest input value CPUID recognizes. This determines the kind of basic information CPUID can provide the operating system.

Appendix A. BIOS Set up

03. Advanced Menu

- Use this menu to set up for system performance.



Advanced 〉SATA Configuration

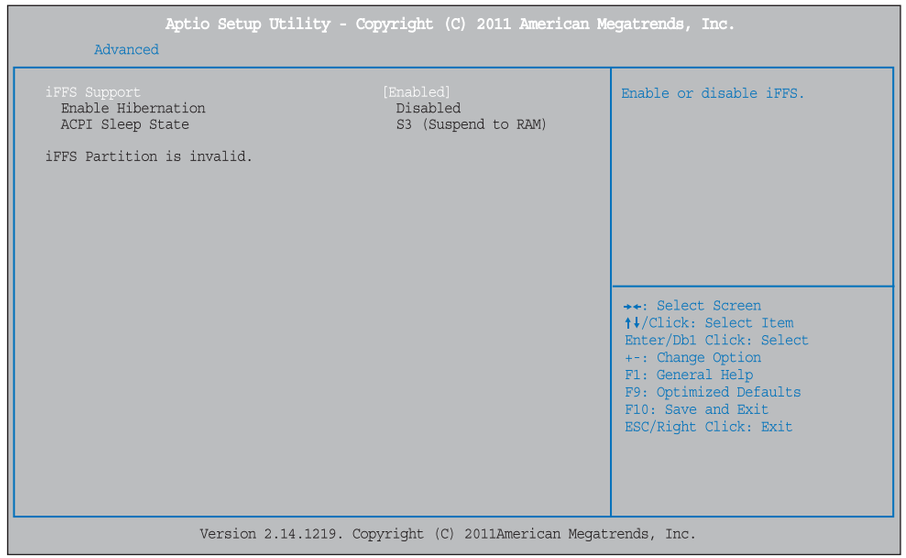
- **SATA Controller(s)** — This item enables/disables Serial ATA Controller (s) and support IDE / AHCI modes.
- **Configure SATA as** — This item selects a configuration for SATA controller..

> ⚠ Caution! | Basic setup for SPT-4700 is AHCI mode.
>
> If you change this setup carelessly, the system may not be booted.

Appendix A. BIOS Set up

03. Advanced Menu

- Use this menu to set up for system performance.



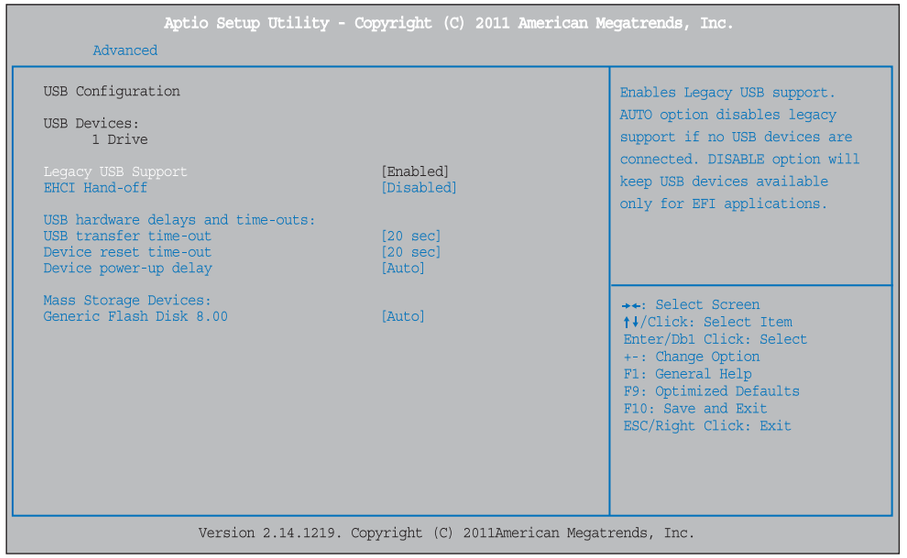
Advanced 〉Intel Fast Flash Standby

- **iFFS Support** — This item enables or disables iFFS.
- **Entry on S3 RTC Wake** — iFFS invocation upon S3 RTC.
- **Entry After** — Enable RTC wake timer as S3 entry.
- **Entry on S3 Critical Battery Wake** — iFFS invocation upon critical battery wake.

Appendix A. BIOS Set up

03. Advanced Menu

- Use this menu to set up for system performance.



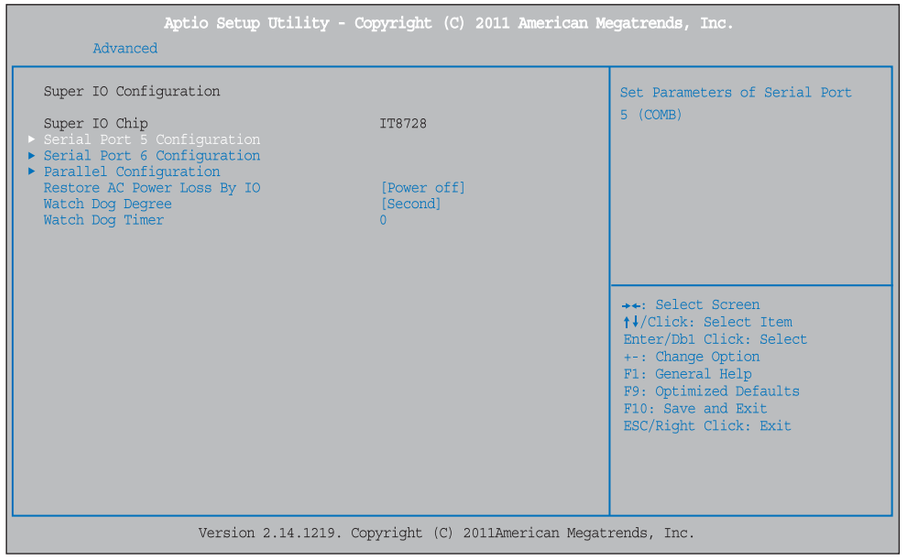
Advanced 〉USB Configuration

- **Legacy USB Support** — This item determines if the BIOS should provide legacy support for USB devices like the keyboard, mouse, and USB drive. This is a useful feature when using such USB devices with operating systems that do not natively support USB (e.g. Microsoft DOS or Windows NT).
- **EHCI Hand-Off** — This is a workaround for OSes without EHCI hand-off support. The EHCI ownership change should be claimed by EHCI driver.
- **USB transfer time-out** — The time-out value is for Control, Bulk, and Interrupt transfers.
- **Device reset time-out** — This is the USB mass storage device Start Unit command time-out.
- **Device power-up delay** — This is maximum time for the device to take before it properly reports itself to the Host Controller.

Appendix A. BIOS Set up

03. Advanced Menu

- Use this menu to set up for system performance.



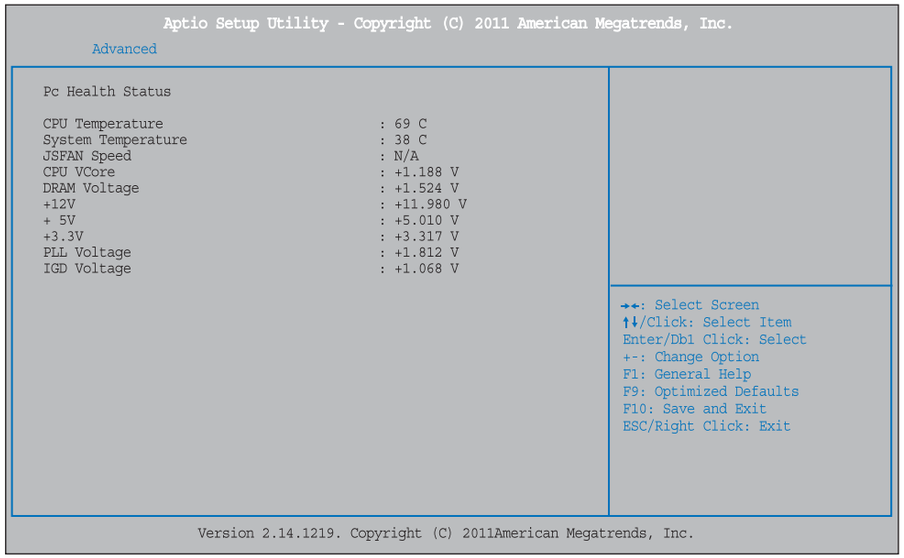
Advanced 〉Super IO Configuration

- **Serial Port 5/6 Configuration** — Decides to use Serial Port 5/6 and sets up IRQ and IO Address.
- **Parallel Port Configuration** — Decides to use Parallel Port and sets up IRQ, IO Address, Device Mode, etc.
- **Restore AC Power Loss by IO** — This setting determines whether the system restarts after a power fail or interrupts occurs. Options as below.
  - Power Off: Leaving the system in power-off status after power recovers.
  - Power On: Powering on the system immediately when power returns.
  - Last State: Recover the system as before a power fail or interrupts occurs.
- **Watch Dog Degree** — This item allows you to determine the functional degree of Watch Dog.
- **Watch Dog Timer** — Sets up the time of Watch Dog Timer function.

Appendix A. BIOS Set up

03. Advanced Menu

- Use this menu to set up for system performance.



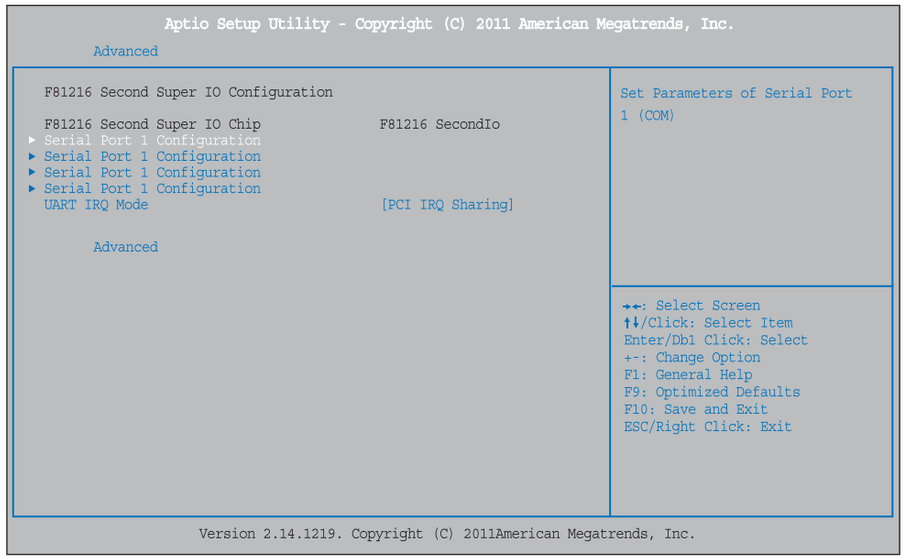
Advanced 〉 H/W Monitor

- **CPU Temperature** — Shows current temperature of CPU.
- **System Temperature** — Shows current temperature of System.
- **CPU VCore** — Shows current voltage of CPU.
- **DRAM Voltage** — Shows current voltage of DRAM.

Appendix A. BIOS Set up

03. Advanced Menu

- Use this menu to set up for system performance.



