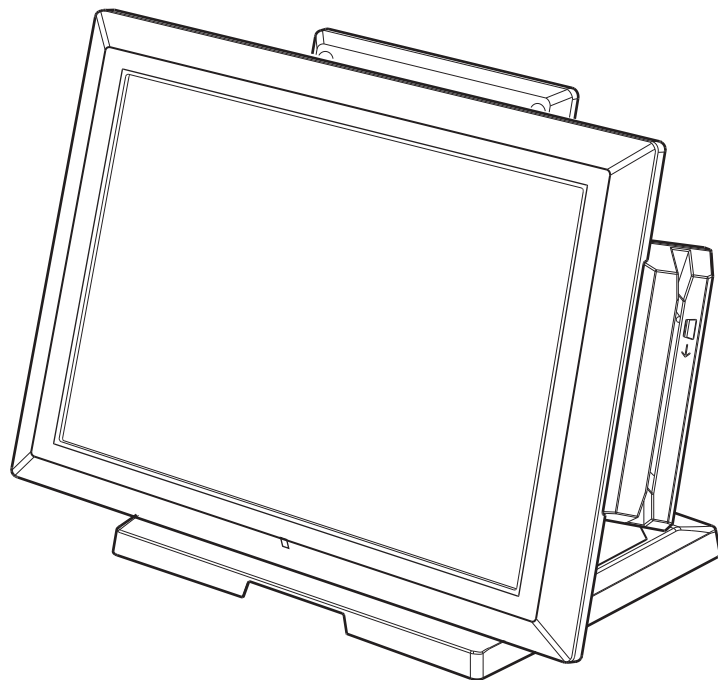


USER MANUAL

VERSION V1.1 January 2011

Point-of-Sale Hardware System



The information contained in this document is subject to change without notice. We make no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. We shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

This document contains proprietary information that is protected by copyright. All rights are reserved. No part of this document may be photocopied, reproduced or translated to another language without the prior written consent of the manufacturer.

TRADEMARK

Intel®, Pentium® and MMX are registered trademarks of Intel® Corporation. Microsoft® and Windows® are registered trademarks of Microsoft Corporation. Other trademarks mentioned herein are the property of their respective owners.

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.



Battery Caution

Risk of explosion if battery is replaced by an incorrectly type. Dispose of used battery according to the local disposal instructions.



Safety Caution

Note: To comply with IEC60950-1 Clause 2.5 (limited power sources, L.P.S) related legislation, peripherals shall be 4.7.3.2 “Materials for fire enclosure” compliant.

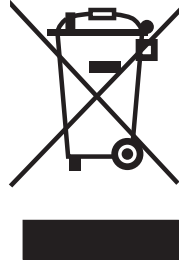
4.7.3.2 Materials for fire enclosures

For MOVABLE EQUIPMENT having a total mass not exceeding 18kg.the material of a FIRE ENCLOSURE, in the thinnest significant wall thickness used, shall be of V-1 CLASS MATERIAL or shall pass the test of Clause A.2.

For MOVABLE EQUIPMENT having a total mass exceeding 18kg and for all STATIONARY EQUIPMENT, the material of a FIRE ENCLOSURE, in the thinnest significant wall thickness used, shall be of 5VB CLASS MATERIAL or shall pass the test of Clause A.1

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	<ul style="list-style-type: none">Initial release	Nov. 2010
1.1	<ul style="list-style-type: none">Updated C48 motherboard to V2.1	Jan. 2011

Table of Contents

1. Packing List.....	1
1-1. Standard Accessories.....	1
1-2. Optional Accessories	2
2. System View	3
2-1. Front & Side View	3
2-2. Rear View	3
2-3. I/O Ports View.....	4
2-4. System Dimension.....	4
3. System Assembly & Disassembly	5
3-1. Stand disassembly	5
3-2. Open the System.....	5
3-3. HDD Replacement.....	6
3-4. RAM Replacement	6
3-5. Power Adapter Replacement.....	7
4. Peripheral Installation	8
4-1. MSR Installation	8
4-2. VFD Installation	9
4-3. Cash Drawer Installation for B68/C48 motherboard	10

5. Specification 12

6. Jumper Setting 14

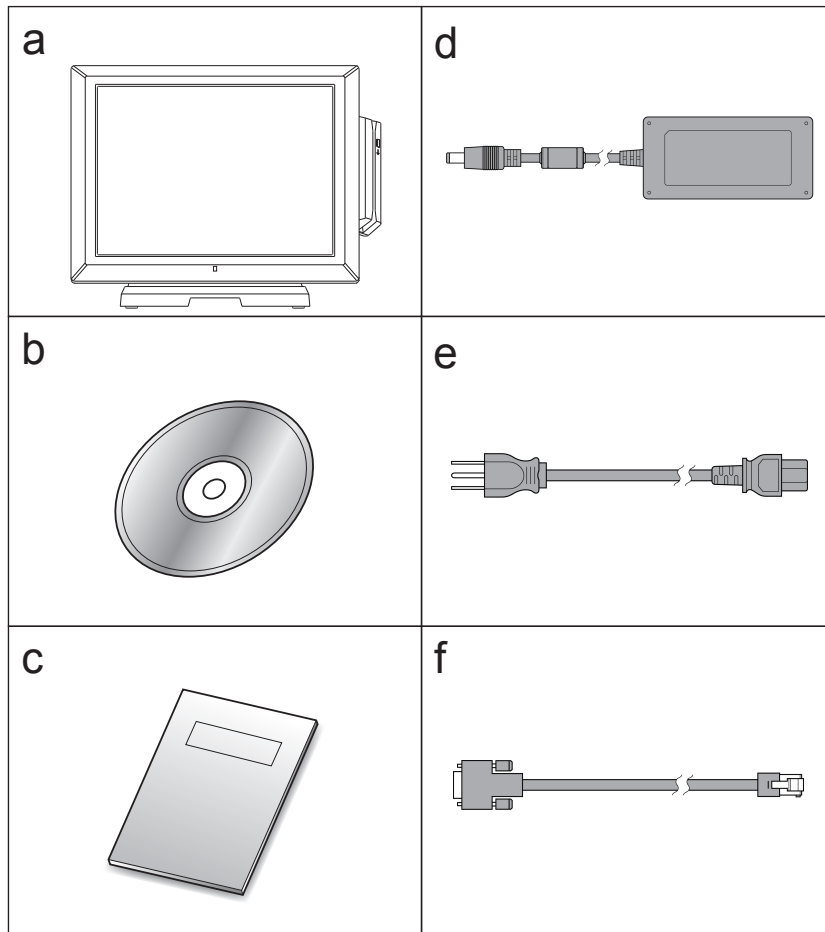
- 6-1. For B68 Motherboard 14
 - 6-1-1. Motherboard Layout 14
 - 6-1-2. Connectors & Functions 15
 - 6-1-3. Jumper Setting 16
- 6-2. For C48 Motherboard 19
 - 6-2-1. Motherboard Layout 19
 - 6-2-2. Connectors & Functions 20
 - 6-2-3. Jumper Setting 21

Appendix: Drivers Installation 26

The page is intentionally left blank.

