Version 1.0 Oct. 2012

User Manual

15" True Flat All-in-one POS Terminal with Resistive touch (CPU: CedarView)

POS System

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Manual Version 1.0
Part Number:

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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

CE 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.

Battery Caution

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

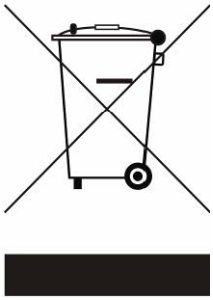
Safety Caution

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 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:

Revision	Date	Description
V1.0	Oct, 2012	● Release (C56 M/B)

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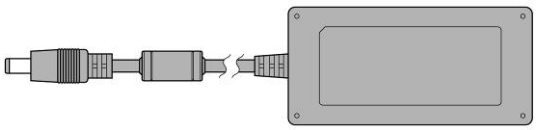
1 Item Checklist

Take the system unit out of the carton. Remove the unit from the carton by holding it by the foam inserts. The following contents should be found in the carton:

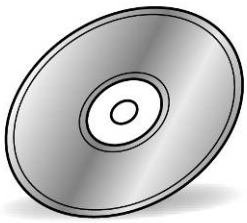
1-1 Standard Items

a.

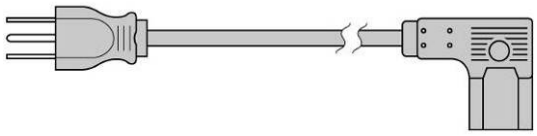
c.



b.



d.



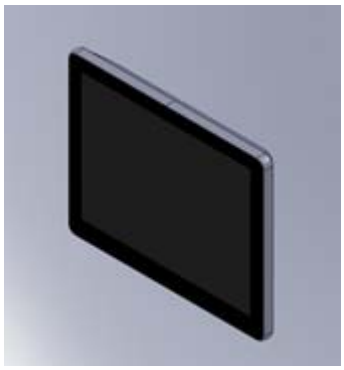
e.

a. System
b. Driver CD
c. Power Adapter (65W)
d. Power Cable
e. COM-RJ45 Cable (x2)

1-2 Optional Items

a.

d.



a. MSR Module
b. Second Display

2 System View

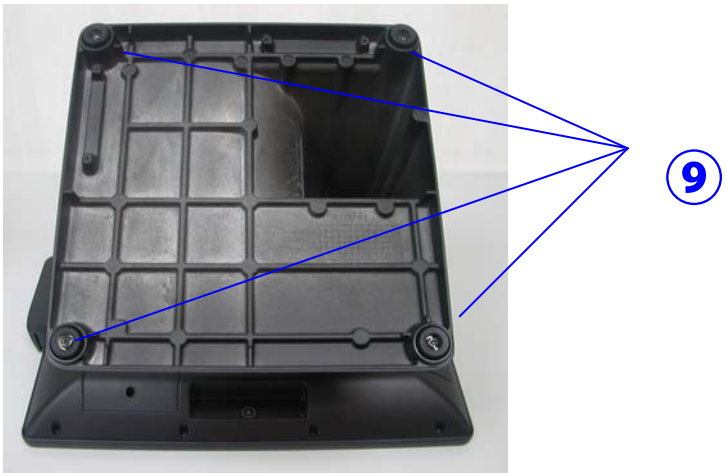
2-1 Front View

Number	Description
1	Touch Screen
2	MSR Module (Option)

2-2 Rear View

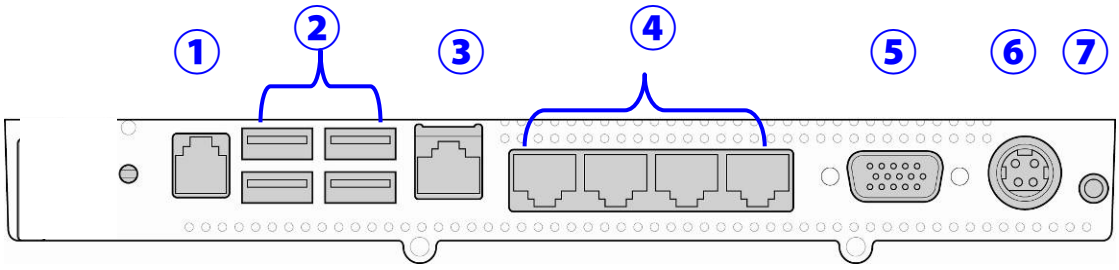
Number	Description
3	Cable Cover
4	Stand/Wall Mount Kit Installing Place
5	Stand
6	Use the power switch to turn the system power ON or OFF.
7	Speaker x1
8	USB x2

2-3 Bottom View



Number	Description
9	Stand Pad

2-4 I/O View



Number	Description
1	Cash Drawer
2	USB x 4
3	LAN
4	COM1~4 (from left to right)
5	VGA
6	Power Jack for System
7	Power Button

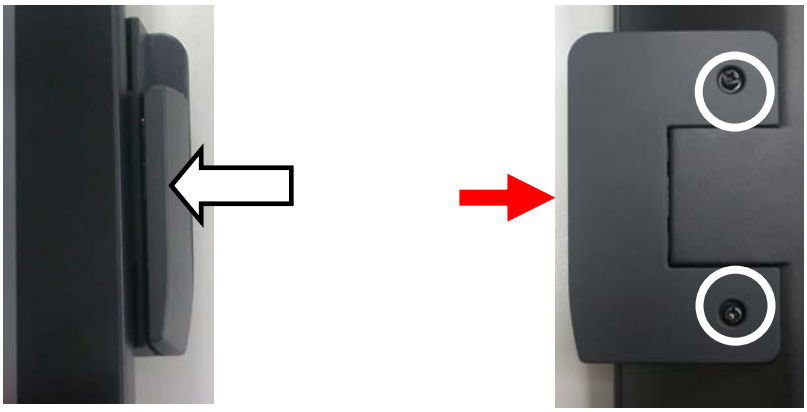
Note: The maximum current that can be drawn from each COM port is 500 mA.

