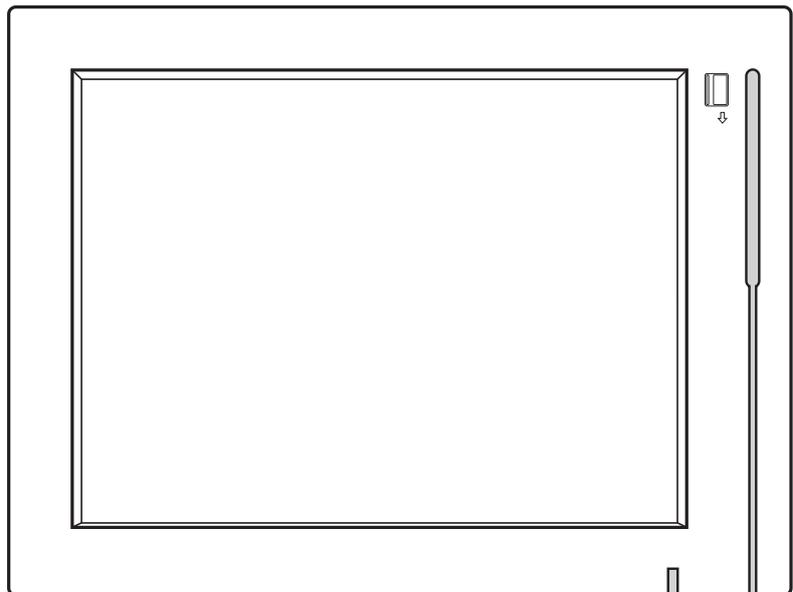


USER MANUAL

VERSION V1.0 DECEMBER 2009

Point-of-Sale Hardware System



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Manual Version 1.0
Part Number: 3LMP88000110

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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.



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”.



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 dust bin 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:

Revision	Description	Date
1.0	• Initial release	2009 December

Table of Contents

1. Packing List.....	1
1-1. Standard Accessories.....	1
1-2. Optional Accessories.....	1
2. System View	2
2-1. Front View	2
2-2. Side View.....	2
2-3. Rear View	3
2-4. I/O view.....	4
2-5. Dimensions.....	5
2-5-1. 8.4" System	5
2-5-2. 10.4" System	5
2-5-3. 12.1 System	5
3. System Assembly	6
3-1. RAM Module Replacement.....	6
3-2. HDD Replacement.....	7
3-2-1. HDD replacement for 8.4" and 10.4" system.....	7
3-2-2. HDD replacement for 12.1" system	8
3-3. Power Adapter Installation.....	8
4. Peripheral Installation	9
4-1. Stand Installation	9
4-2. pSSD Card Module Installation	9
4-3. Cash Drawer Installation	10
5. Specification	12

6. Jumper Setting 13

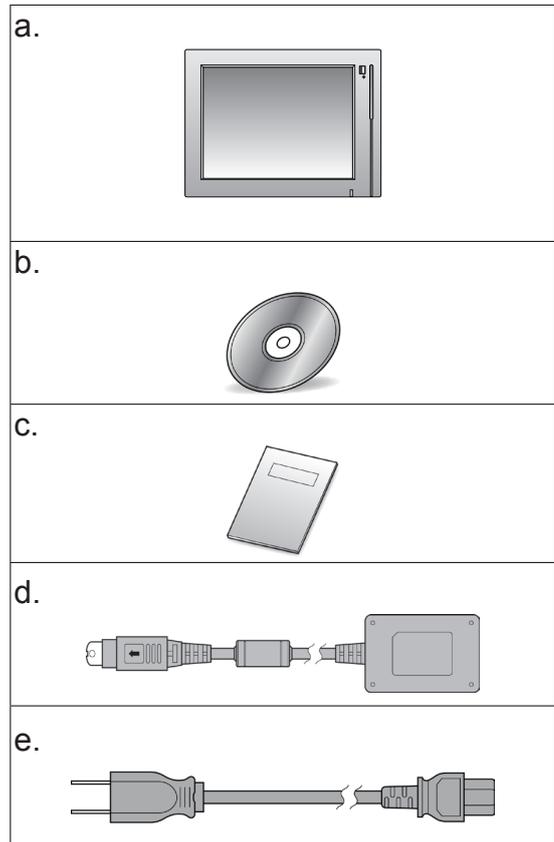
6-1. Motherboard Layout	13
6-2. Connectors & Functions	14
6-3. Jumper Setting	15
6-3-1. System Reset Settings	15
6-3-2. COM3 & COM4 Power Setting	15
6-3-3. Cash Drawer Power Setting	16
6-3-4. Power Mode Setting	16
6-3-5. CMOS Operation Mode	16
6-3-6. VGA Power Setting	16
6-3-7. LCD ID Setting	17

Appendix: Drivers Installation 18

1. Packing List

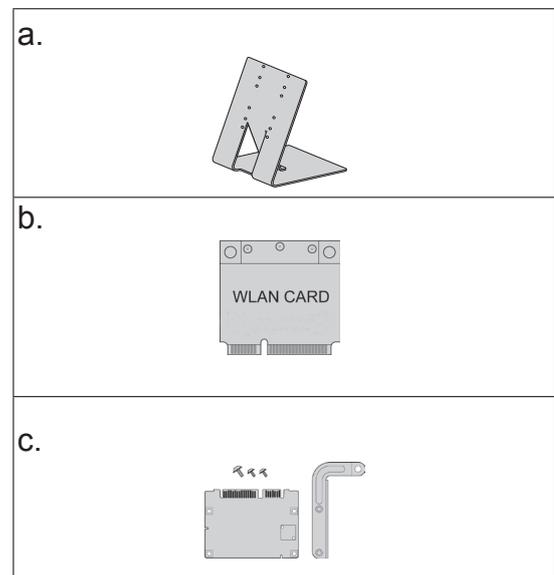
1-1. Standard Accessories

- a. System
- b. Driver bank
- c. User guide
- d. Power adapter
- e. Power cord
- f. RJ45-DB9 cable (x2)



