J2 625 Integrated Touch Screen Computer

System Manual

June 2012

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Change history

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Overview

The J2 625 is a new generation of integrated touch screen Point of Sale computer based on the Intel Atom dual core Cedarview processors. This integrated touch screen computer, like other J2 designs, features an “all-in-the-head” design, and it also offers the versatility to be used as a counter top unit; or as a wall-mount or pole-mounted terminal. Using the same J2 packaging design as other J2 products the J2 625 offers same features the very successful J2 615 but with newer faster electronics and easier service and the same price point.

The J2 625 uses the latest Intel Atom dual core Cedarview processors, the 1.86GHz D2550. Combining this with the Intel NM10 chipset provides excellent performance capable of running most POS applications with a very low carbon foot print, all at a competitive and attractive low price.

Even with its small foot print the J2 625 is incredibly feature rich. It comes standard with 2GB of memory, and offers a choice of either a 160GB hard drive or 16GB solid state drive (or other capacities HDD/SSD). Built standard with four serial ports, six USB ports, video output, audio in/out, gigabit Ethernet, +12V output, as well as other built in peripherals (like MSR, customer display and more) the J2 625 will perfectly satisfy most POS application requirements.

The J2 625 is available with your choice of either a zero bezel resistive touch screen or a multi-touch projected capacitive touch screen. The new zero bezel five-wire resistive touch screen provides the same quick response and feel of a resistive touch screen traditionally used in the POS market. The new projective capacitive touch screen option can be used in environments where multi-touch and gesturing are required, for example, such as when using the new Windows 8 operating system.

The J2 625 is designed to require little or no maintenance. The convection cooled fan-less design means it can be used in very harsh environments. High dust, grease or sea air will not affect its operation. High temperatures are also not a problem. With a quick access HDD/SDD slot, a drive can be changed in just seconds if needed. The unit can be fully disassembled and assembled in just a few minutes by just removing a few screws.

The J2 625 supports the standard Microsoft operating systems: Windows 7, POSReady 7, Windows 7 Embedded, XP, POSReady 2009 and XP embedded, as well as the soon-to-be-released Windows 8. The J2 625 is equally proficient with the many flavors of Linux.

Specifications J2 625

CPU and Chipset	
Processor	Dual Core Intel Atom D2550 1.86GHz with 1MB Cache, 4 threads with Integrated GMA 3650 Graphics controller
Chipset I/O	NM10
Memory	2 X DDR3 SO-DIMM, 4GB max, 2GB standard, 1067MHz
External Ports	
Serial Ports	4 RS-232 RJ45 with power +12V BIOS controlled
USB Ports	6 USB 2.0, 5 in cable well 1 on side of unit
Ethernet	10/100/1000 MHz Ethernet port with status LEDs on connector
Cash Drawer Ports	1 RJ11 support 2 cash drawers +24V and +12V, Dual status lines
Secondary Video	Display Port with DVI, HDMI and VGA support
+12 Power	+12 Volt power out for secondary video display or other device
Audio	Combo Audio Jack for headset or headset with microphone
Internal I/O	
Storage	One 3Gb/s SATA Port onboard, slide in/out 2.5“ HDD or SSD
LCD Panel	15 inch 1024 x 768 250cd/m^2 panel
Touch Screen	Resistive True Flat or Projective Capacitive with Multi-touch and gesturing
USB	3 onboard USB ports for optional devices, MSR, Wi-Fi, PCT
MSR	Onboard microcontroller of MSR on PS2
Mini PCI-Express	Mini PCI Express slot for 802.11 b/g/n WiFi card and other functions
Optional Peripherals	
MSR	3 Track
iButton	Dallas Key iButton
Fingerprint Reader	USB Digital Persona Fingerprint Reader
RFID	125KHz RFID USB
2-in-1	MSR 3 track / Finger Print
2-in-1	MSR 3 track / iButton
Second Display	4:3 displays, 8.4”, 10.4” or 12.1” with or without touch 16:9 displays, 10.1” or 14” with or without touch
Customer Display	2x20 VFD or 2x20 LCM
UPS	J2 Micro UPS 30minute run time or J2 Universal UPS with 2.5 hour run time
Wireless	802.11 b/g/n Mini PCI Express card with internal antennas
PoweredUSB HUB	External PoweredUSB Hub with 1 +24V, 7 +12V PoweredUSB and 6 powered serial ports and optional internal UPS

Environmental	
Operating Temp.	0-45c
EMI	CE / FCC Class A
Safety	LVD external adaptor UL c/us, CE, TUV, others
Dust & Water	IP 64 front of unit, IP 54 whole unit
Power	100-240V 50-60Hz 19VDC 65 watts power supply
Weight	8kg
Dimensions	With base attached: 37x28x35cm, 14.6”x11.0”x13.8”

J2 625 Integrated Touch Screen Computer

I/O Ports

Most I/O ports are accessible in the cable well at the bottom of the unit. Cables are routed though the cable channel in the swing arm base. (*See Cable Routing*)

I/O Panel

Off / On Button

The Off /On button is located in the cable well, *as shown below*. This button is located near the side to prevent accidental powering down by the user. The function of the button can be controlled by the OS. If the J2 625 hangs for some reason it can always be powered off by holding the Off /On button in for six seconds.

The J2 625 also supports the following: Restore on AC on power loss, Wake On LAN, and Wake On RTC alarm features to control the system power up. The setting for these features is controlled from the BIOS.

Off / On Button Location

Hard Disks

One 2.5 inch SATA hard drive (HDD) or a solid state drive (SSD) are standard with the J2 625. The SATA interface can support data transfer rates up to 3.0 GB/s. The J2 625 offers standard either a 160GB HDD or 16GB SSD, but can be ordered with other size HDD or SSD as well. See J2 for details.

The HDDs can easily be accessed by removing a panel on the left side of the unit. HDDs can be installed or removed in seconds by removing one screw. A carrying tray fits onto a drive without tools. The drive can now easily be slid in or out of the drive bay using the pull tab on the drive dray.

HDD access panel

HDD slide in-slide out drive bay

Touch Screen

The J2 625 can be ordered with two different touch screen technologies, PCT or TFR.

The PCT unit uses a multi-touch Projected Capacitive Technology touch screen. The PCT touch screen has no known failure mode-- it does not "wear out." This screen is tempered glass and does not reduce the brightness of the J2 625 panel. When operating in a very high use environment, the PCT is the recommended touch screen technology. The PCT touch screen will work with most gloves and stylus that are designed to work with tablet computers, and the screen has a smooth glass surface that is reflective.

The TFR uses a five-wire true flat (zero bezel) resistive touch screen rated at 35 million touches per point. The resistive technology is very responsive and is the traditional choice for a hospitality POS system. The screen has an anti-reflective plastic film surface.

Both screens are fully spill proof, dust proof, and can be cleaned with a standard glass cleaner. The J2 625 touch screen was designed to easily be changed, normally in less than two minutes. Depending on operating environment and usage, both the Resistive and PCT touch screens have strengths and weaknesses; therefore J2 offers both touch screen technologies on the J2 625 unit, providing our customers with a choice for any application requirement.

System Board

POS computers typically have a lifespan of 10 years or longer, therefore product quality is of the utmost importance. J2 625 electronics are built with high-end components to ensure reliability and long lasting product performance.

The system board is designed for quick replacement, with just a few screws and cables to unplug. The board can be swapped out in less than three minutes.

J2 625 System board

J2 625 Display

The J2 625 offers 15 inch 1024 x 768 resolution display with 16.2 Million colors, CCFL backlight with 4:3 aspect ratio screen. 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 loss of performance. The driver can also scale the display resolution so that it can work properly with applications written for 800x600 resolutions.

