J2 615
Integrated Touchscreen Computer

System Manual

Change history

Version 0.1 to Version 1.0

1: Fix cable pin out RJ45 to DB25 J2 Serial Cable, RTS DB25 pin wrong, DB25 SD and RD signals marked wrong.

2: Fix cable "Pin-out when using 8 wire CAT5/6 cable", RTS DB25 and DSR pin wrong, DB25 SD and RD signals marked wrong.

Contents

Overview

Featuring the Intel 1.6GHz Atom processor and Intel chipset the new J2 615 computer provides outstanding price and performance. Designed with reliability and durability in mind it incorporates a SanDisk 8GB Solid State Drive (SSD) as standard and with its fanless convection cooled system, there are no moving parts to fail. Using ELO touch controllers as well as an ELO resistive touch screen the 615 provides unmatched touch responsiveness and reliability. For extremely high transaction applications an IR touch screen version is also available, known in the industry because they have no known "wear out" mechanism.

Full featured I/O ports include four serial, four USB, a 1gigabit Ethernet and a cash drawer port. The J2 615 does not compromise quality and provides one of the most cost effective integrated touch screen computer solutions available in the market today. It supports all Microsoft® Windows® Embedded operating systems, including Windows XP Pro for Embedded Systems, XP Pro, Windows XP Embedded, POSReady 2009, Windows CE 6.0 plus MS-DOS® and Linux™.

The J2 615 comes standard with an 8GB SATA SSD and is more than capable of running all the above mentioned operating systems, plus applications, with room to spare. This makes this amazing computer perfect for either thick or thin client applications. With no moving parts and a MTBF rated in tens of years, the SSD in the 615 is perfect for the POS market and other touch screen applications. If required it can also be supplied with a HDD or a larger size SSD, please contact your J2 sales person for more details.

The "all in the head" design means that the J2 615 can serve as a counter top, or as a wall or a pole mounted unit all in the same computer. With the standard counter top base and optional VESA/wall mount brackets, the versatile 615 can fit numerous touch screen applications. The small footprint with the 15-inch LCD display is particularly compact and makes it ideal for the space conscious retailer. The front swipe MSR can be mounted side by side and fits easily in narrow niches.

Using the new Intel 1.6GHz Atom processor and Intel 945GSE/ICH7chipset the J2 615 computer is the ultimate system to handle most POS applications and is also extremely cost effective.

J2 615 Intrgrated Touch Screen Computer

Specifications

Main board	
Processor	Intel N270 1.6GHz Atom processor
Chipset	Intel 945GSE/ICH7 chipset
System Memory	SO-DIMM DDR 533HMz, 1GB Standard, 2 GB optional
LCD Touch Panel	
LCD Size	15" TFT LCD
Brightness	250 nits
Resolution	1024 x 768
Touch Screen	ELO Resistive 5-wire or optional ELO Infrared (IR)
Tilt Angle	0 ˚ ~ 90 ˚
Storage	
SSD or HDD	8GB SATA SSD in a quick change slot or an 80GB SATA 2.5" HDD
Expansion	
Mini-PCI-E Slot	One, normally used for an internal 802.11n wireless card
I/O Ports	
Rear I/O	
USB	4 USB located in the cable well
SERIAL	4 Serial Ports, RJ 45, power on serial ports 3&4
LAN	One Gigabit, RJ45 in cable well (Realtek RTL8111)
2nd VGA	Optional 12" or 10.4"secondary customer-facing display, powered from the J2 615 (or other external monitor), up to 2048 x 1536
Cash Drawer	RJ 11 (24V or 12V) with status, can support two cash drawers
DC Jack	Power in, 19VDC 3.42 amps
Audio Jack	Line-out
Front I/O Indicator	
Power LED	Green - for system power on
Power	
Power Adaptor	19VDC, 65W, 100-240 VAC, 1.8A MAX
Optional Peripheral	
MSR	3 Track (on PS2 port, *wedge type*)
iButton	Dallas Key iButton/MSR (on PS2 port, *wedge type*) or iButton only
Biometrics	MSR/Finger Print Reader (Digital Persona) or Finger Print Reader only
WIFI	Optional internal 802.11n (a/b/g compatible) wireless LAN

Second Display	10.4" or 12" Second LCD display, with or without touch, powered from the J2 615
Customer Display	Customer Side VFD display with 2 x20 characters, powered from 615
UPS	2 hour DC UPS, mounts in base of unit
Mounting	
Standard	Counter Top Base, Adjustable Viewing Angle 0-90°
Optional	Wall Mount /VESA Mount Bracket
Optional	Optional adjustable angle VESA/Wall Mount Bracket
Environment	
EMC & Safety	FCC, Class A, CE, LVD
Operating Temperature	0 ~ 40℃
Storage Temperature	-20 ~ 55℃
Operating Humidity	20% ~ 80% RH non-condensing
Storage Humidity	20% ~ 85% RH non-condensing
Dimensions (W x D x H)	370 x 250 x 340mm
Weight	7.45kg
OS Support	XP Pro for Embedded, POSReady 2009, XP Embedded Standard, Windows CE 6.0, Linux, DOS

* This specification is subject to change without prior notice.

System

The J2 615 uses the same dynamic design as the J2 580 and J2 650 computers. This allows for different systems to be integrated at the same customer site, maintaining a well balanced look and feel for your important installations.

Front View

MSR

Power LED

Rear View

SSD/HDD Module

I/O Ports

ON/OFF BUTTON

I/O Ports

The J2 615 has an integrated design with all the electronics "in the head". I/O ports are accessible in the cable well at the bottom of the unit *(please see below):*

| Cash Drawer | LAN | | VGA | ON/OFF BUTTON |

'

| USB | COM 1 2, 3, 4 | DC-IN | Audio Out |
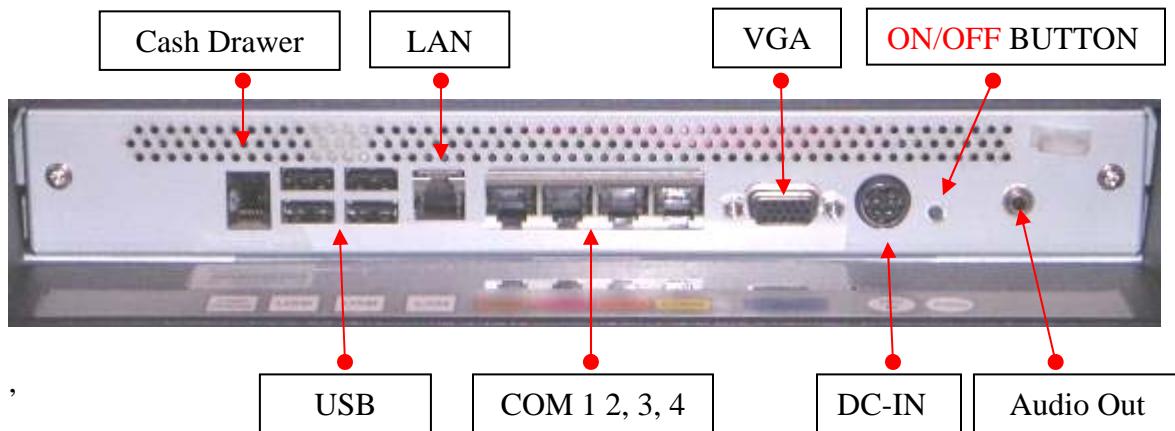
Atom Processor