1. Packing List

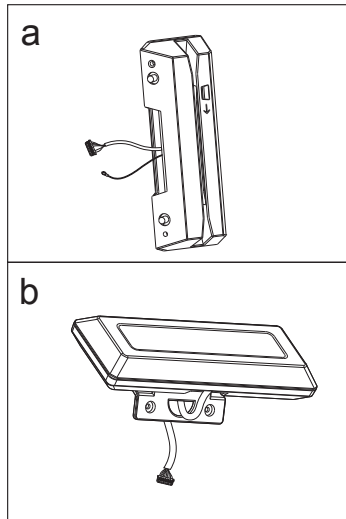
1-1. Standard Accessories



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

Note: Power cord will be supplied differently according to various region or country.

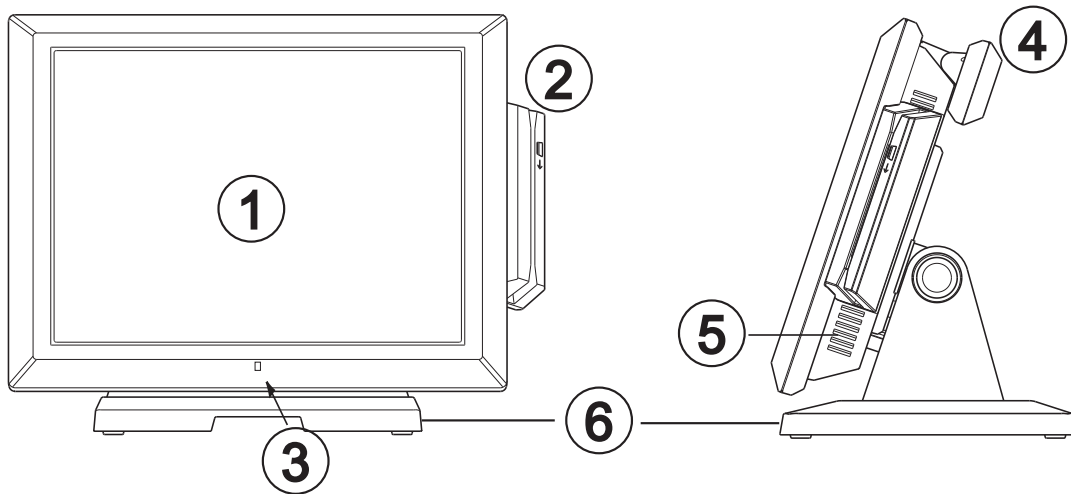
1-2. Optional Accessories



- a. MSR module
- b. VFD module

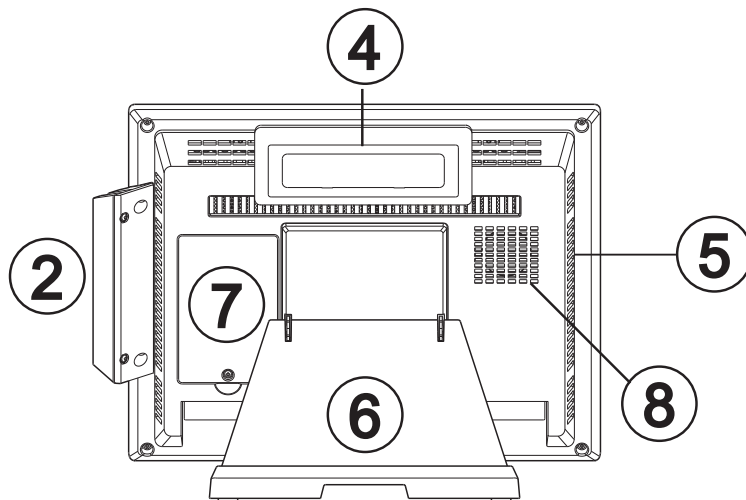
2. System View

2-1. Front & Side View



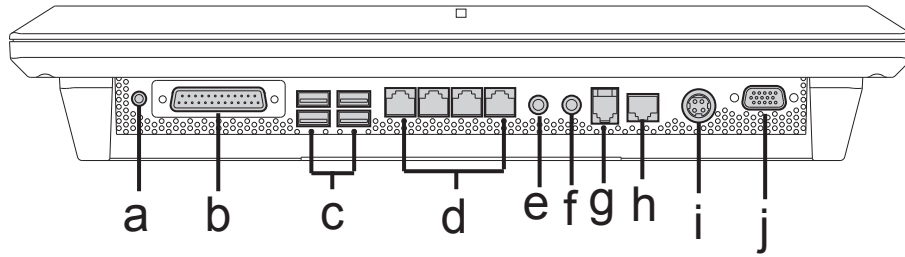
Item No.	Description
1	Touch screen
2	MSR module (<i>optional</i>)
3	Power LED
4	VFD module (<i>optional</i>)
5	Ventilation
6	Rugged footprint

2-2. Rear View



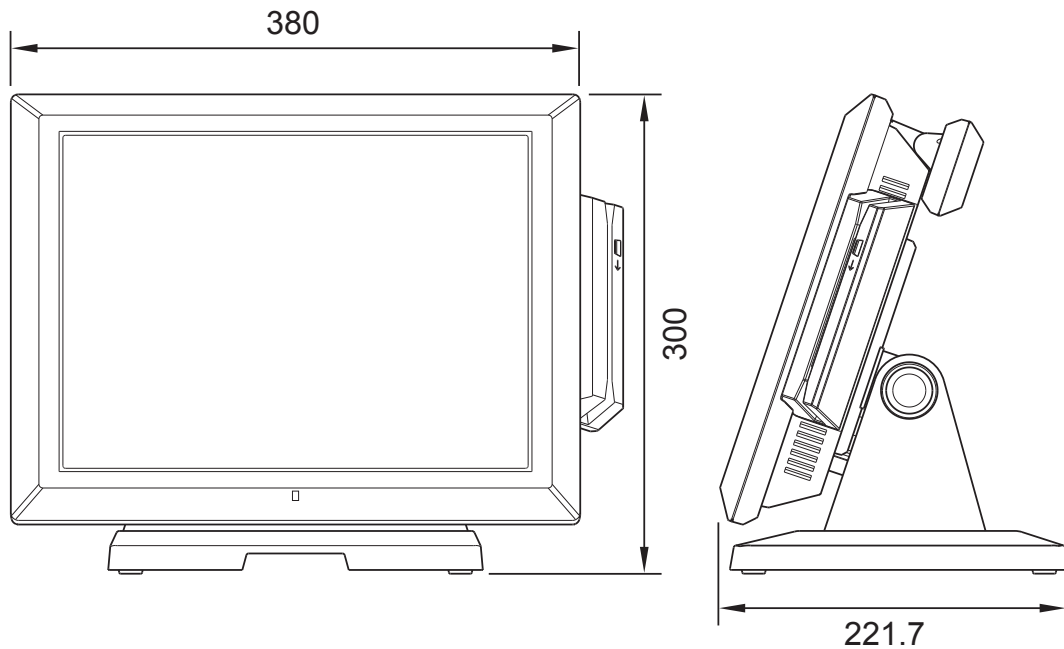
Item No.	Description
7	HDD door
8	System fan

