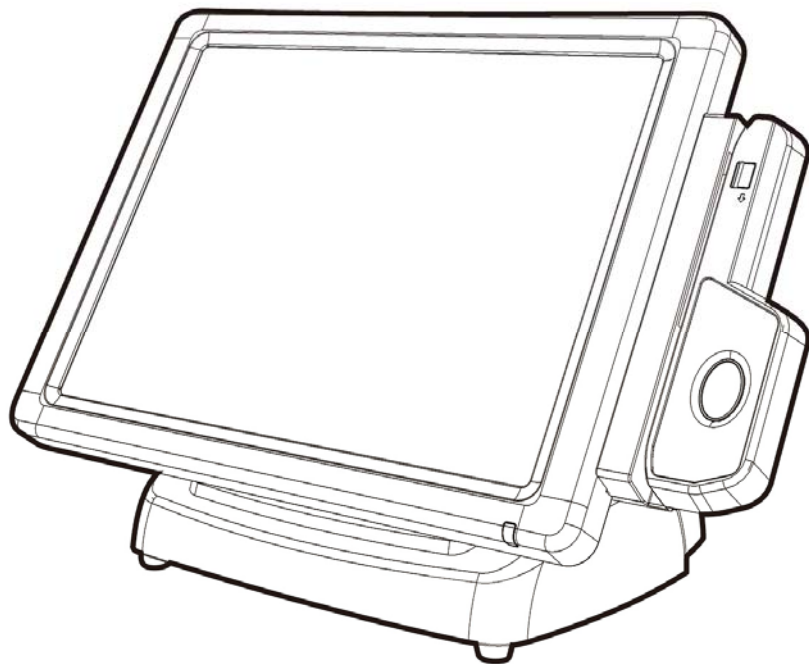


# User Manual

Version V1.0

October 2009

# *Point-of-Sale Hardware System*



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Manual Version 1.0  
Part Number: 3LMPP3450110

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# Safety

## IMPORTANT SAFETY INSTRUCTIONS

1. To disconnect the machine from the electrical power supply, turn off the power switch and remove the power cord plug from the wall socket. The wall socket must be easily accessible and in close proximity to the machine.
2. Read these instructions carefully. Save these instructions for future reference.
3. Follow all warnings and instructions marked on the product.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register or in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
8. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

## CE MARK



This device complies with the requirements of the EEC directive 2004/108/EC with regard to “Electromagnetic compatibility” and 2006/95/EC “Low Voltage Directive”.

## FCC

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

# CAUTION ON LITHIUM BATTERIES

There is a danger of explosion if the battery is replaced incorrectly. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

## LEGISLATION AND WEEE SYMBOL

2002/96/EC Waste Electrical and Electronic Equipment Directive on the treatment, collection, recycling and disposal of electric and electronic devices and their components.



The crossed dustbin symbol on the device means that it should not be disposed of with other household wastes at the end of its working life. Instead, the device should be taken to the waste collection centers for activation of the treatment, collection, recycling and disposal procedure.

To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract.

This product should not be mixed with other commercial wastes for disposal.

# Revision History

Changes to the original user manual are listed below:

Version	Date	Description
1.0	Oct. 2009	<ul style="list-style-type: none"><li>Initial release</li></ul>

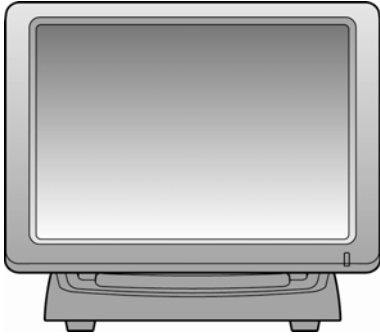
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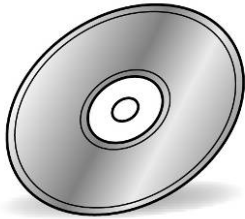
# 1 Package Checklist

## 1-1 Standard items

a.



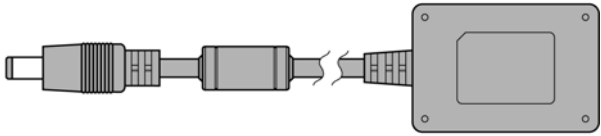
b.



c.



d.



e.



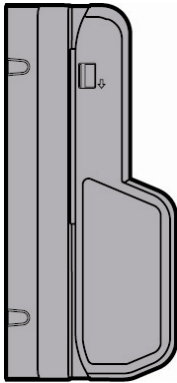
f.



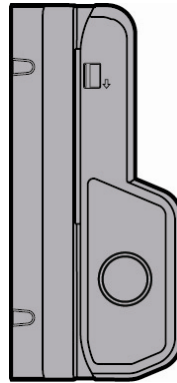
- a. System
- b. driver bank
- c. User Manual
- d. power adapter
- e. power cord
- f. RJ45 to DB9 cable (x2)

# 1-2 Optional items

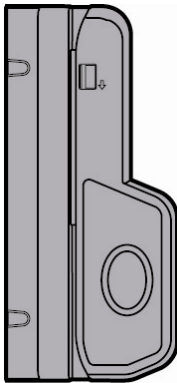
a.



c.



b.



d.