The J2 615 uses the new Intel Atom N270 processor which only requires 2.5 watts of power. With a speed of 1.6GHz, a 512MB second level cache as well as an FSB speed of 533MHz, the 615 provides the performance necessary for thin as well as most thick POS software applications. Used in conjunction with the Intel 94GSE chipset this processor provides excellent video performance and is more than capable of running a secondary monitor with full screen video at high resolution in addition to running a POS application.

System Memory

The J2 615 comes standard with 1GB 533MHz of memory. The system has one memory socket and uses SO-DIMM DDR2 533MHz type memory. The unit supports a maximum of 2GB of memory.

On /Off Button

The On/Off button is located in the cable well, *as shown above*. This button is located especially to prevent accidental powering down by the user. The function of the button can be controlled by the OS; should the J2 615 hang for some reason, note that it can always be powered off by holding the On /Off button in for six seconds.

The J2 615 also supports the following: Restore On AC power loss, Wake On LAN, and Wake On RTC alarm features control the system's power up. Please see the BIOS setup section of this manual as well as the J2 white paper entitled "Reducing Your Carbon Footprint in the POS Environment".

Solid State Drive / Hard Disk Drive

The J2 615 has one drive bay that supports a 2.5 inch SATA SSD or HDD. The standard drive supplied is an 8GB Solid State Drive (SSD). The SSD or HDD can be accessed simply by loosening the one screw on the drive bay panel on the right side of the unit. The drive can now easily be slid into or out of the drive bay.

SSD/HDD Access

The J2 615 is the first product on the market to come standard with a SSD drive as opposed to a HDD. There are many advantages to choosing an SSD over an HDD, reliability and speed being the most two important. For more information on SSD benefits, please see J2's white paper on the subject:
http://www.j2retailsystems.com/support.php.

Most POS applications do not need a great deal of storage capacity. J2 research has determined that an 8GB SSD fits most all requirements. A number of POS software vendor hardware requirement lists state that they required a 40GB hard drive. This was because at the time the lists were published, the smallest new HDD available was a 40GB drive and they did not envision running their software on an SSD. Today the fact is that most POS software packages can run easily on an 8GB SSD with room to spare.

J2 currently offers SSD drives for its systems in 8GB, 16 GB and 32GB sizes. Higher capacities are available if required. J2 also supports a HDD on the J2 615 with an 80GB SATA drive being the standard HDD option.

Touch Screen

The J2 615 uses an ELO touch control screen paired with the ELO five-wire touch screen rated at 35 million touches per point. As with all J2 designed products using resistive touch screens, the 615 unit includes a water tight gasket for spill resistance.

The ELO Infrared (IR) is also available for the J2 615 as an option. The IR touch screen has no known failure mode-- it does not "wear out." With a protective cover over the LCD panel the IR touch screen does not reduce LCD panel brightness. When operating in a very high usage environment the IR is the recommended touch screen technology. Depending on operating environments and usage, both Resistive and IR touch screens have their strengths and weaknesses. Resistive touch screens are by far the most responsive while IR touch screens are the most durable. J2 offers both touch screen technologies on the 615 computer.

System Board

POS computers typically have a desired life span of 10 years or longer therefore product quality is of the utmost importance. J2 615 electronics are built with high end components to ensure reliability and long lasting product performance.

J2 615 System Board

LCD Display

The LCD display for the J2 615 computer is a 1024 x 768 resolution display with 16.2 Million colors. The brightness is rated at 250cd/m^2. The Intel controller allows for the display to be rotated to 0, 90, 180 or 270 degrees without any loss of performance.

Secondary Display Port

A secondary video display is supported on the J2 615 and can be set as the primary or secondary display. Secondary video displays can be configured as a Twin, Intel Dual Display Clone or Extended Desktop. Most all monitor resolutions, from 640 x 480 to 2048 x 1536, are supported via the Secondary Display Port. The secondary display can also be rotated at 90, 180 or 270 degrees. A number of additional features are supported depending on the capabilities of the monitor.

Secondary Display Port

The Secondary Display Port has an industry standard HD DB15 connector. When using a J2 supplied 10.4" or a 12" secondary LCD monitor, the monitor can be powered from the J2 615. The jumper JP9 enables +12V to be supplied through the VGA connector. Normally if the J2 615 is ordered with the secondary display the jumper will already be installed.

VGA Power Jumper Location

Function	JP9 (1-2)
◎No Power	
+12V	

◎ = Default
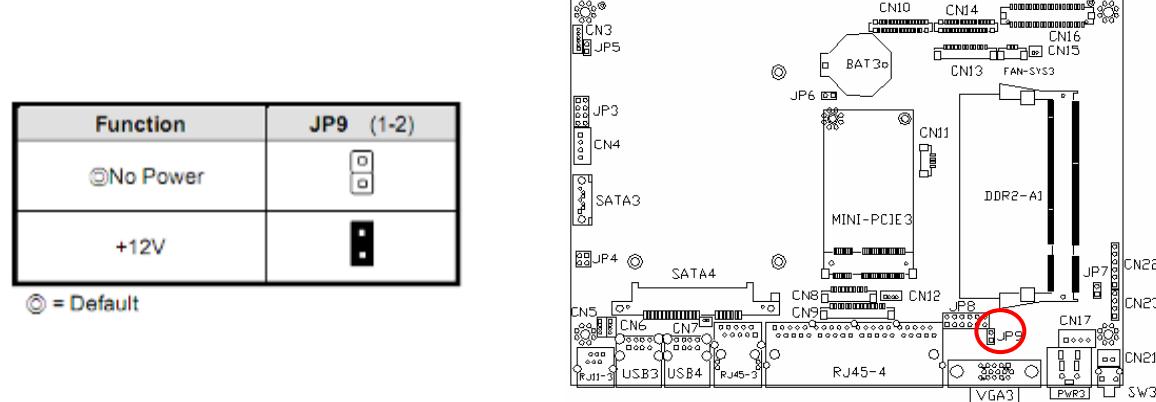
USB ports

The J2 615 has four external and two internal USB 2.0 ports. The four external ports are located in the cable well. In addition there are two internal USB ports used as follows: one is used for the optional Finger Print Reader and is located on the MSR connecting point; the second internal USB port is used for the IR touch screen controller in the IR version of the 615 unit.