2-3. I/O Ports View



Item No.	Description
a	Power switch
b	Parallel
c	USB x 4
d	COM 1, 2, 3, 4 (from right to left)
e	Line-out
f	MIC-in
g	Cash Drawer (12V/24V)
h	LAN
i	DC-IN
j	2nd VGA

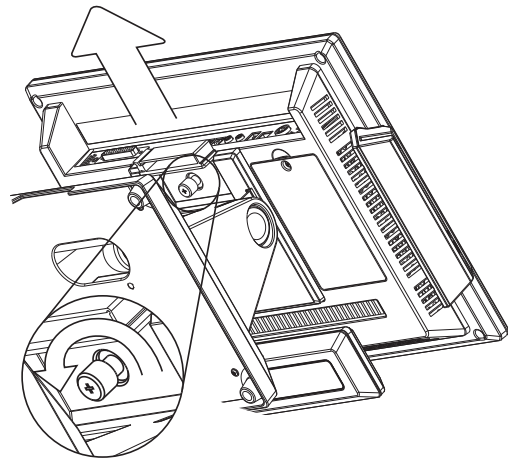
2-4. System Dimension



3. System Assembly & Disassembly

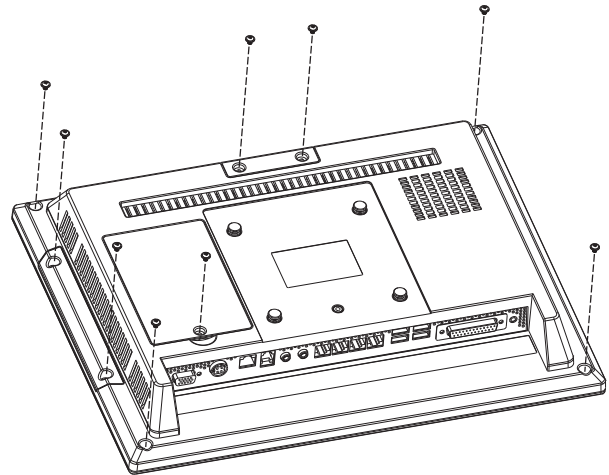
3-1. Stand disassembly

1. Push and turn to loose the thumb screw on the stand bracket.
2. Slide to I/O panel side as arrow shown to disassemble the system stand.
3. To attach stand onto the system, please reverse steps above.

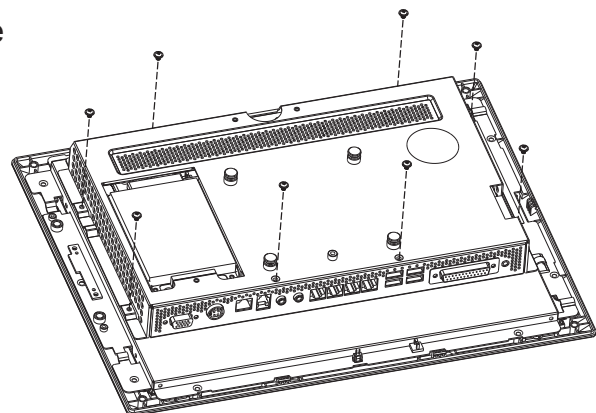


3-2. Open the System

1. Turn to rear side of the system and loose the screws (x9) to open the rear cover. It is suggested to use a plastic wrench for easier disassembly.

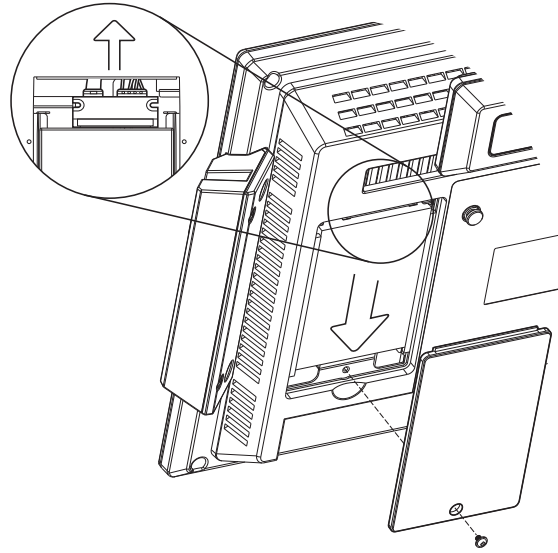


2. An EMI cover shall be found before approaching the motherboard. Please unfasten the screws (x8) to open the EMI cover.



3-3. HDD Replacement

1. Follow the steps on Chapter 3-1 to disassemble the system stand.
2. Loosen the screw (x1) on the HDD door and open it.
3. Take out the HDD as the direction shown by the arrow.
4. Disconnect the SATA cable from the drive for replacement.

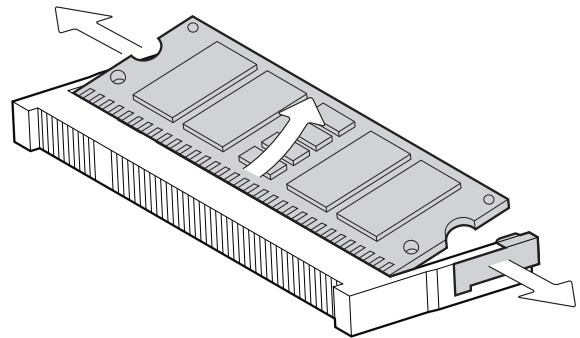


3-4. RAM Replacement

Please open the system (see Chapter 3-2) before replacement. For detailed memory compartment, please refer to motherboard layout. (see Chapter 6-1-1, 6-2-1)

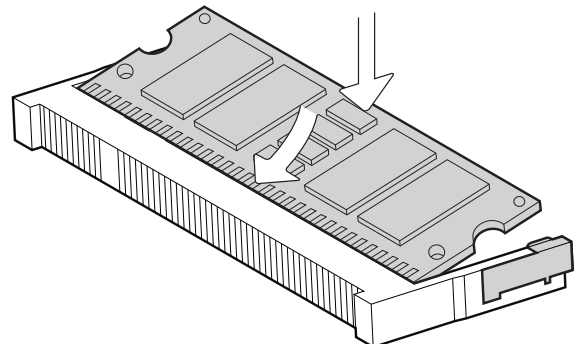
Removing a RAM module

1. Use both fingers to pull the ejector clips out of the sides of the module.
2. Slide out to take out the memory module from the memory slot.