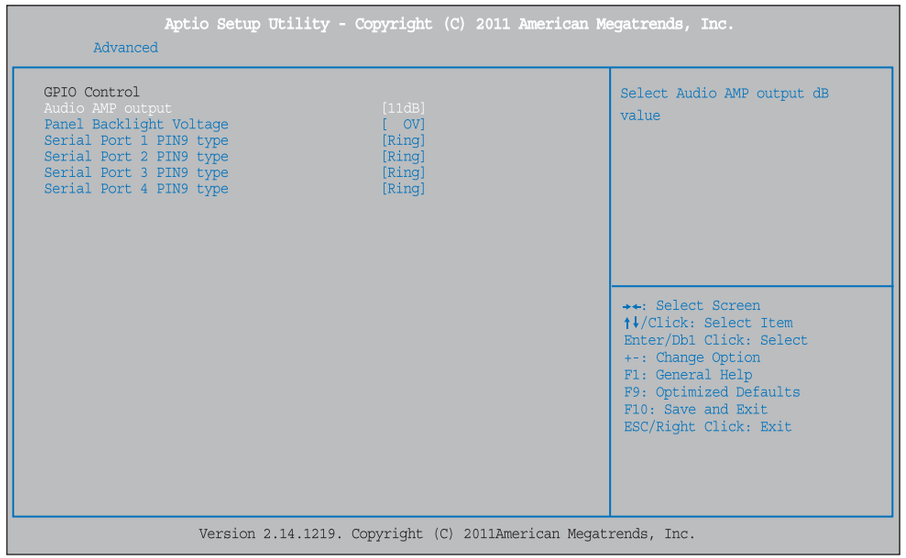
Advanced 〉F81216 Second Super IO Configuration

- **Serial Port 1/2/3/4 Congifuration** Decides to use Serial Port 1/2/3/4 and sets up IRQ and IO Address.
- **UART IRQ Mode** This item allows you to select PCI IRQ Sharing for QS(Ex. Windows) and ISA IRQ for DOS.

Appendix A. BIOS Set up

03. Advanced Menu

- Use this menu to set up for system performance.



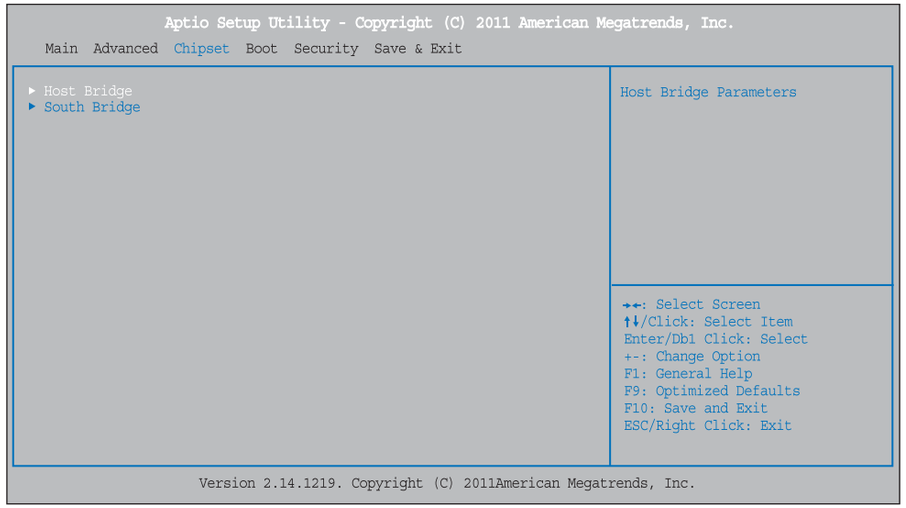
Advanced 〉 GPIO Control

- **Audio AMP output** — This item allows you to set Audio AMP output dB value.
- **Panel Backlight Voltage** — This item allows you to set Panel Backlight voltage.
- **Serial Port 1/2/4 PIN9 type** — This item allows you to set the output voltage value of Serial port 1/2/4 PIN9 type.
- **Serial Port 3 PIN9 type** — This item allows you to set the output voltage value of Serial port 3 PIN2 type.

Appendix A. BIOS Set up

04. Chipset Menu(Host Bridge)

- Chipset is the device supporting the data transfer/control between CPU and peripheral components.



Chipset 〉 Host Bridge

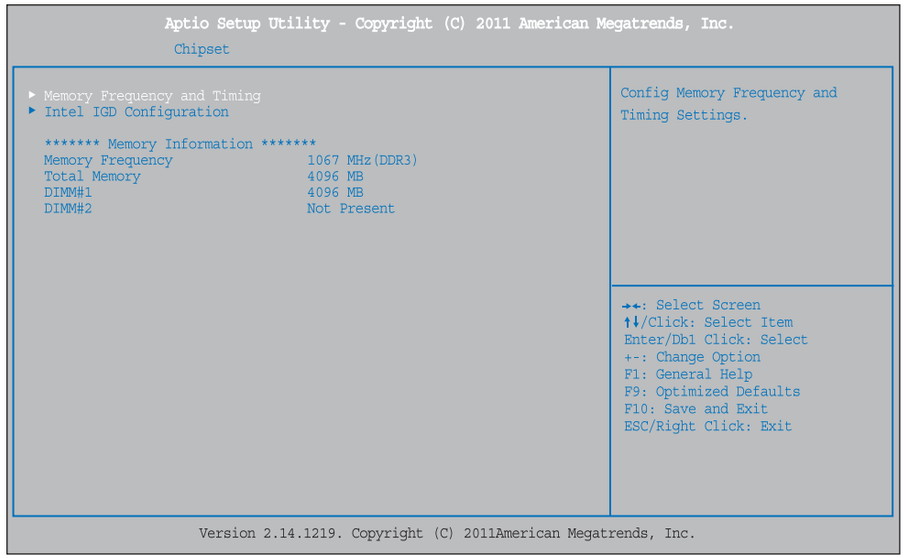
You can change the setting of Host Bridge in Intel Atom Processor.

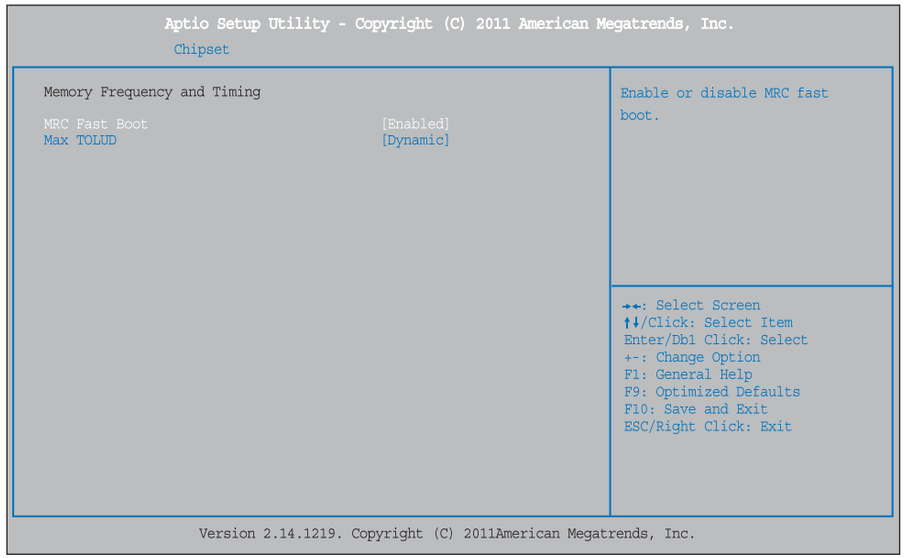
Host Bridge is responsible for main memory(RAM) and graphic control.

Appendix A. BIOS Set up

04. Chipset Menu(Host Bridge)

- Chipset is the device supporting the data transfer/control between CPU and peripheral components.





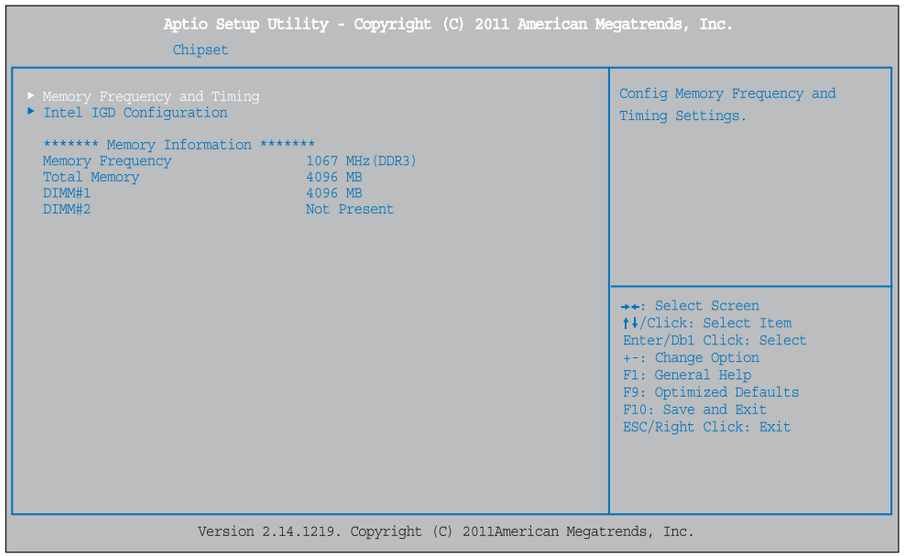
Chipset 〉 Host Bridge 〉 Memory Frequency and Timing

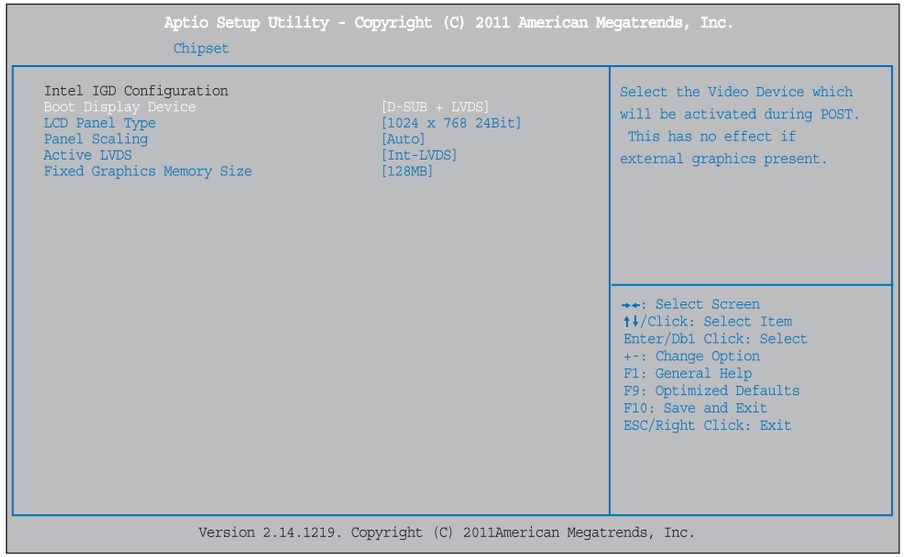
- **MRC Fast Boot** This item enables or disables MRC fast boot.
- **Max TOLUD** This item sets maximum value of TOLUD. Dynamic assignment would adjust TOLUD automatically based on largest MMIO length of installed graphic controller.