USB Ports

Ethernet Connection

The J2 615 uses the Realtek 8111 Gigabit Ethernet controller. The Ethernet connector is located in the cable well (*shown below)*. The Ethernet controller supports Wake On LAN, the BIOS supports a PXE Boot ROM as well.

Ethernet Port
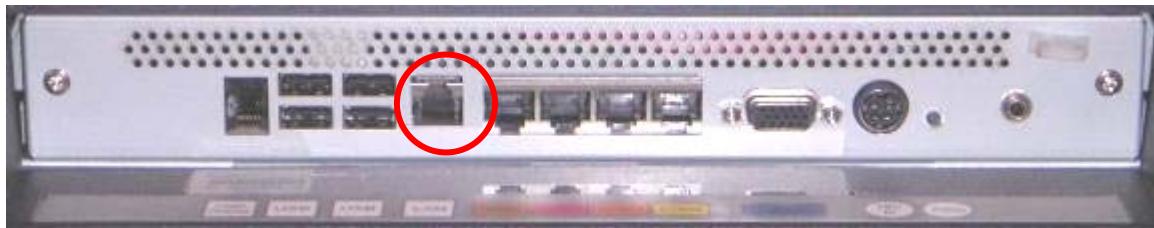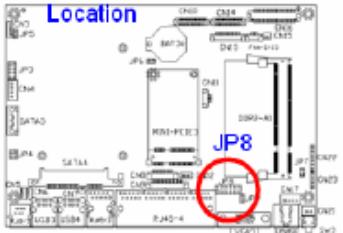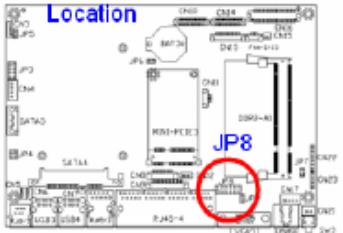
Serial ports

The 615 unit has four external RS232 serial ports, two of which can be powered; COM3 and COM4. The serial ports use a ten pin RJ45 connector. The unit comes standard with two serial cables, one RJ45 to DB9 adapter cable, and a 5 foot RJ45 to DB25 serial printer cable that works with EPSON and EPSON compatible printers. Additional cable adaptors can be order from J2.

Both serial (COM) ports 3 and 4 can be strapped to provide power to external devices. The J2 615 is shipped standard with serial 4 strapped to supply +12 to pin 9 of the DB9 connector. Normally serial port 4 is used for J2's 2x20 character VFD customer display which gets its power from the serial port. If another device is used on serial port 4 it is not required that this jumper be changed because most all serial devices do not use pin 9 (RI). (Note that even if it does the added device can handle the +12 volts on the signal line without a problem, this is part of the RS-232 specification.)

Both serial ports 3 and 4 can have jumpers set to select for either +12 volts or +5 volts. J2 does not recommend using +5 volts devices if it can be avoided, as it is quite easy to damage a +5 volt device by plugging it into a port supplying +12 volts. Most all serial scanners are available in the + 12 volt version. If a +5 volt device is used, it is recommended that it is clearly marked as such. The maximum current is 500ma and is over-current protected.

Function		JP8 (1-2) (3-4) (5-6) (7-8) (9-10) (11-12)	Location
COM3 Pin10	◎RI		
	+5V		
	+12V		
COM4 Pin10	◎RI		
	+5V		
	+12V		

◎ = Default

Serial Ports

RJ45 to DB9 J2 Adaptor Cable

RJ45-10 Pin	DB9	Signal
Pin 1	---	---
Pin 2	Pin 1	DCD
Pin 3	Pin 6	DSR
Pin 4	Pin 2	RD
Pin 5	Pin 7	RTS
Pin 6	Pin 3	SD
Pin 7	Pin 8	CTS
Pin 8	Pin 4	DTR
Pin 9	Pin 5	GND
Pin 10	Pin 9	RI

Pin-Out 8 pin adaptor when using CAT5/6 cable

RJ45- 8 Pin	DB9	Signal
---	---	---
Pin 1	Pin 1	DCD
Pin 2	Pin 6	DSR
Pin 3	Pin 2	RD
Pin 4	Pin 7	RTS
Pin 5	Pin 3	SD
Pin 6	Pin 8	CTS
Pin 7	Pin 4	DTR
Pin 8	Pin 5	GND
---	---	---

The J2 Cable Adaptor (supplied)
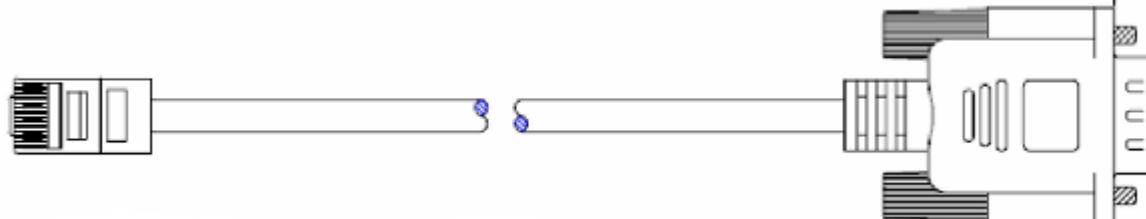
RJ45 to DB25 J2 Serial Pinter Cable

RJ45-10 Pin	Signal	DB25	Signal
Pin 1	---	---	---
Pin 2	DCD	---	---
Pin 3	DSR	Pin 20	DTR
Pin 4	RD	Pin 2	SD
Pin 5	RTS	Pin 5	CTS
Pin 6	SD	Pin 3	RD
Pin 7	CTS	Pin 4	RTS
Pin 8	DTR	Pin 6	DSR
Pin 9	GND	Pin 7	GND
Pin 10	---	---	---

Pin-out when using 8 wire CAT5/6 cable

RJ45- 8 Pin	Signal	DB25	Signal
---	---	---	---
Pin 1	DCD	---	---
Pin 2	DSR	Pin 20	DTR
Pin 3	RD	Pin 2	SD
Pin 4	RTS	Pin 5	CTS
Pin 5	SD	Pin 3	RD
Pin 6	CTS	Pin 4	RTS
Pin 7	DTR	Pin 6	DSR
Pin 8	GND	Pin 7	GND
---	---	---	---

Epson or Epson compatible serial printer cable

Audio

The J2 615 uses the Realtek ALC662 HD audio CODEC. The auto line out jack is located in the cable well at the bottom of the unit *(see below).*

Audio Line-out Jack

Cash Drawer Port

The 615 has one cash drawer port that can support one cash drawer directly, or two cash drawers when using a "Y" splitter cable. The "Y" splitter cable is the same type as would be used with an EPSON printer. The port is located in the cable well and uses the industry standard RJ-11 connector and pin out (*illustrated below*).

