Supermarket Model

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Dear Valued Customer,

Thanks for your business!
In our constant endeavor to offer you the best in Retail Technology, E-PoS International have always been introducing products of high standards designed to meet all the Retail needs,

We assure you that the product enclosed is being thoroughly tested and is assured quality. In order to ease the installation of E-PoS hardware; we have enclosed the Technical documentation, complete set of Drivers, Installation Manual and FAQ's for your reference. Also enclosed is the Warranty Card, which outlines our commitment towards our product. Should there be any technical queries to be answered, we have a highly trained staff to take care of all your after sales service needs.

Assuring you of our best Service at the times.
Yours truly,

Managing Director.

Do's & Don'ts

(Integrated circuits on All E-PoS System's are sensitive to static electricity; hence to avoid damaging any of the Components on the System, Read these following precautions and other instructions before getting started and save them for later reference).

i. Do not remove the computer from the anti-static Packaging until you are ready for installation.

ii. Make sure the voltage of the power source is correct before connecting the computer to the power outlet, (110~220 volts).

iii. Connect Rubber Legs provided to avoid damaging Cabinet Cover and Door, (where provided).

iv. Do not change any Hardware Devices online when System or the device is on and running, because the sudden surge of power may ruin any sensitive components. Also make sure the computer is properly grounded.

v. Turn off the computer before cleaning. Always clean with a damp or dry cloth only. Do not spray any liquid cleaner on screen directly.

vi. The power outlet socket used to plug in the computer power cord must be located near the system and easily accessible. Do not use outlets on the same circuit of the system that regularly switch on and off.

vii. If the computer is sharing an extension cord with other devices, make sure the total ampere rating of the devices plugged into the extension cord does not exceed the cord's ampere rating.

viii. Do not expose the power cord, extension cord and power outlet to moisture.

ix. The openings on the computer enclosure are for the cabin ventilation to prevent the computer from overheating. DO NOT COVER THE OPENINGS.

x. Do not connect any devices to Powered COM Ports (5V/12V), other then the devices that take power from Powered COM Ports to avoid damaging the Device.

xi. Any Hardware upgrades or changes to be made are to be informed, and do not tamper with Serial Nos. and Warranty Seals, to avoid Warranty being Void.

xii. If the computer is not equipped with an operating system. An operating system must be loaded first before installing any software into the computer.

xiii. If the computer is equipped with a touch panel, avoid using sharp objects to operate the touch panel. Scratches on the touch panel may cause mal-calibration or non-function to the panel.

xiv. The LCD panel display is not subject to shock or vibration. When assembling the computer, make sure it is securely installed.

xv. Choose an Ideal dust free location and reliable surface for the System with proper ventilations.

Accessories

Hardware Description	List of Accessories per Hardware
1. **E-PoS Magnum System**	- Power Cord, Driver Bank CD, Keys.
2. **12" LCD Color Monitor**	– Manual, Power Cord, VGA Cable, Stereo Cable.
3. **Star SP 542 Printer**	– Power Cord, Printer Interface Cable, Ribbon
4. **ECD 7303**	– VFD & Cable, Base Unit, Poles, Adapter, Serial Cable.
5. **ECH 460A Cash Drawer**	– Keys (2Nos).
6. **Programmable Keyboard 78 Keys.**	– Floppy Disk, Keys (3Nos), Numeric Keys, Key Caps, Expansion Keys, Converter (PS/2).

General Information

The **E-POS MAGNUM** is an Intel Celeron / Pentium III (Socket 370) Multimedia ATX motherboard with LCD/VGA controller, Ethernet 100/10, AC97 sound, and IDE flash disk. By integrating single chip, SiS630ST, the E-POS MAGNUM provides a high performance / low cost desktop solution.

Highly integrated, the E-POS Magnum can adapt Intel. Celeron (66MHz) and Pentium III (100/133MHz) CPU. Onboard features include four serial ports, two multi–mode Parallel ports, a floppy drive controller and a PS / 2 keyboard PS / 2 mouse interface. The built-in high speed PCI IDE controller supports both PIO and ATA 100 mode. Up to four IDE devices can be connected, including large hard disks, CD-ROM drives and other IDE devices.

The full PC functionality coupled with its multi-I/Os stand ready to accommodate a wide range of PC peripherals. Compact in size and with its highly integrated multimedia and networking functions, the E-POS Magnum is the most powerful PC engine to build any small footprint all-in-one PC system for integration into any space-constricted embedded applications. Fully configurable and with its modular design, the E-POS Magnum is an ideal platform for any consumer computing applications where space is a premium.