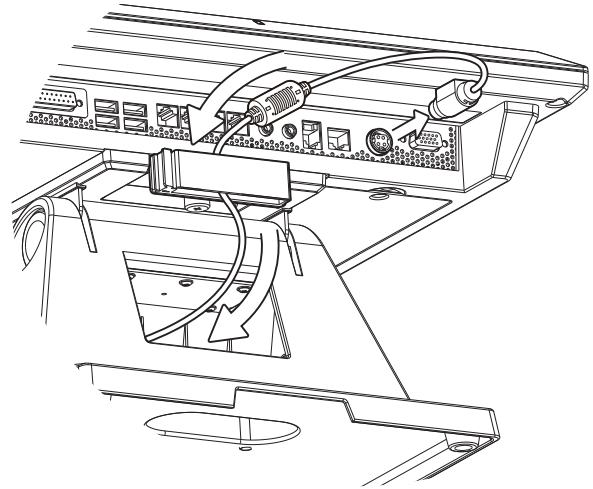
Installing a RAM module

3. Slide the memory module into the memory slot and press down until it fits with the ejector clips.

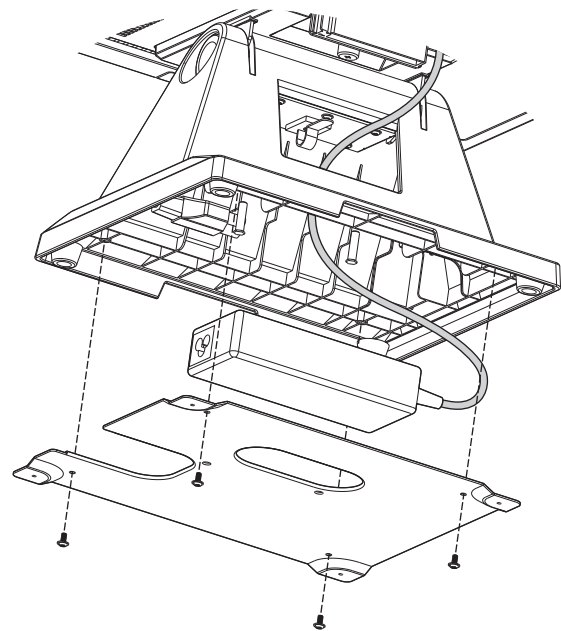


3-5. Power Adapter Replacement

1. Disconnect the power cord from the system.



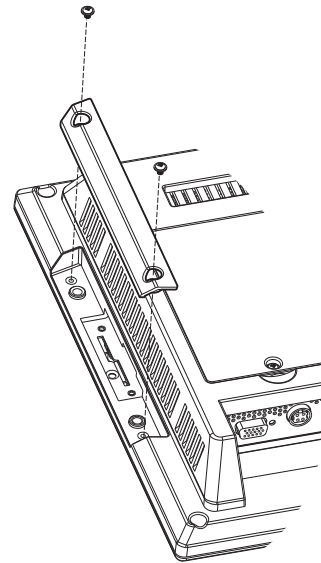
2. Unfasten the screws (x4) on the bottom to release adapter from the stand.
3. For assembly, please reverse the steps above and do connect the power cord to I/O panel finally.



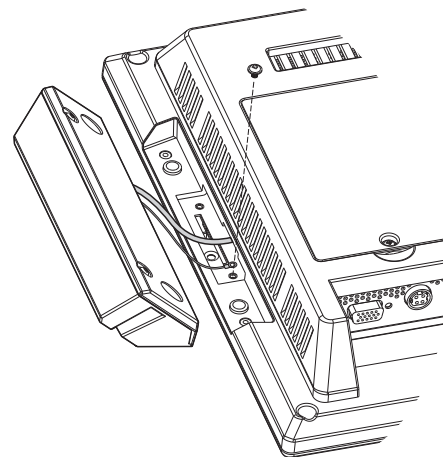
4. Peripheral Installation

4-1. MSR Installation

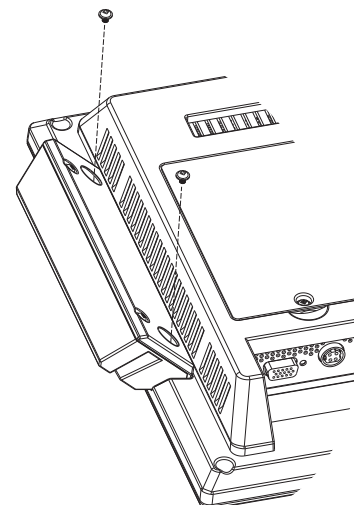
1. Open the MSR dummy cover at the side by loosening screws (x2), and replace the dummy cover with MSR module.



2. Connect MSR module cable to the connector on system side.
3. Attach the grounding cable by fastening the screw (x1) onto system.

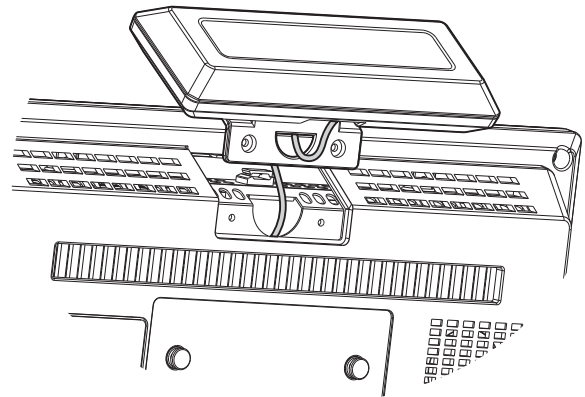


4. Fasten the screws (x2) to secure the module on the system.

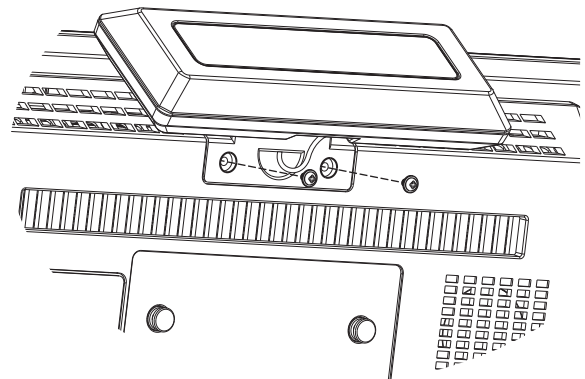


4-2. VFD Installation

1. Open the VFD dummy cover by loosening the screws (x2).
2. Replace the dummy cover with VFD module.
3. Connect VFD module cable to the connector on system side.