Appendix A. BIOS Set up

04. Chipset Menu(Host Bridge)

- Chipset is the device supporting the data transfer/control between CPU and peripheral components.





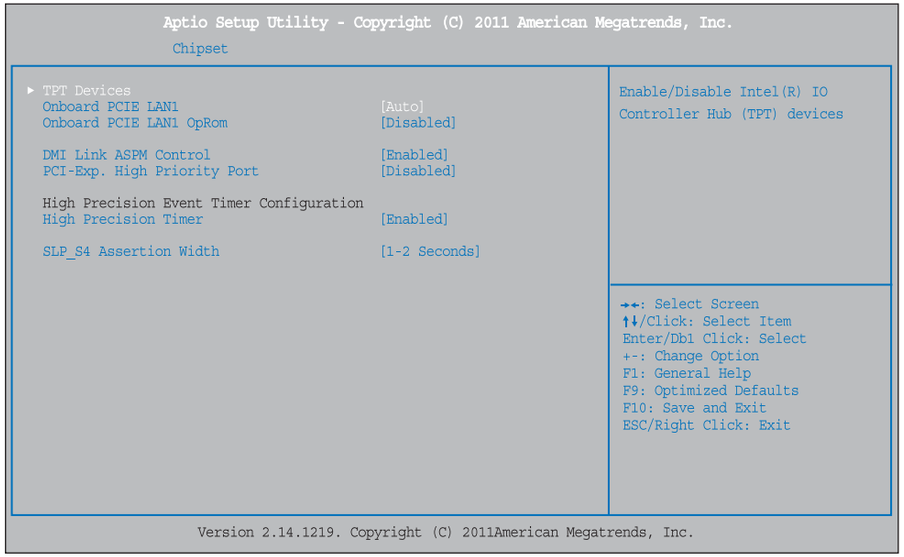
Chipset 〉 Host Bridge 〉 Intel IGD Configuration

- **Boot Display Device** — This item selects the video device which will be activated during POST. This has no effect if external graphics present.
- **LCD Panel Type** — This item selects the LCD panel used by Internal Graphics Device by selecting the appropriate setup item.
- **Panel Scaling** — This item selects the LCD panel scaling option used by the Internal Graphics Device.
- **Active LVDS** — This item selects the Active LVDS Configuration.
- **Fixed Graphics Memory Size** — This item configures the Fixed Graphics Memory Size.

Appendix A. BIOS Set up

04. Chipset Menu(South Bridge)

- South bridge – You can set the items for PCI bus system. It is responsible for PCI, IDE, USB devices.



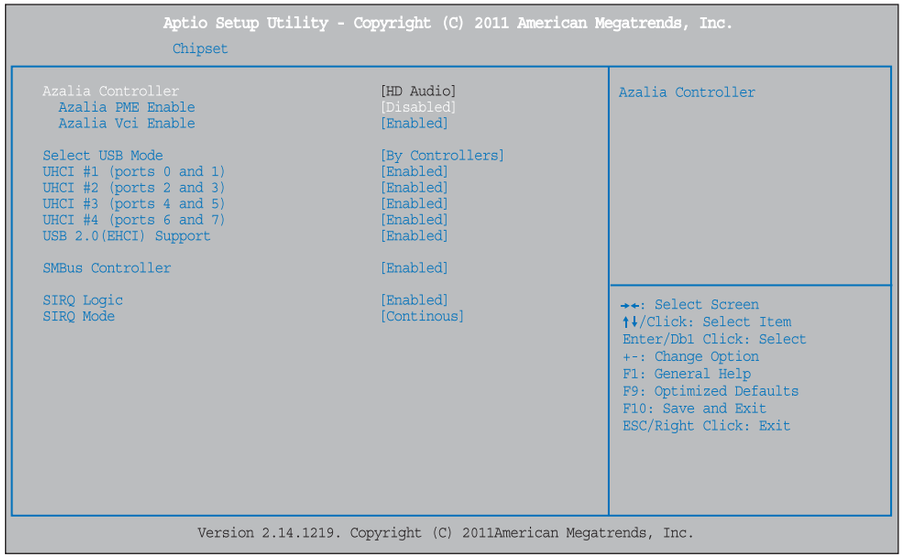
Chipset 〉South Bridge

- **Onboard PCIE LAN1** This item enables or disables Onboard PCIE LAN1.
- **Onboard PCIE LAN1 OpROM** This item enables or disables the Boot Option for Legacy Network Devices.
- **DMI Link ASPM Control** This item enables or disables the control of Active State Power Management on both NB and SB sides of the DMI Link.
- **PCI-Exp. High Priority Port** This item selects a PCI Express High Priority Port.
- **High Precision Timer** This item enables or disables the High Precision Event Timer.
- **SLP_S4 Assertion Width** This item selects a minimum assertion width of the SLP_S4# signal.

Appendix A. BIOS Set up

04. Chipset Menu(South Bridge)

▪ South bridge – You can set the items for PCI bus system. It is responsible for PCI, IDE, USB devices.



Chipset 〉South Bridge 〉 TPT Device

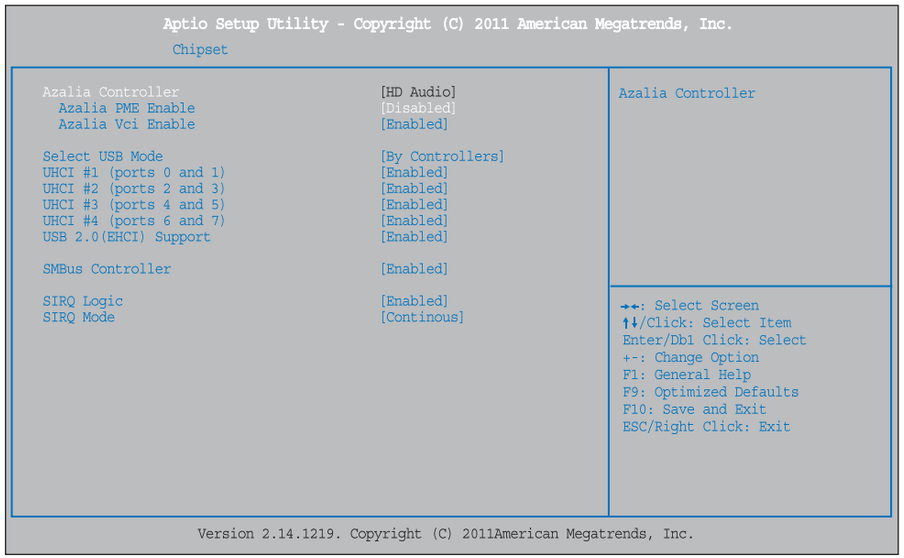
- **Azalia Controller** — You can use this item to select the Azalia Controller.
- **Azalia PME Enable** — You can use this item to enable or disable Power Management capability of Audio Controller.
- **Azalia Vci Enable** — Azalia supports 1 extended VC, which will override ICH VCp settings when enabled.
- **Select USB Mode** — This item selects USB mode to control USB ports.
- **UHCI#1 (ports 0 and 1) / UHCI #2 (ports 2 and 3) / UHCI #3 (ports 4 and 5) / UHCI #4 (ports 6 and 7)**

  04. Chipset Menus This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed of the CPU itself uses when communicating with its own special components.
  You can use these items to control USB UHCI (USB 1.1) function, but disable the controllers from highest to lowest.

Appendix A. BIOS Set up

04. Chipset Menu(South Bridge)

▪ South bridge – This section describes configuring the PCI bus system. PCI, IDE, USB devices are set in this section,

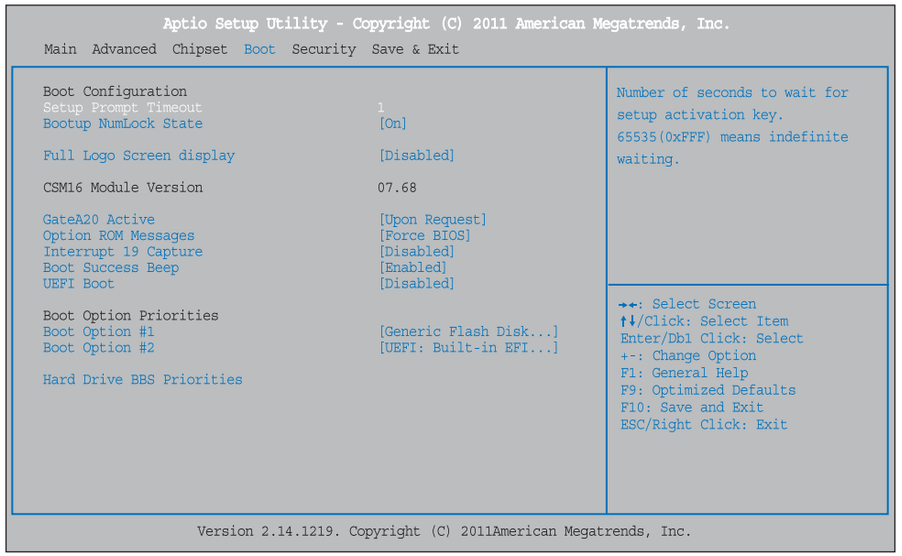


Chipset 〉South Bridge 〉 TPT Device

- **USB Function** — Sets up the number of USB Ports.
- **USB 2.0 (EHCI) Support** — You can use this item to enable or disable USB 2.0 (EHCI) Support.
- **SMBus Controller** — You can use this item to enable or disable OnChip SMBus Controller.
- **SIRQ Logic** — You can use this item to enable or disable SIRQ logic.
- **SIRQ Mode** — You can use this item to set SIRQ mode.

Appendix A. BIOS Set up

05. Boot Menu

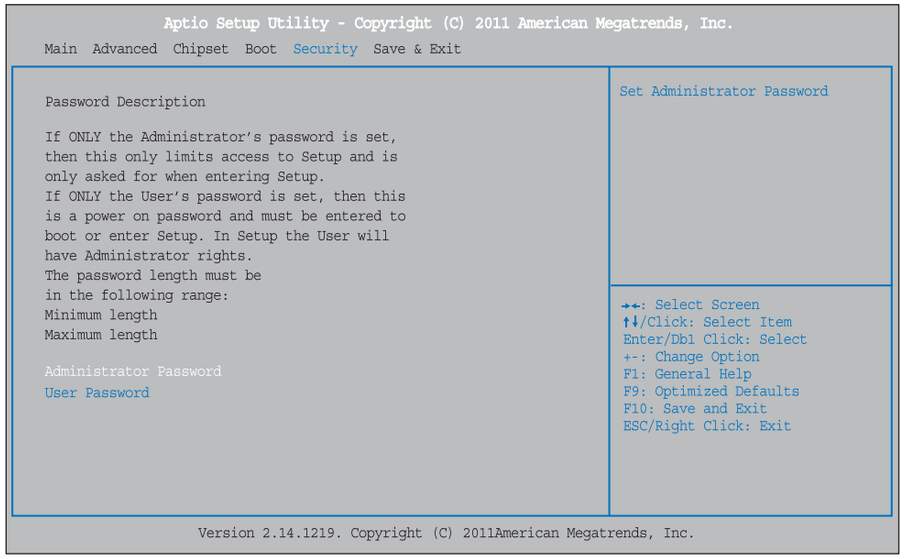


- **Setup Prompt Timeout** — You can use this item to set the number of seconds waiting for setup activation key.
- **Bootup Num-Lock State** — You can use this item to select the keyboard NumLock
- **Full Screen LOGO Display** — State after the system has been switched on. This item allows you to enable or disable Full Screen LOGO Show function.
- **GateA20 Active** — UPON REQUEST - GA20 can be disabled using BIOS services.
  ALWAYS - it doesn't allow disabling the GA20; this option is useful when any RT code is executed above 1MB.
- **Option ROM Messages** — This item can set the display mode for Option ROM.
- **Interrupt 19 Capture** — Interrupt 19 is the software interrupt that handles the boot disk function. When this item is set to Enabled, it allows the Option ROMs to trap Interrupt 19. When this item is set to Enabled,
- **Boot Success Beep** — BIOS will let user know boot success with beep. This item enables or disables boot from the UEFI Devices.
- **UEFI Boot** — Items in this sub-menu specify the boot device priority sequence from the available devices. The number of device items that appears on the screen depends on the number of devices installed in the system.
- **Boot Option Priorities** — The BIOS will attempt to arrange the hard disk boot sequence automatically.
- **Hard Disk Drive BBS Priorities** — You can also change the booting sequence. The number of device items that appears on the screen depends on the number of devices installed in the system.