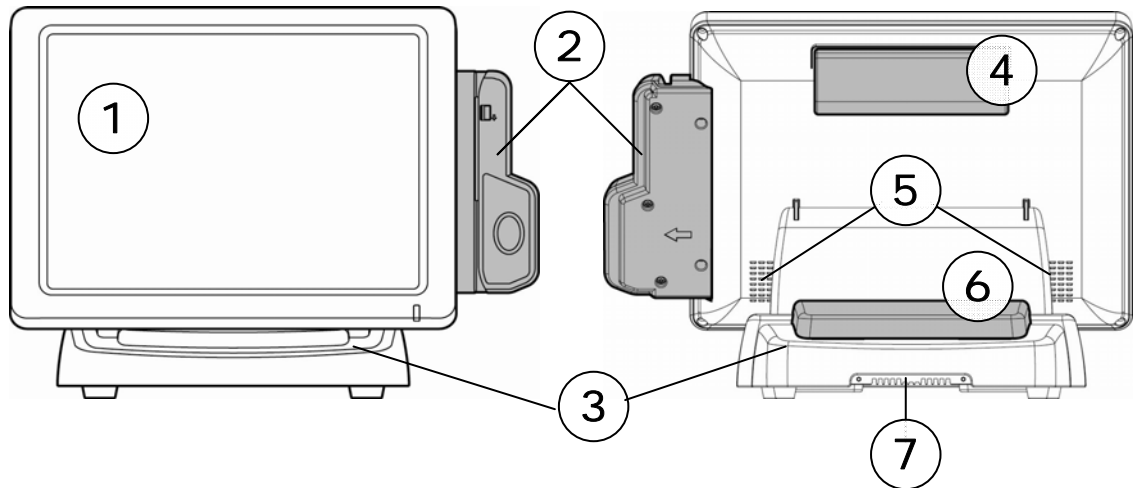
- a. MSR
- b. 2-in-1 MSR + Fingerprint
- c. 2-in-1 MSR + iButton
- d. VFD Module (VFD board + metal bracket)



# 2 System View

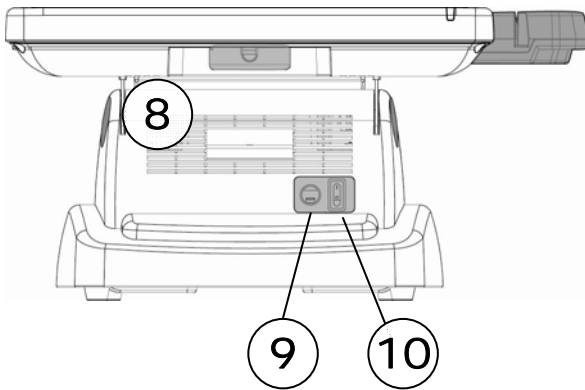
Front View

Rear View

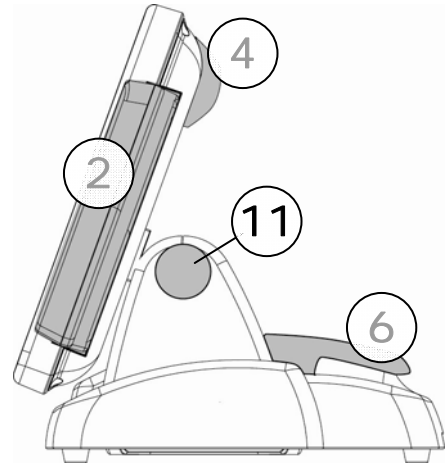


No.	Description
1	Touch Screen
2	MSR/2-in-1 MSR (Option)
3	Stand
4	VFD (Option)
5	Speakers (Option)
6	HDD Cover
7	Cables outlet

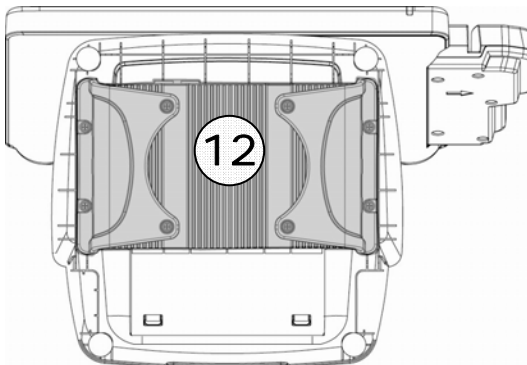
## Front View\_2



## Side View

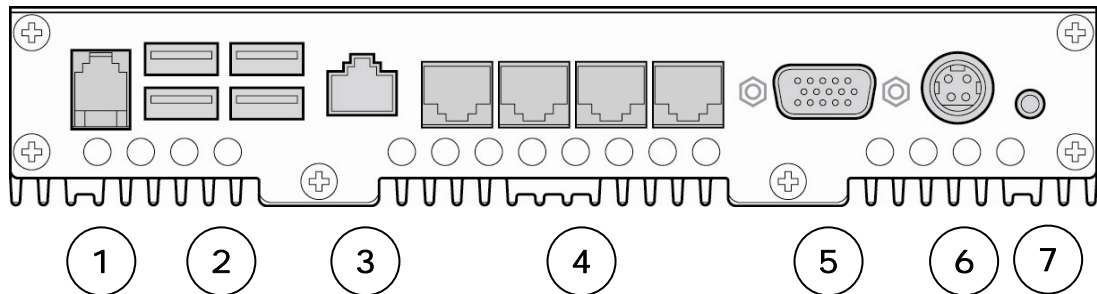


## Bottom View



No.	Description
8	Ventilation
9	PS/2
10	Power Button
11	Hinge Cover
12	System Box (Inside with Motherboard)

## Rear I/O View



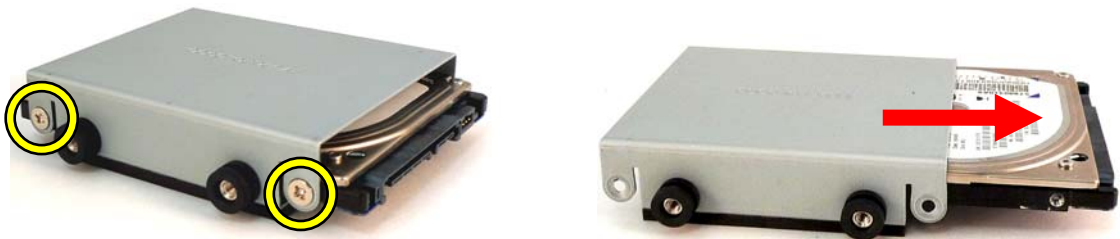
No.	Description
1	Cash Drawer Port
2	USB (x4)
3	LAN (10/100/1000)
4	Serial Port (x4)
5	2nd VGA
6	DC Jack
7	Power Button

# 3 System Assembly & Disassembly

## 3-1 Replace the HDD



- a. Unfasten the screws (x1) to remove the HDD cover.
- b. Disconnect the HDD Cable and take out the HDD with HDD metal bracket.