3 Peripheral Installation

The peripheral and modules units provided are tested and can be supplied at your request.

3-1 MSR

Components of MSR Kit:



1. Slide the MSR into the right position of the System.
2. Fasten the screws (x2).

3-2 Second Display （USB Interface）

Components of Second Display Kit:

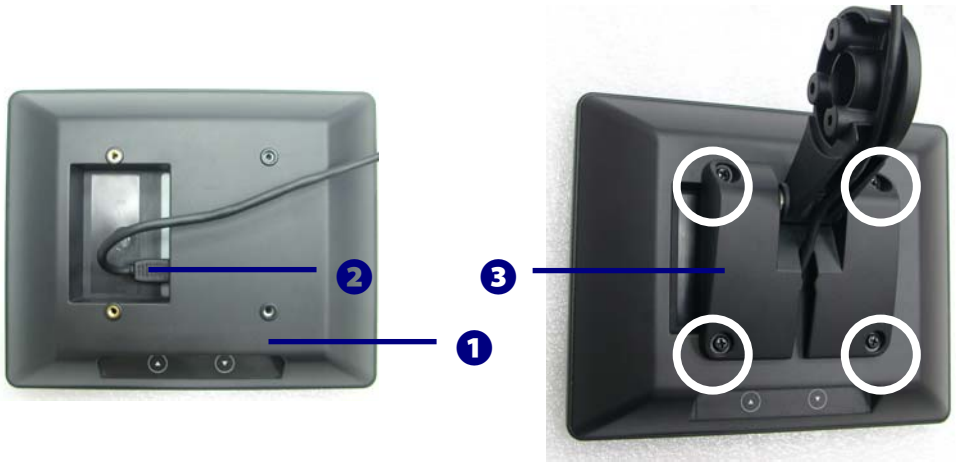
Second Display

Metal Bracket

USB Cable

Screws

Screws



Fix the parts of Second Display modules as steps ❶ → ❷ → ❸

1. As above picture shows. (detail steps as below)

❶ Put the second display upside down.

❷ Connect the USB cable to the Second Display Module

❸ Fasten the screws (x4) to fix metal bracket with the system.

2. Fasten the scrws (x3) to fix the Second Display moudle with the System.
3. Connect the USB cable to the System.
4. Finish.

3-3 Second Display（VGA Interface with POWER +12V）

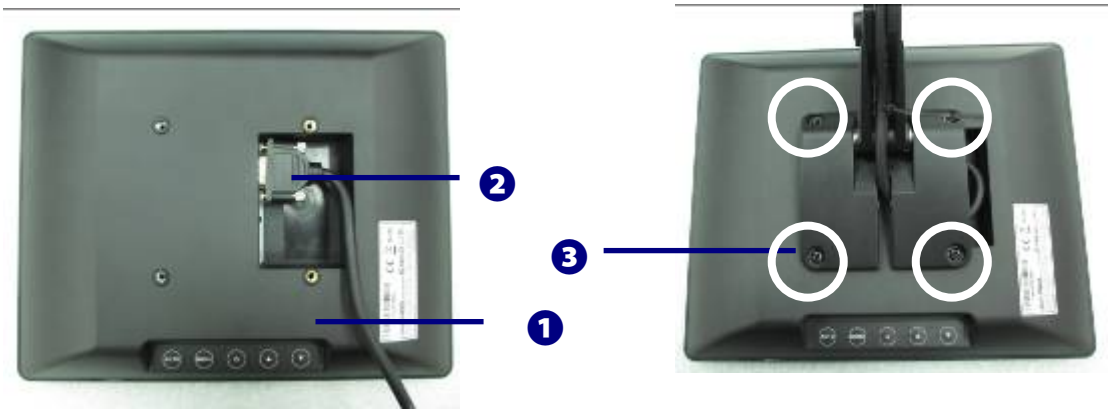
Components of Second Display Kit:

Second Display

Metal Bracket

VGA Cable

Screws



Fix the parts of Second Display modules as steps ❶ → ❷ → ❸

1. As above picture shows. (detail steps as below)

❶ Put the second display upside down.

❷ Connect the VGA cable to the Second Display Module

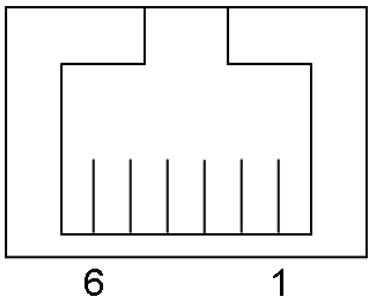
❸ Fasten the screws (x4) to fix metal bracket with the system.