Appendix A. BIOS Set up

06. Security Menu

- This menu allows you to provide/revise supervisor and user password.

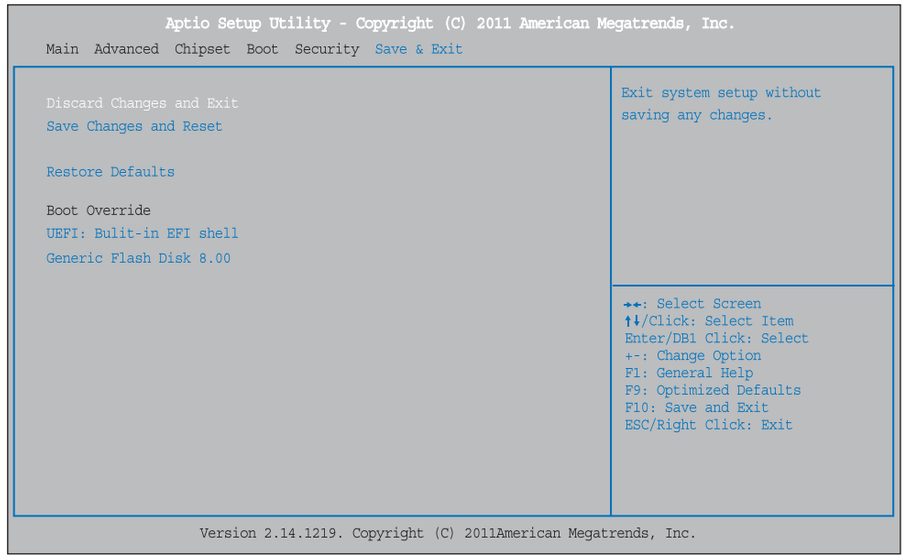


- **Administrator Password** This item sets Administrator Password.
- **User Password** This item sets User Password.

Appendix A. BIOS Set up

07. Save & Exit Menu

- This menu allows you to load the optimal default settings, and save or discard the changes to the BIOS items.

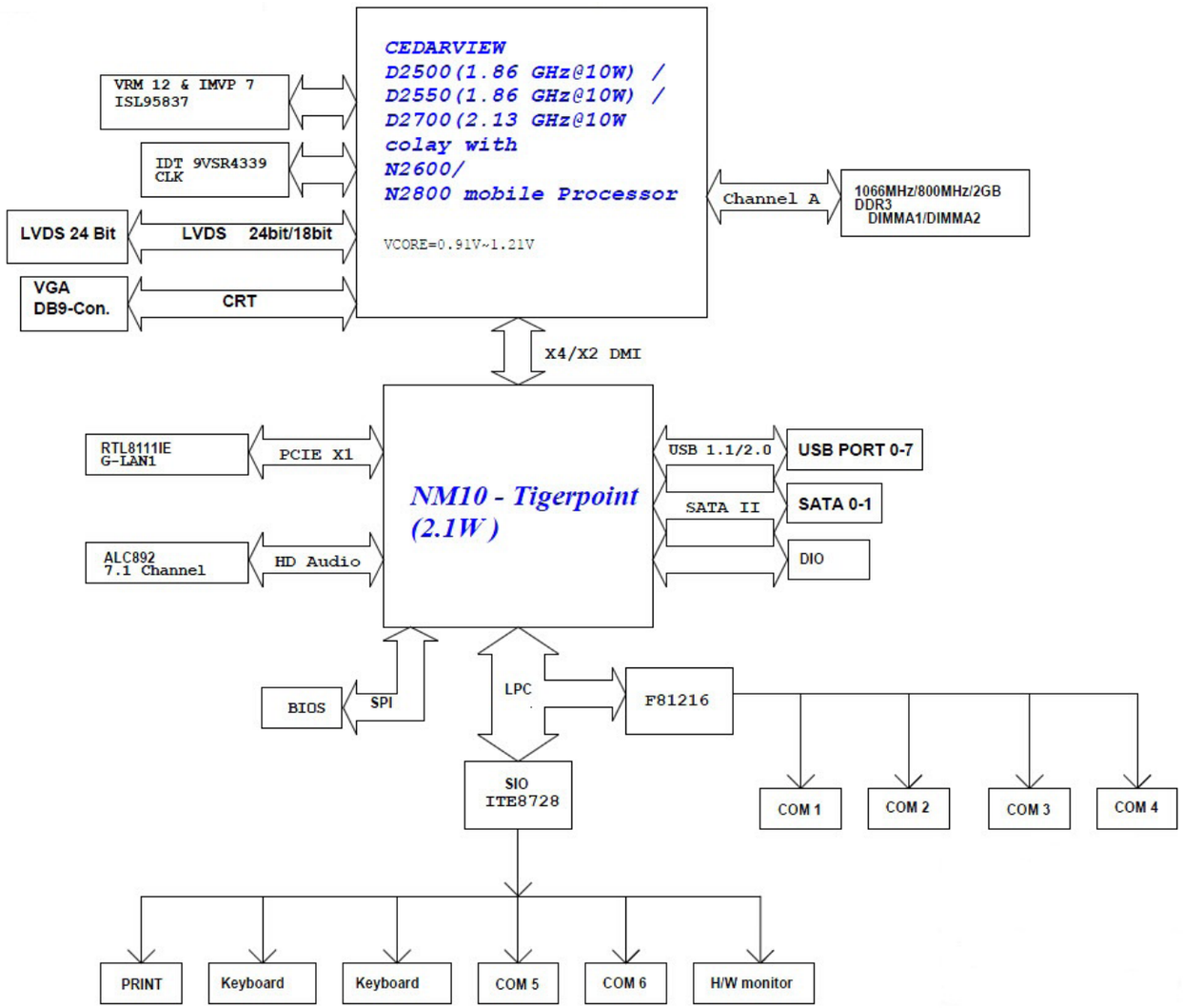


- **Discard Changes and Exit** — Abandon all changes made during the current session and exit setup.
- **Save Changes and Reset** — Reset the system after saving the changes.
  This selection allows you to reload the BIOS when problem occurs during system booting sequence.
- **Restore Defaults** — These configurations are factory settings optimized for this system.
- **Boot Override** — This item allows you to exit the system setup without saving any changes.

Appendix B. System Configuration

01. System Block Diagram

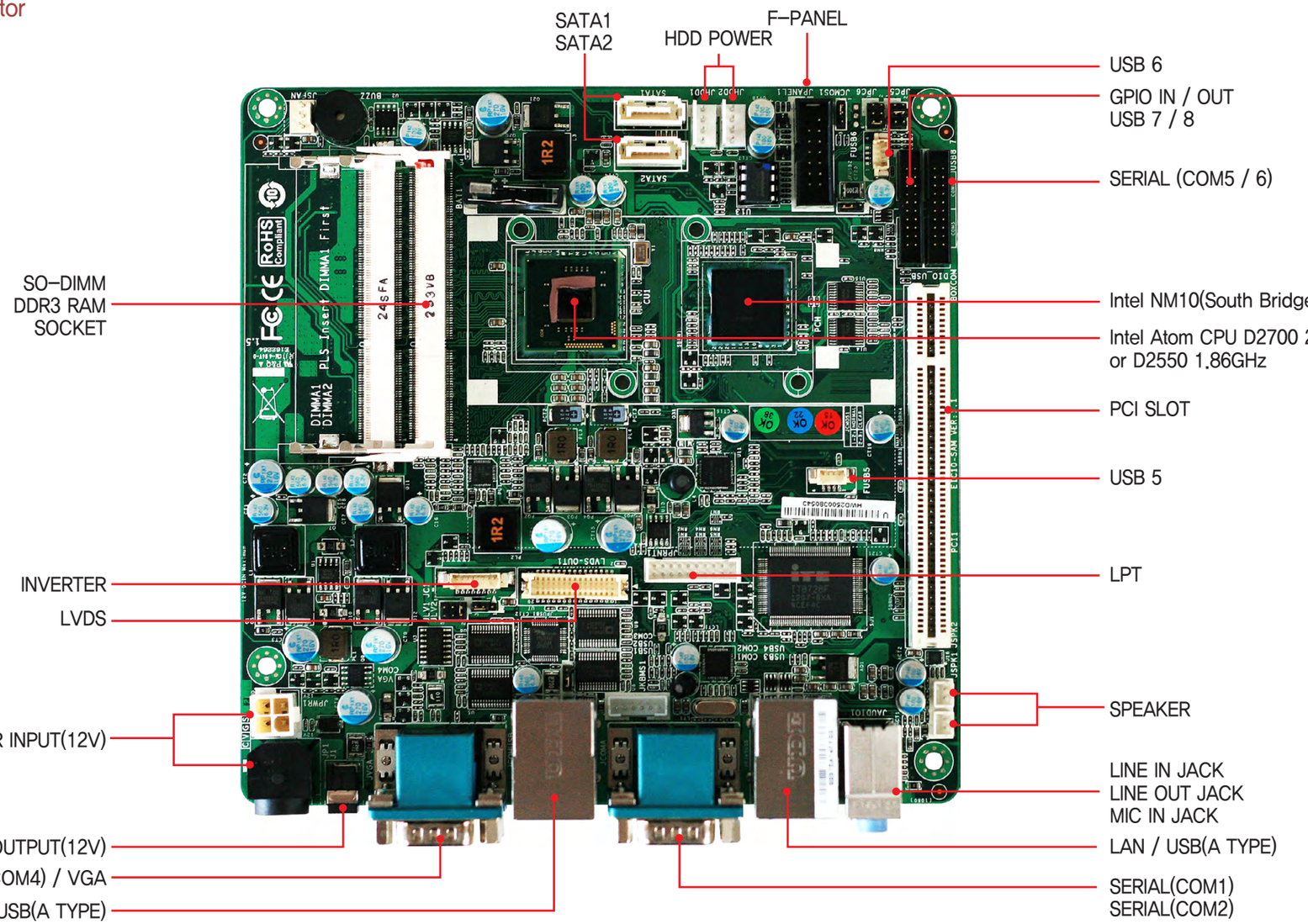
▪ System Block Diagram
EIC10-SAM(D2550)