The J2 625 electronics also supports dimming, and can be controlled directly by Windows 7 or 8, or with J2 supplied utilities for Windows XP. Dimming levels between 10-100% are supported. A hardware auto dimming feature is built-in to ensure the longest backlight life and to also provide the lowest power usage.

Secondary Video Port

The J2 625 supports the newer digital video standard Display Port connector. This connector supports a Display Port monitor, HDMI display, DVI or VGA monitor. When used with HMDI or DVI displays, a passive adaptor cable must be used. When using a VGA display, an active adaptor is to be used. With HDMI display Audio, support is provided via the same HMDI cable.

The secondary video displays can be configured as Twin, Intel Dual Display Clone, or Extended Desktop. Most all monitor resolutions from 640 x 480, up to 2560 x 1600 are supported.

DisplayPort Video Port

Ethernet Connection

The J2 625 uses the Realtek RTL8111 Gigabit Ethernet controller. The Ethernet connector is located in the cable well, *as shown below*. The Ethernet controller supports Wake on LAN, and the BIOS supports a PXE boot ROM as well. There is a LED on the LAN connector, this Green LED light turns on when there is LAN activity.

Ethernet Connector

Serial ports

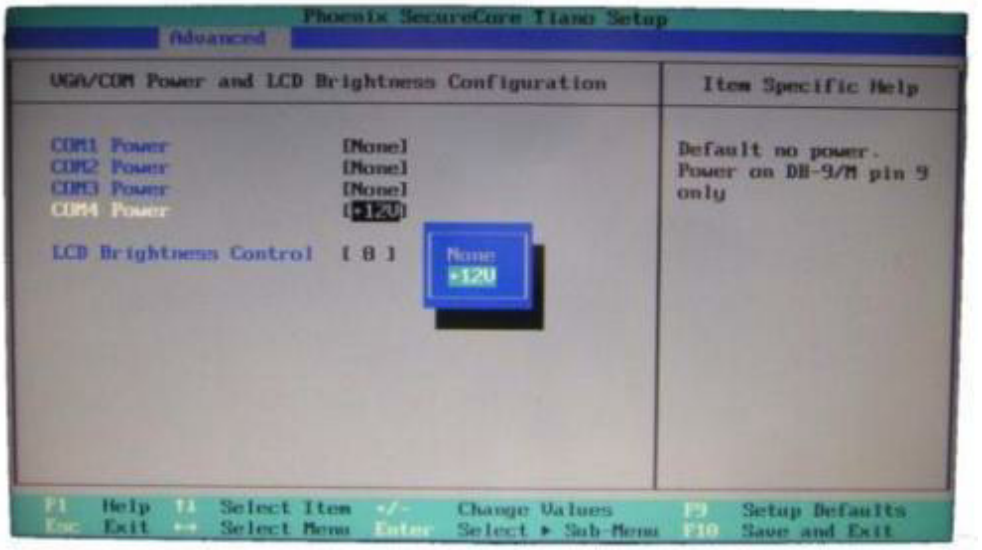
The J2 625 unit has four external RS232 serial ports, all of which can supply +12V power. The serial ports use a ten pin RJ45 connector. The unit comes standard with four serial cables, three 25cm (10”) RJ45 to DB9 adapter cables, and one 152cm (5’) RJ45 to DB25 serial printer cable that works with EPSON and EPSON compatible printers.

All serial (COM) ports can be BIOS-enabled to provide +12Vpower to external devices. This power is supplied via pin 10 of the RJ45 which corresponds to pin 9 on the DB9 adaptor. The maximum current per port is 1 amp, with a total maximum external loading on the +12V of 3 amps.

A set of stick-on color coded labels are supplied with the cable adaptors, so that the cables can be marked. This makes it easy to plug the cable back into the correct port, should you need to service the unit.

Serial Ports

BIOS Setting Serial Port(s) Power Enable



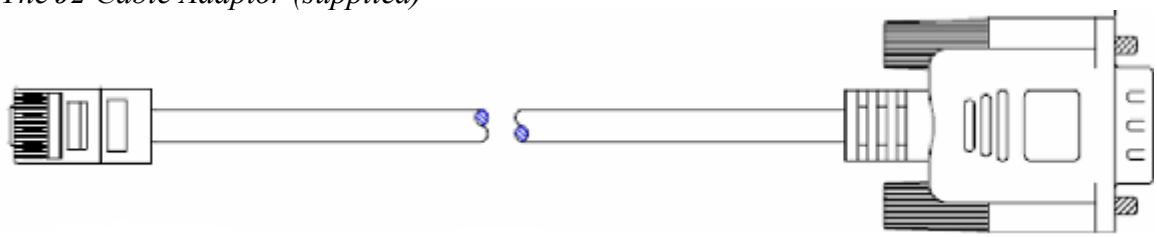
RJ45 to DB9 J2 Adaptor Cable

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 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

USB Ports

The J2 625 has 6 external and 3 internal USB 2.0 ports. The 6 external ports (*see below*) are located in the cable well with one the side of the unit for easy access. The 3 internal ports are used for different functions, such as using a PCT touch screen, Finger Print reader and/or other peripherals.

USB Ports

Side USB Port

Audio

The J2 625 uses the VIA1708B HD audio controller. There is one internal speaker.
A combo microphone jack and headset jack are located in the cable well of the J2 625, *as seen below*, which allows for the connection of a microphone and headset, or audio out to other devices.

Audio out is also supported on the DisplayPort when used with a HDMI monitor.

Audio Jack Location

Power Supply

The J2 625 uses a notebook-type power supply that is mounted in the base of the unit. The power supply is rated with an output of 65 watts 18.5 VDC 3.5 Amps, and has an input rating of 100-240VAC at 50~60Hz 1.7Amps maximum. The power supply has an efficiency rating V. The power supply connector is a standard notebook locking type that plugs into the system power input connector, located in the cable well.

Power Input connector

+12VDV Power Out

The J2 625 has a fused power out connector that supplies a total of 12VDC, up to 2amp. The power supply connector is a standard notebook locking type that plugs into the system power input connector, *located in the cable well*, seen below

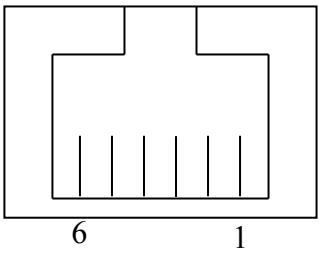
Power Output connector

Cash Drawer Ports

The J2 625 is equipped with one Cash Drawer port that can support one or two drawers. This port is located in the cable well, and uses the industry standard RJ-11 connector and pin-out (*illustrated below*).

Cash Drawer Ports

Cash Drawer 1 Pin Assignment



Pin	Signal
1	GND
2	CD1 SOLENOID
3	STATUS / STATUS CD1
4	24V
5	CD2 SOLENOID
6	GND / STATUS CD2

The application may address the Cash Drawer port in two ways:

1) Using the J2-supplied OPOS drivers for Windows.