Specifications

E-POS MAGNUM:
Multimedia Intel Celeron/Pentium III FLEX ATX Motherboard with XGA, LCD, TV-out, Dual display, Ethernet & Audio Interface

CPU:
Intel Socket 370
   Intel Tualatin FCPGA up to 1.26GHz
   Intel Pentium III FCPGA 66/100/133 up to 1GHz
   Celeron FCPGA 66/100 up to 1.3GHz

Main Chipset: SiS630ST

Super I/O:
Winbond W83697HF & W83627F
• W83697HF: UART1, UART2, Parallel Port 1 FDC, Game/MIDI, IR/CIR, Hardware Monitor
• W83627F: UART3, Parallel Port 2, UART4 (Pin 1/9 power support)

System BIOS: Award PnP Flash BIOS

System Memory:
2 x 168 pin DIMM sockets supporting SDRAM up to 1GB

L2 Cache: CPU built-in

Standard I/O
• Serial ports x 4: COM 1 ~ 4, COM 2 & 4 with +5V/12 power output on pin # 9
• Parallel port x 2: Support SPP/EPP/ECP;
• ATA 100/66 IDE x 2: supports up to 4 IDE devices
• FDD x 1: supports up to 2 floppy disk drives
• PS/2 Keyboard Interface x 1
• Internal Keyboard Interface x 1
• PS/2 Mouse Interface x 1
• USB Interface x 4: 2 internal and 2 external

- GAME/MIDI port

Ethernet
- 100/10 Base-T Ethernet with RJ-45

Display
- LCD controller
- Integrated 2D/3D graphics engine, 4X AGP
- Share system memory architecture able to utilize the display memory size up to 64MB
- Maximum resolution for video chipset: 640x480, 800x600, 1024x768, 1280x1024, 1600x1200, and 1920x1200, true-color
- Supporting LCD/VGA dual display mode
(Under Windows 98 and Windows ME)

2nd Display Board (optional): SiS301
- Supporting VGA/LCD (panel link) or VGA/TV or VGA/VGA,1 among 3
- LCD: Digital flat panel, supporting panel link
- Video: S-Video or RCA
- When the 2nd display is installed, the primary display will be changed to VGA only

Audio Function
- Full duplex and independent sample rate converter for audio recording & playback
- Supports Microsoft DirectSound
- 3D positional audio effects
- Hi-performance, mixed-signal, stereo
- MIC-In, Speaker-Out, Line-In
- Pin header for CD-audio in

Hardware Monitor
- Monitoring processor & system
- Monitoring 5VSB, VBAT, 1.5V, 3.3V, +5V, +12V, -12V, and processor voltages
- Monitoring processor, chassis fan speeds
- Controlling processor and chassis fan speed and failure alarm
- Automatic fan on/off control
- Read back capability that displays temperature, voltage and fan speed

- Supporting Intel processor thermal diode output (real processor temperature)
- Watchdog timer (64 level time intervals)
- Digital IN x 2 Digital OUT x 2

Expansion Bus: PCI*1 & AMR*1

Power: ATX power

Form Factor: FLEX ATX

Dimension: 229*191 mm (9"x7.5")

Specifications are subject to change without notice.

Connection Diagram

E-Pos Magnum Connection Points

Rear I/O Points

1	Connect PS/2 Keyboard
2	Connect PS/2 Mouse
3	Connect Display Monitor / LCD Screen / TFT Touch Screen
4	Connect any Parallel Interface Printer
5	Connect Serial Interface Printer, Scanner, Serial Cash Drawer, etc.
6	Connect Serial Interface Printer, Scanner, Serial Cash Drawer, etc.
7	Connect Serial Interface Printer, Scanner, Serial Cash Drawer, etc.
8	Connect Serial Interface Printer, Scanner, Serial Cash Drawer, etc.
9	Connect Cash Drawer
10	Connect RJ 45 LAN Connection
11	Connect Power Cord to Power System

12	Voltage Selector Default 230
13	Connect any USB Devices
14	Connect Audio Speaker, Mic, Line In
15	Connect any Parallel Printer (Optional)
16	Connect any Game Device
17	ATX On / Off Switch
18	CD ROM Drive (Optional)
19	Connect any USB Devices
20	Connect Head Phone and Mic
21	Press to Restart System
22	Use Stand if Required to save Space
22	Use Stand if Required to save Space
23	Connect Additional PCI Cards