Appendix B. System Configuration

02. Main Board Configuration

▪ Main Chipset & Connector



Appendix B. System Configuration

02. Main Board Configuration

▪ Main Jumper Setting

BIOS Clear Jumper(JCOMS1)

Jumper Setting	Voltage
1 – 2 Short	Normal Operation(Default)
2 – 3 Short	CMOS Clear

Serial(JPC5/6) Voltage Jumper

– Serial5(JPC5)

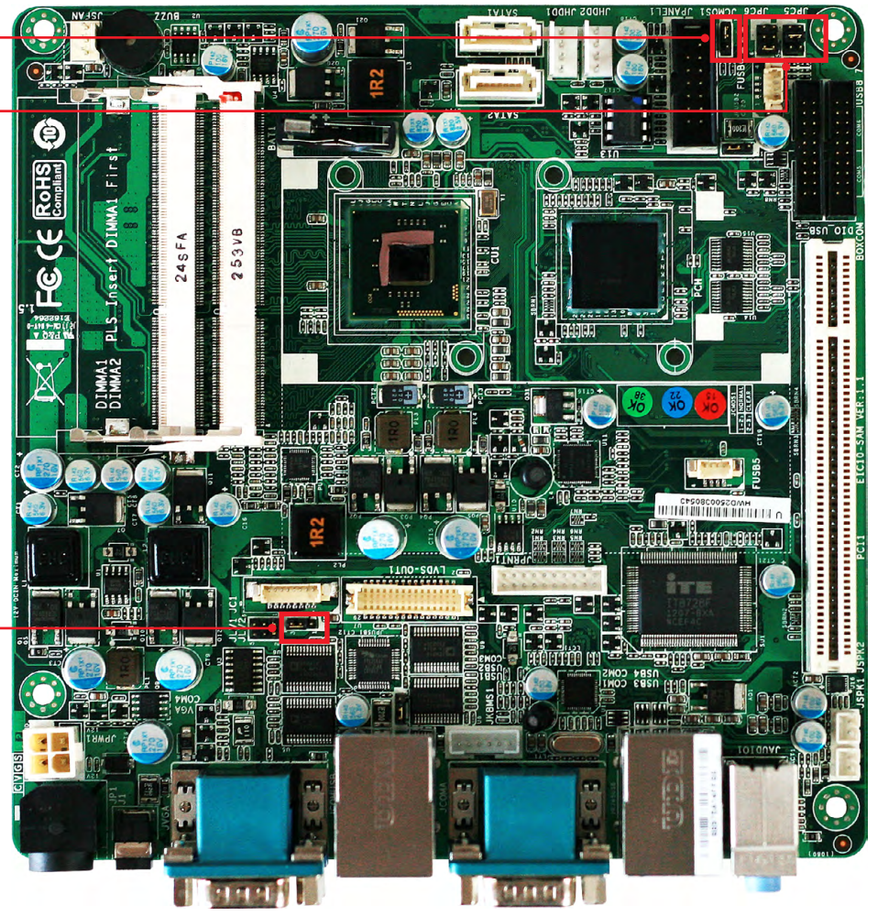
Jumper Setting	Voltage
1 – 2 Short	RI
3 – 4 Short	5V (Default)
5 – 6 Short	12V

– Serial6(JPC6)

Jumper Setting	Voltage
1 – 2 Short	RI
3 – 4 Short	5V
5 – 6 Short	12V (Default)

Inverter Voltage Jumper(JLV2)

Jumper Setting	Voltage
1 – 2 Short	5V
2 – 3 Short	12V (Default)

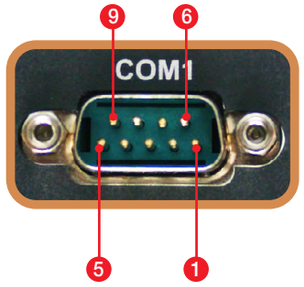


Appendix B. System Configuration

02. Main Board Configuration

- IO Pin map

Serial Communication Port



- COM1/2/4(DSUB9 MALE)

Pin Num	Description
1	DCD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	Ring / +5V / +12V

- COM3(RJ45)

Pin Num	Description
1	Ring / +5V / +12V
2	DSR
3	TXD
4	RXD
5	RTS
6	CTS
7	GND
8	DTR

Appendix B. System Configuration

02. Main Board Configuration

▪ IO Pin map

USB & LAN Ports

▪ USB Port(TYPE A)

Pin Num	Description
1	VSUB(+5V)
2	D–
3	D+
4	GND

▪ LAN Port(RJ45)

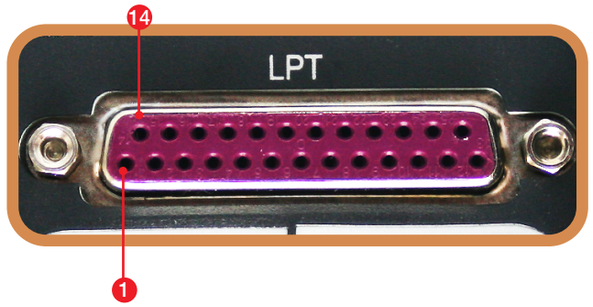
Pin Num	Description
1	MDI [0] +
2	MDI [0] –
3	MDI [1] +
4	MDI [1] –
5	MDI [2] +
6	MDI [2] –
7	MDI [3] +
8	MDI [3] –

Appendix B. System Configuration

02. Main Board Configuration

▪ IO Pin map

Printer Port



▪ PARALLEL PORT(D-SUB25 FEMALE)

Pin Num	SPP	ECP	EPP	In/Out
1	/STROBE	/STROBE	/WRITE	I/O
2	PD0	PD0	PD0	I/O
3	PD1	PD1	PD1	I/O
4	PD2	PD2	PD2	I/O
5	PD3	PD3	PD3	I/O
6	PD4	PD4	PD4	I/O
7	PD5	PD5	PD5	I/O
8	PD6	PD6	PD6	I/O
9	PD7	PD7	PD7	I/O
10	/ACK	/ACK	NTR	I
11	BUSY	/BUSY,PERIPHACK	/WAIT	I
12	PERROR	PE./ACKREVERSE	PE	I
13	SELECT	SELECT	SELECT	I
14	/AUTOFD	/AUTOFD,HOSTACK	/DATASTB	O
15	/FAULT	/FAULT,/PERIPHREQST	/FAULT	I
16	/INIT	/FAULT,/REVERSEQST	/RESET	O
17	/SLCTIN	/SLCTIN	/ADDRSTB	O
18-25	GND	GND	GND	-

Appendix B. System Configuration

02. Main Board Configuration

- IO Pin map

Cash Drawer Port / Cash Drawer Power Selection Switch

▪ Cash Drawer Port (RJ11)

Pin Num	Description
1	GND
2	DRAWER#1
3	DRW_COMP
4	VDRW(+12V / +24V)
5	DRAWER#2
6	GND

▪ Power Selection Switch for Cash Drawer

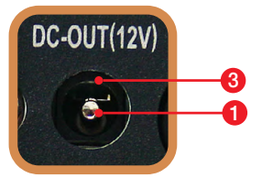
Switch Selection	Voltage
OFF	12V (Default)
ON	24V