- c. Unfasten the screws (x4) at both sides of HDD metal bracket.
- d. Slide out the HDD from the HDD metal bracket and replace the HDD.

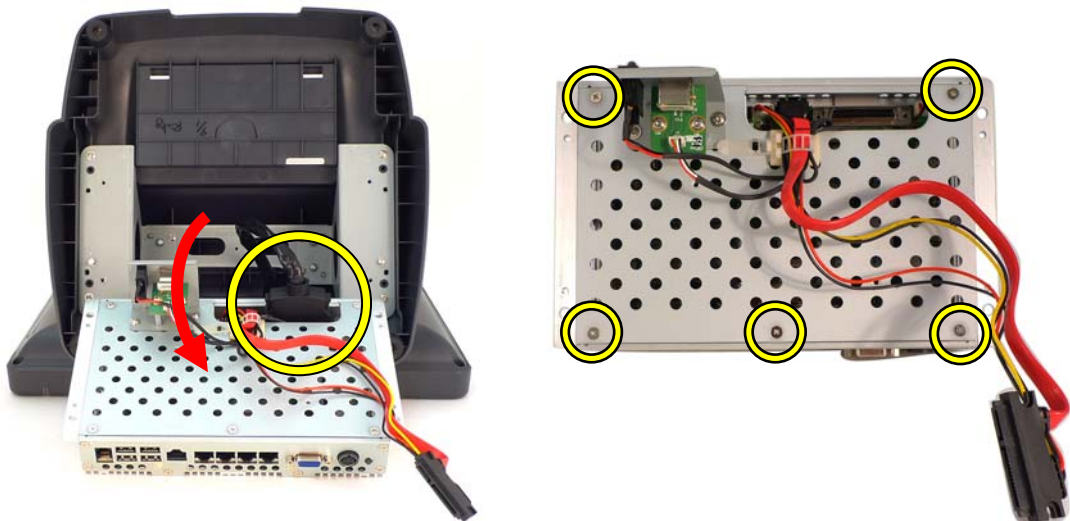
## 3-2 Replace the Motherboard

To replace the motherboard, please follow the below steps:

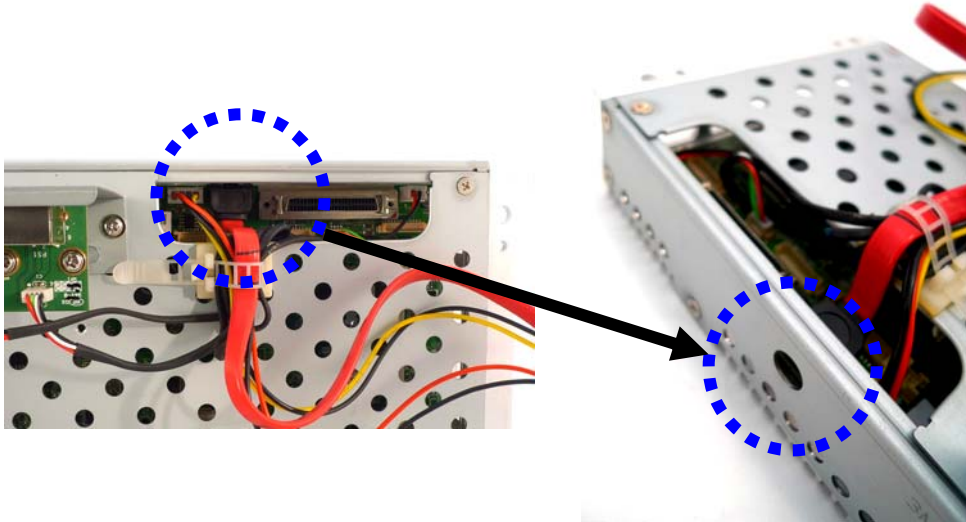
- (1) Disconnect the HDD cable from the motherboard (Chapter 3-1, step a,b)
- (2) Open the system box to access the motherboard (See below)



- a. Unfasten the screws (x8) to remove the 2 pieces of plastic covers.
- b. Unfasten the screws (x4) that fix the metal cover of system box.

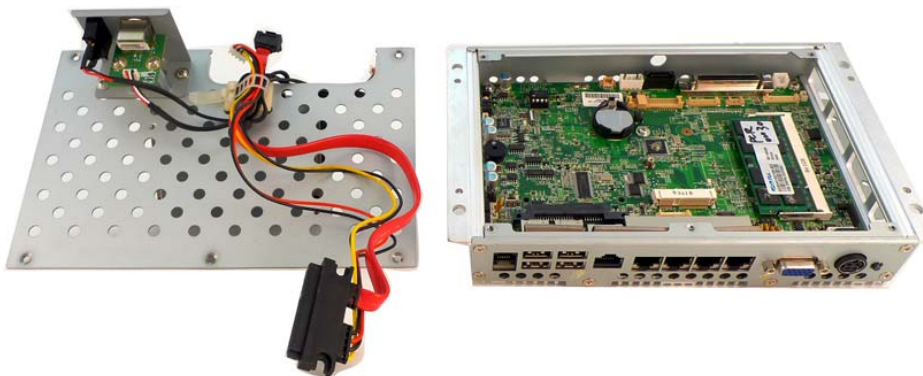


- c. Gently flip down the system box and disconnect the LCD cable (x1).
- d. Remove the screws (x5) fastening the metal cover and the motherboard tray.

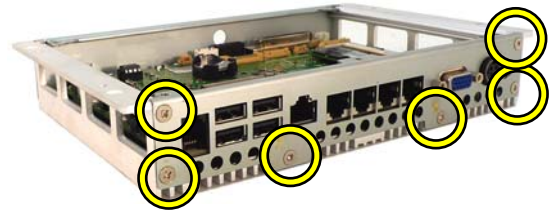
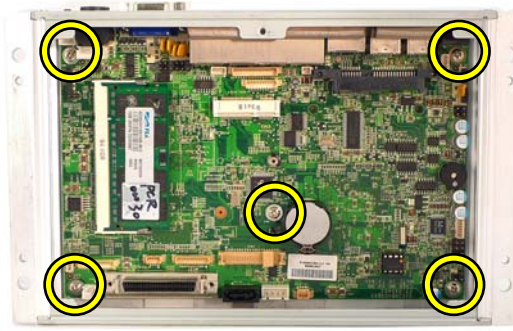


- e. Disconnect all the cables.