Cash Drawer

Cash Drawer Pin Assignment
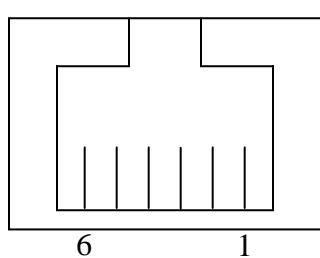
Pin	Signal
1	GND
2	CD 1 SOLENOID
3	STATUS
4	12V / 24V
5	CD 2 SOLENOID
6	GND

The application may address the Cash Drawer port in a number of ways. They are:

1) Using the J2 supplied OPOS drivers for XP Pro, POSReady and XP Embedded.

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Version 1.0 March 21, 2010

2) Using the J2 supplied Virtual COM port for CE.NET, XP Pro, POSReady and XPE

3) Direct access to the I/O ports:

The Virtual COM port driver that is standard on Windows XP Pro, WEPOS and XP embedded maps the cash drawers to COM 6 and COM7. These COM port numbers can be changed by modifying using the J2 virtual port configuration utility. A reboot will be needed for these changes to take effect.

To open Cash Drawer One: Send a bell character to the COM6 serial port. (The bell character is the ASCII 07 hex character "Control G.")

To open Cash Drawer Two: Send a bell character to the COM7 serial port.

The open/close status of the drawer may be obtained by reading the status bits of its COM port. The drawer open/close status will be reflected on the CTS and RI bits, either bit may be used. This virtual COM port driver is designed to work the same as serial cash drawers and will work with drivers for serial cash drawers.

The Virtual COM port driver that is standard on Windows CE.NET and the cash drawer appears as COM6.

To open Cash Drawer One: Send a bell character to the COM6 serial port. (The bell character is the ASCII 07 hex character "Control G.")
To open Cash Drawer Two: Send an ESC character, then a bell character to the COM6 serial port.

 The open/close status of the drawer may be obtained by reading the status bits of COM6, and the drawer open/close status will be reflected on the CTS and RI bits, either bit may be used.

The OPOS drivers, Virtual Port drivers and a Cash drawer test program may be downloaded from the J2 web site: http://www.j2retailsystems.com/support/615/

The cash drawer can be directly accessed through an I/O port, 48C hex. By outputting the correct value to the port cash drawer one or two can be fired and the cash drawer status can be read on the same port. The cash drawer solenoid should only be turned on for a maximum of 50ms. Also note that cash drawer one and two solenoids should never be turned on at the same time

Cash drawer I/O port

Port 0x48C	Value sent/returned	Action
Value 0x08	Write 0x08	Turn on Solenoid Cash Drawer 1
Value 0x04	Write 0x04	Turn on Solenoid Cash Drawer 1
Value 0x00	Write 0x00	Turn off Solenoid Cash Drawer 1&2
Mask 0x40	Read bit 6 zero	Cash Drawer 1 or 2 is open
Mask 0x40	Read bit 6 one	Cash Drawer(s) are closed or not attached

CMOS Reset

If it becomes necessary the CMOS memory can be reset to factory defaults by adding the CMOS reset jumper JP6 for a few seconds and then removing it. This would normally only be needed to clear an unknown password from CMOS otherwise the normal BIOS load defaults function could be used.

| Function	JP6 (1-2)
◎CMOS Normal	
CMOS Reset	

◎ = Default
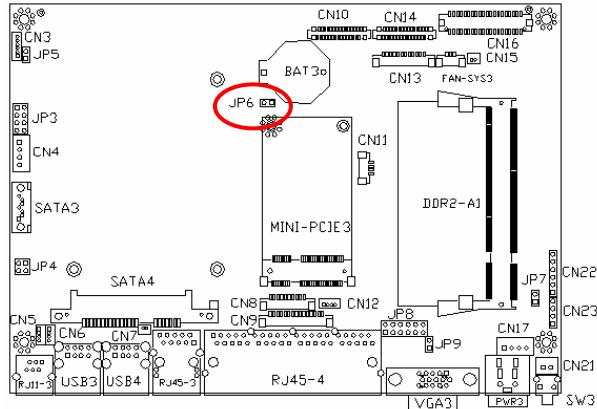
Onboard SSD

The onboard SATA4 connector is used for the SSD module when a SSD and HDD (or dual SSD) combo is required. This allows for the use of two SATA storage drives in the J2 615. This connector may be used when it is not desirable for the SSD to be easily accessible by the user, maybe for security reasons. (*See illustration below)*
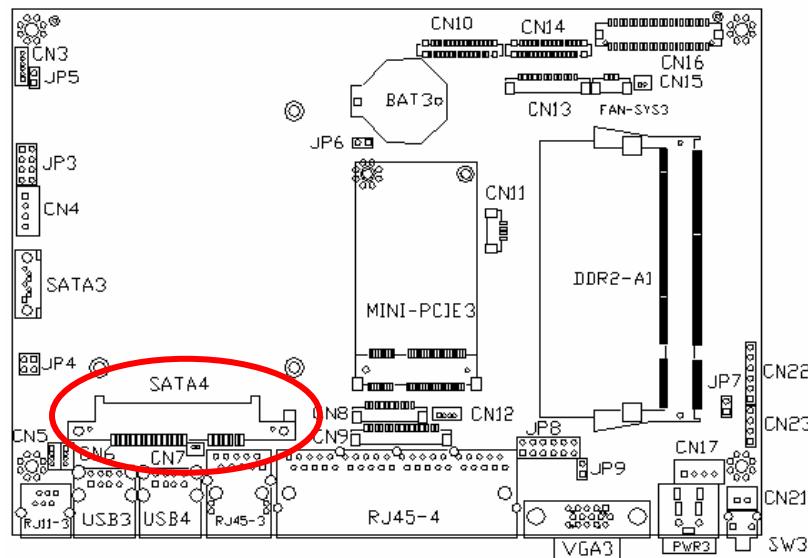
Mini PCI-E