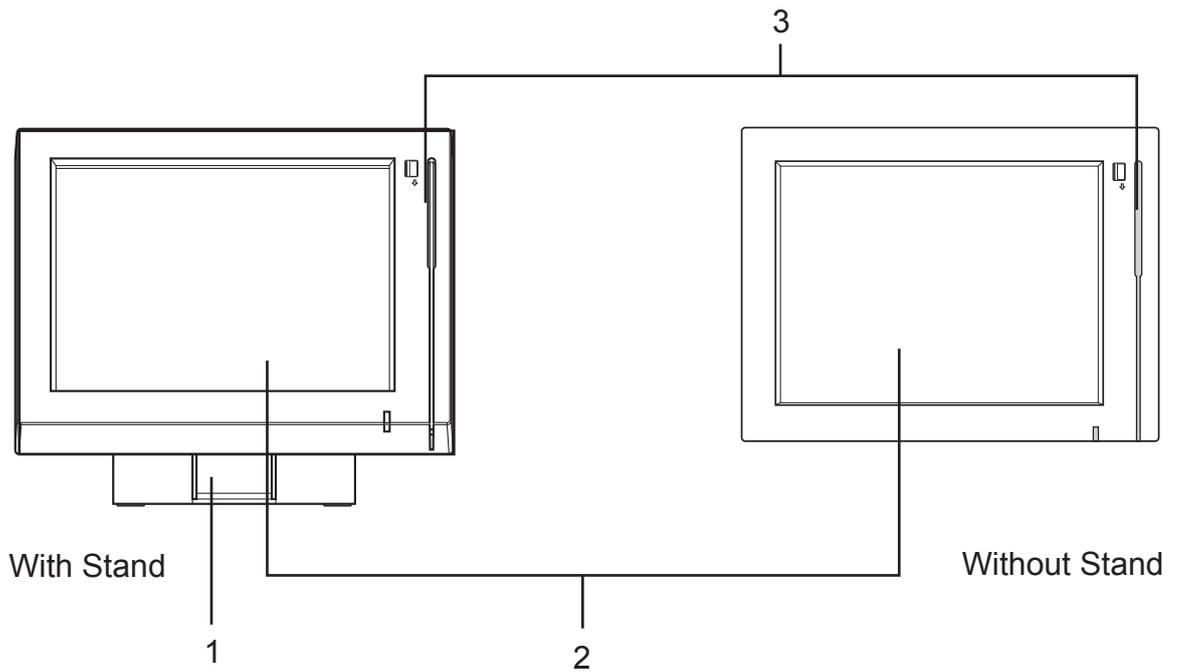
1-2. Optional Accessories

- a. Stand
- b. WLAN Card + internal antenna
- c. pSSD module + bracket



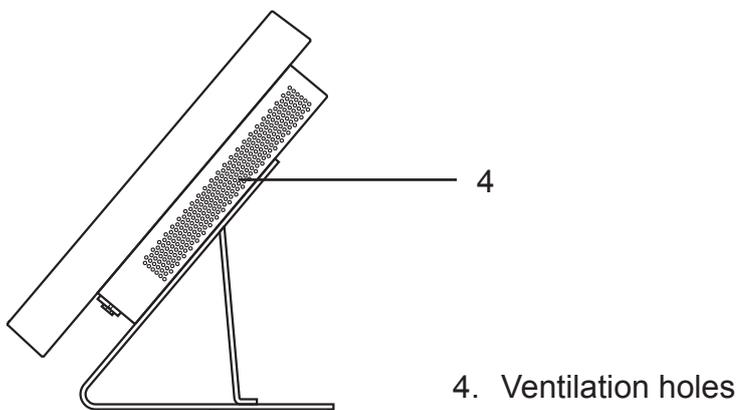
2. System View

2-1. Front View



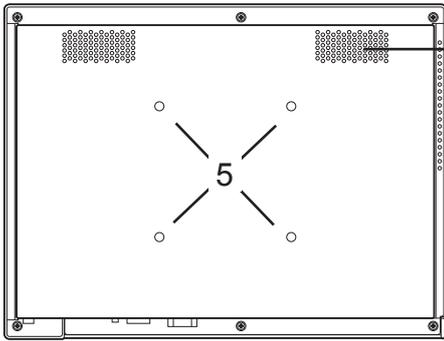
- 1. Metal Stand
- 2. Touch Screen
- 3. Built-in MSR