**Note:** please use a tool to press into the hole as dotted-line circle shows in the right picture to release the HDD connector lock to pull out the HDD cable easily.



- f. Separate the metal cover from the motherboard tray.



- g. Remove the screws (x5) fixing the motherboard on the motherboard tray.
- h. Remove the screws (x6) to separate the motherboard with I/O panel from the motherboard tray.



- i. Slide out the motherboard with metal I/O bracket.
- j. Remove the hex screws (x2) to separate the metal I/O bracket from the motherboard.

## 3-3 Replace the Inverter Board & Touch Board

The inverter board and touch board are installed inside of the LCD module. You need to follow the steps below first to access them:

- (1) Disconnect the LCD cable from the motherboard (Chapter 3-2, step a, b, c)
- (2) Separate the LCD module from the stand and open the LCD rear cover (See below).



- a. Take out the hinge cover at both sides.



- b. Unfasten the screws (x6) on both sides.
- c. Separate the LCD module from the stand.



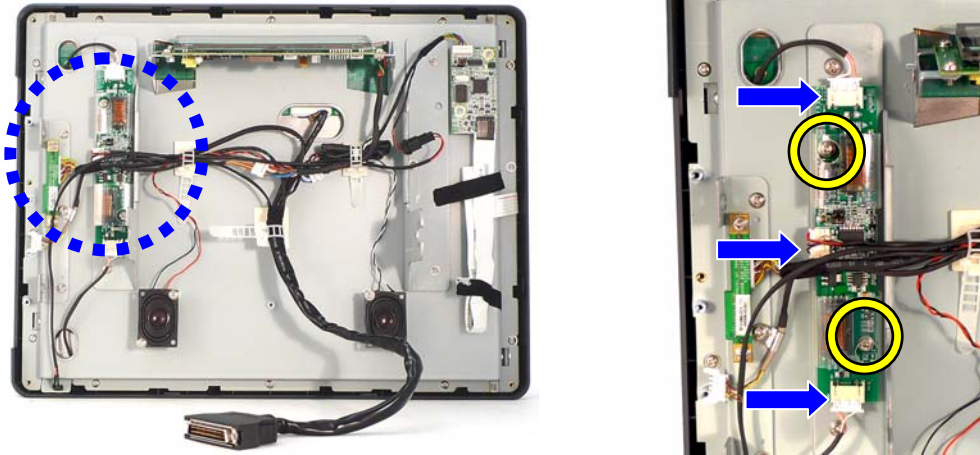


- d. Unfasten the screws (x2) to remove the MSR dummy cover or MSR/2-in-1 MSR module.



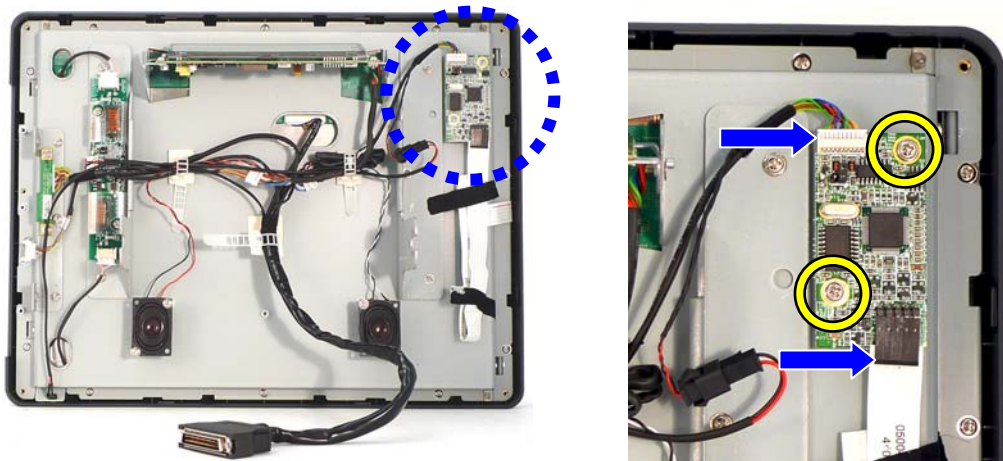
- e. Unfasten the screws (x5) to remove the LCD rear cover with VFD cover from the LCD bracket.

### 3-3-1 Replace the Inverter Board



- The location of Inverter board on the LCD sheet metal bracket.
- Unfasten the screws (x2).
- Disconnect the cables (x3).

### 3-3-2 Replace the Touch Board

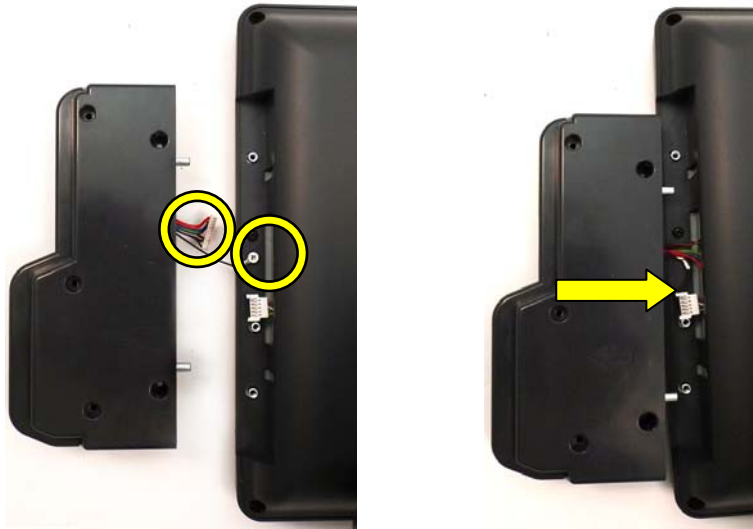


- The location of touch board on the LCD sheet metal bracket.
- Unfasten the screws (x2).
- Disconnect the cables (x2).