2. Fasten the scrws (x3) to fix the Second Display moudle with the System.
3. Connect the VGA cable to the System.
4. Finish.

3-4 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

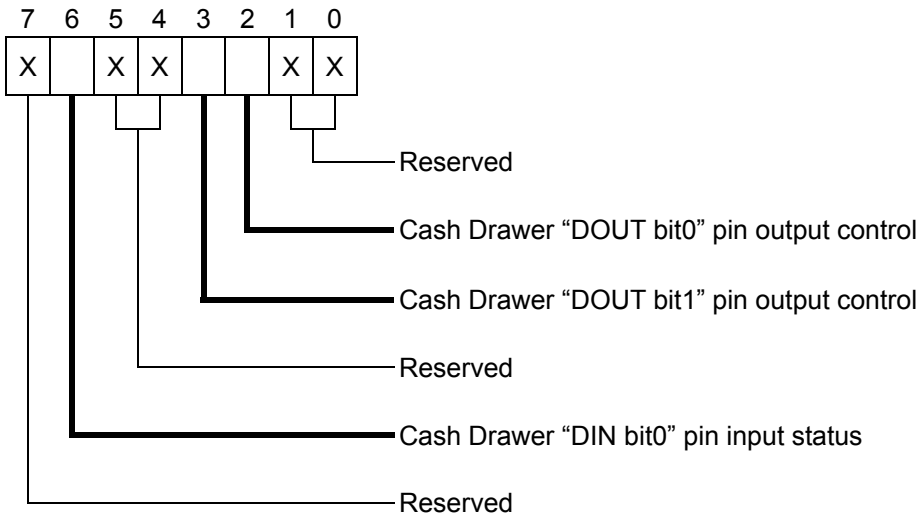
The Cash Drawer Controller use one I/O addresses to control the Cash Drawer.

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 “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

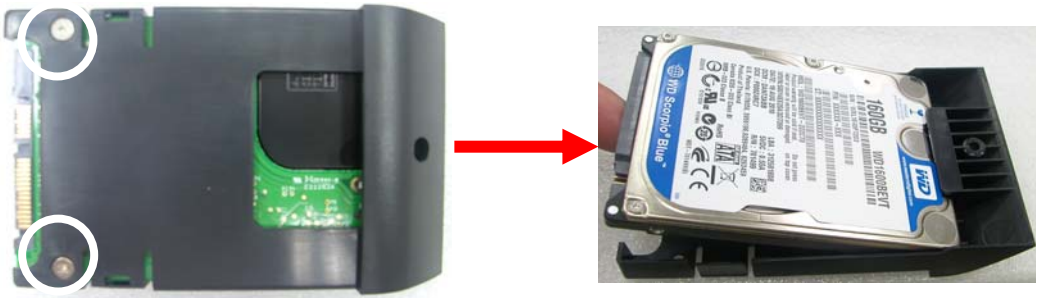
Command	Cash Drawer
O 48C 04	Opening
O 48C 00	Allow to close
➢ Set the I/O address 48Ch bit2 =1 for opening Cash Drawer by “DOUT bit0” pin control. ➢ Set the I/O address 48Ch bit2 = 0 for allow close Cash Drawer.	

Command	Cash Drawer
I 48C	Check status
➢ 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.	

4 System Assembly & Disassembly

4-1 Replace the HDD

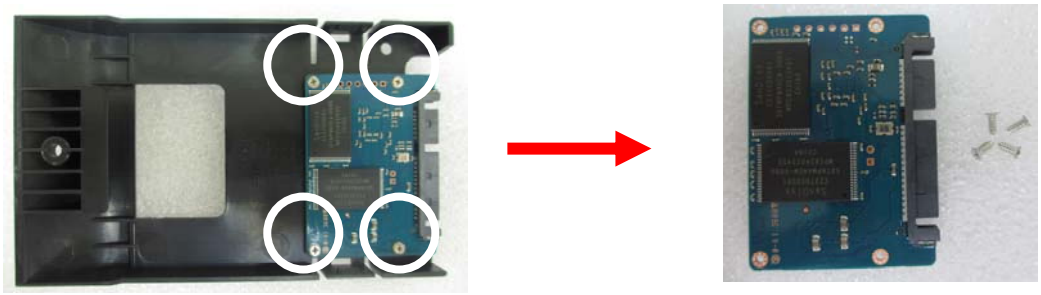
1. Unfasten the screw (x1).
2. Slide out the HDD Cover.



3. Unfasten the screws (x2)
4. Separate the HDD from the metal bracket.

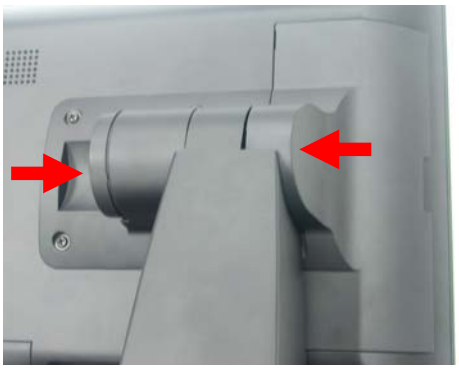
Replace the SSD （Option）

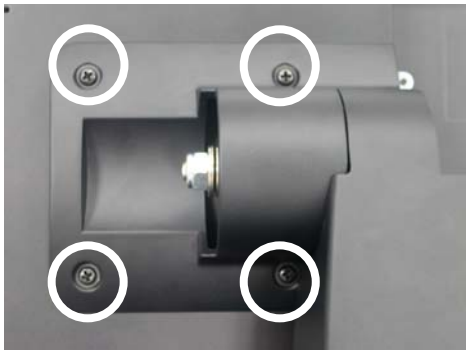
1. Unfasten the screw (x1).
2. Slide out the SSD Cover.