Jumper Settings

The E-POS Magnum is configured to match the needs of specific application by proper jumper settings. The onboard
Connectors link the E-POS Magnum to external devices such as
a hard disk, a floppy disk or a printer. The following figure helps you to locate all jumpers and connectors.
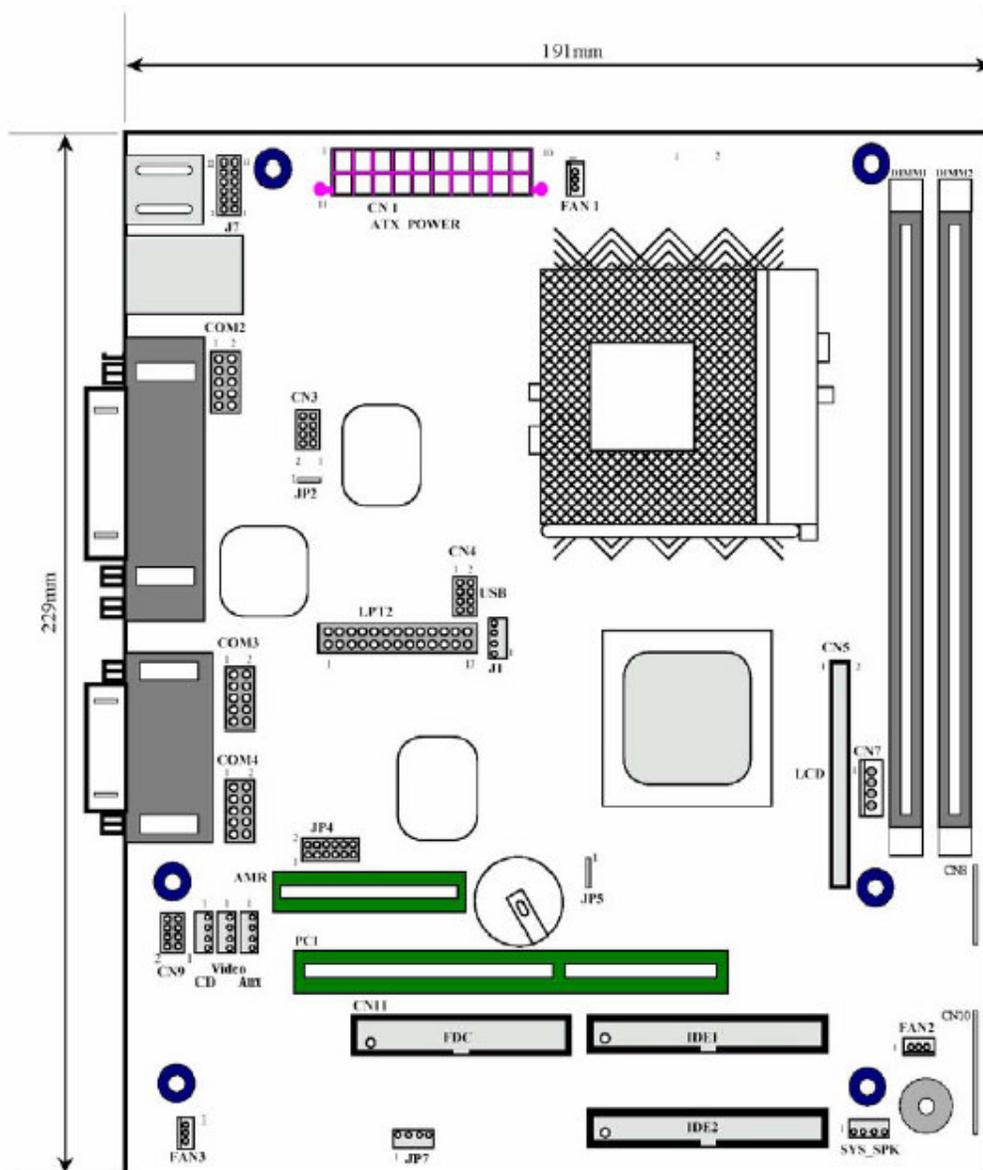
The following figure shows the location of the rear side Connectors.

PS/2 Mouse (6-pin female)
Fast Ethernet Active Indicator LED
Ethernet (RJ-45)
Parallel port 25-pin female
GAME/MIDI (15-pin female)

SKP-out Line-in MIC

VGA (15-pin female)

COM 1 (9-pin male)