2-2. Side View

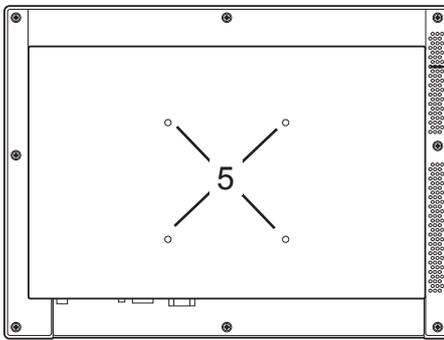


2-3. Rear View

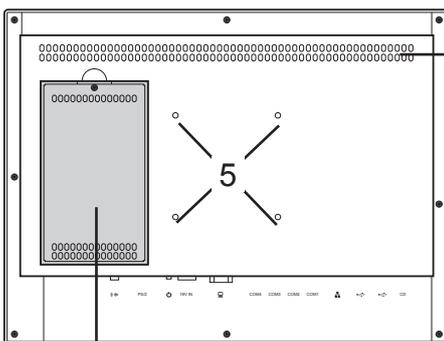
8.4" System



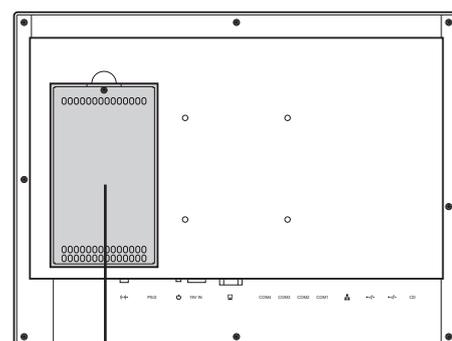
10.4" System



12.1" System



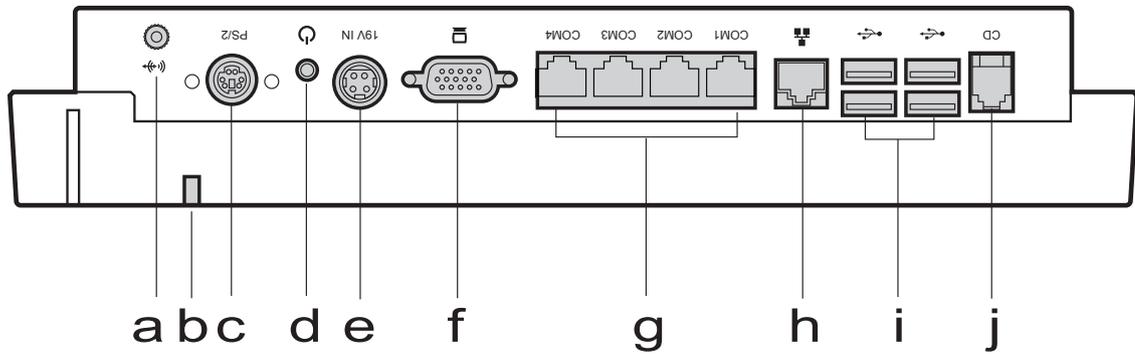
12.1" Fanless System



7

- 5. VESA Mounting Holes
- 6. Ventilation
- 7. HDD Door (12.1")

2-4. I/O view

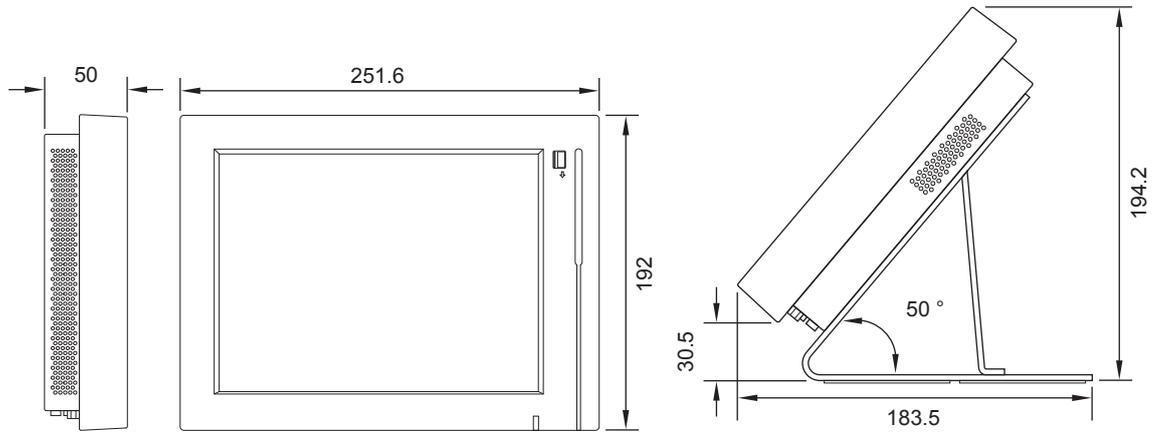


Item No.	Description
a	Line-Out
b	Power LED indicator
c	PS/2
d	Power Button
e	DC Jack
f	2nd VGA
g	COM Port 1, 2, 3, 4 (from right to left)
h	LAN (10/100/1000)
i	USB x 4
j	Cash Drawer Port

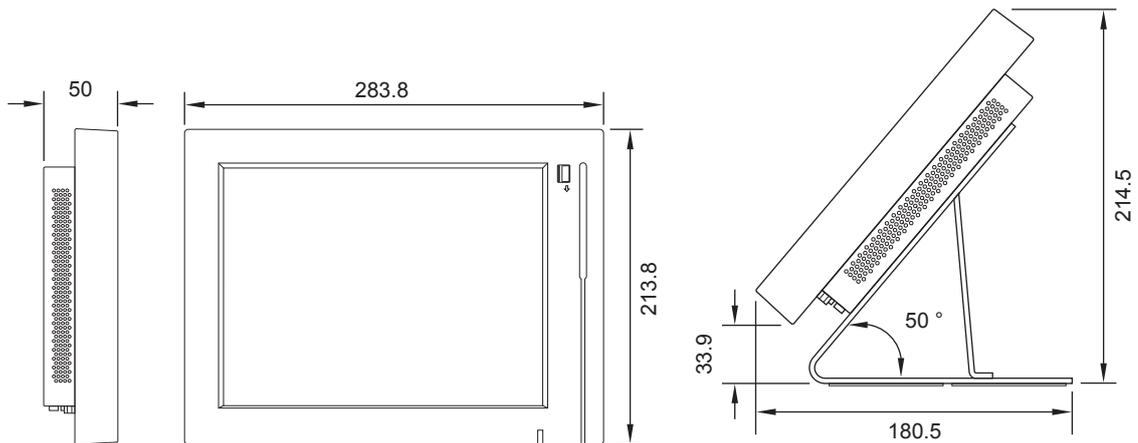
Note: The location of the I/O ports may vary slightly, depending on whether you have a system with or without fan.