3. Unfasten the screws (x4)
4. Separate the SSD from the metal bracket.

4-2 Remove the System Stand

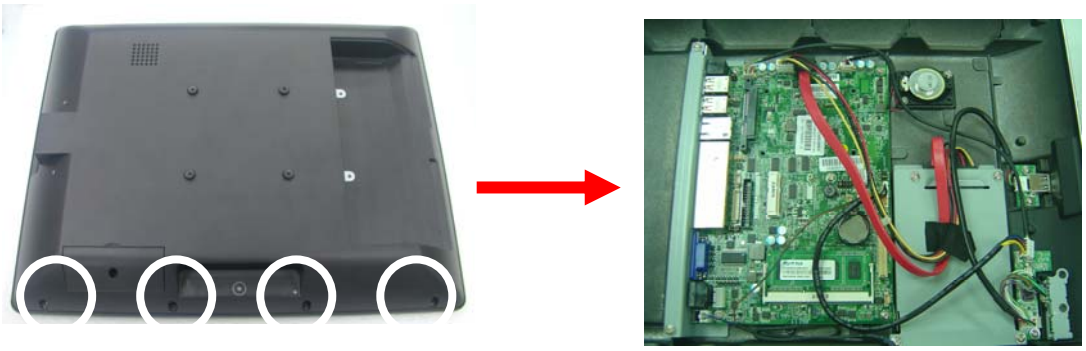




1. Open the hinge cap and cable cover.
2. Release the screws (x4) for the VESA mounting plate and the LCD rear cover.

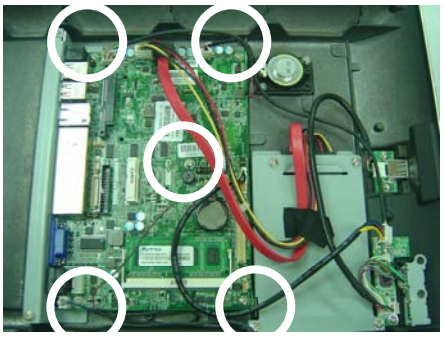
3. Remove the stand.

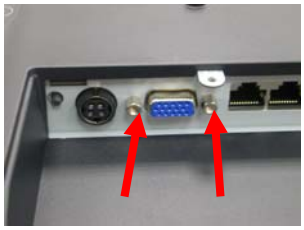
4-3 Remove the LCD Rear Cover



1. Remove the system stand (Chapter 4-2).
2. Unfasten the screws (x4) to separate the LCD Rear Cover.
3. **Gently** flip up the Rear cover.
   Note: Please release all the connectors on the Motherboard before you completely open the Rear cover.

4-4 Replace the Motherboard



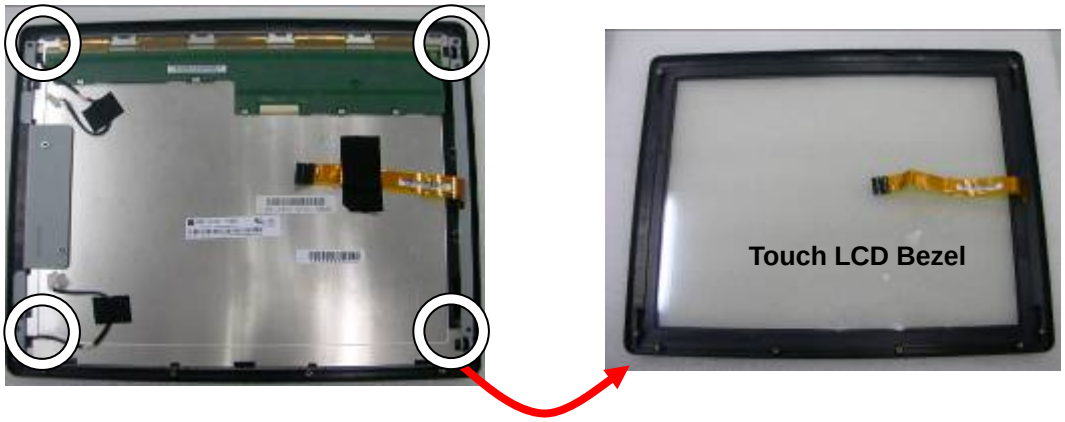


1. To open the LCD rear cover first as steps in Chapter 4-3.
2. Unfasten the screws (x5) on the Motherboard.
3. Unfasten the hex screws (x2) to release the I/O metal panel from the Motherboard.

4-5 Replace the Inverter Board

1. To open the LCD rear cover first (see Chapter 4-3).
2. Unfasten the screws (x2).
3. Release the backlight connectors (x2).