The onboard Mini PCI Express connector is normally used for the optional internal 802.11n wireless LAN card.
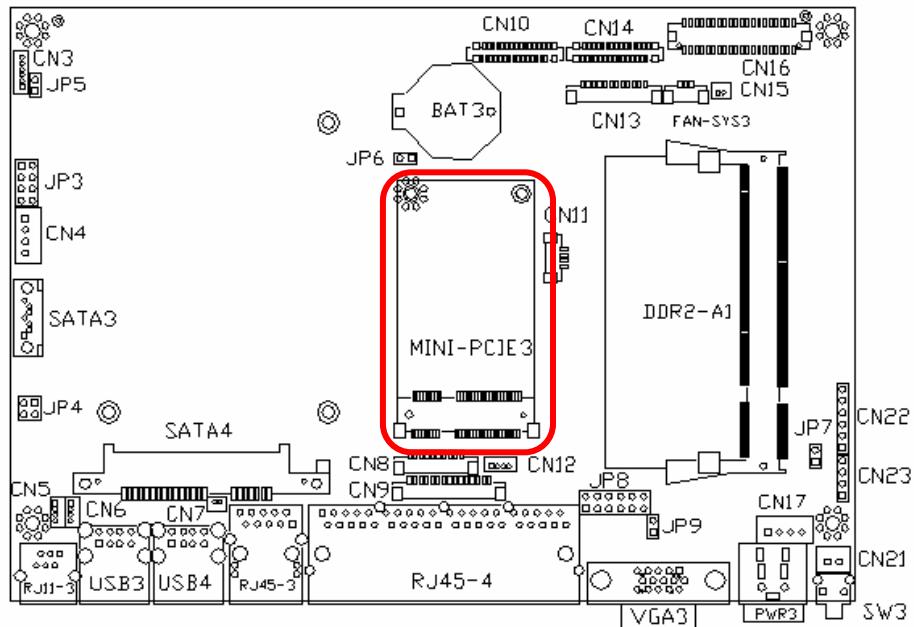
Power Supply

The J2 615 uses a 65 watt notebook type power supply that is normally mounted in the base of the unit. The power supply is rated with an output of 19 VDC 3.42 Amps and has an input rating of 100-240VAC at 50~60Hz 1.8 Amps maximum. The power supply typically has an efficiency rating of 85% under light loads, with a 90% or better rating under heavy loading. The power supply connector is a four pin locking type that plugs into the system power input connector which is located in the cable well. The power supply has most all worldwide safety ratings. Please refer to the power supply itself for the list covered. The J2 615 is classified according to safety regulations as a low voltage device with the safety rating of the power supply being the one required.

Power Input connector

Power Supply Mounting in Base

Typical Power Consumption 615

The typical power consumption of the 615 is much lower that a desktop computer and more comparable to a notebook computer. Using the Intel's Atom processors and Intel chipset allows for much lower power consumption than previous generations of POS computers. This, when coupled with J2 software power reduction utilities, can greatly reduce the system's total carbon foot print.

Test conditions

Voltage: 220VAC 50Hz, measured voltage 240VAC
OS: Windows XP Pro
Heavy Load Program: Winstress 98% loading
Maximum load: Prime95
Temperature: 27c
Updated: June 20, 2009

All systems where tested in their standard hard drive configuration. Results are +/- 15%.

J2 615 1.6 GHz Atom with 1GB Memory, 8GB SSD

1: Normal application including most POS software   40 watts
2: Boot up   44 watts
3: Very heavy load application   43 watts
4: Maximum load   45 watts
6: Normal POS application, back light off   25 watts
7: Standby, unit off, waiting for wake on LAN, RTC or power button   5 watts

Packing List

The following contents should be found in the carton:

1: System
2: AC Power cord
3: Serial RJ45 to DB9 Adaptor
4: Serial Printer Cable

Standard Items

1: System with   2: AC power cord

4: Printer Cable   3: COM Cable (1)

System Installation

Counter Top Base

The J2 615 is shipped with a counter top base which allows for the head to be adjusted from 0-90°.

To remove the integrated head from the base, loosen the thumbscrew located on the back of the unit under the hinge of the counter top base, *as shown below*. Then lift the head as illustrated:

a. Loosen the thumbscrew (1)

b. Lift the panel up and separate it from the stand bracket

To mount the J2 615 to the base, do the reverse *(as shown below):*

a. attach the panel to the desk mount hinge bracket and slide it into the position,
as shown by the red arrows

b. Tighten the thumbscrew to finish the installation

Optional VESA / Wall Mount Bracket Installation

The VESA / wall mount bracket has threaded mounting holes (*screws provided*) for the 75mm VESA standard; and unthreaded holes for the 100mm standard.

Using the 100mm hole pattern the bracket can be used by itself as a wall mount bracket. After installing the thumbscrew clip mount bracket to the wall, hang the J2 615 on the bracket.

Install screw to secure thumbscrew clip

The bracket slides on to the J2 615 mount posts, *as shown*. Normally the bracket would already be mounted to the wall or a VESA mount and the 615 would be hung on the bracket. Once in place the thumb screw would be tightened.

MSR Installation
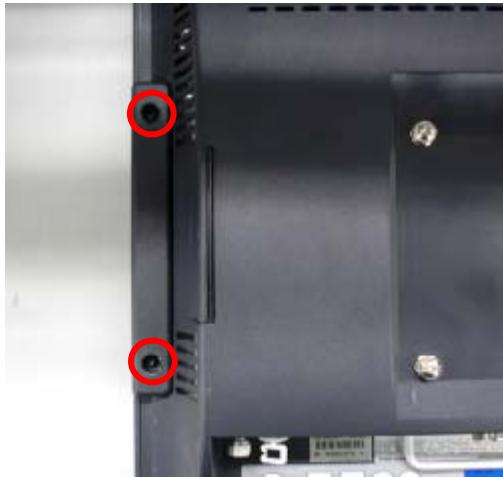
a. Remove the 2 screws

b. Connect the cable and tighten the screw

c. Slide the MSR into the position and tighten the screws to finish the installation.
Be careful not to pitch the cable when installing.