Universal Serial Bus

PS/2 Keyboard (6-pin female)
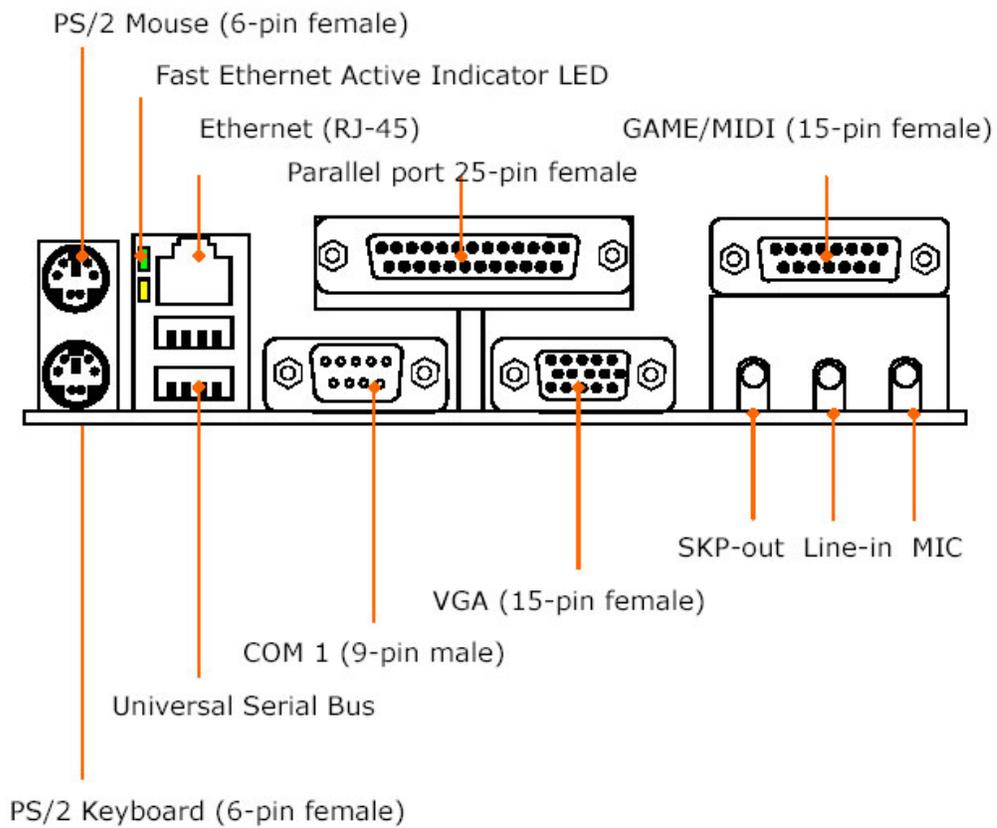
The table below lists the function of each jumper. The Coming sections indicate how to set jumpers to configure the E-POS Magnum. They also indicate the E-POS Magnum's default configuration and options for each jumper.

Jumper	Description
JP4	COM4 pin # 1 & 9 power selection
JP5	Clear CMOS

JP4: COM2/COM4 Pin9 Power selection

COM 2			COM 4		
Normal	12V	5V	Normal	12V	5V
1-2	3-4	5-6	7-8	9-10	11-12
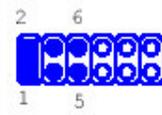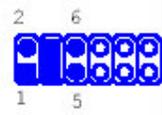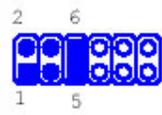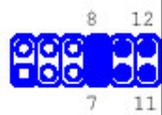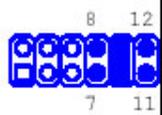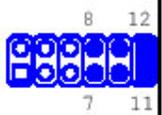
JP5: Clear CMOS

1-2		Clear CMOS
2-3		Normal

Hardware Installation

PS/2 Mouse Connector

The PS/2 Mouse a 6-pin female connector.

PS/2 Mouse (6-pin female)
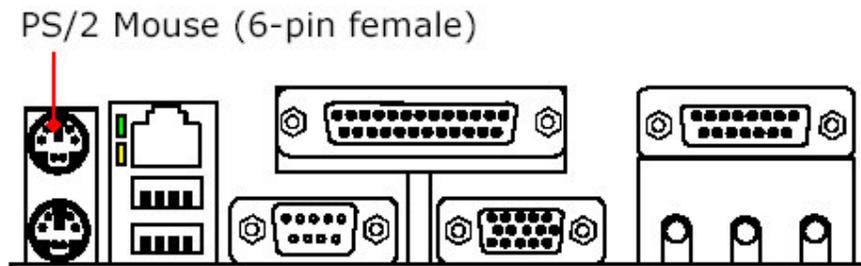
PS/2 Keyboard Connector

The connector is for a standard keyboard using a PS/2 Plug. For standard AT keyboard plug, a AT-PS/2 adapter is needed for the connection.