4-6 Replace the LCD Panel



1. Remove the LCD rear Cover (Chapter 4-3)
2. Release all the connectors on the Motherboard (Chapter 4-3)
3. Release inverter cables & touch cables (Chapter 4-5 and 4-6)
4. Remove the screws (x4) to separate the Touch LCD bezel from the LCD Panel Module.

5. Release the screws (x4) that fix the sheet metal bracket to separate it from the LCD Panel.

5 Specification

Model Name	15" True Flat All-in-one POS Terminal
Motherboard	C56
CPU Support	Intel CedarView D2550 processor 1.86GHz 1MB Cache
Chipset	NM10
System Memory	1 x DDR3 SO-DIMM socket up to 4G, FSB 1066MHz
Graphic Memory	Intel GMA 3650 (Gfx frequency up to 640MHz), DX9
LCD Touch Panel	
LCD Size	15” TFT LCD
Brightness	250nits
Maximal Resolution	1024 x 768
Touch Screen Type	Resistive
Tilt Angle	4° ~ 84°
Storage	
HDD	One 2.5" SATA HDD bay
Flash memory	SSD Solid State Disk (option)
Expansion	
PCI-E Socket	1
External I/O Ports	
USB	4+2+1 ports (V2.0)
Serial / COM	4 x RJ-45 COM connectors (COM1 & COM2 standard RS-232; COM3 & COM4 pin10 with 5V /12V power by BIOS)
LAN (10 /100 / 1000)	1 x RJ45
DC Jack	1
2nd VGA	1 (DB-15 Female, power by BIOS configuration)
Cash Drawer Port	1 (12V/24V cash drawer power by BIOS configuration)
Audio	
Speaker	1 x 2W speakers
Power	
Power Adapter	65W, 19V/3.4A
Control / Indicator	
Power Button	1
Indicator LED	1
Peripheral	
MSR module (option)	MSR (USB)
Second display (option)	8.4” 2nd display without touch

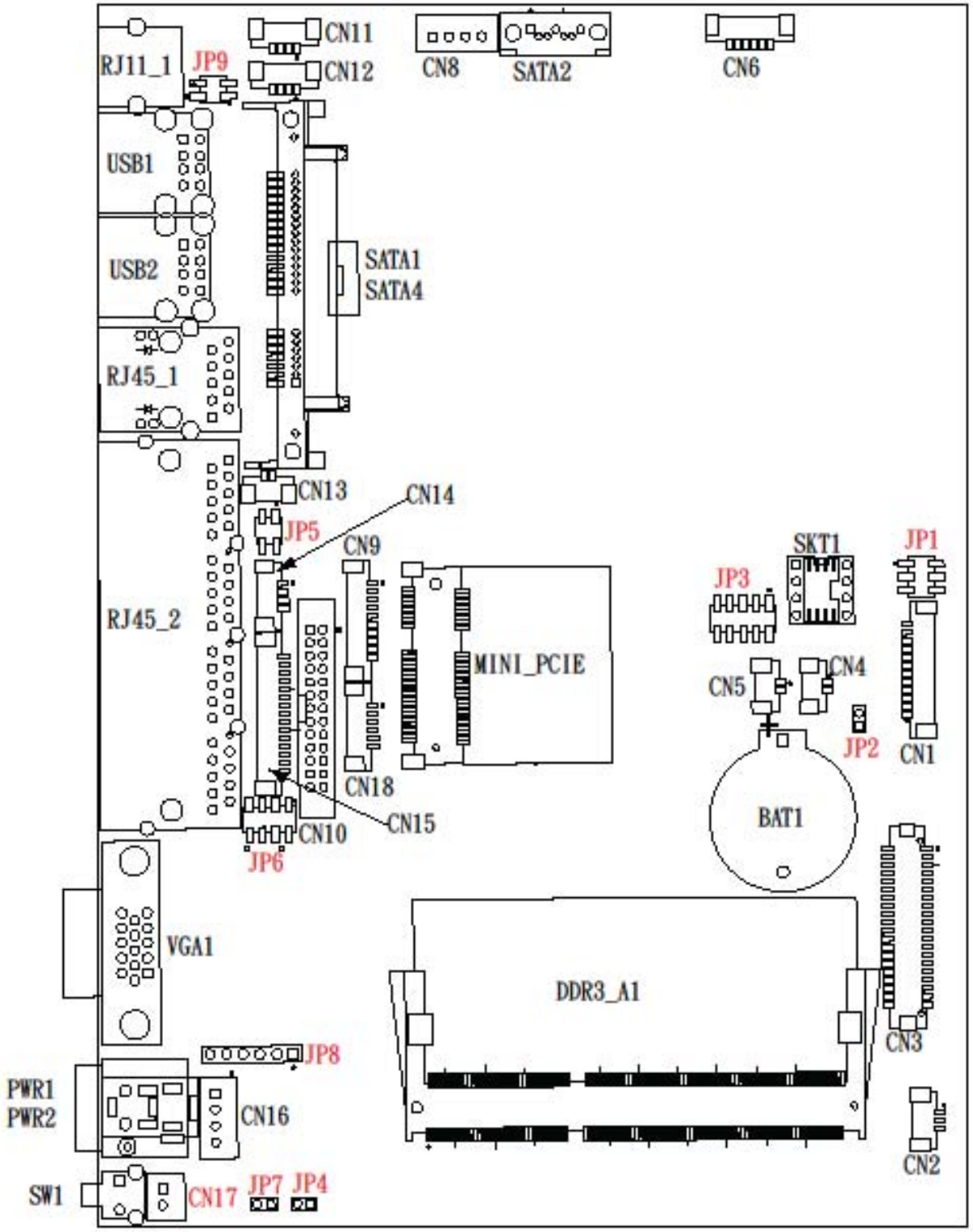
Environment	
EMC & Safety	FCC/CE Class A, LVD
Operating Temperature	5℃ ~ 35℃ (41°F ~ 104°F)
Storage Temperature	-20℃ ~ 55℃ (-4°F ~ 131°F)
Operating Humidity	20% ~ 80% RH non condensing
Storage Humidity	20% ~ 85% RH non condensing
Dimension (W x D x H)	361.6 x 220 x 339.3 mm
Weight (N.W. / G.W.)	5.8kgs / 6.8kgs
Mounting	100mm x100mm VESA Standard holes
OS Support	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 Settings