2-5. Dimensions

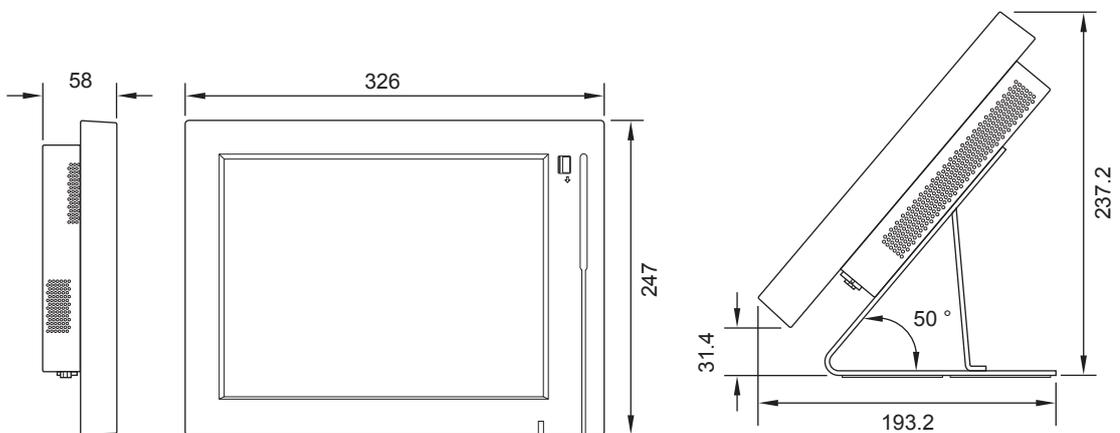
2-5-1. 8.4" System



2-5-2. 10.4" System



2-5-3. 12.1 System

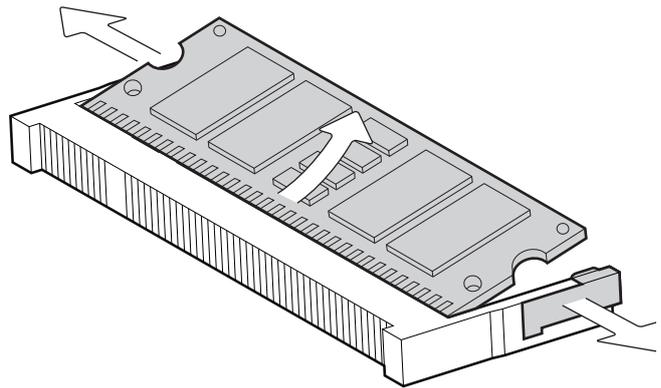


3. System Assembly

3-1. RAM Module Replacement

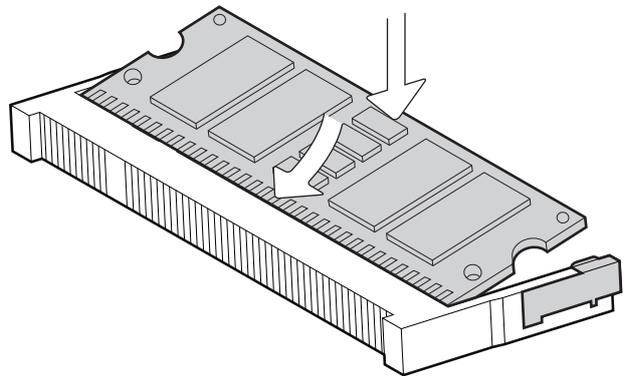
Removing a RAM module

1. Please Open the rear cover by unfastening the screws (x8) to access the motherboard. (See Chapter 3-2)
2. Use both fingers to pull the ejector clips out of the sides of the module.
3. Slide out to remove the memory module from the memory slot.



Installing a RAM module

4. Slide the memory module into the memory slot and press down until the ejector clips click in place.



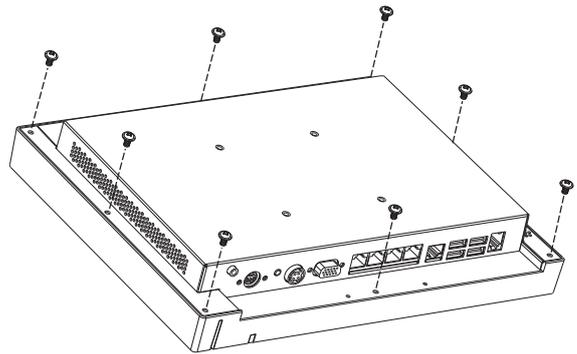
3-2. HDD Replacement

To remove and replace the HDD, please follow the steps below. The procedure is different depending on the 8.4", 10.4" or 12.1" system being installed.