PS/2 Keyboard (6-pin female)
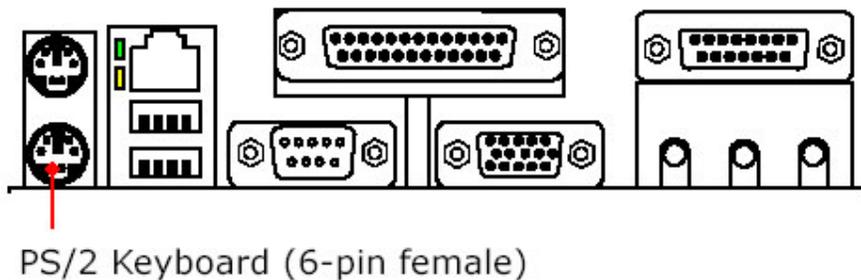
Ethernet Connector

The E-Pos Magnum features with a 32-bit PCI-bus Ethernet Interface with RJ-45 connector. This high performance LAN interface is supported by all major network operating systems.
There are two LED's indicating the networking status.

	LED 1	LED 2
ON	Power	Good connection
OFF	No power	Bad connection
Blinking	Data transfer	

RJ-45

LED1

LED2
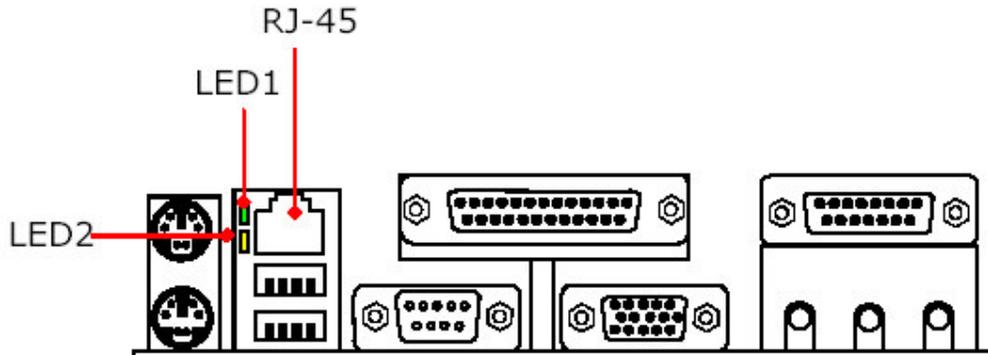
USB Connectors

The E-Pos Magnum provides two external USB (Universal Serial Bus) ports to connect to USB devices. It also provides two internal USB interface for more USB device connection. The two internal USB interfaces have to be accessed through the 8-pin CN4.

USB*2
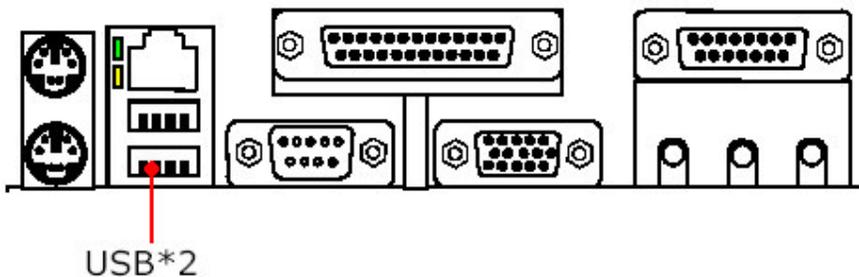
Parallel Port Connector

The E-Pos Magnum provides a 25-pin female external parallel connector (LPT1). It also provides a 26-pin internal parallel header connector (LPT2). If the 2nd parallel port is needed, a 26-pin to 25-DUB parallel cable is provided to connect LPT2 for parallel device connection.

Parallel (Printer) Port 25-pin female
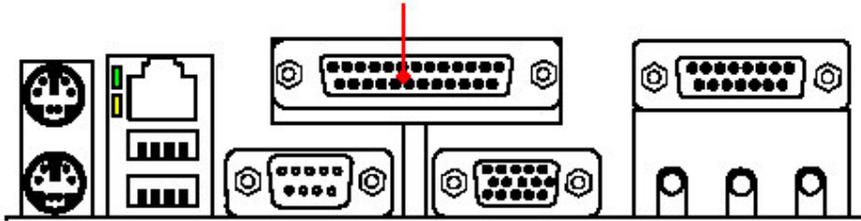
Serial Port Connector

The E-Pos Magnum provides four onboard serial ports for connection to any serial devices such as card reader, touch screen and fax modem. COM 1 is a 9-pin male external serial connector (COM1). COM 2, COM 3 and COM 4 are 10-pin internal serial header connectors. 10-pin to 9-DUB serial cables are provided to connect