Appendix B. System Configuration

02. Main Board Configuration

▪ IO Pin map

DC Power Jack



▪ Adapter Input +12V

Pin Num	Description
1	+12V
2	+12V
3	GND
4	GND

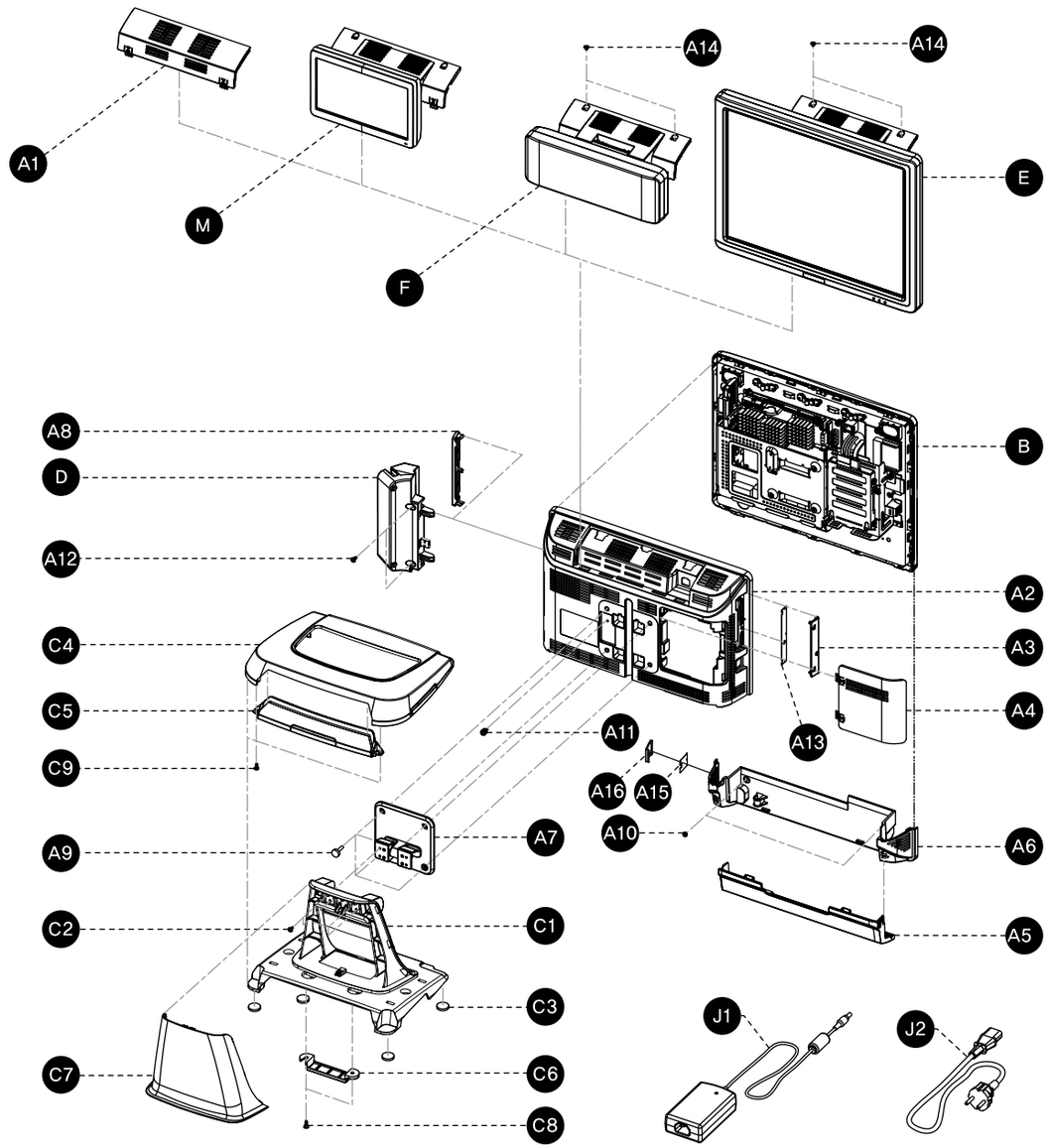
▪ Adapter Output +12V

Pin Num	Description
1	NC
2	+12V
3	GND

Appendix B. System Configuration

03. A Deal Drawing

▪ MAIN



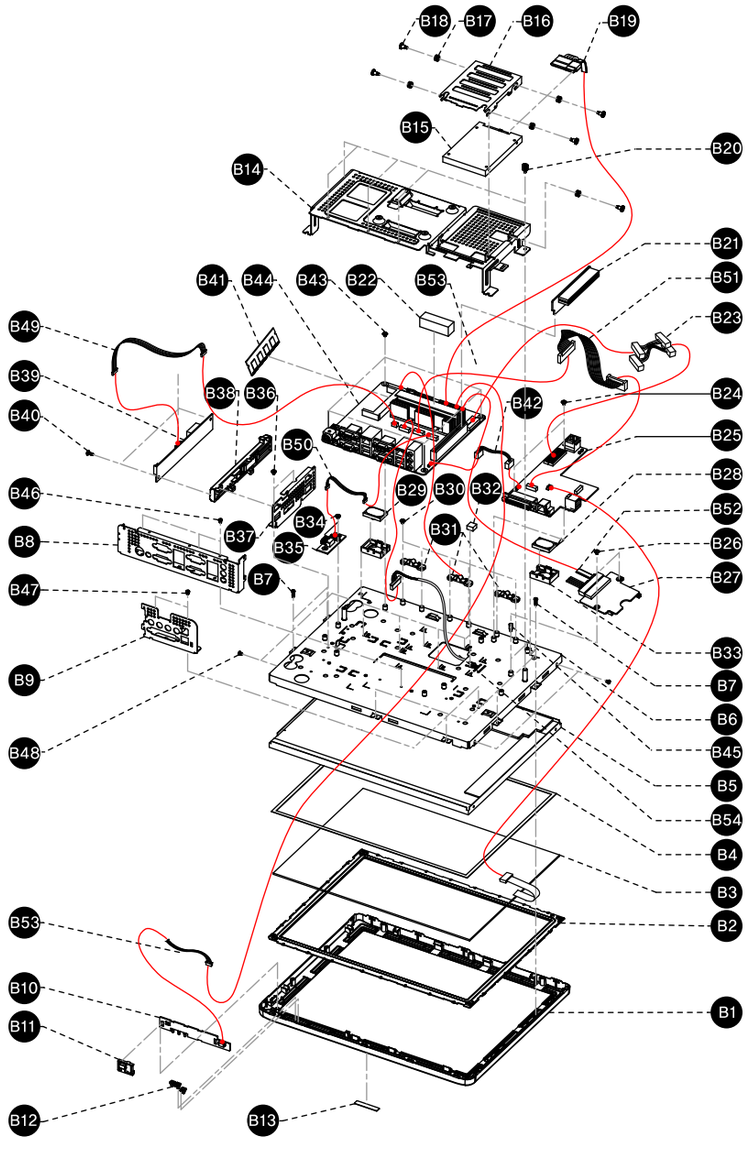
NO	PART CODE	PARTS NAME	Q'TY	Serviceable	REMARK
A1	JK72-20396A	PMO-DUMMY VFD	1	Y	
A2	JK72-20391A	PMO-COVER REAR TOP	1	Y	
A3	JK72-20398A	PMO-COVER CF	1	Y	
A4	JK72-20394A	PMO-COVER HDD	1	Y	
A5	JK72-20393A	PMO-COVER WIRE	1	Y	
A6	JK72-20392A	PMO-COVER REAR BOTTOM	1	Y	
A7	JK75-40011A	MEC-HINGE ASS'Y(MAIN)	1	Y	
A8	JK72-20397A	PMO-COVER MSR	1	Y	
A9	S600100047A	SCREW-MACHINE COIN: M4X17	1	Y	
A10	S600100044A	SCREW-MACHINE: M3X5	2	Y	
A11	S600100038A	SCREW-MACHINE COIN: M3X6	1	Y	
A12	S600300014A	SCREW-TAPTITE: M3X10	2	Y	OPTION
A13	JK68-40169A	LABEL(R)-CF	1	N	
A14	S600100049A	SCREW-MACHINE: M3X6	2	Y	OPTION
A15	JK68-40179A	LABEL(R)-COVER POWER	1	N	
A16	JK72-20409A	PMO-COVER POWER	1	Y	
B	-	ASS'Y MAIN DISPLAY	1	N	
C1	JK70-20155A	IPR-FRAME STAND	1	Y	
C2	S600600010A	SCREW-ASSY MACH: M3X10	4	Y	
C3	JK73-11023A	PMO-FOOT RUBBER	4	Y	
C4	JK72-20406A	PMO-COVER BASE	1	Y	
C5	JK72-20407A	PMO-DUMMY STAND	1	Y	
C6	JK72-20303A	PMO-HOLDER WIRE	1	Y	
C7	JK72-20405A	PMO-COVER STAND	1	Y	
C8	S600300025A	SCREW-TAPTITE: M3X8	2	Y	
C9	S600300014A	SCREW-TAPTITE: M3X10	2	Y	
D	JK95-70181A	ASS'Y MSR	1	Y	OPTION
E	-	ASS'Y DUAL DISPLAY	1	Y	OPTION
F	-	ASS'Y VFD DISPLAY	1	Y	OPTION
M	-	ASS'Y 7"DUAL MONITOR	1	Y	OPTION

NO	PART CODE	PARTS NAME	Q'TY	Serviceable	REMARK
J1	JK44-40009A	POWER-SMPS(12V/5.0A)	1	Y	
J2	JK39-20004A	CBF POWER CORD	1	Y	EUROPE
	JK39-20004B				USA
	JK39-20004C				UK
	JK39-20004D				AUSTRALIA
	JK39-20004E				KOREA
	JK39-20004F				SOUTH AFRICA
	JK39-20004G				ISRAEL
	JK39-20004H				INDIA
	JK39-20004J				ARGENTINA