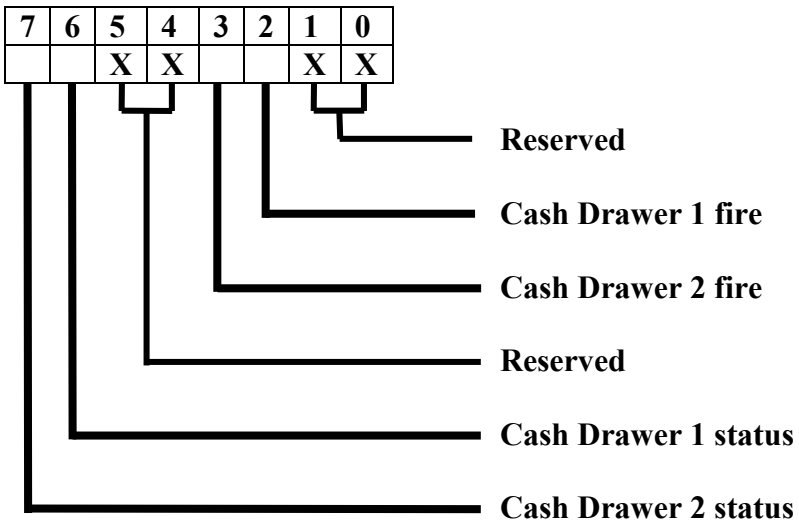
2) Direct access to the I/O ports

Cash Drawer Controller Register

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

Register Location: 48Ch
Attribute: Read / Write
Size: 8bit

BIT	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
Attribute	Read		Reserved		Write		Reserved	

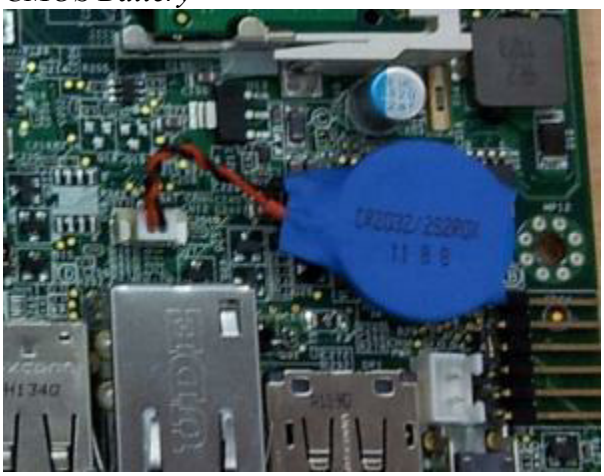


The "Y" cable used to support two cash drawers on the one RJ-11 is the same as is used on Epson printers.

CMOS Clear

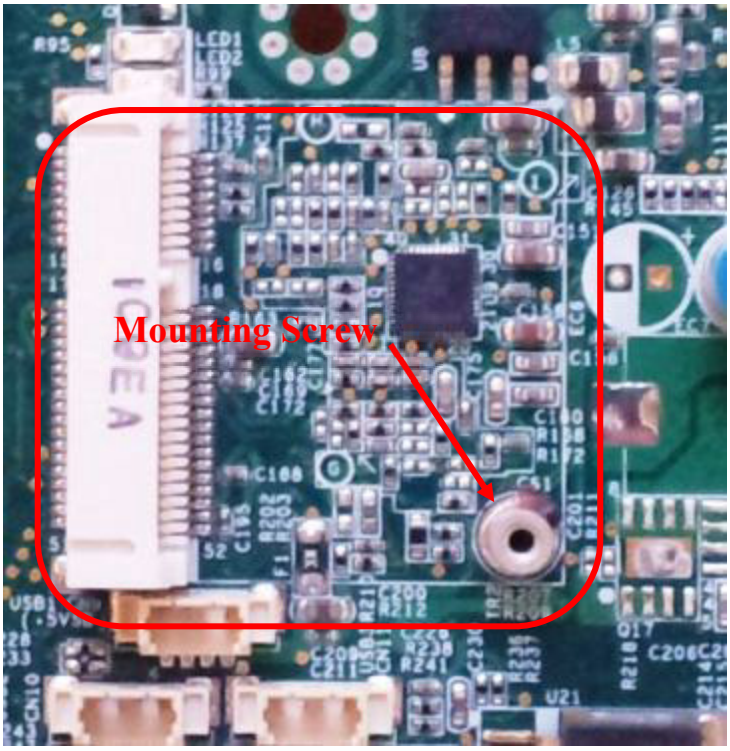
The J2 625 CMOS can be cleared by unplugging the system board CMOS battery for 30 seconds before plugging it back in.

CMOS Battery



Mini PCI-E

The onboard Mini PCI Express connector is normally used for the optional internal 802.11b/g/n wireless LAN card.



Memory SODIMM(s)

The J2 625 supports two SODIMM DDR3 memory sockets. The unit comes standard with 2GB of main memory and can support up to a maximum of 4GB. The memory type is DDR3 800/1066.

Typical Power Consumption J2 625

The typical power consumption of the J2 625 is lower than a notebook computer and more comparable to a netbook computer. Using the latest generation Intel's Atom processor and chipset allows for much lower power consumption than previous generations of POS computers. When coupled with the proper system configuration, this can greatly reduce the system total carbon foot print.

Test conditions

Voltage:	220VAC 50Hz, measured voltage 236 VAC
OS:	POSReady 7
Heavy Load Program:	PassMark BurnInTest defaults values
Maximum load:	PassMark BurnInTest Max CPU Temp
Temperature:	26c

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

J2 625 D2550 1.86GHz

1: Normal application including most POS software	23 watts
2: Very heavy load application	26 watts
3: Maximum load	29 watts
4: Normal POS app, backlight dimmed	20 watts
4: Normal POS app, backlight off	18 watts
5: Standby, unit off, waiting for wake on LAN, RTC or power button	>4 watts

Service

Removing the Head from the Base

The 625 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, fully 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:

Loosen Thumb Screw

Slide Head up to remove

Removing the Power Supply

The power supply is normally located in the counter top base. When using a wall mount bracket or the J2 UPS, the power supply would be external from the unit.

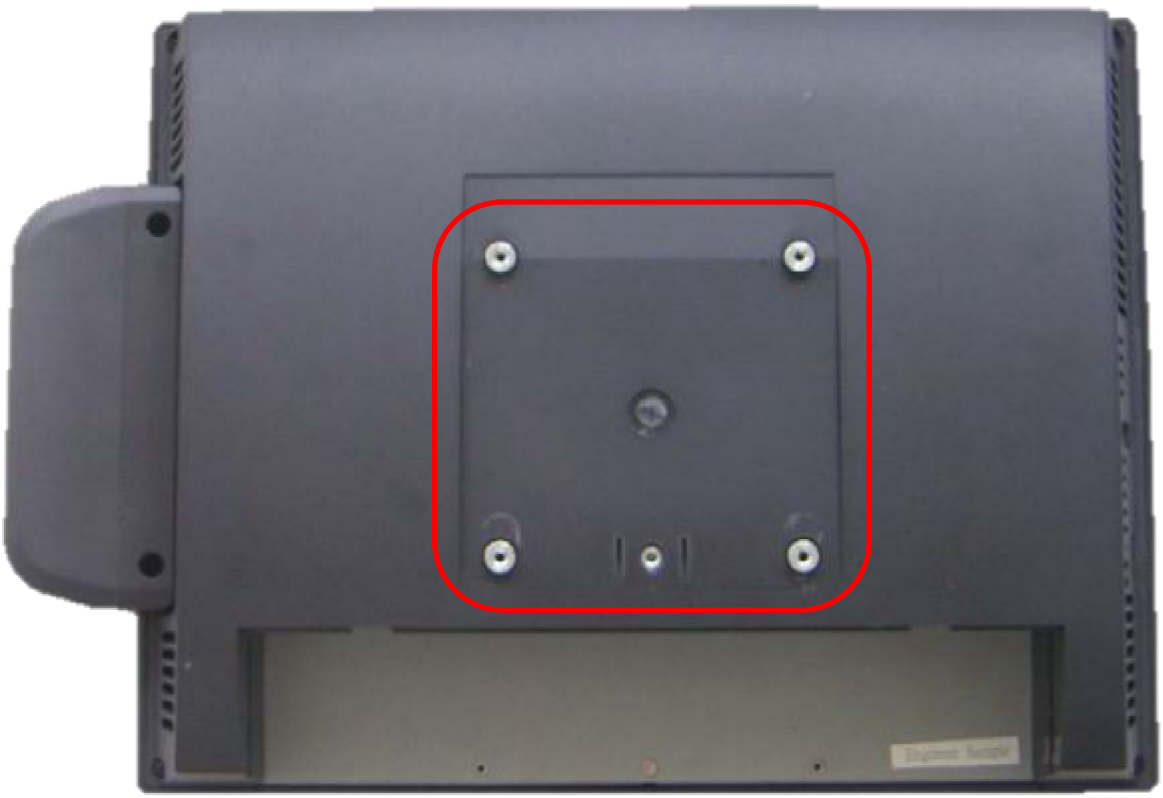
To remove the power supply from the base, two screws needs to be removed as shown.