4. Fasten the screws (x2) to secure the module on the system.

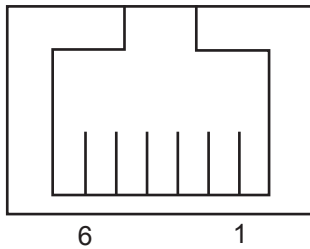


4-3. Cash Drawer Installation for B68/C48 motherboard

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

Below cash drawer installation is applicable for B68 and C48 motherboard.

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

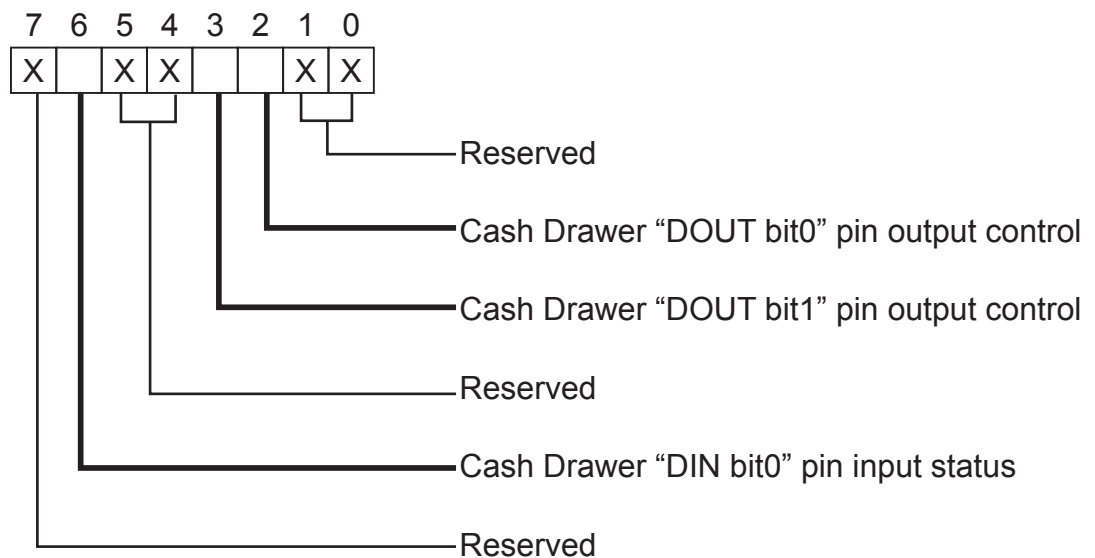
The Cash Drawer Controller use one I/O addresses to control the Cash Drawer.

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 “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

Mainboard	C48	B68
Processor	Intel Pineview D525 dual core 1.8G L2 1M, FSB800Mhz	Intel® Atom™ N270 Processor 1.6GHz L2 512K FSB 533MHz
Chipset	CPU with Graphic built-in + ICH 8M	Intel® 945GSE + ICH 7M
System Memory (double memory slots available)	2 x DDR3 DIMM up to 4GB, FSB 800Mhz	2 x DDR2 DIMM up to 2GB FSB 533MHz
Graphic Memory	Intel GMA 3150 share system memory up to 256MB	Intel GMA 950 share system memory up to 224MB
LCD Touch Panel		
LCD Size	15"	
Brightness (cd/m ²)	250nits	
Maximal Resolution	1024 x 768	
Touch Screen Type	Resistive	
Tilt Angle (Degree)	0°~ 70°	
Storage Device		
Hard Drive	one 2.5" SATA HDD bay	
Flash Memory	optional compact flash function board or SSD	
Expansion		
Mini PCI-E Socket	1	
I/O Ports		
Rear I/O		
USB Port	4 x USB 2.0	
Serial / COM	4 x RJ 45 COM (COM1/COM2 standard RS-232 without power, COM3 /COM4 powered COM with power enable /disable by BIOS setting and +5V/+12V by MB setting. COM3 default +5V/ COM4 default +12V)	4 x COM ports RJ-45 connectors (COM1 & COM2 standard RS-232; COM3 & COM4 pin10 with 5V/12V power by jumper)
Parallel	1	
LAN Port	1 x RJ-45 (10/100/1000Mbps Giga LAN)	
VGA	1 (female, 12V power setting by BIOS/Utility)	1 (female, 12V power setting by jumper)
Cash Drawer Port	1 (female, 12V power setting by BIOS/Utility)	1 x RJ 11 (12V/24V cash drawer)
MIC-in	1	
Line-out	1	
DC Jack	1	
Control / Indicator		
Power Button	1	
Power LED	1	
Peripherals		
MSR	3 Tracks MSR (PS/2)	
Customer Display	Flush mount VFD display 2 x 20 characters (COM)	