# 4 Peripheral Installation

## 4-1 MSR installation

Please remove the MSR dummy cover first (Chapter 3-3, step d)



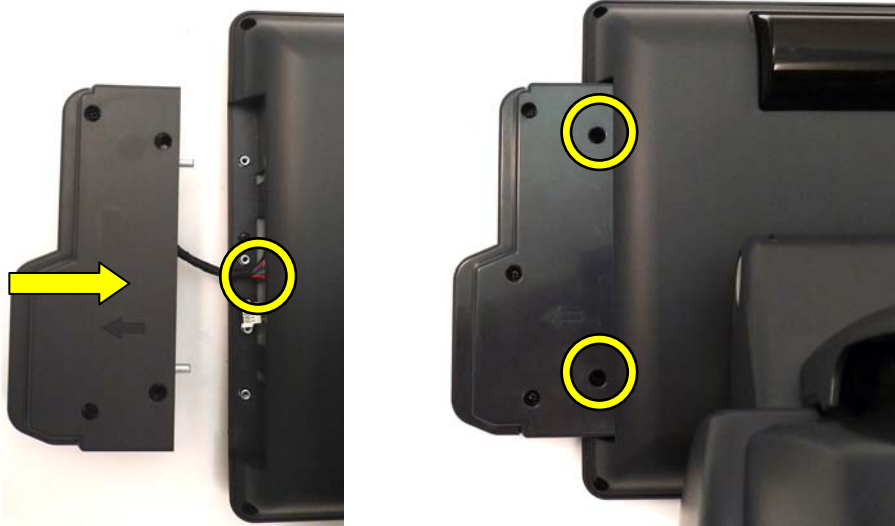
- Fasten the grounding cable (x1) and connect the MSR cable (x1).
- Slide the MSR module into the right position of the system.



- Fasten the screws (x2) to fix the MSR module to the system.

## 4-2 2-in-1 MSR + iButton Installation

Please remove the MSR dummy cover first (Chapter 3-3, step d)

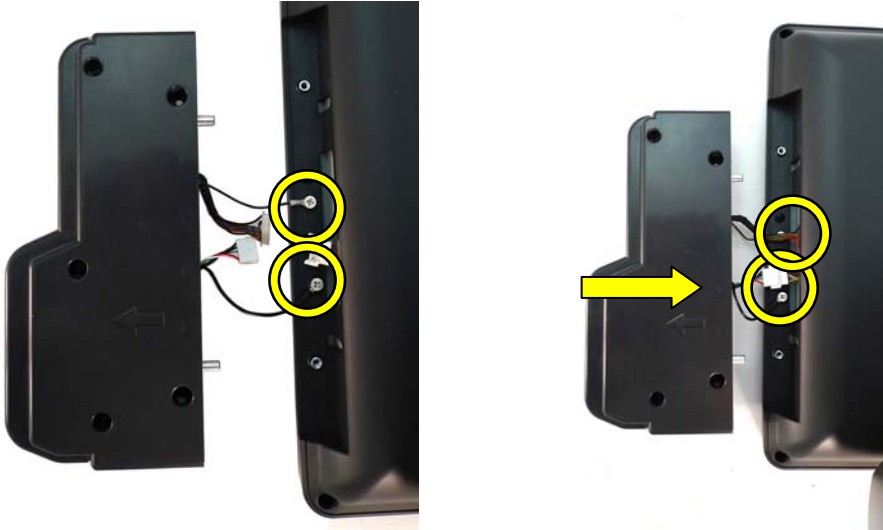


- a. Connect the connector (x1) and slide the MSR + iButton module into the right position of the system.
- b. Fasten the screws (x2) of the MSR rear cover to fix the 2-in-1 MSR + iButton module to the system.



## 4-3 2-in-1 MSR + Fingerprint Installation

Please remove the MSR dummy cover first (Chapter 3-3, step d)



- Fasten the grounding cable (x2)
- Connect the MSR cable (x1) and Fingerprint cable (x1)
- Slide the 2-in-1MSR + Fingerprint module into the right position of the system.

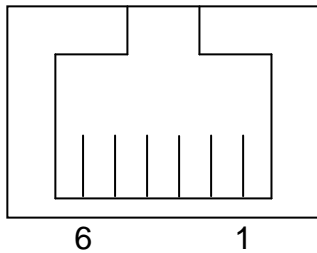


- Fasten the screws (x2) of the rear cover to fix the 2-in-1 MSR + iButton module into the system.

# 4-4 Install a Cash Drawer

You can install a cash drawer through the cash drawer port. Please verify the pin assignment before installation.

Cash Drawer Pin Assignment



Pin	Signal
1	GND
2	DOUT bit0
3	DIN bit0
4	12V / 19V
5	DOUT bit1
6	GND

## Cash Drawer Controller Register

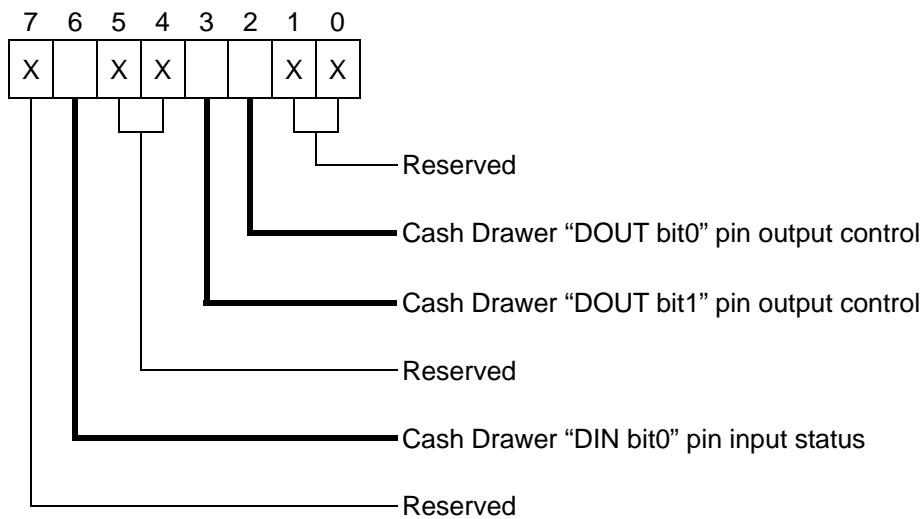
The Cash Drawer Controller use one I/O addresses to control the Cash Drawer.