SSD/HHD Access

Loosen the screw

Slide the SSD/HDD Module *(as shown)*

Removing the Power Supply Adaptor
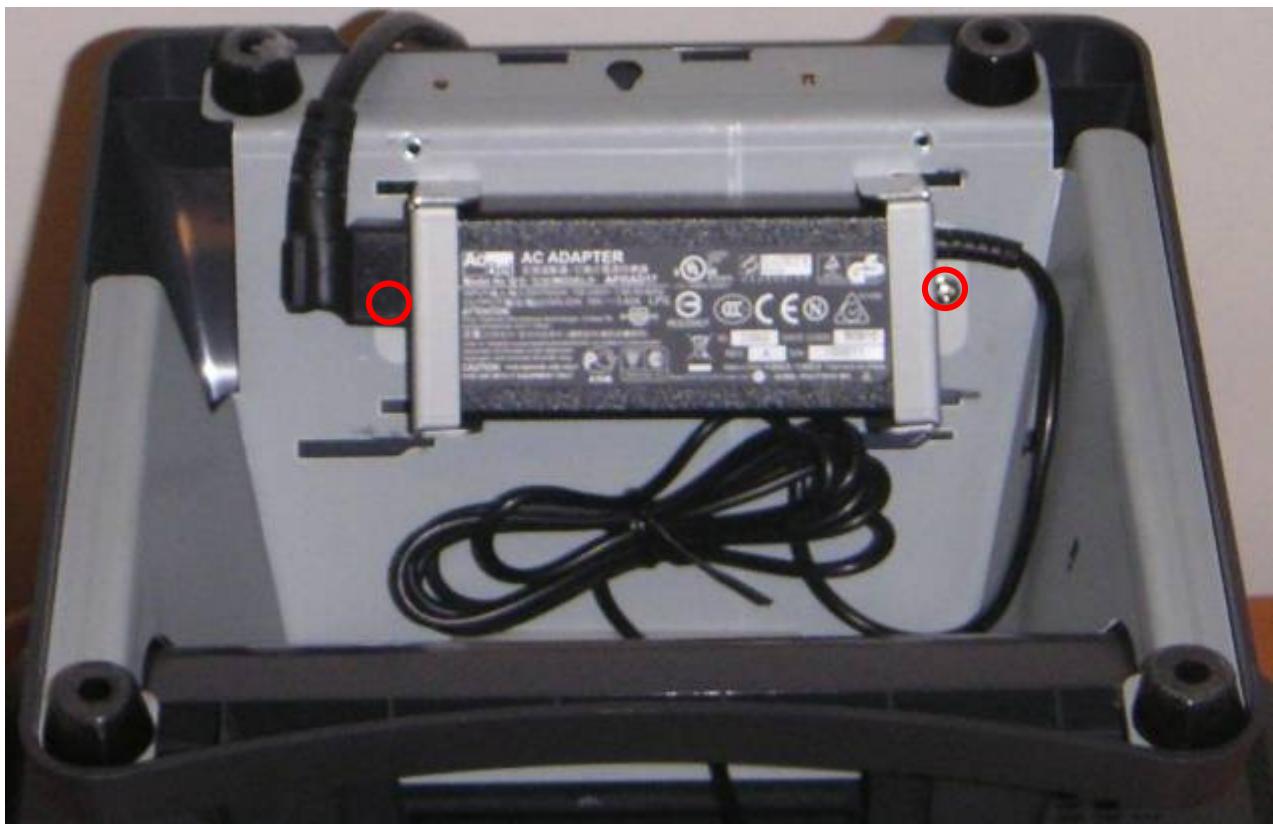
Remove the two screws to release the adaptor and the bracket. (one screw is under plug)

BIOS Settings

Starting the BIOS Setup

1. Turn on or reboot this product.
2. Press the DEL key immediately after the product is turned on or press the DEL key when the following message is displayed during POST (the Power on Self-Test).
   Press DEL to enter SETUP.
3. The main menu of the BIOS setup is displayed.
4. If the supervisor password is set you must enter it here.

When a Problem Occurs

If after making and saving system changes with the Setup utility you find that this product no longer boots, start the BIOS setup and execute the following:
Load Optimized Defaults

BIOS Menus

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.

Standard CMOS Features
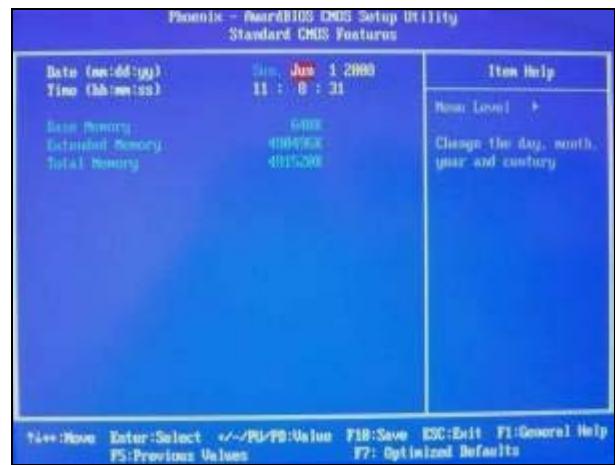
In this screen the CMOS time and date can be set. The time and date can also be set though the OS. The total memory installed in the system can be seen on this screen also.

Advanced BIOS Features
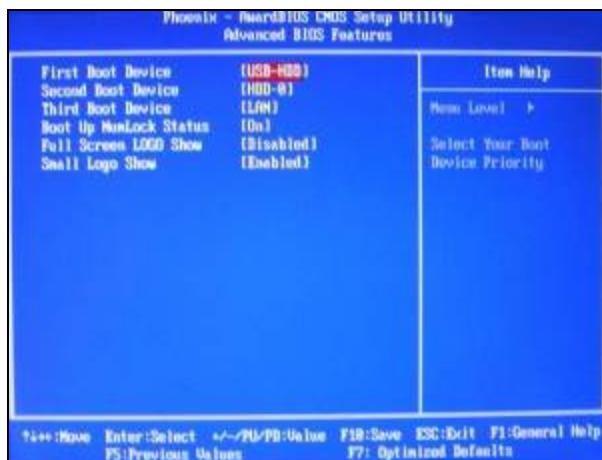
In this menu the boot order may be changed. Also the keyboard num-lock can be set as well as the logo display on boot up.

Power Management

The default function on the power switch can be set in this menu. The "PWRON After PWR-Fail" controls whether the unit will turn back on by itself after AC power is lost. The Power on "PCI PWE/LAN" can disable the Wake On LAN function.

Integrated Peripherals


This menu allows the HDD port to be disabled as well as the onboard audio. Under Super IO the COMM ports IRQ and PORT can be changed.

Health
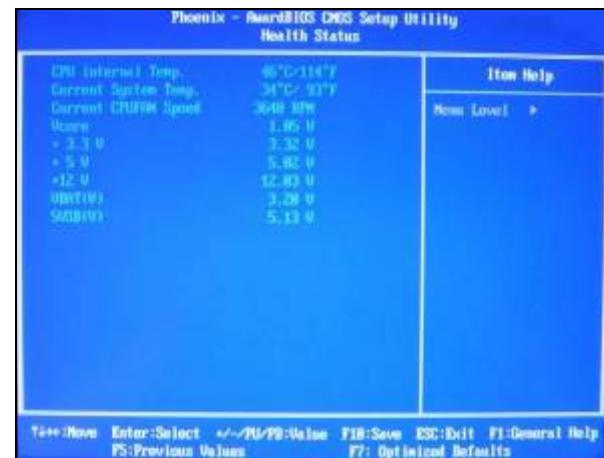
This screen shows the current Health readings on the J2 615. A Windows based program is available from J2 that can access and display the same information.