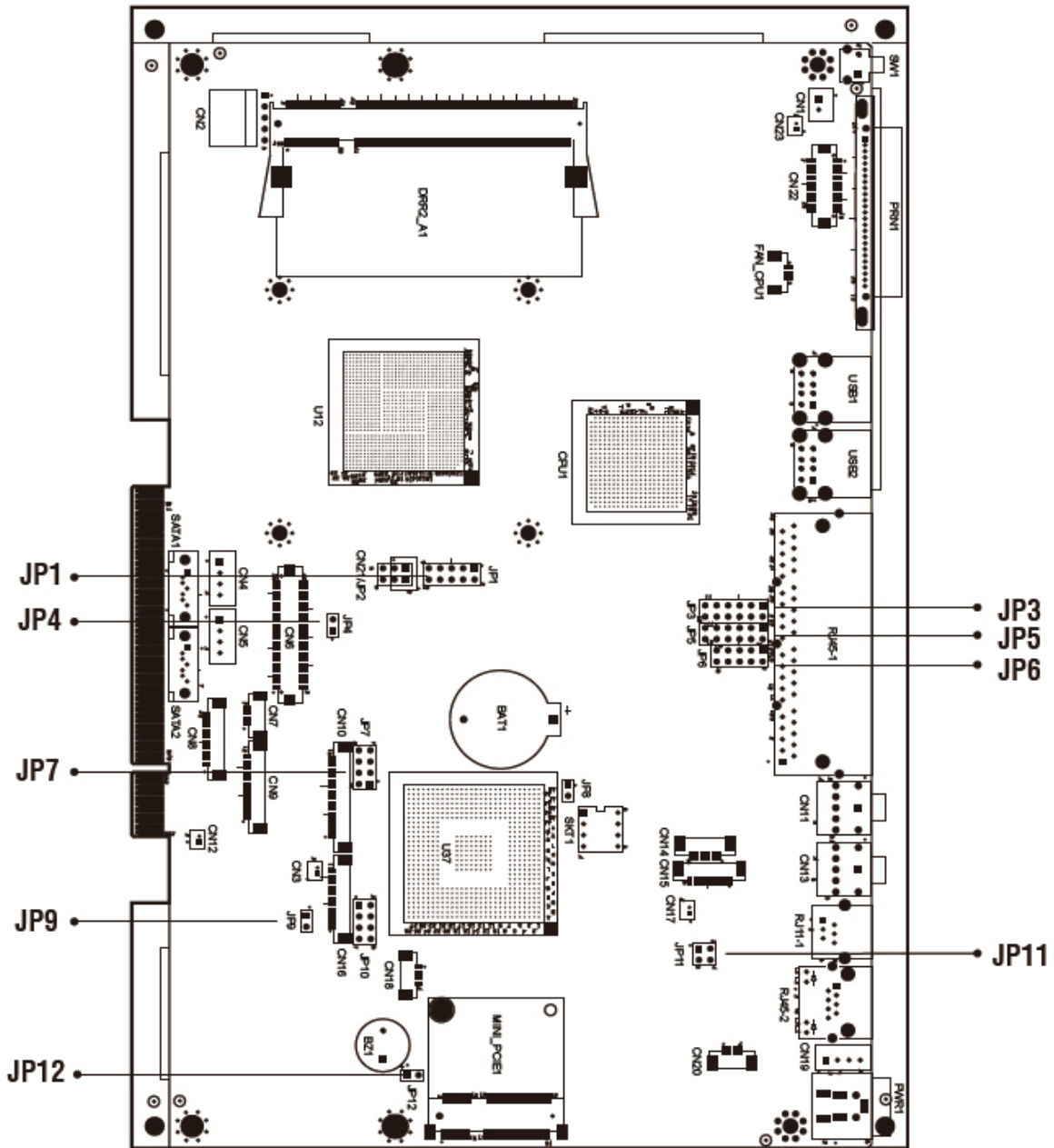
Mainboard	C48	B68
Environment		
EMC & Safety	FCC, Class A, CE, LVD	
Operating Temperature	5°C ~ 35°C (41°F ~ 95°F)	
Storage Temperature	-20°C ~ 55°C (-4°F ~ 140°F)	
Operating Humidity	20% ~ 80% RH non-condensing	
Storage Humidity	20% ~ 85% RH non-condensing	
Dimension (W x D x H)	LCD 0 degree : 380 x 300 x 221.71 mm LCD 70 degree : 380 x 226 x 321 mm	
Weight (N.W./G.W.)	6.6kgs / 7.5kgs	
OS Supported	Windows® XP Professional, Windows Embedded POSReady 2009, Windows XP Embedded, Windows XP Professional for Embedded, WinCE, Windows 7, Linux	

* This specification is subject to change without prior notice.

6. Jumper Setting

6-1. For B68 Motherboard

6-1-1. Motherboard Layout



Version: B68 v1.0

6-1-2. Connectors & Functions

Connector	Purpose
BAT1	CMOS Battery Base (Use CR2023)
CN1	Power On Button
CN3	Power LED
CN4	SATA1 HDD Power Connector
CN5	SATA2 HDD Power Connector
CN6	LCD Interface Connector
CN8	For External Touch Connector
CN9	Inverter Connector
CN10	Card Reader Connector
CN12	LED
CN14	Speaker & MIC Connector
CN15	CD-IN Connector
CN18	USB5
CN20	PS2 KEYBOARD
DDR2_A1	DDR2 SO-DIMM1
DDR2_A2	DDR2 SO-DIMM2
SATA1	SATA Connector
SATA2	SATA Connector
SW1	Power On Button
JP1	CRT Connector
JP3	COM3/COM4 Power Setting
JP4	VGA Power Setting
JP5	COM2 Connector
JP6	COM2 RS232/422/485 Setting
JP7	LCD ID Setting
JP9	Power Mode Setting
JP11	Cash Drawer Power Setting
JP12	System Reset

6-1-3. Jumper Setting

COM2 RS232/485/422 Setting

Function	JP6	JP5																						
▲RS232	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10	<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																				
2	4	6	8	10																				
1	3	5	7	9	11																			
2	4	6	8	10	12																			
RS485	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10	<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																				
2	4	6	8	10																				
1	3	5	7	9	11																			
2	4	6	8	10	12																			
RS422	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10	<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																				
2	4	6	8	10																				
1	3	5	7	9	11																			
2	4	6	8	10	12																			

COM3 & COM4 Power Setting

Function		JP3												
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

Cash Drawer Power Setting

Function	JP11				
+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 (for 24V Cash Drawer)	<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				

Power Mode Setting

Function	JP9		
▲ 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			

VGA Power Setting

Function	JP4		
▲ 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			

System Reset

Function	JP12		
▲ System Normal	<table border="1"> <tr> <td>1</td> </tr> <tr> <td>2</td> </tr> </table>	1	2
1			
2			
System Reset	<table border="1"> <tr> <td>1</td> </tr> <tr> <td>2</td> </tr> </table>	1	2
1			
2			

▲ = Manufacturer Default Setting

LCD ID Setting

Panel#	Resolution	LVDS		Output Interface	JP7								
		Bits	Channel										
1	1366 x 768	24	Single	LVDS Panel	<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 900	24	Dual	LVDS Panel	<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 Panel	<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										
5	1024 x 768	24	Single	LVDS Panel	<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 Panel	<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										
7	800 x 600	24	Single	LVDS Panel	<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										
9	1024 x 768	18	Single	LVDS Panel	<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										
11	800 x 600	18	Single	LVDS Panel	<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										
12	800 x 600	18	Single	LVDS Panel	<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										
				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:

Panel ID#12 is specialized for Sharp 12.1" LQ121S1LG41/LQ121S1LG42 panel.