**Register Location:** 48Ch

**Attribute:** Read / Write

**Size:** 8bit

BIT	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
Attribute	Reserved		Read	Reserved	Write		Reserved	



Bit 7: Reserved

Bit 6: Cash Drawer "DIN bit0" pin input status.

= 1: the Cash Drawer closed or no Cash Drawer

= 0: the Cash Drawer opened

Bit 5: Reserved

Bit 4: Reserved

Bit 3: Cash Drawer "DOOUT bit1" pin output control.

= 1: Opening the Cash Drawer

= 0: Allow close the Cash Drawer

Bit 2: Cash Drawer "DOOUT bit0" pin output control.

= 1: Opening the Cash Drawer

= 0: Allow close the Cash Drawer

Bit 1: Reserved

Bit 0: Reserved

Note: Please follow the Cash Drawer control signal design to control the Cash Drawer.

### Cash Drawer Control Command Example

Use Debug.EXE program under DOS or Windows98

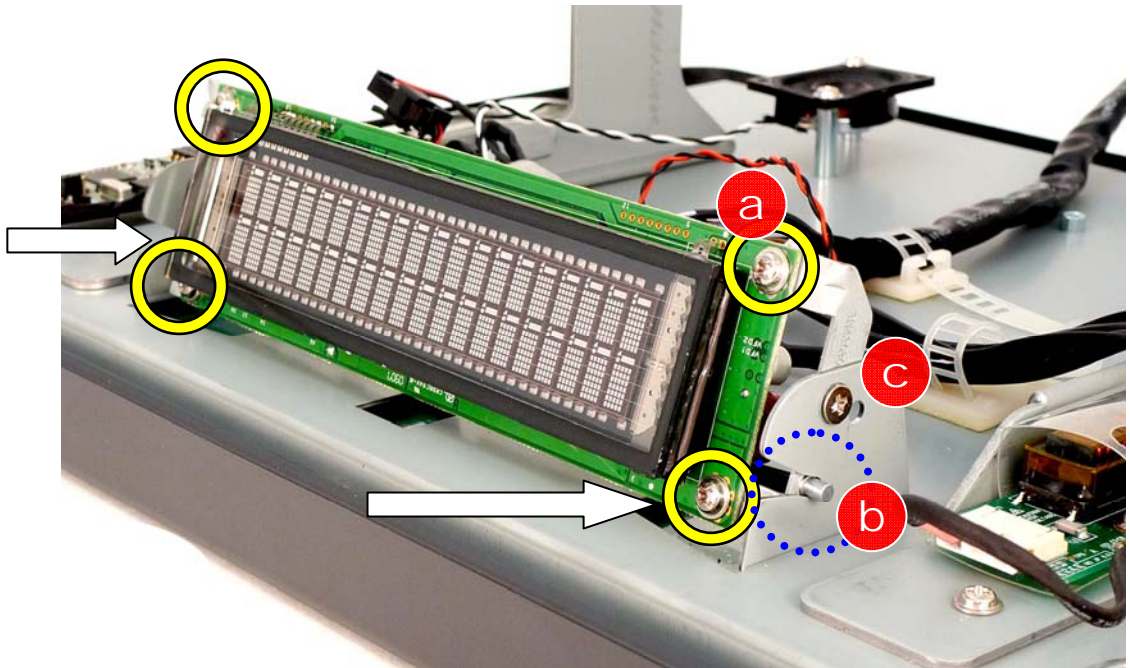
Command	Cash Drawer
O 48C 04	Opening
O 48C 00	Allow to close
<p>➤ Set the I/O address 48Ch bit2 =1 for opening Cash Drawer by "DOOUT bit0" pin control.</p> <p>➤ Set the I/O address 48Ch bit2 = 0 for allow close Cash Drawer.</p>	

Command	Cash Drawer
I 48C	Check status
<p>➤ The I/O address 48Ch bit6 =1 mean the Cash Drawer is opened or not exist.</p> <p>➤ The I/O address 48Ch bit6 =0 mean the Cash Drawer is closed.</p>	

## 4-5 VFD Installation

To install the VFD module, you need to follow the steps below.

- (1) Disconnect the LCD cable from the motherboard (Chapter 3-2, step a,b,c).
- (2) Separate the LCD module from the stand and open it (Chapter 3-3)
- (3) After open the LCD rear cover, you will access the VFD installation bracket, please see detail installation procedure as follows:



- a. Fasten the screws (x4) to fix the VFD board onto the VFD metal bracket.
- b. Slide the VFD board with VFD metal bracket into the right position of the LCD metal bracket.
- c. Fasten the screws (x2) at both sides to fix the VFD board with VFD metal bracket to the LCD metal bracket.