6-1 C56 Motherboard

6-1-1 Motherboard Layout

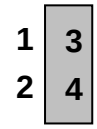
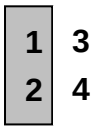


6-1-2 Connectors & Functions

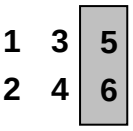
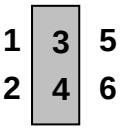
Connector	Function
CN1	LVDS Inverter Connector
CN2	System FAN Connector
CN3	LVDS Connector
CN4	Power LED Connector
CN5	SATA LED Connector
CN6	Speaker & MIC Connector
CN8	SATA Power Connector
CN9	COM5(Touch) Connector
CN10	Printer Port Connector
CN11/12	USB Port(Internal)
CN13	LAN LED Connector
CN14	PS2 Keyboard Connector
CN15	Card Reader Connector(COM6)
CN16	+19V DC IN Connector
CN17	Power button(Internal)
CN18	Front I/O Connector(USB/power LED/ Power button)
PWR 1/2	+19V DC JACK
RJ11_1	Cash Drawer Connector
RJ45_1	LAN Connector
RJ45_2	COM1/ COM2/ COM3/ COM4
DDR3_A1	DDR3 SO-DIMM
SATA1/2/4	SATA Connector
SKT1	BIOS Connector
USB1	USB6 USB7
USB2	USB4 USB5
VGA1	VGA Connector
SW1	Power Button
JP1	Inverter Select
JP2	CMOS Operation Mode
JP3	LCD ID Setting
JP4	H/W Reset
JP5	COM2 Power Setting
JP6	COM3/COM4 Power Setting
JP7	Auto Button Setting
JP8	Touch Connector
JP9	CASH DRAWER Power Setting

6-1-3 Jumper Settings

Cash Drawer Power Setting

Function	JP9
▲19V	
12V	

Inverter Selection

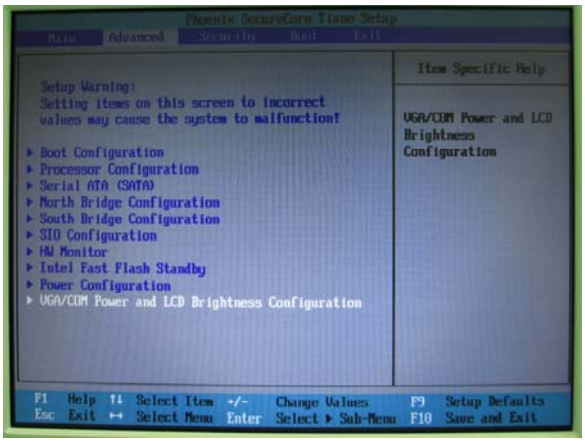
Function	JP1
▲CCFL	
LED	

COM2/COM3/COM4 Power Setting

COM2, 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 JP5 and JP6 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.

Enable COM2/ COM3/COM4 power in BIOS

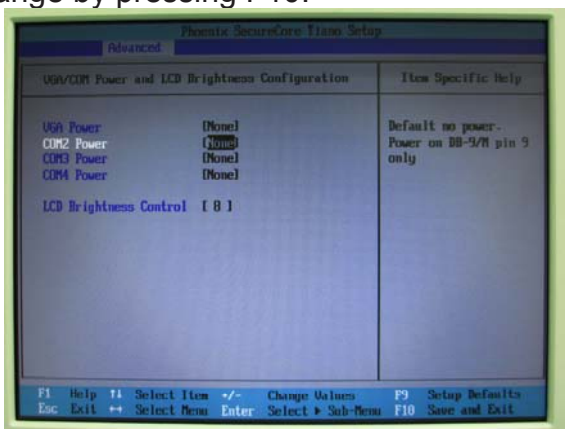
1.Power on the system, and press the <DEL> key when the system is booting up to enter the BIOS Setup utility.



2.Select the Advanced tab.

3.Select **VGA/COM Power and LCD Brightness Configuration** Ports and press <Enter> to go to display the available options.

4.To enable the power, select COM2 , COM3 or COM4 Power setting and press <Enter>. Save the change by pressing F10.