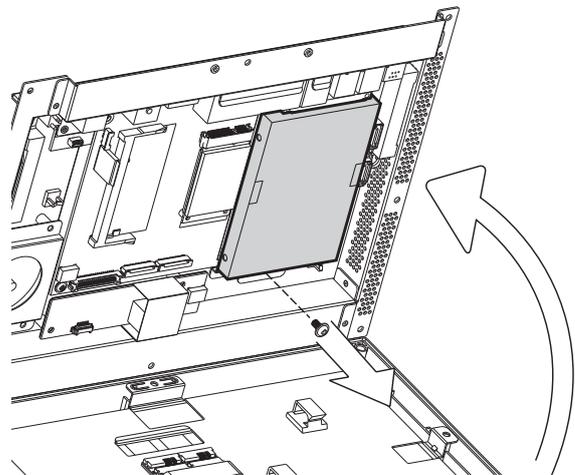
3-2-1. HDD replacement for 8.4" and 10.4" system

The HDD is installed on the motherboard, you need to uncover the rear cover first to access it. If your system is equipped with a stand or a wall-mount bracket, please remove them first.

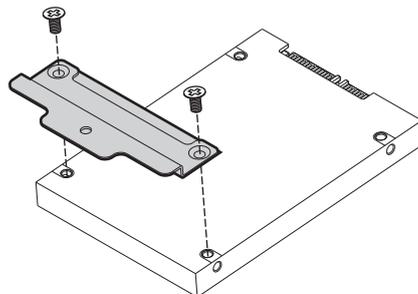
1. Turn to the rear side of the system and open the rear cover by unfastening all the screws.(8.4" with 6 screws;10.4" with 8 screws)



2. **Gently** flip up the rear cover due to various connectors connecting the motherboard to the LCD screen.
3. Unscrew the screw (x1) of the HDD holding bracket.
4. Disconnect the HDD connector and remove it with the holding bracket from the motherboard.



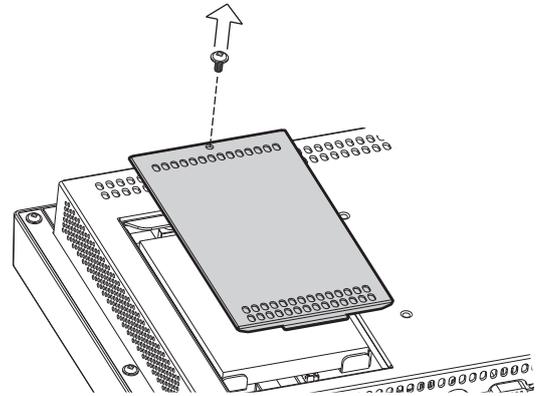
5. Unfasten the screws (x2) to separate the HDD holding bracket from the hard drive disk.
6. Reverse the steps above to replace the hard drive disk.



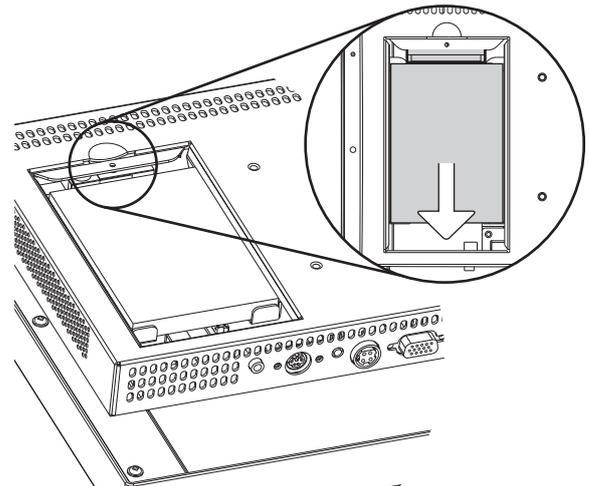
3-2-2. HDD replacement for 12.1" system

You can access the HDD easily by turning the system to the rear side on a 12" system. Please see detailed procedure below.

1. Turn to the rear side of the system to access the HDD door.
2. Unscrew the screw (x1) securing the HDD door to the rear cover of the system.



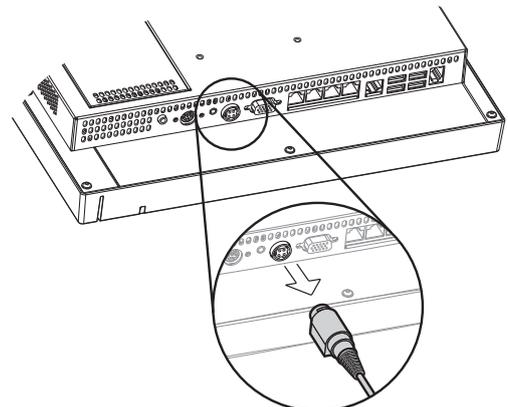
3. Disconnect the SATA cable from the drive.
4. Reverse above steps to replace the hard drive disk.



3-3. Power Adapter Installation

The system is equipped with a 60W power adapter, please plug it in as shown below.

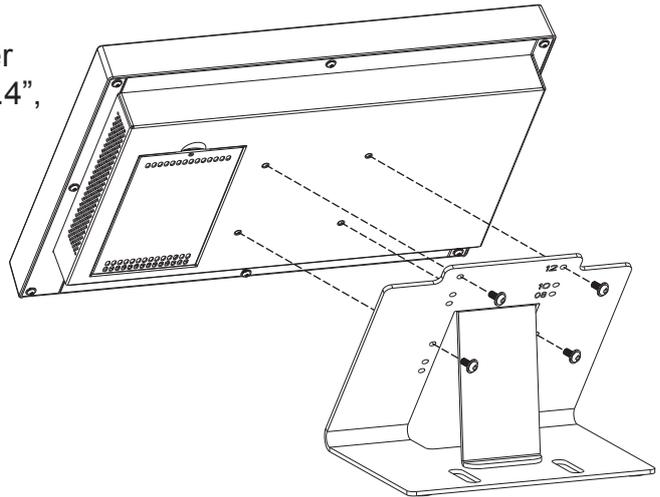
1. Please connect the power adapter to the DC-IN Connector on the I/O panel.