# 5 Specification

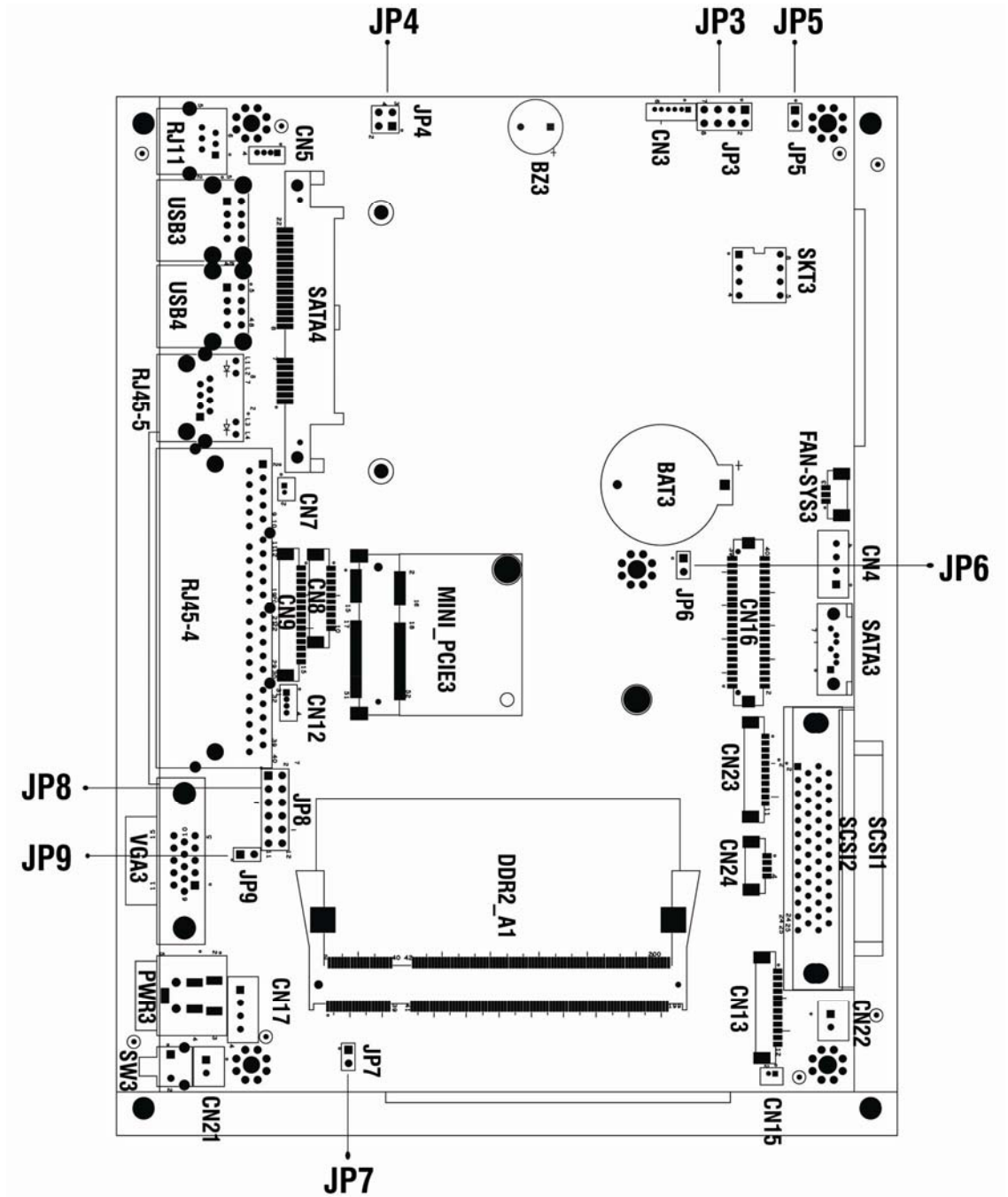
<b>Model Name</b>	<b>POS 345</b>
<b>Motherboard</b>	<b>C36</b>
CPU Support	Intel Atom N270 processors 1.6G L2 512K FSB 533MHz
Chipset	Intel 945GSE Express chipset + ICH7M
System Memory	1 x DDR2 SO-DIMM up to 2GB
Graphic Memory	Intel GMA 950 share system memory up to 224MB
<b>LCD Touch Panel</b>	
LCD Size	15" TFT LCD
Brightness	250nits
Maximal Resolution	1024 x 768
Touch Screen Type	Resistive
Tilt Angle	0° ~ 70°
<b>Storage</b>	
HDD	One 2.5" SATA HDD bay
Flash Memory	Option SATA SSD flash card
<b>Expansion</b>	
PCI-E Socket	1
<b>External I/O Ports</b>	
USB	4 ports (V2.0)
Serial / COM	4 x RJ-45 COM connectors ( COM1 & COM2 standard RS-232; COM3 & COM4 pin10 with 5V /12V powered by jumper )
PS/2	1
LAN (10/100/1000)	1 x RJ45
DC Jack	1(19V-IN)
2nd VGA	1
Cash Drawer Port	Support 1 x RJ 11 (12V / 24V)
<b>Audio</b>	
Speaker	Option 2 x 2W speakers

<b>Power</b>	
Power Adapter	Ext. 65W, 19V/3.4A
<b>Control / Indicator</b>	
Power Button	1
Indicator LED	1
<b>Peripheral</b>	
MSR	3Tracks MSR (PS/2)
2-in-1 MSR	MSR (PS/2) + Fingerprint (USB) / MSR (PS/2) + I-button (PS/2)
Customer display	2 x 20 VFD customer display (COM)
<b>Environment</b>	
EMC & Safety	FCC/CE Class A, LVD
Operating Temperature	5°C ~ 35 °C (41°F ~ 95 °F)
Storage Temperature	-20 °C ~ 55 °C (-4 °F ~ 131 °F)
Operating Humidity	20% ~ 80% RH non condensing
Storage Humidity	20% ~ 85% RH non condensing
<b>Dimension (W x D x H)</b>	LCD 0 degree : 367.94 x 302.21 x 320.83 mm
	LCD70 degree : 367.94 x 290 x 220.69 mm
<b>Weight (N.W./G.W.)</b>	6.4kgs / 7.4kgs
<b>OS Support</b>	Windows XP Professional, Windows XP Embedded, Windows CE, Linux

\* This specification is subject to change without prior notice.