Screw locations

VESA Mounting

The 625 unit also supports the industry standard 100mm VESA mounting. The same mounting hard point used for the counter top base is used for VESA mounting. The four point that thread holes for 4mm screws.

100*mm VESA Pattern*



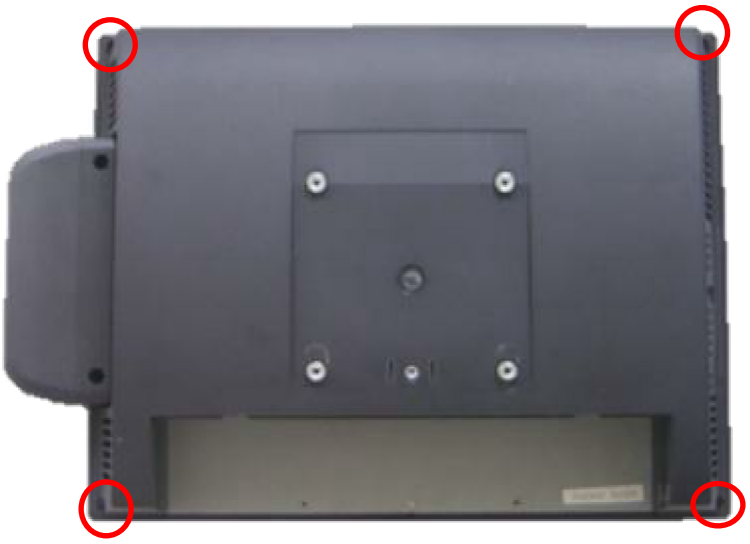
Threaded Mounting point(s), 4mm screw

Removing the Back Cover

The following steps show how to disassemble the 625 for servicing:

On a clean, **protected** surface, place the unit screen-side down. Remove the four cover screws as shown. Carefully lift the back cover as shown.

Remove four screws where shown



Carefully tilt up the back cover to remove

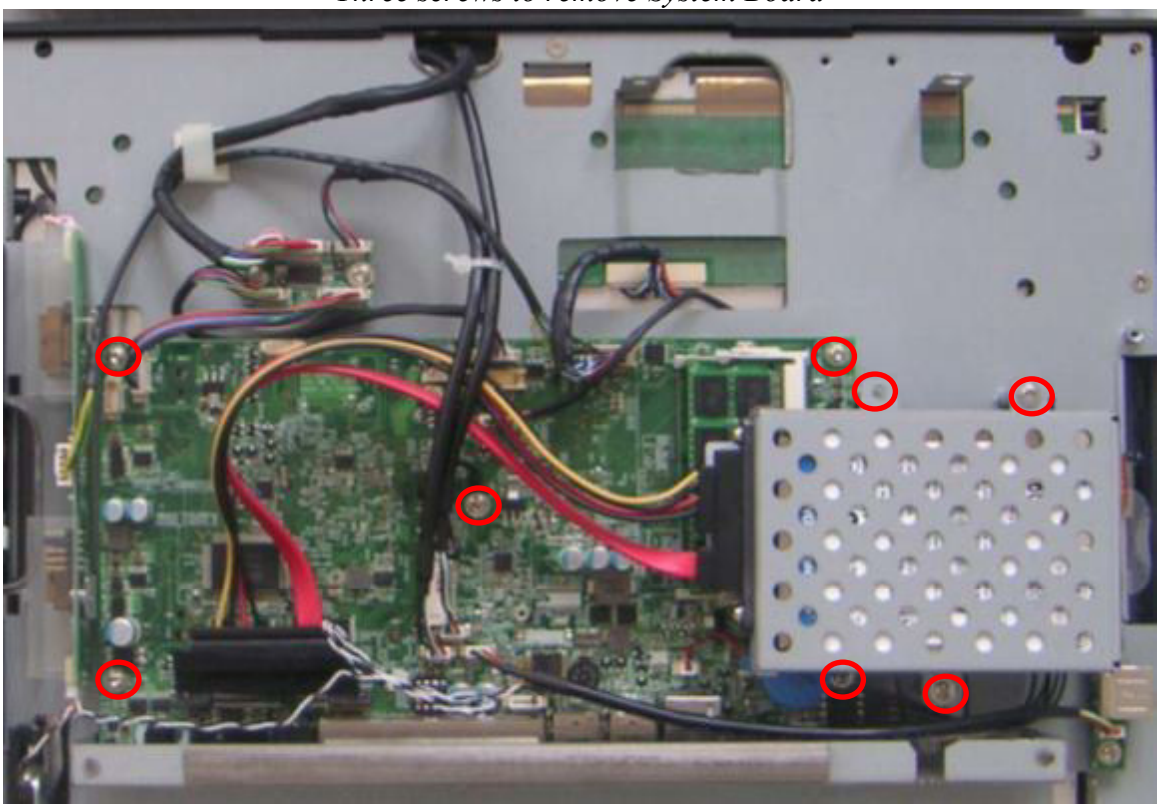
Note: The 625 was designed so that the internals of the unit could be accessed without having to remove the mounting base or the mounting bracket of the unit.

Changing the System Board

***Special Note**: **An anti-static workplace with proper grounding is required when changing the System Board.**

First remove the back cover. Then remove the 3 screws hold the drive cage in place and remove it. Then remove the 5 screw hold the system board in place. Unplug all cables going to the system board. Remove board. (*see photo below*)