Appendix B. System Configuration

03. A Deal Drawing

▪ DISPLAY

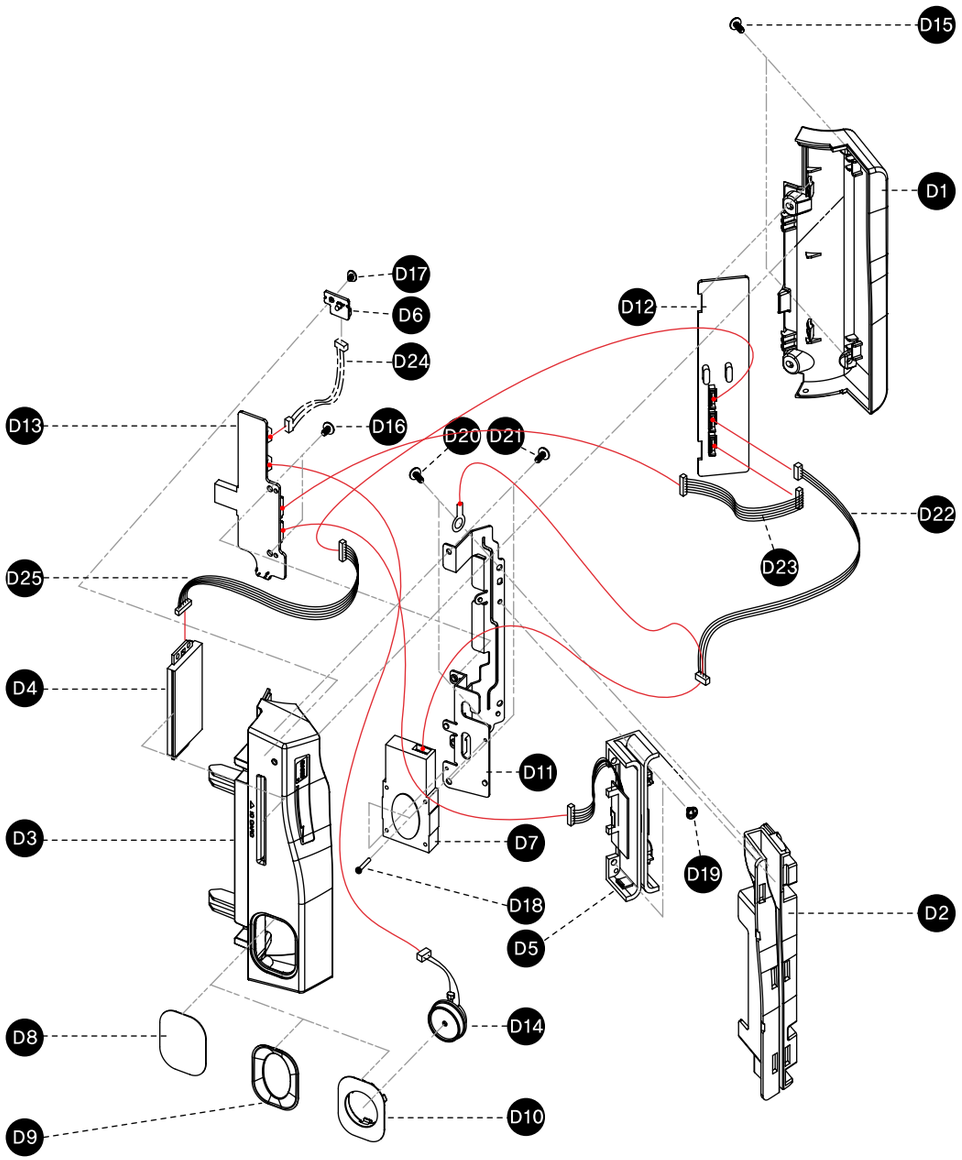


NO	PART CODE	PARTS NAME	Q'TY	Serviceable	REMARK
B1	JK72-20373B	PMO-FRONT DISPLAY(D)	1	Y	
B2	JK73-20003G	PMO-WATER PROOF(D)	1	Y	ELO,D/GRAY
	JK73-20003J	PMO-WATER PROOF(D)	1	Y	ELO,GREEN
	JK73-20003K	PMO-WATER PROOF(D)	1	Y	ELO,ORANGE
B3	JK95-70378E	TOUCH PANEL 5W : ELO	1	Y	
B4	JK73-11019A	RMO-RUBBER TAPE(15S)	2	Y	
	JK73-11019B	RMO-RUBBER TAPE(15L)	2	Y	
B5	JK95-70405A	LCD-TFT : XGA,15",LVDS,AUO	1	Y	
B6	JK95-70350A	MEA-BRKT DISPLAY(M)	1	Y	
B7	S600300020A	SCREW-TAPTITE : M3X10	9	Y	
B8	JK70-20246A	IPR-BRKT INTERFACE_L	1	N	
	JK68-40235A	LABEL(R)-INTERFACE_L	1	N	
B9	JK70-20162A	IPR-BRKT INTERFACE_R	1	N	
	JK68-40173A	LABEL(R)-INTERFACE_R	1	N	
B10	JK92-10035C	UNIT-OSD BOARD	1	Y	
B11	JK72-20375B	PMO-BUTTON(D)	1	Y	
B12	JK72-20410A	PMO-COVER LED	1	Y	
B13	JK68-40183A	LABEL(R)-BADGE SAM4S	1	Y	
B14	JK70-20160A	IPR-BRKT COVER	1	Y	
B15	JK95-70209A	UNIT-HDD	1	Y	
B16	JK70-20090B	IPR-BRKT HDD	1	Y	
B17	S600100036A	SCREW MACHINE HAND : M3X4	5	Y	
B18	JK73-11017A	PMO-RUBBER INSULATOR	5	Y	
B19	S39090001A	HARNESS-SATA	1	Y	
B20	S600100037A	SCREW MACHINE COIN	5	Y	
B21	JK92-01652A	UNIT-RAISER BOARD(DVR)	1	Y	OPTION
B22	JK73-11056A	RMO-THERMAL PAD CPU	1	Y	
B23	S390800004A	HARNESS-JOINT	1	Y	
B24	S600100016A	SCREW-MACHINE : M3X4	2	Y	
B25	JK92-10035A	UNIT-TOUCH&DRAWER	1	Y	DRAWER
	JK92-10035B	UNIT-TOUCH	1	Y	NONE DRAWER
B26	S600100016A	SCREW-MACHINE : M3X4	2	Y	OPTION
B27	JK92-10036A	UNIT-CFAST BOARD	1	Y	OPTION
B28	S3004000002	UNIT-SPEAKER : 50mm	1	Y	
B29	S3004000003	UNIT-SPEAKER : 250mm	1	Y	
B30	S600100016A	SCREW-MACHINE : M3X4	6	Y	
B31	JK70-20156A	IPR-LOCKER DUAL	3	Y	
B32	JK73-11026A	RMO-PAD BOARD	6	Y	
B33	JK72-20408A	PMO-HOLDER SPEAKER	2	Y	
B34	S600100016A	SCREW-MACHINE : M3X4	2	Y	
B35	JK41-10791A	UNIT-USB JOINT BOARD	1	Y	
B36	S600100016A	SCREW-MACHINE : M3X4	2	Y	
B37	JK70-20163A	IPR-HOLDER INVERTER	1	Y	
B38	JK72-20289A	PMO-HOLDER INVERTER	1	Y	
B39	S4401001171	UNIT-INVERTER MODULE	1	Y	
B40	S600200006A	SCREW-TAPPING : M3X8	2	Y	
B41	JK95-70214A	UNIT-DDR3 MEMORY : 1G	1	Y	JK51-00005A
	JK95-70215A	UNIT-DDR3 MEMORY : 2G	1	Y	JK51-00006A
B42	JK39-40824A	HARNESS-SPEAKER	2	Y	
B43	S600100016A	SCREW-MACHINE : M3X4	3	Y	
B44	JK95-70441A	UNIT-MOTHER BOARD	1	Y	
B45	JK70-70017A	ICT-SCREW MACHINE HEXA	2	Y	OPTION
B46	S600100031A	SCREW-MACHINE : M3X4	3	Y	
B47	S600100031A	SCREW-MACHINE : M3X4	2	Y	
B48	S600100044A	SCREW-MACHINE : M3X5	4	Y	
B49	JK39-80003A	HARNESS-INVERTER	1	Y	
B50	JK39-40852A	HARNESS-USB	1	Y	
B51	JK39-40880A	HARNESS-LPT	1	Y	
B52	S39090001A	HARNESS-SATA	1	Y	OPTION
B53	JK39-40877A	HARNESS-OSD	1	Y	
B54	JK39-80004A	HARNESS-LVDS	1	Y	

Appendix B. System Configuration

03. A Deal Drawing

▪ MSR

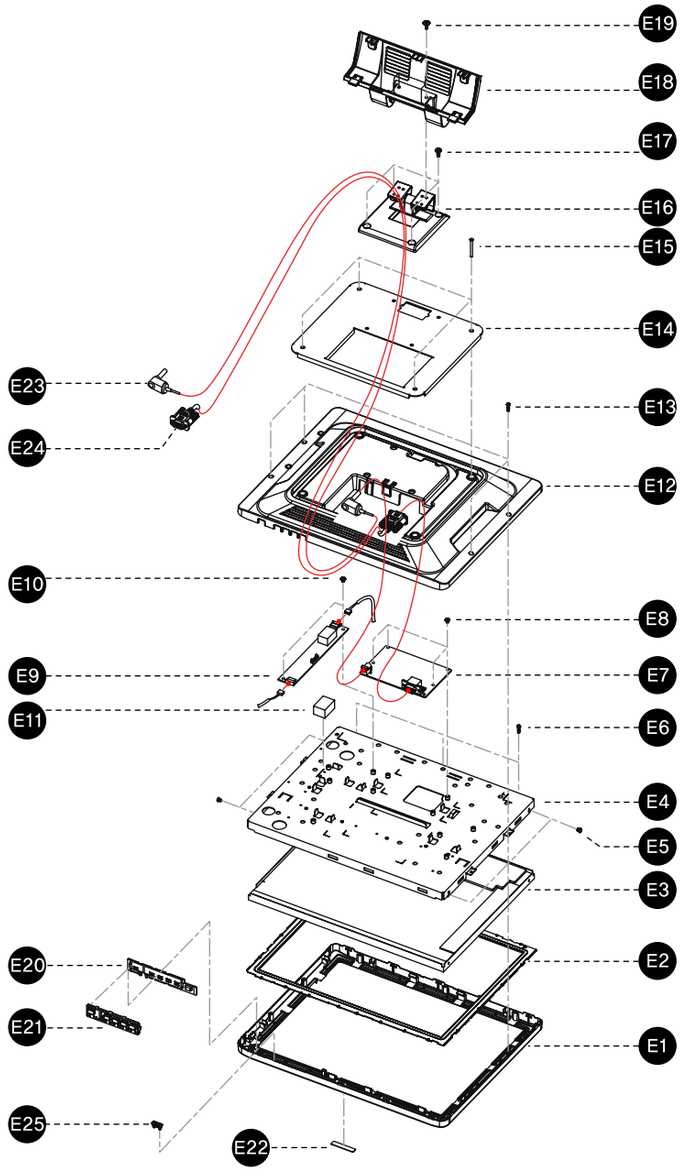


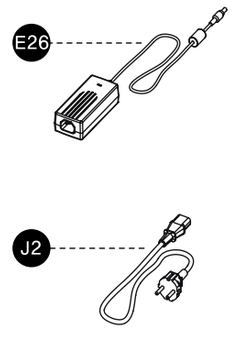
NO	PART CODE	PARTS NAME	Q'TY	Serviceable	REMARK
D1	JK72-20400A	PMO-COVER LOWER	1	Y	
D2	JK72-20401A	PMO-COVER GUIDE	1	Y	
D3	JK72-20399A	PMO-COVER MSR UPPER	1	Y	
D4	S1109000002	UNIT-SMART CARD READER	1	Y	OPTION
D5	JK48-00007A	MCR : TRACK 1/2/3	1	Y	
D6	JK41-10765A	UNIT-MSR LED BOARD	1	Y	
D7	JK46-00020A	UNIT-FINGER PRINT	1	N	OPTION
D8	JK72-20404A	PMO-CAP MSR	1	Y	
D9	JK72-20402A	PMO-CAP FPR	1	Y	OPTION
D10	JK72-20403A	PMO-CAP DALLAS	1	Y	OPTION
D11	JK70-20159A	IPK-BRKT MSR	1	Y	
D12	JK92-01651A	UNIT-MSR FPR BOARD	1	Y	OPTION
D13	JK92-01654B	UNIT-MSR MAIN BOARD	1	Y	
D14	JK95-70134C	ELA UNIT-iBUTTON PROBE	1	Y	OPTION
D15	S600300014A	SCREW-TAPTITE: M3X10	2	Y	
D16	S600100017A	SCREW-MACHINE: M3X4	2	Y	
D17	S600200028A	SCREW-TAPTITE: M3X6	1	Y	
D18	S600100048A	SCREW-MACHINE: M2X14	2	Y	OPTION
D19	S600100017A	SCREW-MACHINE: M3X4	2	Y	
D20	S600300014A	SCREW-TAPTITE: M3X10	2	Y	
D21	S600300014A	SCREW-TAPTITE: M3X10	2	Y	
D22	JK39-40820A	HARNESS-FINGER PRINT	1	Y	OPTION
D23	JK39-40822A	HARNESS-MSR USB EXT	1	Y	OPTION
D24	JK39-40823A	HARNESS-MSR LED	1	Y	
D25	JK39-40821A	HARNESS-SCR	1	Y	OPTION

Appendix B. System Configuration

03. A Deal Drawing

▪ DUAL





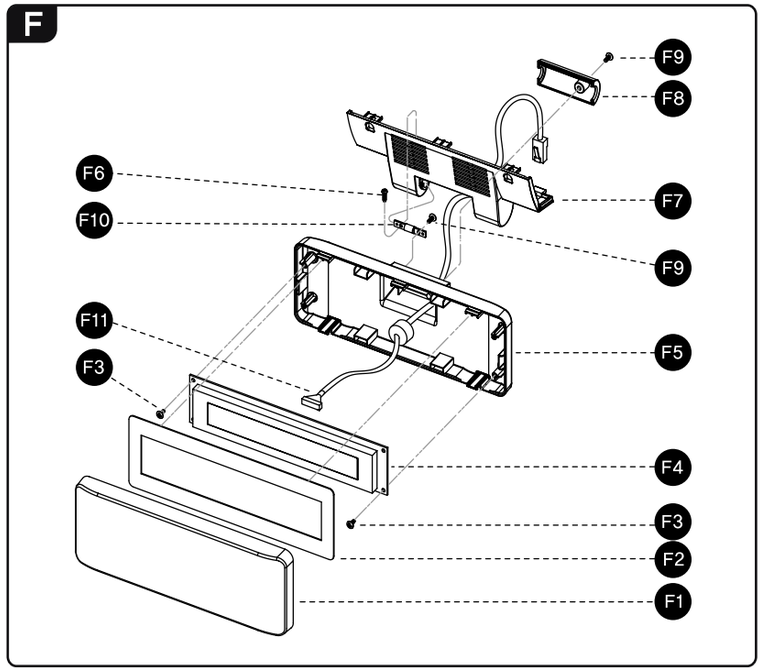
NO	PART CODE	PARTS NAME	Q'TY	Serviceable	REMARK
E1	JK72-20373A	PMO-FRONT DISPLAY(D)	1	Y	
E2	JK73-20003D	PMO-WATER PROOF	1	Y	
E3	JK95-70405A	LCD-TFT: XGA, 15", LVDS, AUO	1	Y	AUO
E4	JK70-20148A	IPR-BRKT DISPLAY(D)	1	Y	
E5	S600100044A	SCREW-MACHINE: M3X5	4	Y	
E6	S600300020A	SCREW-TAPTITE: M3X10	3	Y	
E7	JK49-00003B	UNIT-AD B'D	1	Y	
E8	S600100016A	SCREW-MACHINE: M3X4	2	Y	
E9	S4401001171	UNIT-INVERTER MODULE	1	Y	
E10	S600100016A	SCREW-MACHINE: M3X4	2	Y	
E11	JK73-11034A	RMO-PAD(D)	1	Y	
E12	JK72-20374A	PMO-REAR DISPLAY(D)	1	Y	
E13	S600300020A	SCREW-TAPTITE: M3X10	4	Y	
E14	JK70-20149A	IPR-PLATE REAR(D)	1	Y	
E15	S600100045A	SCREW-MACHINE: M3X27	1	Y	
E16	JK75-40010A	MEC-HINGE ASS'Y(H)	1	Y	
E17	S600100046A	SCREW-MACHINE: M4X6	1	Y	
E18	JK72-20395A	PMO-HOLDER VFD	1	Y	
E19	S600600009A	SCREW-ASS'Y MACH: M3X8	1	Y	
E20	JK49-00004B	UNIT-OSD B'D	1	Y	
E21	JK72-20375A	PMO-BUTTON(D)	1	Y	
E22	JK68-40168A	LABEL(R)-LOGO SAM4S	1	Y	
E23	JK39-40791A	HARNESS-LCD POWER	1	Y	
E24	JK39-40792B	CABLE-VGA	1	Y	
E25	JK72-20410A	PMO-COVER LED	1	Y	