1
2

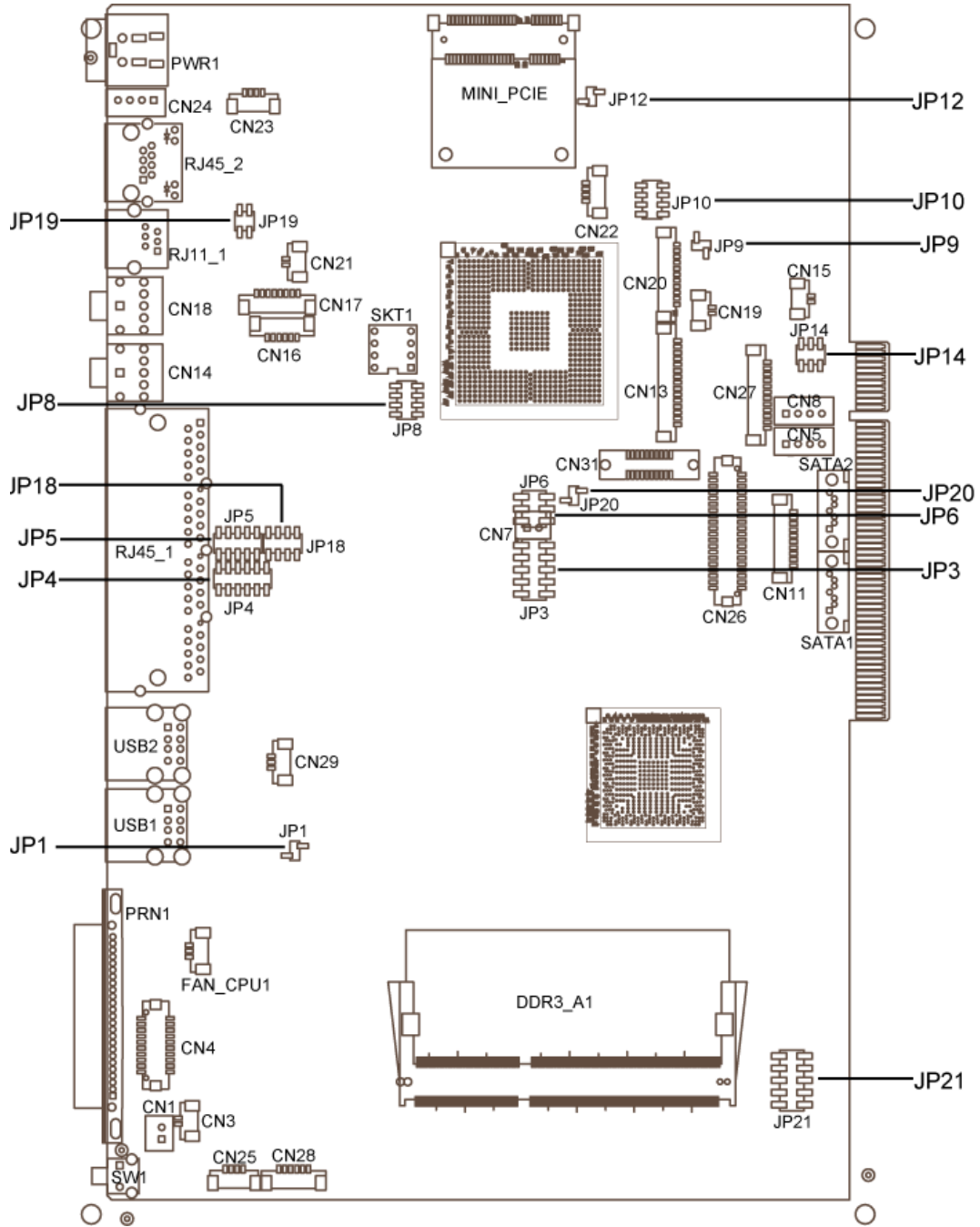
 Jumper open

1
2

 Jumper short

6-2. For C48 Motherboard

6-2-1. Motherboard Layout



Version: C48 v2.1

6-2-2. Connectors & Functions

Connector	Purpose
CN1	Power Button Connector
CN3	Printer Port Reset
CN4	Printer Port
CN5/8	HDD Power
CN11	COM5 For Touch
CN13	Card Reader Connector
CN14	Line out
CN15	HDD LED
CN16	Speaker & MIC
CN17	CD IN
CN18	MIC IN
CN19	Power LED
CN20/JP10	System Indicator
CN21	LAN LED
CN22	USB Port
CN23	PS2 KEYBOARD
CN24	+19V DC IN
CN25	For GM2621 Debug
CN26	LVDS
CN27	Inverter Connector
CN28	Key Pad
CN29	System Fan
DDR3_A1	DDR3 SO-DIMM1
SATA1	SATA Connector
SATA2	SATA Connector
SW1	Power Button
JP1	CMOS Operation Mode
JP3/6	VGA Port
JP4/5	COM2 RS232/485/422 Setting
JP8	LCD ID Setting
JP9	Power Mode Setting
JP12	System Reset
JP14	Inverter Selection
JP18	COM3/4 Power Setting
JP19	Cash Drawer Power Setting

6-2-3. Jumper Setting

COM2 RS232/485/422 Setting

Function	JP5	JP4																						
▲ RS232	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10	<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																				
2	4	6	8	10																				
1	3	5	7	9	11																			
2	4	6	8	10	12																			
RS485	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10	<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																				
2	4	6	8	10																				
1	3	5	7	9	11																			
2	4	6	8	10	12																			
RS422	<table border="1"> <tr><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> <tr><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> </table>	1	3	5	7	9	2	4	6	8	10	<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																				
2	4	6	8	10																				
1	3	5	7	9	11																			
2	4	6	8	10	12																			

COM3 & COM4 Power Setting

COM3 and COM4 can be set to provide power to your serial device.

The voltage can be set to +5V or 12V by setting jumper JP18 on the motherboard.

When enabled, the power is available on pin 10 of the RJ45 serial connector..

If you use the serial RJ45 to DB9 adapter cable, the power is on pin 9 of the DB9 connector.

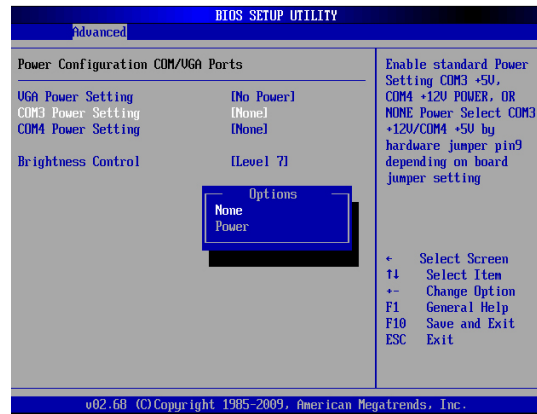
By default, the power option is disabled in the BIOS.

BIOS/Utility setup

1. Press key to enter BIOS SETUP UTILITY when system boot up.
2. Find tab "Advanced".
3. Select "Power Configuration COM/VGA Ports" and press <Enter> to go to sub screen.