4. Peripheral Installation

4-1. Stand Installation

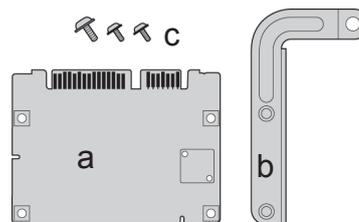
1. Fasten the screws (x4). The screw location may slightly differ according to the system size (8.4", 10.4" or 12.1") being installed.



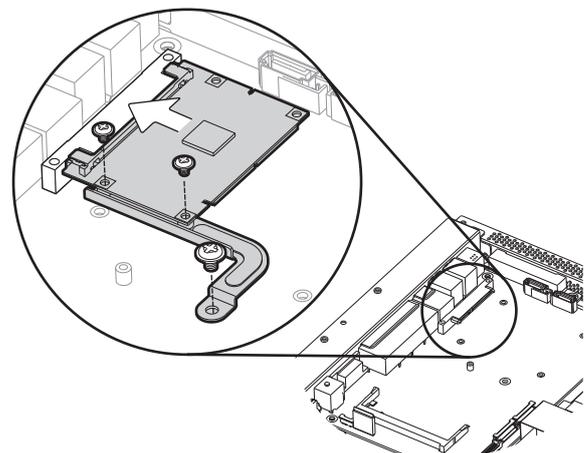
4-2. pSSD Card Module Installation

Accessories of pSSD card module:

- a. pSSD Card
- b. Metal bracket
- c. screws (x3)



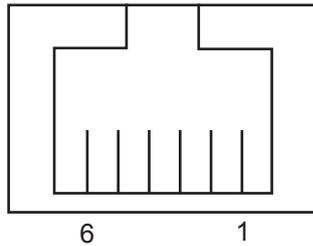
1. Open the rear cover to access the motherboard first. (See Chapter 3-2).
2. To assemble the metal bracket and pSSD card by fastening the screws (x2).
3. Slide the pSSD card with metal bracket into the pSSD slot, press down and fix it to the motherboard with the screw provided (x1).



4-3. Cash Drawer Installation

You can install a cash drawer through the cash drawer port. Please verify the pin assignment of your cable 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

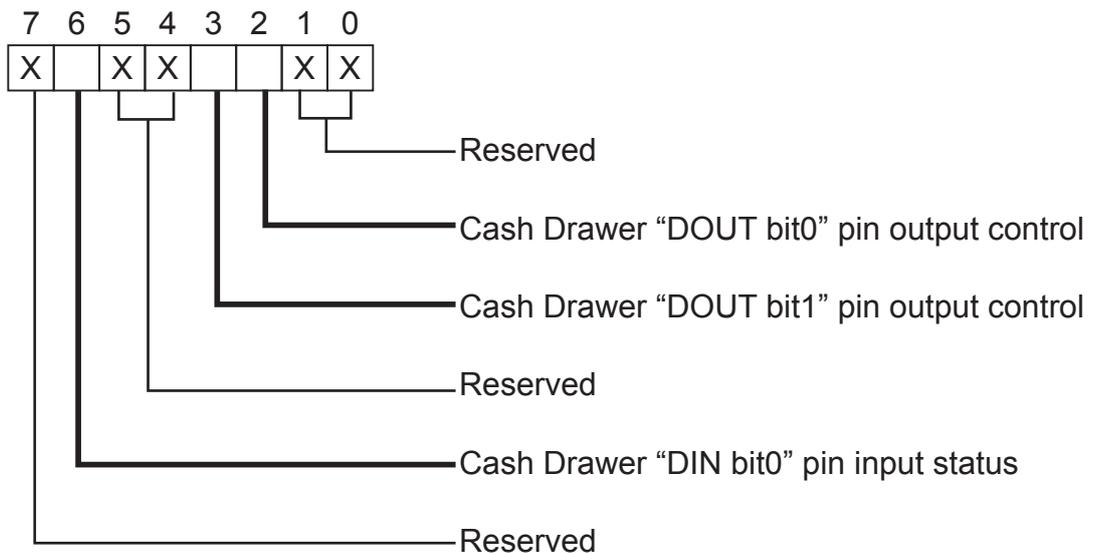
The Cash Drawer Controller use one I/O address to control the Cash Drawer.

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 "DOUT bit1" pin output control.
 - = 1: Opening the Cash Drawer
 - = 0: Allow close the Cash Drawer
- Bit 2: Cash Drawer "DOUT 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
<ul style="list-style-type: none"> ▶ Set the I/O address 48Ch bit2 =1 for opening Cash Drawer by "DOUT bit0" pin control. ▶ Set the I/O address 48Ch bit2 = 0 for allow close Cash Drawer. 	

Command	Cash Drawer
I 48C	Check status
<ul style="list-style-type: none"> ▶ The I/O address 48Ch bit6 =1 mean the Cash Drawer is opened or not exist. ▶ The I/O address 48Ch bit6 =0 mean the Cash Drawer is closed. 	