Three screws to remove System Board

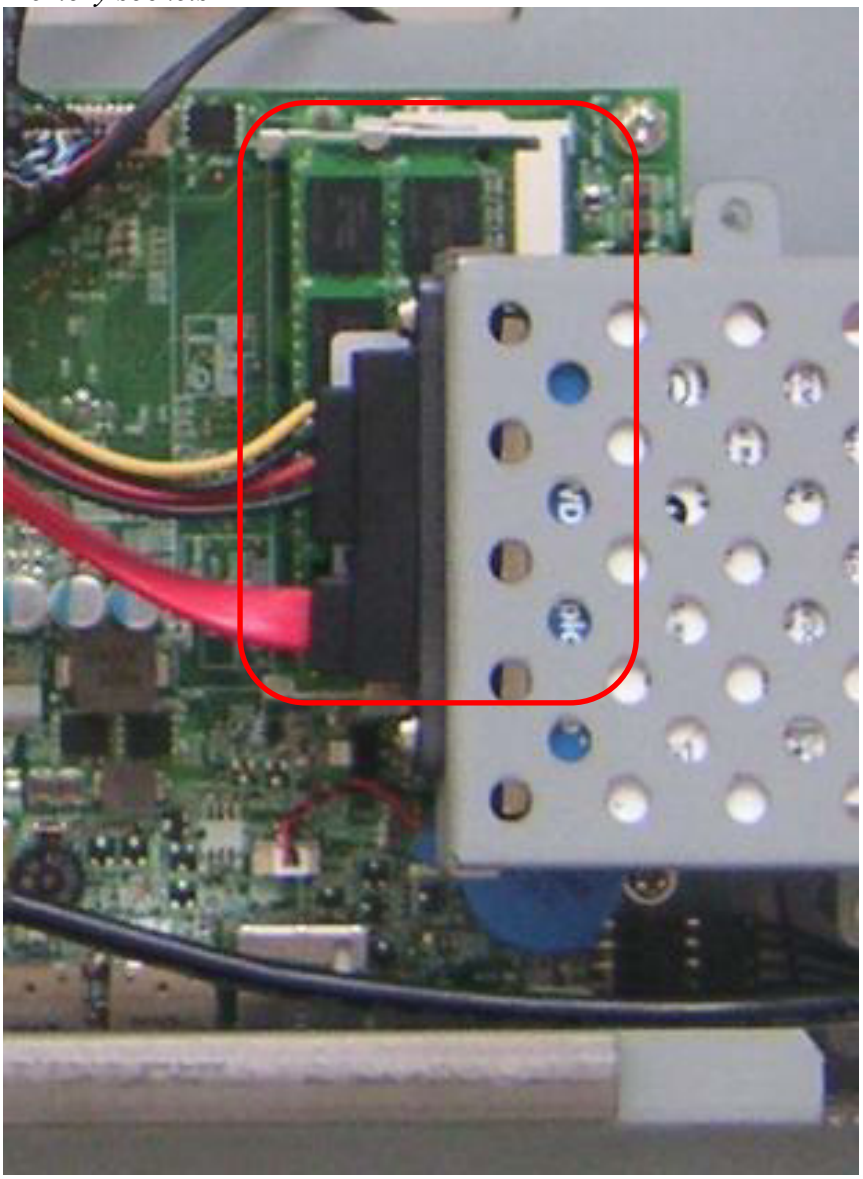


Adding Memory

Note: **An anti-static workplace with proper grounding is required when adding memory.** Remove the back cover. You can now access the two memory sockets. The top memory socket must be populated. The memory SODIMM can be installed or removed without removing the HDD cage.

The J2 625 supports up to 4GB of memory in two sockets. The unit comes standard with 2GB of main memory and can support up to a maximum of 4GB. The memory type is DDR3 800/1066.

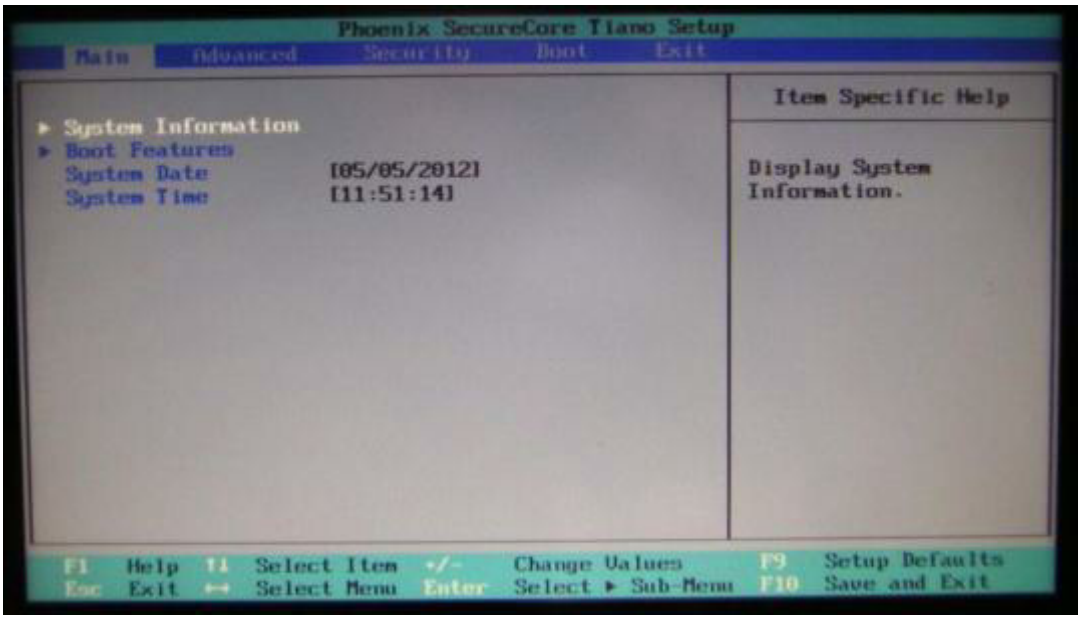
Memory sockets



BIOS Setting

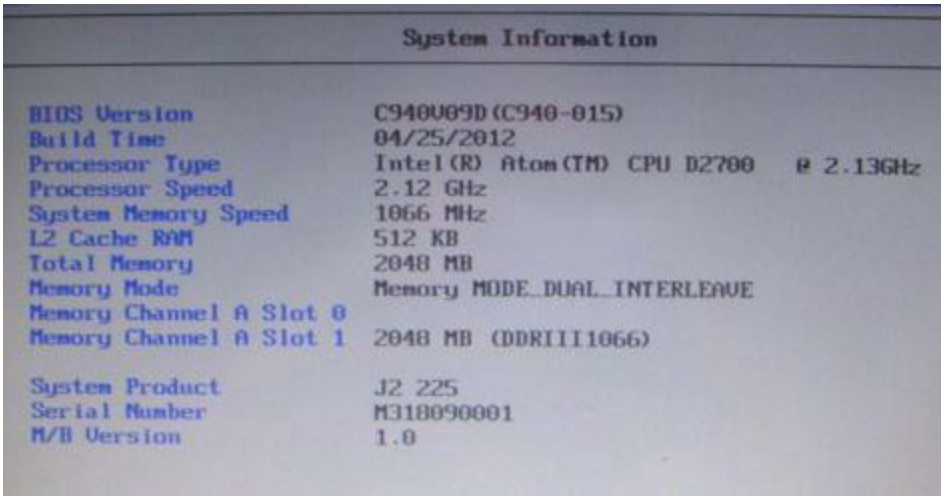
Main Screen

The main BIOS allows for the display of system information, keyboard boot options, and the setting of the time and date. The time and date may also be set via the operating system.