Driver Installation

Driver Download

If you did not purchase your operating system from J2 you may download the drivers for the 615 system from the J2 web site at" http://www.j2retailsystems.com/support/615/. For Windows XP there are five drivers that need to be installed. They are:

1: Chipset drivers for 945GSE chipset
2: Intel Video Drivers
3: ELO Touch Screen Driver Link
4: Realtek RTL8111 LAN Driver
5: Realtek HD Audio Driver

Additional Drivers/Utilities

Additional drivers and utilities such as OPOS drivers, MSR program utility, 802.11n WIFI card drivers, cash drawer test utility, POS heath monitor software and others can be down loaded from the J2 web site (see *link below*). Please see the documentation and help files supplied with these drivers and utilities for more information.

http://www.j2retailsystems.com/support/615/

Optional Items

The J2 615 computer supports all the same option modules (*as shown below)* on the J2 580 product, and also includes the UPS (not shown below):

VESA/Wall Mount Bracket

MSR Module (front swipe)

Finger Print / MSR-Finger Print Combo

iButton / iButton-MSR combo

2X20 Character Customer Display

Secondary Display 12" (also 10.4" available)

Customer Display Option

Connecting the Cable for a J2 615/580 customer display
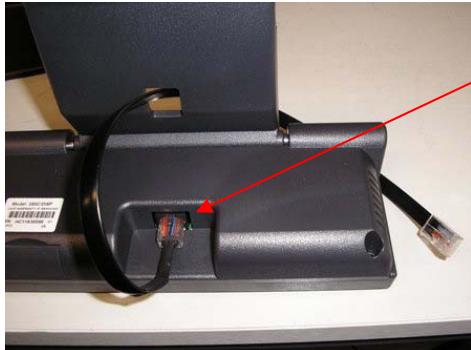
Cable must be fitted correctly. The end with the shrink sleeve goes into the display, the other end to COM3 or COM4. Normally COM4 power is already enabled on that port.

Dip Switch and Software Setting

Command Type Selection

SW1	SW2	SW3	Command Type	Demo Mode Support	Default
ON	ON	ON	POS7300	No	*
OFF	ON	ON	EPSON ESC/POS	Yes	
ON	OFF	ON	ADM 787/ ADM 788	No	
OFF	OFF	ON	DSP800	Yes	
ON	ON	OFF	AEDEX/ EMAX	No	
OFF	ON	OFF	UTC/P	No	
ON	OFF	OFF	UTC/S	No	
OFF	OFF	OFF	CD5220	Yes	

Baud Rate Selection

SW8	SW9	Baud Rate (bps)	Default
ON	ON	4800	
OFF	ON	9600	*
ON	OFF	19200	
OFF	OFF	38400	

Parity Check Selection

SW10	Parity Check	Default
ON	None-parity	*
OFF	Even-parity	

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Command Control

SW12	Function
ON	Depend on SW1~SW11 setting
OFF	Bypass SW1~SW11 setting, fixed at: ✍ Command type: POS7300, ✍ Baud rate: 9600 ✍ Parity check: None-parity ✍ Demo mode: Disable ✍ International character set: USA, standard Europe

International Character Set

ID	SW 4	SW 5	SW 6	SW 7	SW 11	Character Set (20h – 7Fh)	Code Table (80H-FFH)	Default	Note
0	ON	ON	ON	ON	OFF	U.S.A.	CP-437 (USA, Standard Europe)	*	
1	OFF	ON	ON	ON	OFF	FRANCE	CP-858 (Multilingual + Euro Symbol)		
2	ON	OFF	ON	ON	OFF	GERMANY			
3	OFF	OFF	ON	ON	OFF	U.K.			
4	ON	ON	OFF	ON	OFF	DENMARK I			
5	OFF	ON	OFF	ON	OFF	SWEDEN			
6	ON	OFF	OFF	ON	OFF	ITALY			
7	OFF	OFF	OFF	ON	OFF	SPAIN			
8	ON	ON	ON	OFF	OFF	JAPAN	Katakana		
9	OFF	ON	ON	OFF	OFF	NORWAY	CP-858 (Multilingual+ Euro Symbol)		
10	ON	OFF	ON	OFF	OFF	DENMARK II			
11	OFF	OFF	ON	OFF	OFF	SLAVIC			
12	ON	ON	OFF	OFF	OFF	RUSSIA			
13	OFF	ON	OFF	OFF	OFF	U.S.A	CP-860 (Portuguese)		
14	ON	OFF	OFF	OFF	OFF	U.K.	Greek		
15	OFF	OFF	OFF	OFF	OFF	U.S.A	CP-852 (Hungary)		
16	ON	ON	ON	ON	ON	U.S.A	CP-862 (Hebrew)		
17	OFF	ON	ON	ON	ON	U.S.A	CP-863 (Canadian-French)		
18	ON	OFF	ON	ON	ON	U.S.A	CP-865 (Nordic)		
19	OFF	OFF	ON	ON	ON	U.S.A	CP-866 (Cyrillic)		
20	ON	ON	OFF	ON	ON	U.S.A	Windows-1251 (Cyrillic)		
21	OFF	ON	OFF	ON	ON	U.S.A	Windows-1252		
22	ON	OFF	OFF	ON	ON	U.S.A	Windows-1255 (Hebrew)		
23	OFF	OFF	OFF	ON	ON	U.S.A	Windows-1257 (Baltic)		

J2 615/580 UPS

Specifications

|	
Batteries Run Time	1.5 hours for the standard J2 615, run time will vary depending on the application loading
Power In	19 Volts DC
Power Out	13-16.8 Volts DC, 8 amps maximum
Data Interface	RS232 cable, RJ45 connector
Batteries Type	2 – 4 18650 cell Li-Ion pack with protection circuit
Battery Life	500 full discharge cycles
Charge Time	5 hours from full discharge
Charger Type	Smart Microcontroller based
Software	XP Standard Generic UPS driver
Size	6" x 3.1" x 1.7" (152mm x 79mm x 43mm)

Hardware

To install and use the J2 UPS module:

1: Remove the power supply adaptor from the base of the unit.
2: Install the UPS module where the power supply was mounted.
3: Connect the power output jack of the UPS to the power in jack of the unit.
4: Connect the Serial cable of the UPS to the serial port you wish to use. *
5: Connect the power supply adaptor to the UPS power in jack.
6: Connect the power supply adaptor to the mains power. **
7: Configure the Windows UPS drive as shown.