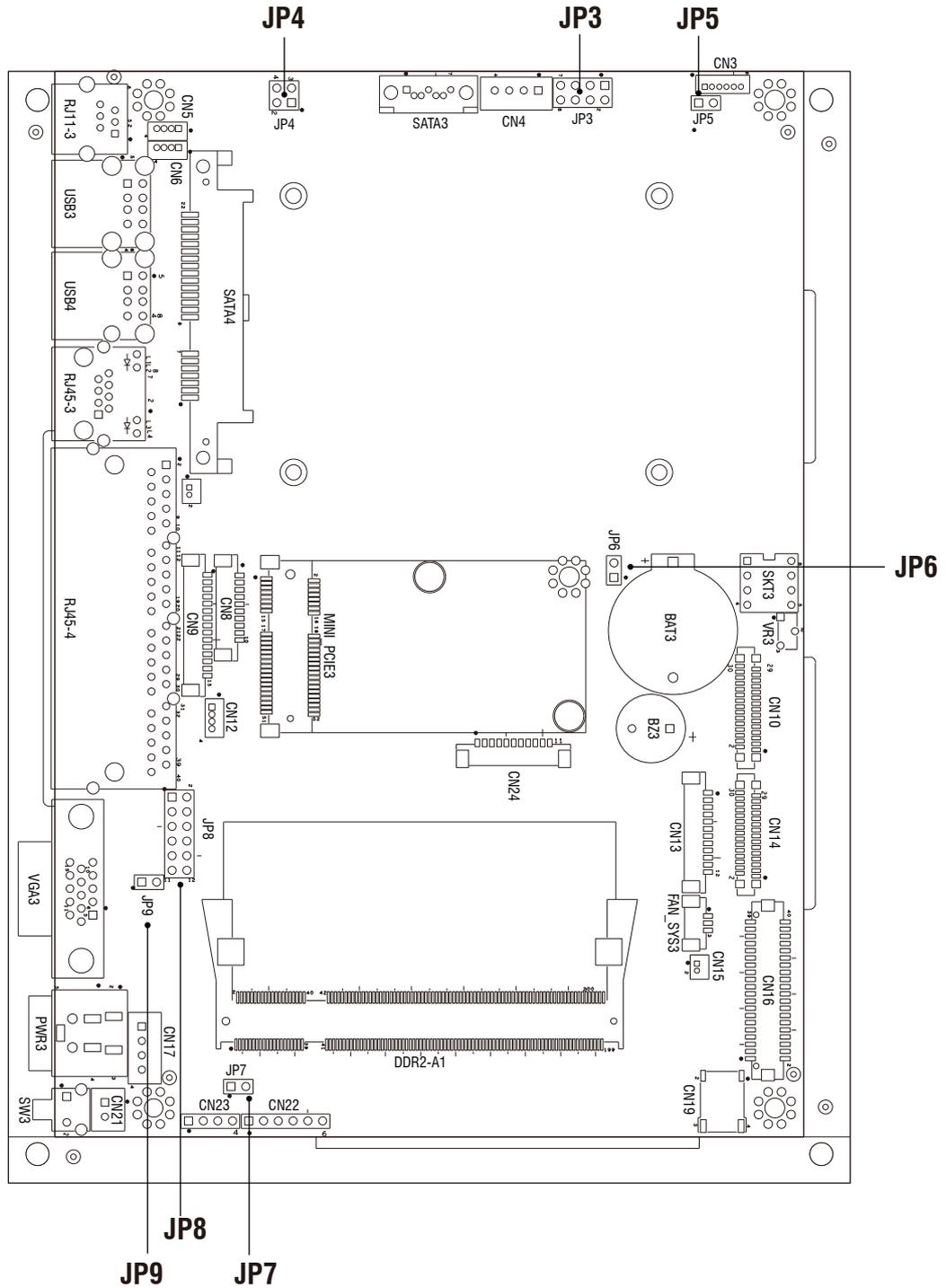
5. Specification

Motherboard	C36		
Processor	Intel® Atom™ processors N270 1.6G L2 512K FSB 533MHz		
Chipset	Intel® 945GSE Express chipset + ICH7M		
System Memory	1 X DDR2 DIMM up to 2GB FSB 533MHz		
Graphic Memory	Intel® GMA 950 share system memory up to 224MB		
LCD / Touch Panel			
LCD Size	8.4" TFT LCD	10.4" TFT LCD	12.1" TFT LCD
Brightness	250 cd/m ²	250 cd/m ²	150 / 400 cd/m ²
Resolution	800x600	800x600	800x600 / 1024x768
Touch Screen	Resistive		
Storage Device			
Hard Drive	1 x slim HDD bay (SATA)		
Flash Memory (Option)	SATA pSSD Flash memory 8G / 16G / 32G / 64G		
Expansion			
Mini PCI-E Socket	1		
Rear I/O			
USB Port	4 (USB 2.0)		
Serial / COM	4 x RJ-45 (COM3 / COM4 with 5V / 12V power)		
LAN Port	1 x RJ-45 (10/100/1000Mbps Giga LAN)		
Second Display	1 (DB-15 Female)		
Cash Drawer Port	1 x RJ-11 (12V / 24V)		
DC Jack	1 (DC 19V)		
Power button	1		
Power	Adapter (65W, 19V, 3.4A)		
Environment			
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 ~ 140°F)		
Operating Humidity	20% - 80% RH non-condensing		
Storage Humidity	20% - 85% RH non-condensing		
Dust and Water Proof	IP54 for front bezel		
Communication			
Wireless LAN	mini PCI-E wireless LAN card 802.11 b/g or n		
Dimension (W x D x H)	241 x 50 x 181 mm	284 x 50 x 214 mm	326 x 58 x 247 mm
Weight	1.4kg (3lbs)	1.7kg (3.7lbs)	2.5kg (5.5lbs)
OS Supported	Win7, Vista, WEPOS, Windows® XP, Windows® XP Embedded, Windows® CE, POSReady 2009, Linux		

Product specifications subject to change without prior notice.