System Information

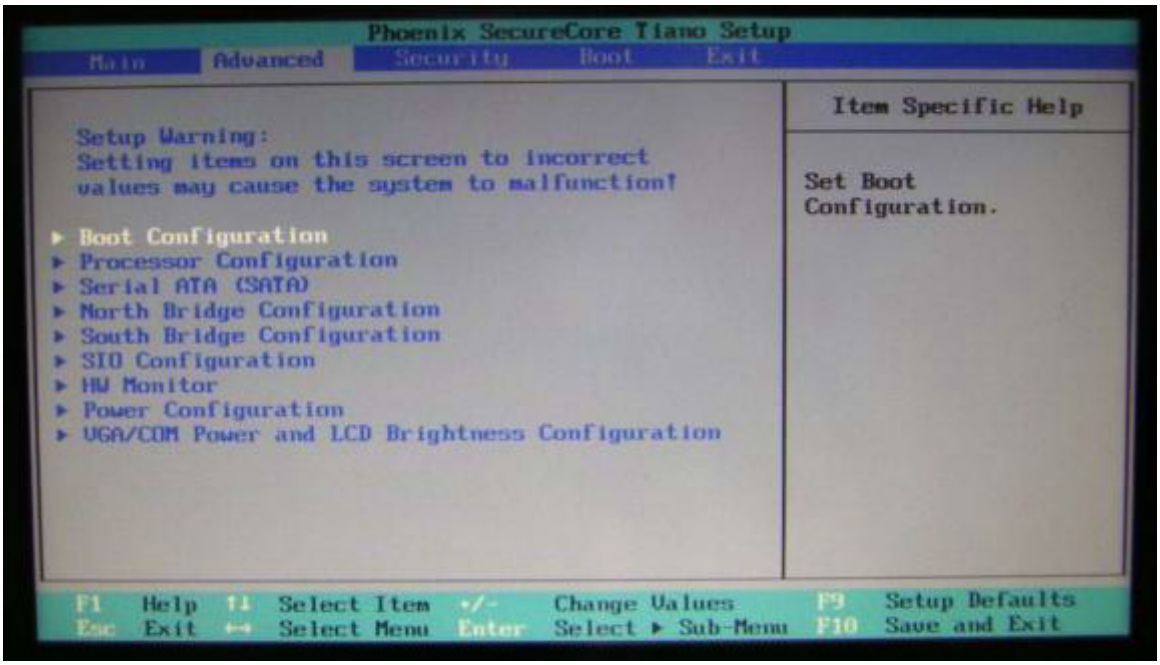
The J2 625 BIOS has a system information screen that displays useful system information, including the serial number of the unit. This information may also be accesed via DMI utilities.



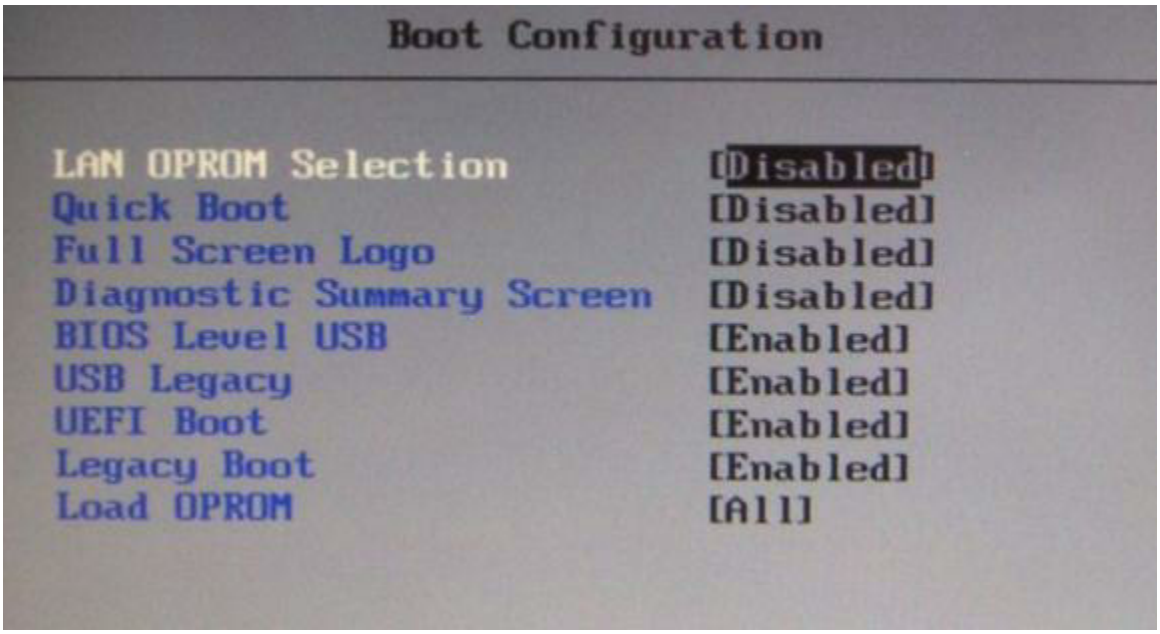
Note: This version of the new Phoenix BIOS does not have a screen shot utility yet. Please excuse the poor quality of the screen pictures. These will be replaced once the screen shot utility is available.

Advanced Screen

The Advance Screen allows for a number of BIOS options to be accessed. Please use care in changing these options, as some settings can cause the system to malfunction. These options are provided to offer maximum flexibility in configuring the J2 625. The Item Specific Help (*seen on the right hand side of the screen*) explains each option.

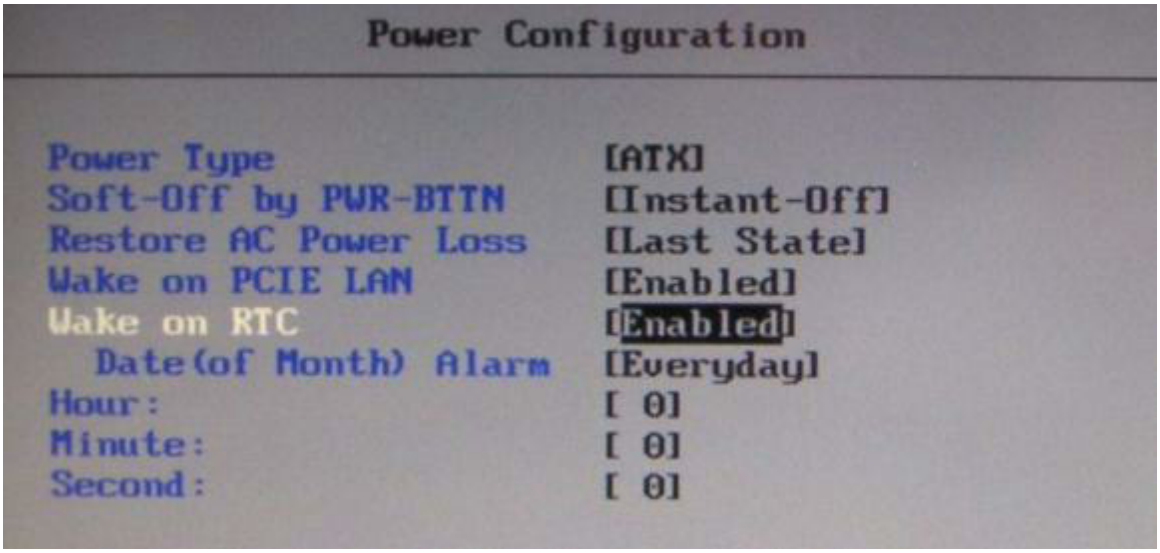


Boot Configuration



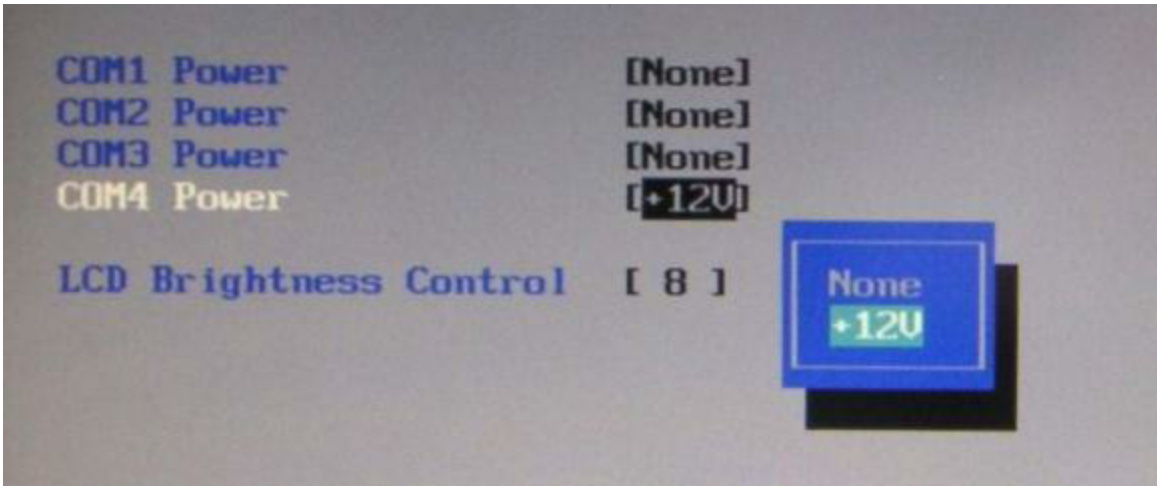
Power Configuration

The power configuration option allows for changing the behavior of the unit when it is powered up; it also enables changing the auto power-up feature.