4. To switch on the power, select "Power". Please save the change before exiting BIOS so as to go for physical jumper adjustment.



COM3/COM4 Jumper setup

Function		JP18								
COM3	▲ +5V	<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							
+12V	<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							
COM4	+5V	<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							
▲ +12V	<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							

Cash Drawer Power Setting

Function	JP19				
+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				
▲ +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				

Power Mode Setting

Function	JP9		
▲ 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			

▲ = Manufacturer Default Setting

System Indicator

Function	JP10								
▲ Disable	<table style="border-collapse: collapse; text-align: center;"> <tr> <td style="border: 1px solid black; padding: 2px;">1</td> <td style="border: 1px solid black; padding: 2px;">3</td> <td style="padding: 2px;">5</td> <td style="padding: 2px;">7</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">2</td> <td style="border: 1px solid black; padding: 2px;">4</td> <td style="padding: 2px;">6</td> <td style="padding: 2px;">8</td> </tr> </table>	1	3	5	7	2	4	6	8
1	3	5	7						
2	4	6	8						
Enable	<table style="border-collapse: collapse; text-align: center;"> <tr> <td style="padding: 2px;">1</td> <td style="padding: 2px;">3</td> <td style="border: 1px solid black; padding: 2px;">5</td> <td style="border: 1px solid black; padding: 2px;">7</td> </tr> <tr> <td style="padding: 2px;">2</td> <td style="padding: 2px;">4</td> <td style="border: 1px solid black; padding: 2px;">6</td> <td style="border: 1px solid black; padding: 2px;">8</td> </tr> </table>	1	3	5	7	2	4	6	8
1	3	5	7						
2	4	6	8						

Inverter Selection

Function	JP14						
▲ CCFL	<table style="border-collapse: collapse; text-align: center;"> <tr> <td style="padding: 2px;">1</td> <td style="padding: 2px;">3</td> <td style="border: 1px solid black; padding: 2px;">5</td> </tr> <tr> <td style="padding: 2px;">2</td> <td style="padding: 2px;">4</td> <td style="border: 1px solid black; padding: 2px;">6</td> </tr> </table>	1	3	5	2	4	6
1	3	5					
2	4	6					
LED	<table style="border-collapse: collapse; text-align: center;"> <tr> <td style="border: 1px solid black; padding: 2px;">1</td> <td style="border: 1px solid black; padding: 2px;">3</td> <td style="padding: 2px;">5</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">2</td> <td style="border: 1px solid black; padding: 2px;">4</td> <td style="padding: 2px;">6</td> </tr> </table>	1	3	5	2	4	6
1	3	5					
2	4	6					

CMOS Operation Mode

CMOS Reset

To clear the CMOS,

1. Remove the power cable from the system.
2. Open the system, and set the 'CMOS Operation jumper' from 'CMOS Normal' to 'CMOS Reset'. (refer to the jumper shown below)
3. Connect the power cable to the system, and **power on the system:**
 in ATX mode: press the power button and it will fail power on
 in AT mode: turn on system power
4. Remove the power cable from the system.
5. Return the "CMOS Operation mode" jumper setting from "CMOS Reset" to "CMOS normal".
6. Connect the power cable and power on the system.

Function	JP1		
▲ CMOS Normal	<table style="border-collapse: collapse; text-align: center;"> <tr> <td style="border: 1px solid black; padding: 2px;">1</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">2</td> </tr> </table>	1	2
1			
2			
CMOS Reset	<table style="border-collapse: collapse; text-align: center;"> <tr> <td style="border: 1px solid black; padding: 2px;">1</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">2</td> </tr> </table>	1	2
1			
2			

▲ = Manufacturer Default Setting

LCD ID Setting

Several configurations are applied to different sizes of panel. Please refer to the followings to complete relevant settings.

Physical Jumper Setting

Resolution	LVDS		Output Interface	JP8
	Bits	Channel		
800 x 600	24	Single	1st: LCD Panel 2nd: VGA port	1 3 5 7 2 4 6 8
1024 x 768	24	Single		1 3 5 7 2 4 6 8
1366 x 768	24	Single		1 3 5 7 2 4 6 8
800 x 600	18	Single		1 3 5 7 2 4 6 8
*800 x 600	18	Single		1 3 5 7 2 4 6 8
1024 x 768	18	Single		1 3 5 7 2 4 6 8

***remark:** specialized for Sharp 12.1" LQ121S1LG41/LQ121S1LG42 panel.

1 Jumper open
 2 Jumper short

2nd VGA Power Setting

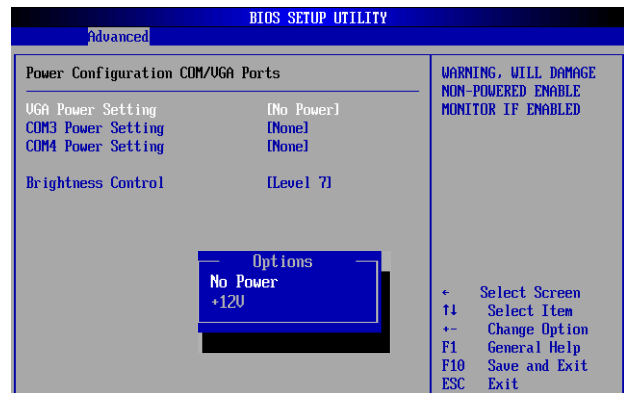
VGA port power must be on through BIOS/Utility for default is "No Power".

BIOS/Utility setup

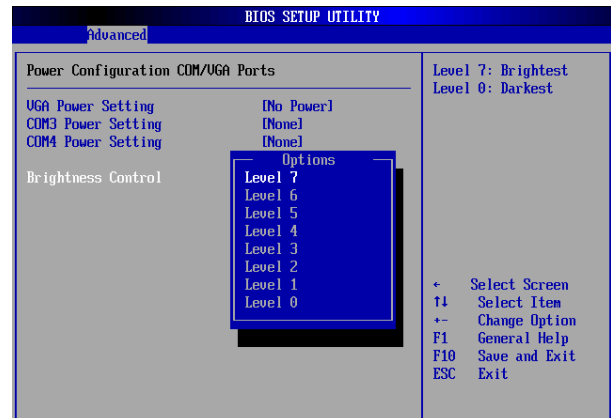
1. Press key to enter BIOS SETUP UTILITY when system boot up.
2. Find tab "Advanced".
3. Select "Power Configuration COM/VGA Ports" and press <Enter> to go to sub screen.



- To switch on the power, select "+12V". Please save the change before exiting BIOS to avoid data lost.



- To switch brightness level, select brightness control and choose level. Please save the change before exiting BIOS to avoid data lost.



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”.