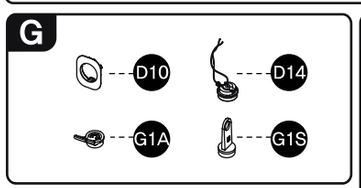
NO	PART CODE	PARTS NAME	Q'TY	Serviceable	REMARK
E26	JK44-40006D	POWER-SMPS	1	Y	
J2	JK39-20004A	CBF POWER CORD	1	Y	EUROPE
	JK39-20004B				USA
	JK39-20004C				UK
	JK39-20004D				AUSTRALIA
	JK39-20004E				KOREA
	JK39-20004F				SOUTH AFRICA
	JK39-20004G				ISRAEL
	JK39-20004H				INDIA
	JK39-20004J				ARGENTINA

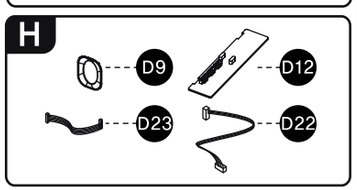
Appendix B. System Configuration

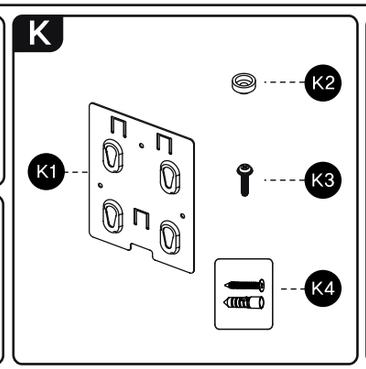
03. A Deal Drawing

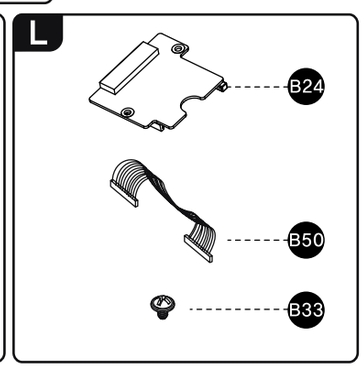
▪ OPTION-A











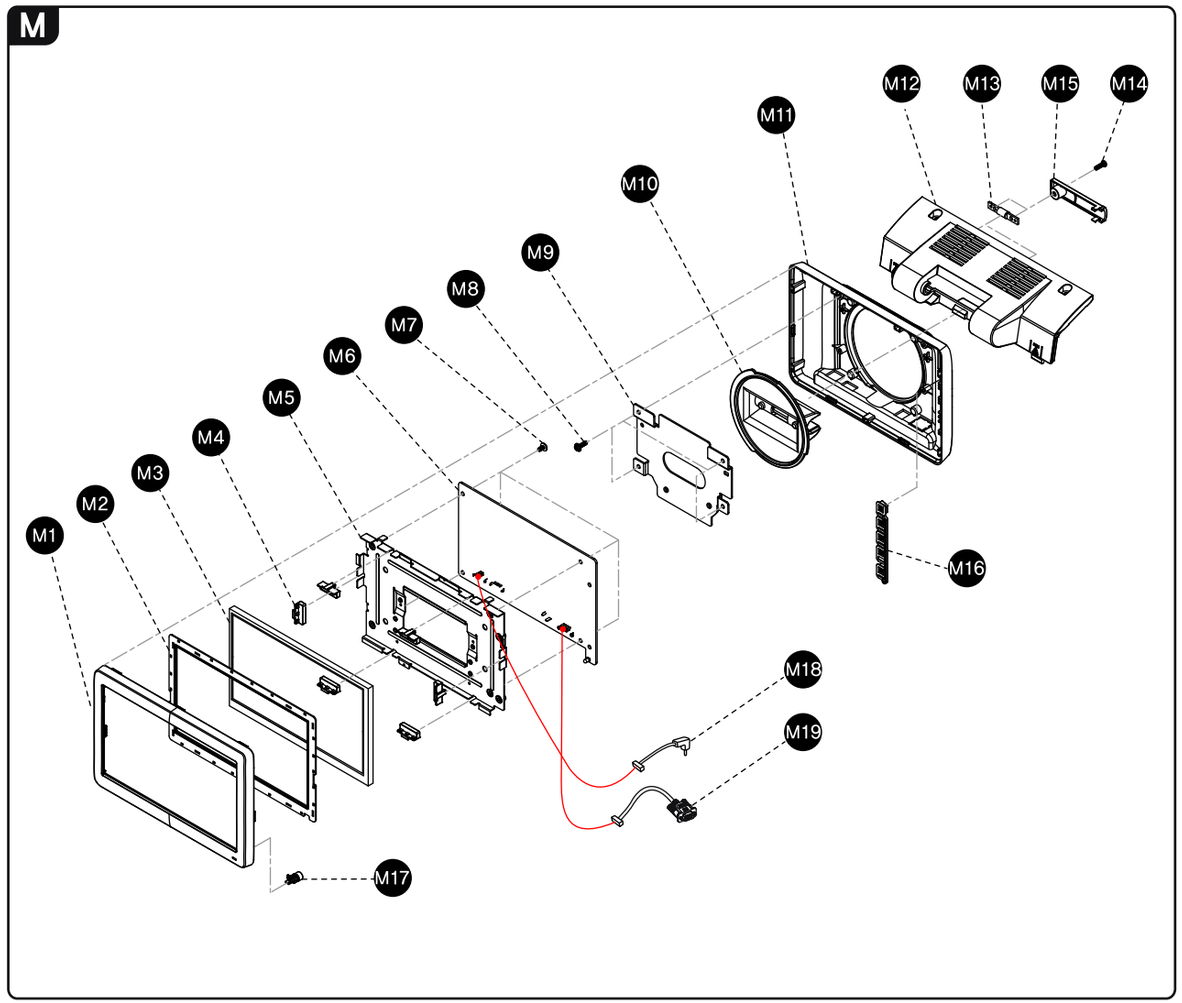
NO	PART CODE	PARTS NAME	Q'TY	Serviceable	REMARK
F	QCD-S4V202	OPTION-CDP(CHARACTER)	1	N	OPTION
	QCD-S4G256	OPTION-CDP(GRAPHIC)			
F1	JK72-20299A	PMO-WINDOW VFD	1	Y	
F2	JK68-40120A	LABEL(R)-VFD SHEET	1	Y	
F3	S600300020A	SCREW-TAPTITE	2	Y	
F4	JK46-00006A	UNIT-VFD MODULE(CHARACTER)	1	Y	
	JK46-00007A	UNIT-VFD MODULE(GRAPHIC)			
F5	JK72-20298A	PMO-REAR VFD(M)	1	Y	
F6	S600300020A	SCREW-TAPTITE	1	Y	
F7	JK72-20395A	PMO-HOLDER VFD	1	Y	
F8	JK72-20300A	PMO-REAR VFD DUMMY	1	Y	
F9	S600300020A	SCREW-TAPTITE	1	Y	
F10	JK75-40004A	MEC-HINGE ASSY	1	Y	
F11	JK39-40727A	HARNESS-POLE	1	Y	

NO	PART CODE	PARTS NAME	Q'TY	Serviceable	REMARK
G	QDK-T305	OPTION-DALLAS	1	N	OPTION
D10	JK72-20403A	PMO-CAP DALLAS	1	Y	
D14	JK95-70134C	ELA UNIT-iBUTTON PROBE	1	Y	
G1A	JK95-70130B	ELA UNIT-HOLDER DALLAS	1	Y	ANGLE TYPE
G1S	JK95-70196A	ELA UNIT-HOLDER DALLAS	1	Y	STRAIGHT TYPE
H	QFP-T400	OPTION-FPR	1	N	OPTION
D9	JK72-20402A	PMO-CAP FPR	1	Y	
D12	JK92-01651A	UNIT-MSR FPR BOARD	1	Y	
D22	JK39-40820A	HARNESS-FINGER PRINT	1	Y	
D23	JK39-40822A	HARNESS-MSR USB EXT	1	Y	
K	EWM-Q400	OPTION-WALL MOUNT	1	N	OPTION
K1	JK70-20046A	IPR-BRKT WALL	1	Y	
K2	JK70-70050A	ICT-BUSHING HOLDER	4	Y	
K3	S600100050A	SCREW-MACHINE	4	Y	
K4	JK75-20016A	MEC-WALL ANCHOR ASS'Y	1	Y	
L	QCF-T470(STD)	OPTION-CFAST BOARD	1	N	OPTION
B24	JK92-10036A	UNIT-CFAST BOARD	1	Y	
B33	S600100016A	SCREW-MACHINE: M3X4	2	Y	
B50	S39090001A	HARNESS-SATA	1	Y	

Appendix B. System Configuration

03. A Deal Drawing

▪ OPTION-B



NO	PART CODE	PARTS NAME	Q'TY	Serviceable	REMARK
M	QCD-S47L7NB	7"DUAL MONITOR	1	Y	OPTION
M1	JK72-20592A	PMO-LCD FRONT	1	Y	
M2	JK73-20016A	RMO-WATER PROOF(P)	1	Y	
M3	JK07-00023A	HW-DISPLAY-LCD	1	Y	
M4	JK73-11043A	RMO-RUBBER LCD	6	Y	
M5	JK70-20238A	IPR-BRKT LCD	1	Y	
M6	JK49-00003C	HW-7INCH AD B'D	1	Y	
M7	S600100016A	SCREW-MACHINE	4	Y	
M8	S600200006A	SCREW-TAPPING	4	Y	
M9	JK70-20240A	IPR-PLATE REAR(P)	1	Y	
M10	JK72-20596A	PMO-HOLDER HINGE(D)	1	Y	
M11	JK72-20593B	PMO-LCD REAR	1	Y	
M12	JK72-20607A	PMO-HOLDER LCD	1	Y	
M13	JK75-40004A	MEC-HINGE ASS'Y	2	Y	
M14	S600300020A	SCREW-TAPTITE	4	Y	
M15	JK72-20604A	PMO-HOLDER DUMMY	1	Y	
M16	JK72-20594A	PMO-BUTTON(P)	1	Y	
M17	JK72-20600A	PMO-COVER LED(P)	1	Y	
M18	JK39-60085A	HW-HARNESS-POWER	1	Y	
M19	JK39-60086A	HW-HARNESS-VGA CABLE	1	Y	