Internal COM ports for more serial device connection. COM 4 is equipped with +5V/12V power output on pin 1 and pin 9. For COM 4 power setting,
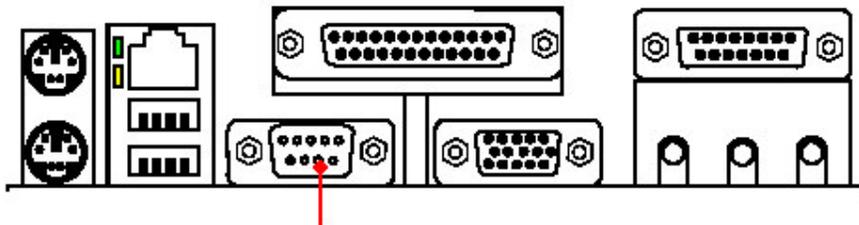
COM 1 (9-pin male)

CRT VGA Connector

This connector is for output to a VGA compatible device.
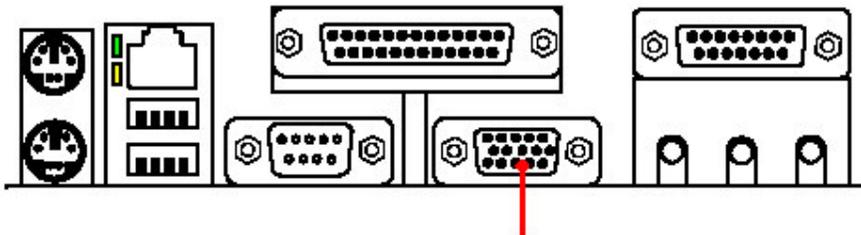
VGA (15-pin female)

Game/MIDI Connector

The game/MIDI is a gold 15-pin connector. The user can connect game joysticks or game pads to this connector for playing computer games.

Game/MIDI 5-pin female
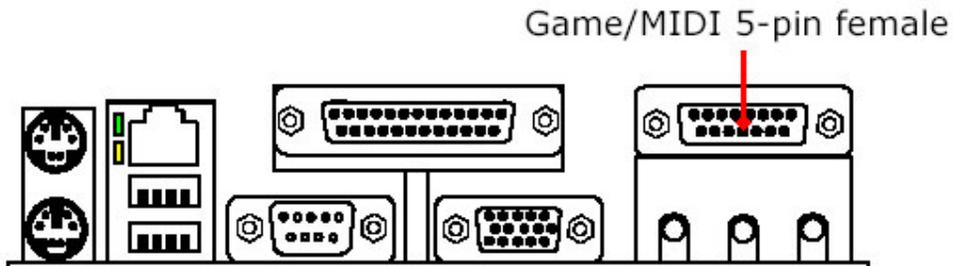
Audio Connectors

The E-Pos Magnum's audio connectors include **Speaker-out**, **Line in** and **MIC-in**. The speaker-out is to output the audio to external devices such as speakers or earphones. The line-in is used to input audio from an external audio device such as a CD player, tape recorder or a radio. The microphone-in is used to connect to an external microphone to record sound or voice.

SPK-out Line-in MIC
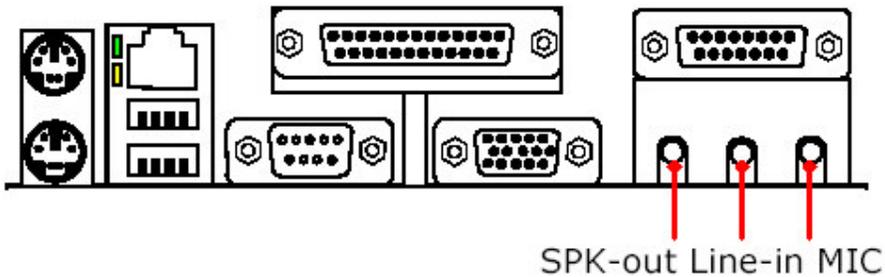
ATA 100/66 IDE Connectors

The E-Pos Magnum provides 2 40-pin IDE header connectors able to support up to 4 IDE devices. It also provides a ATA 100/66 IDE hard disk ribbon cable and a 40-pin to 40 pin IDE cable for IDE device connection. If two IDE drives are used, the second drive must be configured to Slave Mode by setting its jumpers
Accordingly. You can configure two hard disk drives to be both Masters with two IDE cables, one for primary IDE and the other
for secondary IDE connector.

FDD Connector

The E-Pos Magnum provides a 34-pin header type connector (FDC), able to attach two floppy drives. A 34-34-ribbon cable is needed to connect the onboard FDD to floppy disk drives.