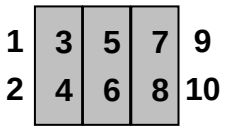
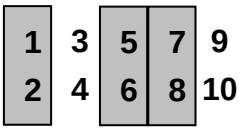
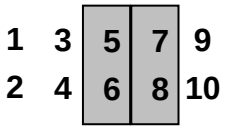
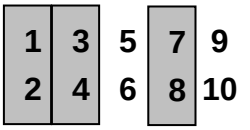
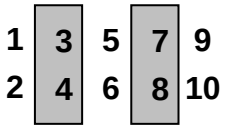
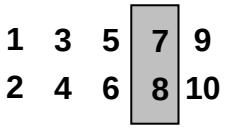
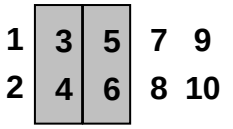
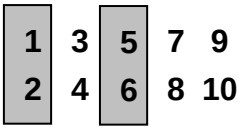
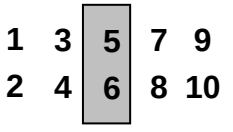
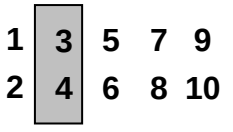
COM2 Power Setting

Function		JP5
▲No Power		1 3 2 4
COM2	5V	**1** 3 **2** 4
	12V	1 **3** 2 **4**

COM3/COM4 Jumper Setting

Function		JP6
COM3	▲5V	**1** 3 5 7 **2** 4 6 8
	12V	1 **3** 5 7 2 **4** 6 8
COM4	5V	1 3 **5** 7 2 4 **6** 8
	▲12V	1 3 5 **7** 2 4 6 **8**

LCD ID Setting

Panel#	Resolution	LVDS		Output Interface	JP3
		Bits	Channel		
1	800X600	18	Single		
2	800X600	18	Single		
3	800X600	24	Single		
4	1024X600	18	Single		
5	1024X768	18	Single		
6	1024X768	24	Single	1st: LCD Panel	
7	1280X1024	24	Dual		
8	1366X768	18	Single		
9	1366X768	24	Single		
10	1440X900	24	Dual		

11	1920X1080	24	Dual		**1 3 5 7 9** **2 4 6 8 10**
				CRT	**1 3 5 7** **9** **2 4 6 8** **10**

1
2 **Jumper open**

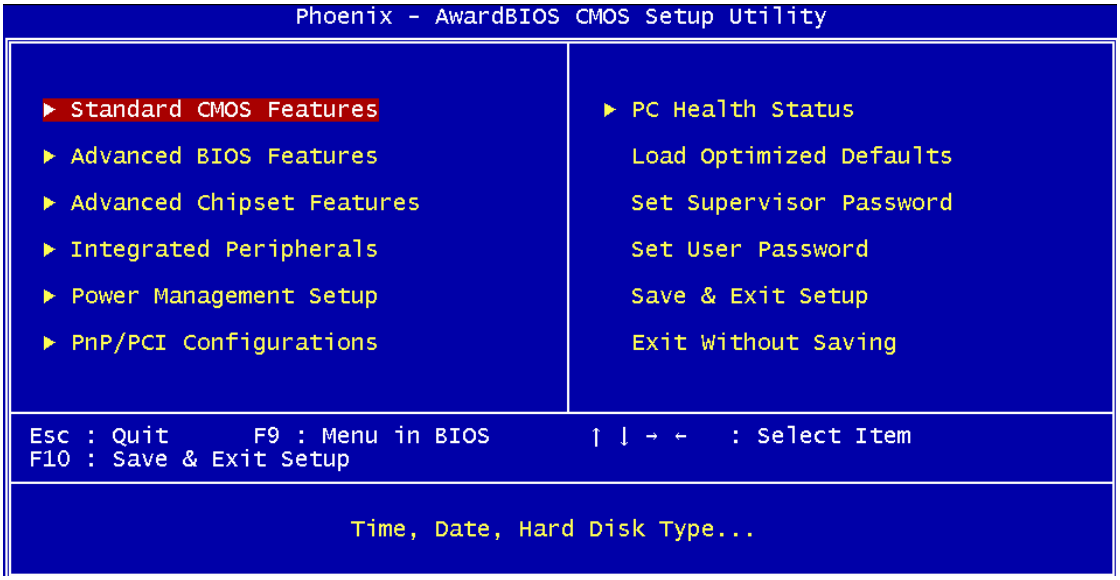
1
2 **Jumper short**

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.

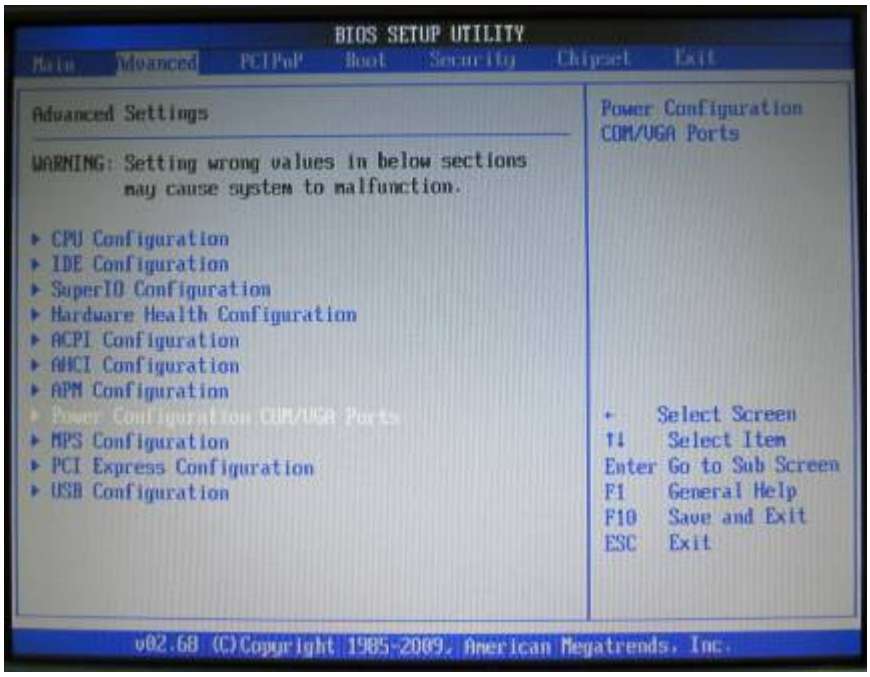
Save & exit setup
Save CMOS value changes to CMOS and exits setup.