 * The serial port connection is not needed for Windows CE.
** When first installed the mains power should be applied for 5 hours to fully charge the batteries. The unit may be running during this time but will take longer to charge.

Software Setup in XP

1: From the *START* button run *CONTROL PANEL.*

2: Double click *POWER OPTIONS.*

3: Select the *UPS* tab and click on *Select* under *Details.*
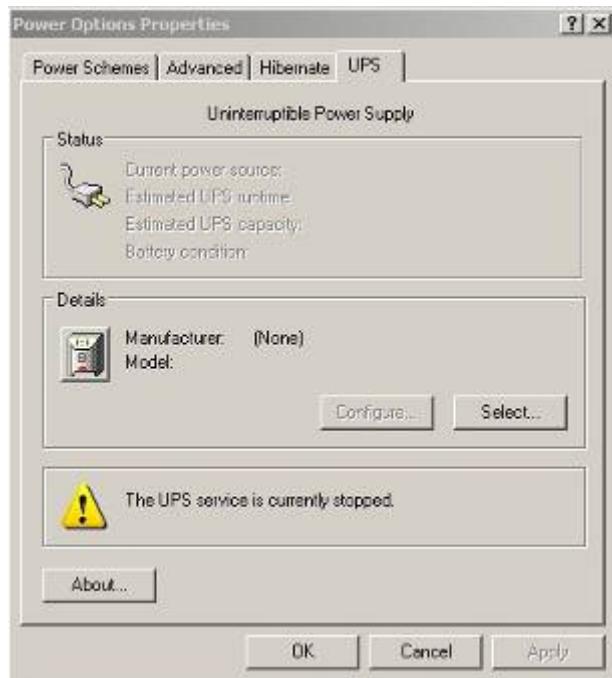
4: Under *Select manufacturer* select *Generic.* Select the COM port you wish to use in the *On port* drop down menu. Be sure this port is not used for anything else (printer) or the driver will not install. *Select model* should be *Custom.* Click *Next>.*
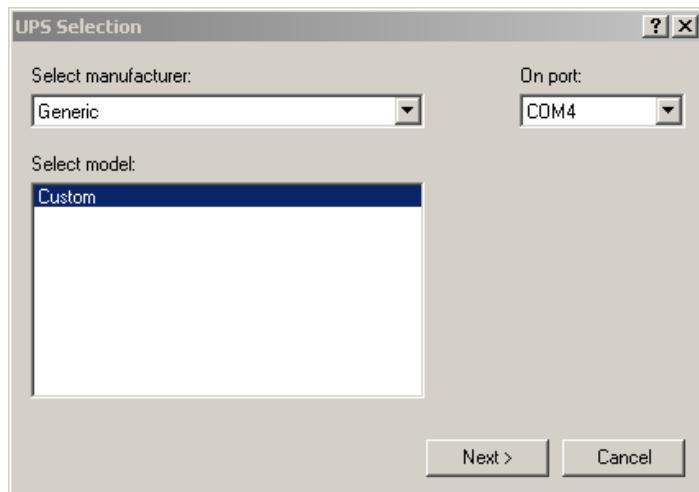
5: The default values for the *Interface Configuration* are what the J2 UPS uses, therefore just click *Finish*.
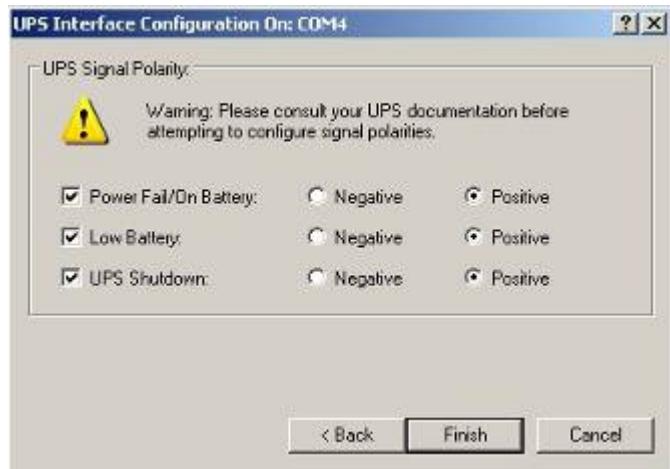
6: When returned to the *Power Options Properties* window, click Apply to save the configuration. It will take a number of seconds to configure. Once done the *Details* should show *Manufacturer: Generic* and *Model: Custom* and the UPS and driver should be working. This can be quickly tested by removing the AC power to the unit. If everything is working, the *Current power source:* should change to *On Battery*.
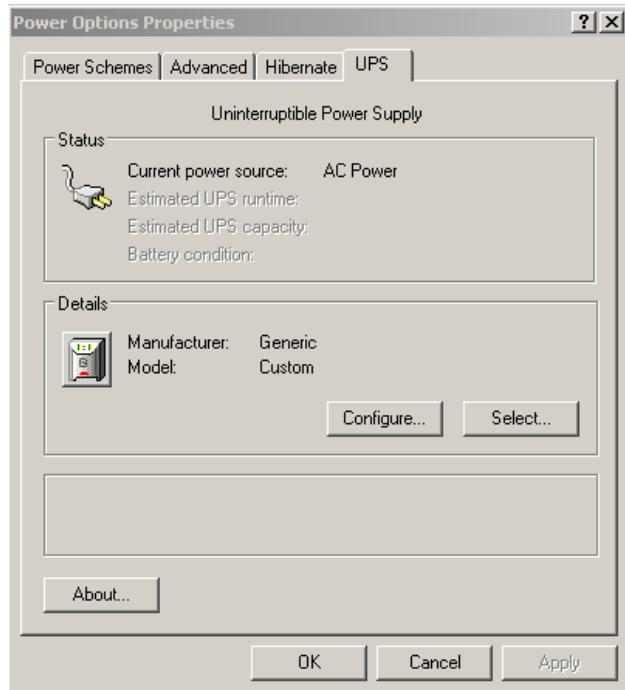
You may now exit the control panel, the UPS configuration is complete.

Status LED

There is one green status LED on the UPS. This can be viewed when looking into the top of the base, *as shown in the picture below*:

615/580 UPS STATUS LED

Add picture here

The status LED can be used to determine what mode the UPS is running in. Please refer to the following table:

LED	Condition
On steady	Batteries fully charged, running on AC power
Blinking, mostly on	Batteries charging, running on AC power
Blinking, mostly off	Running on batteries
Blinking fast	Batteries almost discharged, system signaled to shut down
Off	Batteries discharged, UPS and system powered down