General FAQ's

Q1.	**There are no dipswitch settings for the LCD customer display you provided. We cannot control the display.**
Q2.	**What is the maximum current of a COM port?**
Q3.	**Windows cannot detect CD-ROM sometimes.**
Q4.	**What are VGA, SVGA, and XGA?**
Q5.	**How to solve the conflict between PS/2 Mouse and LAN?**
Q6.	**How to set CPU-SDRAM Frequency under Bios for E-Pos Magnum (Super Market Model)**
Q7.	**What command do I use to open the Cash Drawer through the Printer using, a). Star Emulation and b). Epson (esc/pos) Emulation?**
Q8.	**What use the Purple Ribbon?**
Q9.	**Why does my Receipt Printer print Question Marks at the Beginning of a Print Run?**

Q1. **There are no dipswitch settings for the LCD customer display you provided. We cannot control the display.**

A1. Please refer to the following table for dipswitch settings.

a. Command type selection

SW1	SW2	SW3	Command type
ON	ON	ON	POS7300
OFF	ON	ON	ESC/POS
ON	OFF	ON	ADM 787
OFF	OFF	ON	DSP800
ON	ON	OFF	AEDEX
OFF	ON	OFF	UTC/P

ON	OFF	OFF	UTC/S
OFF	OFF	OFF	CD5220

b. International character set

SW4	SW5	SW6	SW7	Character set	Code table (80H-FFH)
ON	ON	ON	ON	U.S.A.	PC-437 (USA, Standard Europe)
OFF	ON	ON	ON	FRANCE	PC-850 (multilingual)
ON	OFF	ON	ON	GERMANY	PC-850 (multilingual)
OFF	OFF	ON	ON	U.K.	PC-850 (multilingual)
ON	ON	OFF	ON	DENMARK I	PC-850 (multilingual)
OFF	ON	OFF	ON	SWEDEN	PC-850 (multilingual)
ON	OFF	OFF	ON	ITALY	PC-850 (multilingual)
OFF	OFF	OFF	ON	SPAIN	PC-850 (multilingual)
ON	ON	ON	OFF	JAPAN	Katakana
OFF	ON	ON	OFF	NORWAY	PC-850 (multilingual)
ON	OFF	ON	OFF	DENMARK II	PC-850 (multilingual)
OFF	OFF	ON	OFF	SLAVONIC	
ON	ON	OFF	OFF	RUSSIA	
OFF	ON	OFF	OFF	U.S.A.	PC860 (Portuguese)
ON	OFF	OFF	OFF	Not used	
OFF	OFF	OFF	OFF	User define pattern from EEPROM	

c. Baud rate selection

SW8	SW9	Baud rate (bps)
ON	ON	4800
OFF	ON	9600
ON	OFF	19200
OFF	OFF	38400

d. Parity check selection

SW10	Parity check
ON	None-parity
OFF	Even-parity

e. Demo mode selection

SW11	Show demo string
ON	Enable
OFF	Disable

f. DIP switch setting selection

SW12	DIP1~DIP11 Switch
ON	Power on select hardware DIP SW setting
OFF	Power on select software EEPROM setting

g. Software status setting

When system POWER ON, there is no need to turn off to modify Command Type, Baud Rate, Parity, Demo Mode and International Character. To re-set DIP Switch to various Command Type under the following list of Command to modify the setting. The setup value will store in the EEPROM. When DIP Switch is OFF. Next time the system POWER ON previous setup value will be the default value and no need to modify. The followings are examples for software status setting

Step1 Initial port:	Step 2 Command Control
C:\mode com1 (~4): 9600, N, 8, 1 Result: Status for device com1: --------------------------------- Baud: 9600 Parity: None Data Bits: 8 Stop Bits: 1 Time Out: Off XON/XOFF: OFF CTS handshaking: OFF . . . RTS circuit: ON	C:\debug -0 3f8 1B ----¡Ö ESC code -0 3f8 71 ----¡Ö q -0 3f8 65 ----¡Ö a -0 3f8 41 ----¡Ö ASCII41="A" -0 3f8 42 ----¡Ö ASCII42="B" -0 3f8 43 ----¡Ö ASCII43="C" -0 3f8 D ----¡Ö End code="Enter" output ----¡Öshown in the display "ABC"

Q2. What is the maximum current of a COM port?

A2. 0.5 A.

Q3. Windows cannot detect CD-ROM sometimes.

A3. This can occur if the computer is installed with a dual-channel integrated device electronics (IDE) controller. Please follow these steps:

1. Click Start, point to Settings, click Control Panel, and then double-click System.
2. Click the Device Manager tab.
3. Click the Hard Disk Controllers branch to expand it, click your IDE controller and Properties.
4. Click the Settings tab.
5. In the Dual IDE Channel Settings box, click Both IDE Channels Enabled, and click OK.
6. Click OK, and then restart your computer.
7. Please visit Microsoft website as http://support.microsoft.com/default.aspx for further information.

Q4. What are VGA, SVGA, and XGA?