Exit without saving
Ignores all CMOS value changes and exits setup.

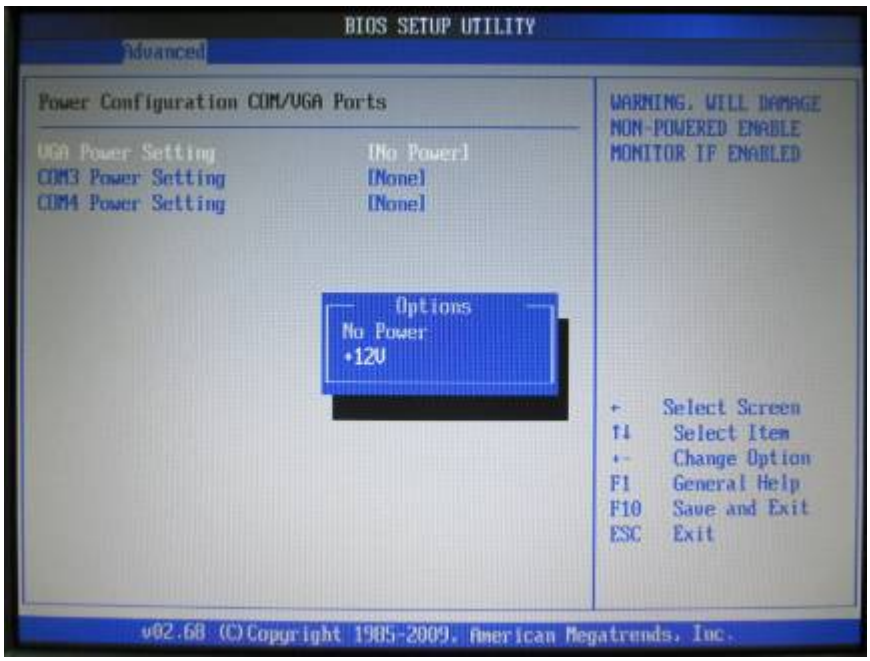
7-1 VGA with 12V Setting

1、 Turn on power than click “Del” for BIOS SETUP

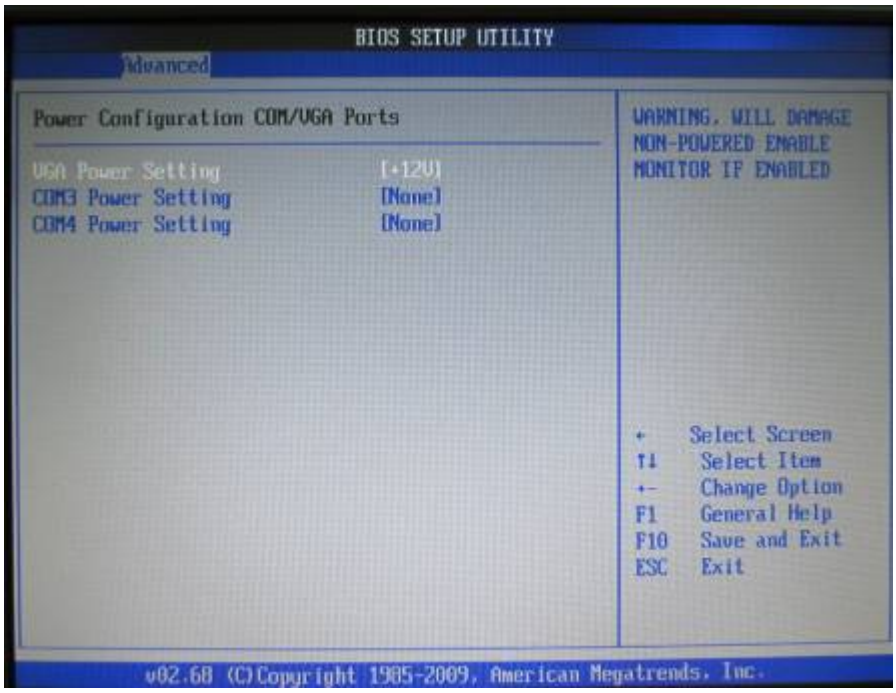
2、 Select Power Configuration COM/VGA Ports



3、 Select VGA Power Setting



4、Change No Power to +12V



5、Press F10 to save

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”.