# 6 Jumper Settings

## 6-1 C36B V0.9 Motherboard Layout



## 6-2 Connectors Description



<b>Connector</b>	<b>Purpose</b>
BAT3	CMOS Battery Base (Use CR2023)
CN3	Speaker & MIC Connector
CN4	Power Connector For HDD
CN5	USB5
CN7	LAN LED
CN8	COM5 for Touch
CN9	Card Reader Connector
CN12	IrDA Connector
CN13	Inverter Connector
CN15	Power LED
CN16	LCD Interface Connector
CN17	Internal DC-JACK connector
CN21	Internal Power On Switch Connector
CN22	Internal Power On Switch Connector
CN23	To LED Sensor Board
CN24	PS2 Keyboard
DDR2_A1	DDR2 SO-DIMM
PWR3	+19V Power Adaptor
RJ11_3	Cash Drawer Connector
RJ45_4	COM1, COM2, COM3, COM4
RJ45_5	LAN (On Board)
FAN_SYS3	System FAN Connector
MINI_PCIE3	Mini PCI-E Socket
SATA3	SATA Connector
SCSI2	SCSI Connector
SKT3	SPI ROM
SW3	Power On Button
USB3	USB1, USB2
USB4	USB3, USB4
VGA3	VGA Port
JP3	LCD ID Setting

## 6-3 Jumper Settings



### 6-3-1 Cash Drawer Power Settings: JP4

Function	JP4 (1-2) (3-4)
+12V	1 3  2 4
⊙+19V	1 3  2 4

### 6-3-2 Power Mode Settings: JP5

Function	JP5 (1-2)
⊙ATX Power	
AT Power	

### 6-3-3 CMOS Operation Mode: JP6

Function	JP6 (1-2)
⊙CMOS Normal	
CMOS Reset	

⊙ = Factory default settings

### 6-3-4 System Reset Settings: JP7



Function	JP7 (1-2)
⊙ Normal	<input type="checkbox"/> <input type="checkbox"/>
Reset	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

### 6-3-5 COM3 & COM4 Power Settings: JP8

Function		JP8 (1-2) (3-4) (5-6) (7-8) (9-10) (11-12)																												
COM3 Pin10	⊙ RI	<table style="border-collapse: collapse; margin: auto;"> <tr><td></td><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td><td>11</td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td></td><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td><td>12</td></tr> </table>		1	3	5	7	9	11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2	4	6	8	10	12
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⊙ = Factory default settings

### 6-3-6 VGA Power Settings: JP9

Function	JP9 (1-2)
⊙No Power	
+12V	

### 6-3-7 Boot Display Device Settings: JP3





Function	JP3 (1-2) (3-4)																				
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⊙ = Factory default settings

## 6-3-8 LCD ID Settings for LVDS Panel:

Panel Number	Resolution	LVDS		JP3 (5-6) (7-8)
		Bits	Channel	
1	1024 x 768	24	Single	
2	1280 x 1024	24	Dual	
3	800 x 600	18	Single	
4	1024 x 768	18	Single	

⊙ = Factory default settings

Note:    

OPEN                      SHORT

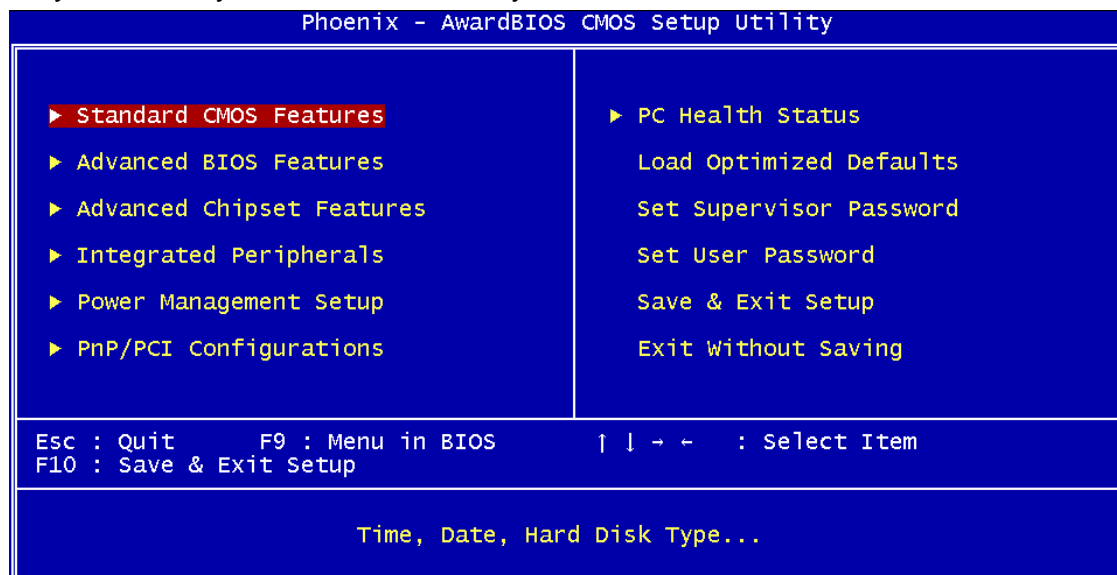


# 7 BIOS Settings

## BIOS Main Menu

When the BIOS Main Menu is displayed, the following items can be selected. Use the arrow keys to select items and the Enter key to accept and enter the sub-menu.

**Note:** The BIOS setup menus shown in this section are for reference only and may not exactly match the items of your BIOS version.



## Standard CMOS Features

Use this menu for basic system configuration.

## Advanced BIOS Features

Use this menu to set the Advanced Features available on the system.

## Advanced Chipset Features

Use this menu to change the values in the chipset registers and optimize the system's performance.

## Integrated Peripherals

Use this menu to specify your settings for integrated peripherals.

**Power Management setup**

Use this menu to specify your settings for power management.

**PnP/PCI Configurations**

This entry appears if your system supports Plug and Play and PCI Configuration.

**PC health status**

Displays CPU, System Temperature, Fan Speed, and System Voltages Value.

**Load Optimized Defaults**

Use this menu to load the BIOS default values, i.e., factory settings for optimal performance system operations. While Award has designed the custom BIOS to maximize performance, the factory has the option to change these defaults to meet their needs.

**Set Supervisor Password**

Enables you to change, set, or disable the supervisor or user password.

**Set Password**

Change, set, or disable the password. It allows you to limit access to the system and to the setup, or just to the setup.

**Save & exit setup**

Save CMOS value changes to CMOS and exits setup.

**Exit without saving**

Ignores all CMOS value changes and exits setup.

# Appendix

## **Drivers Installation:**

The shipping package includes a Driver CD. You can find every individual driver and utility that enables you to install the drivers in the Driver CD.

Please insert the Driver CD into the drive and double click on the “index.htm” to pick up the models. You can refer to the drivers installation guide for each driver in the “Driver/Manual List”.