6. Jumper Setting

6-1. Motherboard Layout



Version: C36A v1.1

6-2. Connectors & Functions

Connector	Purpose
BAT3	CMOS Battery Base (Use CR2023)
CN3	Speaker & MIC Connector
CN4	Power Connector For HDD
CN5	USB5
CN6	USB7
CN7	LAN LED
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	5 Wire Touch
CN24	FT Status Interface
DDR2_A1	DDR2 SO-DIMM
PWR3	+19V Power Adaptor
RJ11_3	Cash Drawer Connector
RJ45_3	LAN (On Board)
RJ45_4	COM1, COM2, COM3, COM4
FAN_SYS3	System FAN Connector
MINI_PCIE3	Mini PCI-E Socket
SATA3	SATA Connector
SKT3	SPI ROM
SW3	Power On Button
USB3	USB1, USB2
USB4	USB3, USB4
VGA3	VGA Port
JP3	LCD ID Setting
JP4	Cash Drawer Power Setting
JP5	Power Mode Setting
JP6	CMOS Operation Mode
JP7	System Reset Setting
JP8	COM3 & COM4 Power Setting
JP9	VGA Power Setting

Motherboard Version: C36A v1.1

6-3. Jumper Setting

6-3-1. System Reset Settings

Function	JP7 (1-2)		
▲ Normal	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1			
2			
Reset	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1			
2			

6-3-2. COM3 & COM4 Power Setting

Function		JP8												
COM3 Pin10	▲ RI	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td><td>11</td></tr> <tr><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	2	4	6	8	10	12
	1	3	5	7	9	11								
	2	4	6	8	10	12								
+5V	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td><td>11</td></tr> <tr><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	2	4	6	8	10	12	
1	3	5	7	9	11									
2	4	6	8	10	12									
+12V	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td><td>11</td></tr> <tr><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	2	4	6	8	10	12	
1	3	5	7	9	11									
2	4	6	8	10	12									
COM4 Pin10	▲ RI	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td><td>11</td></tr> <tr><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	2	4	6	8	10	12
	1	3	5	7	9	11								
	2	4	6	8	10	12								
+5V	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td><td>11</td></tr> <tr><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	2	4	6	8	10	12	
1	3	5	7	9	11									
2	4	6	8	10	12									
+12V	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td><td>11</td></tr> <tr><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	2	4	6	8	10	12	
1	3	5	7	9	11									
2	4	6	8	10	12									

▲ = Manufacturer Default Setting

6-3-3. Cash Drawer Power Setting

Function	JP4				
▲+12V	<table border="1"> <tr><td>1</td><td>3</td></tr> <tr><td>2</td><td>4</td></tr> </table>	1	3	2	4
1	3				
2	4				
+19V	<table border="1"> <tr><td>1</td><td>3</td></tr> <tr><td>2</td><td>4</td></tr> </table>	1	3	2	4
1	3				
2	4				

6-3-4. Power Mode Setting

Function	JP5		
▲ATX Power	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1			
2			
AT Power	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1			
2			

6-3-5. CMOS Operation Mode

Function	JP6		
▲CMOS Normal	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1			
2			
CMOS Reset	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1			
2			

6-3-6. VGA Power Setting

Function	JP9		
▲No Power	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1			
2			
+12V	<table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table>	1	2
1			
2			

▲ = Manufacturer Default Setting

6-3-7. LCD ID Setting

Panel#	Resolution	LVDS		Output Interface	JP3								
		Bits	Channel										
1	1366 x 768	24	Single	LVDS	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td></tr> </table>	1	3	5	7	2	4	6	8
1	3	5	7										
2	4	6	8										
2	1440 x 990	24	Dual	LVDS	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td></tr> </table>	1	3	5	7	2	4	6	8
1	3	5	7										
2	4	6	8										
4	1920 x 1080	24	Dual	LVDS	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td></tr> </table>	1	3	5	7	2	4	6	8
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5	1024 x 768	24	Single	LVDS	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td></tr> </table>	1	3	5	7	2	4	6	8
1	3	5	7										
2	4	6	8										
6	1280 x 1024	24	Dual	LVDS	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td></tr> </table>	1	3	5	7	2	4	6	8
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7	800 x 600	24	Single	LVDS	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td></tr> </table>	1	3	5	7	2	4	6	8
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9	1024 x 768	18	Single	LVDS	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td></tr> </table>	1	3	5	7	2	4	6	8
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11	800 x 600	18	Single	LVDS	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td></tr> </table>	1	3	5	7	2	4	6	8
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12	800 x 600	18	Single	LVDS	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td></tr> </table>	1	3	5	7	2	4	6	8
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14	800 x 600	18		TTL	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td></tr> </table>	1	3	5	7	2	4	6	8
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15	1024 x 768	18		TTL	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td></tr> </table>	1	3	5	7	2	4	6	8
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				CRT	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td></tr> </table>	1	3	5	7	2	4	6	8
1	3	5	7										
2	4	6	8										

Remark: Item #12 is only applied for Sharp panel 12" LQ121S1LLG41.

1
2

 Jumper open

1
2

 Jumper short

▲ = Manufacturer Default Setting

Appendix: Drivers Installation

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

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