A4. These are computer resolution standards defined by Video Electronic Standard Association (VESA). It is an industry standard for resolutions of personal computers. VGA is 640 x 480, SVGA is 800 x 600, and XGA is 1024 x 768

Standard	Resolution	Refresh Rate	Horizontal Frequency	Pixel Frequency
VGA	640 x 480	60Hz	31.5KHz	25.175MHz
		72Hz	37.9KHz	31.500MHz
		75Hz	37.5KHz	31.500MHz
		85Hz	43.3KHz	36.000MHz
SVGA	800 x 600	56Hz	35.1KHz	36.000MHz
		60Hz	37.9KHz	40.000MHz
		72Hz	48.1KHz	50.000MHz
		75Hz	46.9KHz	49.500MHz
		85Hz	53.7KHz	56.250MHz
XGA	1024 x 768	43Hz	35.5KHz	44.900MHz
		60Hz	48.4KHz	65.500MHz
		70Hz	56.5KHz	75.000MHz
		75Hz	60.0KHz	78.750MHz
		85Hz	68.7KHz	94.500MHz

Q5. How to solve the conflict between PS/2 Mouse and LAN?

A5. Please follow these steps:
1. If there is an IRQ12 conflict between LAN and PS/2 Mouse, the latter will always occupy IRQ12 because of BIOS priority.
2. To solve the problem, you need a reserve IRQ for LAN.
3. Adjust the BIOS option (IDE, comX, etc. Disable) to get the extra IRQ.
4. Test until every device works property.

Q6. How to set CPU-SDRAM Frequency under Bios for E-Pos Magnum (Super Market Model)

A6. If any changes or Bios Defaults are set, then the System will run on a 100 MHz Frequency for CPU and SDRAM, to ensure Correct CPU and SDRAM Type & Speed, follow these steps,

Boot up the E-Pos Magnum and press "DEL" key to enter CMOS Bios Setup screen, Select "Frequency/Voltage Control" CPU Host/SDRAM/PCI Clock: Default Press Enter to change For example: if your CPU and SDRAM external frequency is 133Mhz Then set it as 133/133/33   (Our PCI Clock is 33 MHz)
After set CPU & SDRAM & PCI Clock Save & Exit Setup Reboot and check boot up screen, then you will see correct CPU type and frequency.

Q7.	What command do I use to open the Cash Drawer through the Printer using a). Star Emulation or b). Epson (esc/pos) Emulation?

A7.   a). chr(28)
b). chr(27)+chr(112)+chr(0)+chr(50)+chr(250)

Q8.	Why use the Purple Ribbon?

A8.   Quite simply the dye based purple ribbon has a longer life; i.e. can print more characters, than the pigment based black ink. However the advantage of using black ink is that it has more impact and is therefore more visible.

Q9.	Why does my Printer print Question Marks at the Beginning of a Print Run?

A9.   Printers communicate via either serial or parallel ports. All serial printers use DIPswitches to configure the various serial communication parameters. The serial communication parameters set on the printer must match those set on the computer in order for their communication to be successful. When the serial parameters on the printer do not match those on the computer the printer will illustrate this by printing questions marks whenever a print-job is Initiated. The problem can be corrected by matching the serial parameters as set on the printer to those set on the computer to which it is connected. By default all Star serial printers are configured at 9600 BAUD, 8 Data-Bits, No Parity, and 1 Stop-Bit.

Thank you for purchasing E-PoS product. During the warranty period, your unit is fully warranted against defective materials under normal use or manufacturing faults. In case of defect, please contact your local dealer.

The dealer should duly complete this warranty card on the date of

E-PoS International L.L.C.

Model No	Serial No
Warranty	Date of Purchase
Purchaser's Name and Address	
Dealer's Name and Address	

Please note:

1. The warranty will be rendered null or Void if
   * The Warranty Card is lost or misplaced
   * Any amendment is made to the card
   * The unit is damaged in natural disaster
   * The unit in transit or misuse after your purchasing
   * Any unauthorized repair or modification has been Carried out on the unit
   * Warranty Sticker on the unit is tampered or removed
2. Any cost of transport are on account of the Purchaser
3. This warranty does not cover the damage done to other Equipment used in conjunction with this unit

Locations

Corporate Head Quarters

Middle East	E-PoS International LLC P.O.Box 12608 Dubai, UAE	Tel: +9714-3523288 / 3512861 Fax: +9714-3513396 Email: eposintl@emirates.net.ae

South East Asia Head Quarters

South East Asia	E-PoS International Nasik-Pune Road Ayodhya Nagri Nasik, Maharasthra India	Tel: +91-253-2411806 Fax: +91-252-2415295 Email: pradeepw@sancharnet.in