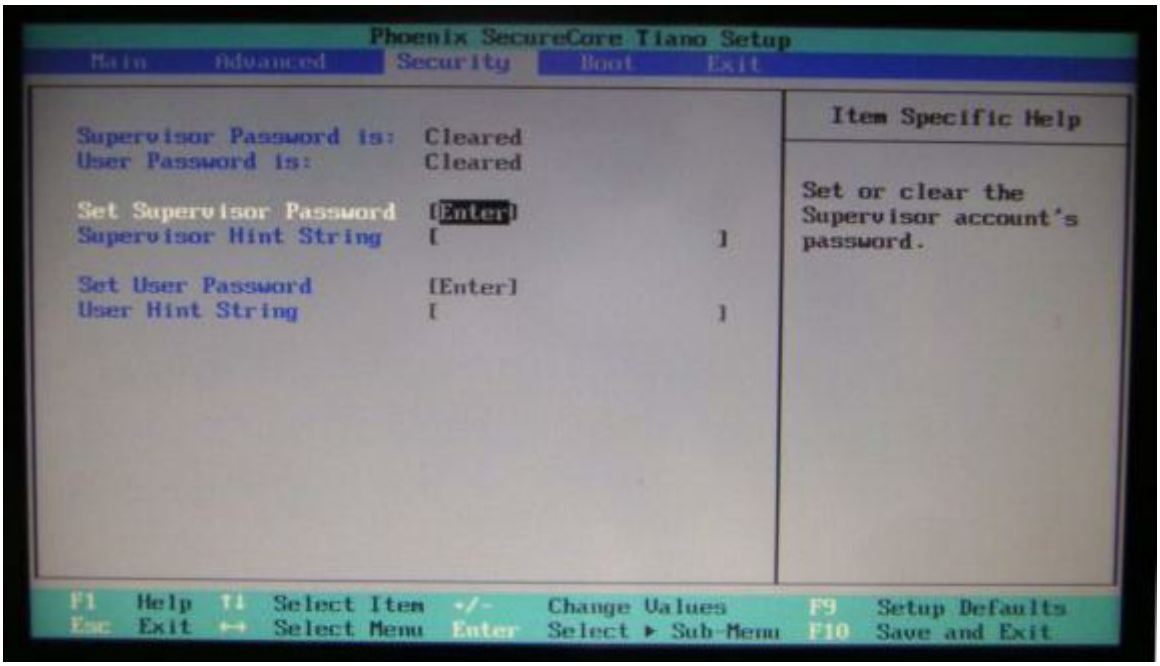
COM Power and LCD Brightness Configuration

This BIOS screen allows the enabling of the power for the serial ports, and changing the default brightness setting for the LCD screen. The LCD screen brightness can also be set via the Windows OS.



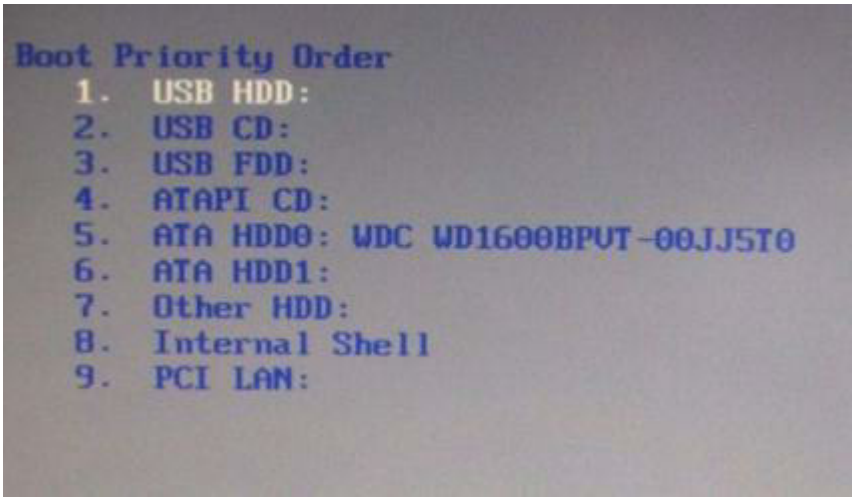
Security Screen

The Security Screen is used to set BIOS accessed passwords.



Boot Screen

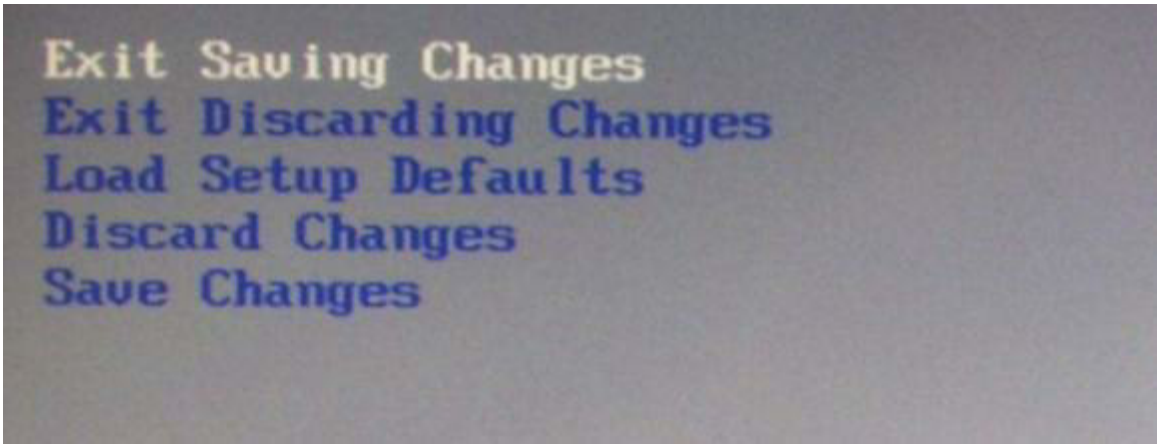
The boot priority order can be set with the Boot Screen.



Keys are used to view or configure devices:
Use up and down arrows to select a device.
A plus and minus moves the device up or down in the list.
A shift plus the number 1 enables or disables the device.
A "!" will be displayed when a device is disabled in the boot list.

Exit Screen

The exit screen allows for the saving, discarding or loading of the default BIOS settings. These functions can also be performed any time using the F9 and F10 key.



Phoenix Secure Core Tiano BIOS

The J2 625 uses the new Phoenix Secure Core Tiano BIOS. More information about this new UEFI BIOS came be found at the following web link.

http://www.phoenix.com/pages/phoenix-securecore-tiano-tm

Device Drivers

All device drivers for the J2 625 can be downloaded from the J2 web site at:
http://support.j2rs.com/625/

Installation instructions are included with each driver.

OPOS Drivers

J2 supports OPOS drivers for the following J2 625 peripherals:

1: Cash Drawer(s)
2: LCM 2X20 character customer display
3: MSR Reader

The driver and documentation can be downloaded from:

http://support.j2rs.com/Utilities/OPOS/

J2 625 Configuration Utility

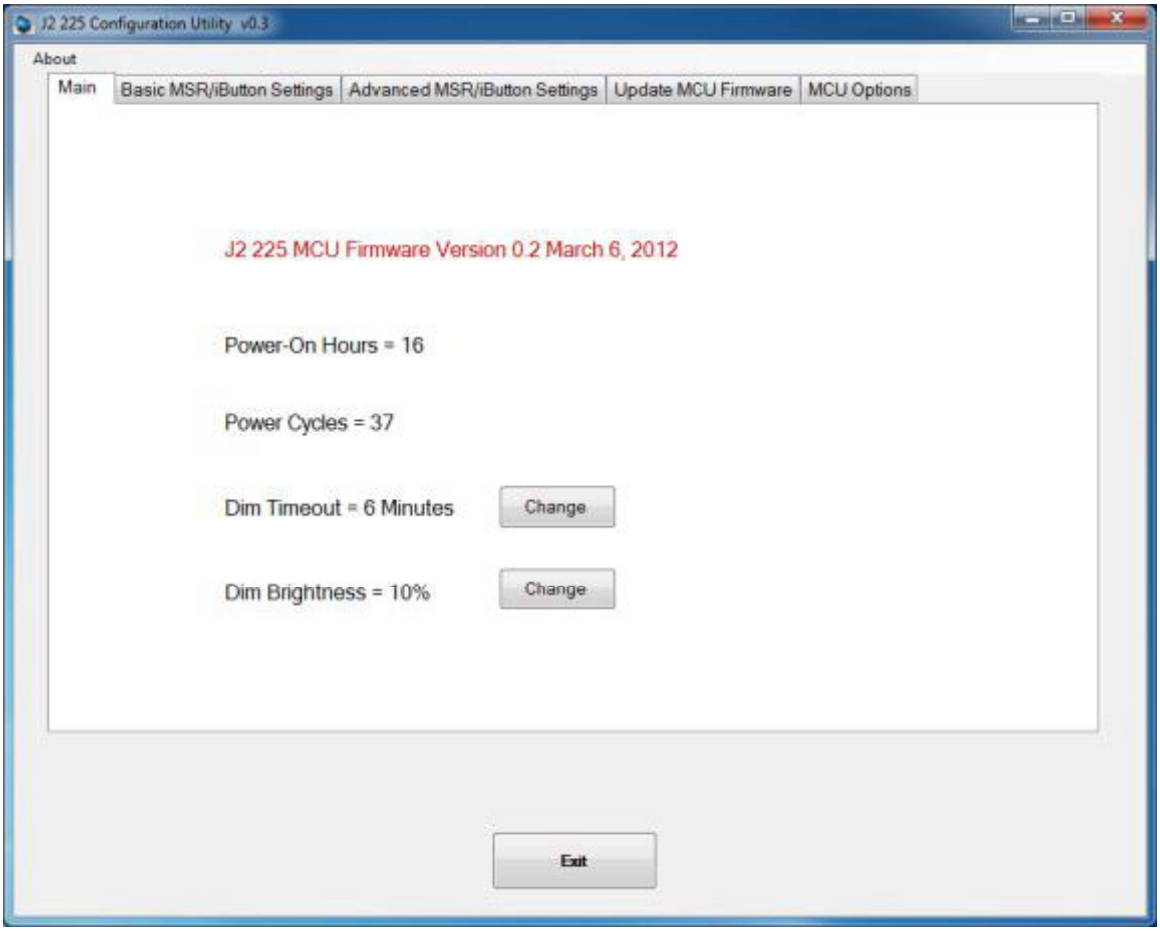
The J2 625 incorporates a microcontroller (MCU) that supports a number of system functions. These include auto LCD backlight dimming, power LED control, power-on timer, and power cycle counter. The J2 625 Configuration Utility allows for the configuration of options and for reading the current values of these various functions.

Installation

The utility can be downloaded from the J2 web site: http://support.j2rs.com/625/utilities/
To install, simply unzip anywhere and run setup. Like other J2 utilities it can be uninstalled though the Windows control panel.

Main

The main screen displays the following: the current version of firmware, the power on count (in hours), a list of the number of power cycles, and the dim timeout setting and dim brightness settings. (*shown below):*.



Power-On Hours

The MCU uses an internal timer to keep track of how many total hours the J2 625 has been up and running in its lifetime. This number shows powered-up hours only, not the powered but off/standby time. The accuracy of this timer is only about +/- 5% and is to be used as an approximate number. The value is stored in the MCU internal EEPROM.

Power Cycles

The MCU tracks the total number of times the unit has been powered off and on in the power cycle counter. The count is stored in the MCU EEPROM and is used for diagnostic purposes. The power-on and power cycles can only be changed at the factory.

Dim Timeout

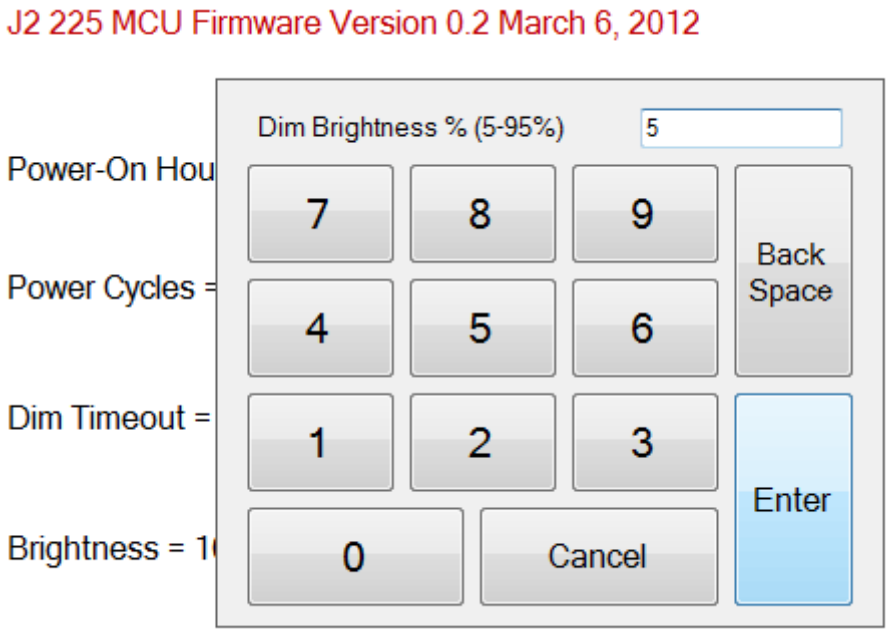
This value is the amount of time the MCU waits if there is no touch activity before dimming the screen. This same function is built into Windows 7 and Windows 8 drivers, and should be used rather than the J2 625 hardware dimming. But for older operating systems (such as XP) the J2 625 hardware dimming default should be used.

The default value for the hardware dim timeout is six minutes, but can be changed with this utility from any value from 0-255 minutes.
Note: a value of zero will disable the hardware auto dimming function.

Once the dim timeout is reached the LCD screen will dim to the value set in Dim Brightness. Any touch of the screen, such as MSR read, iButton read or keyboard activity that changes the keyboard LED status will take the J2 625 out of auto dim mode. This is all done via hardware, and no software drivers need to be loaded. If it is required, the J2 Dim Wake driver should be loaded if other activity is required to take the J2 625 out of auto dim. This driver is described in the Dim Wake section of this manual.

Dim Brightness

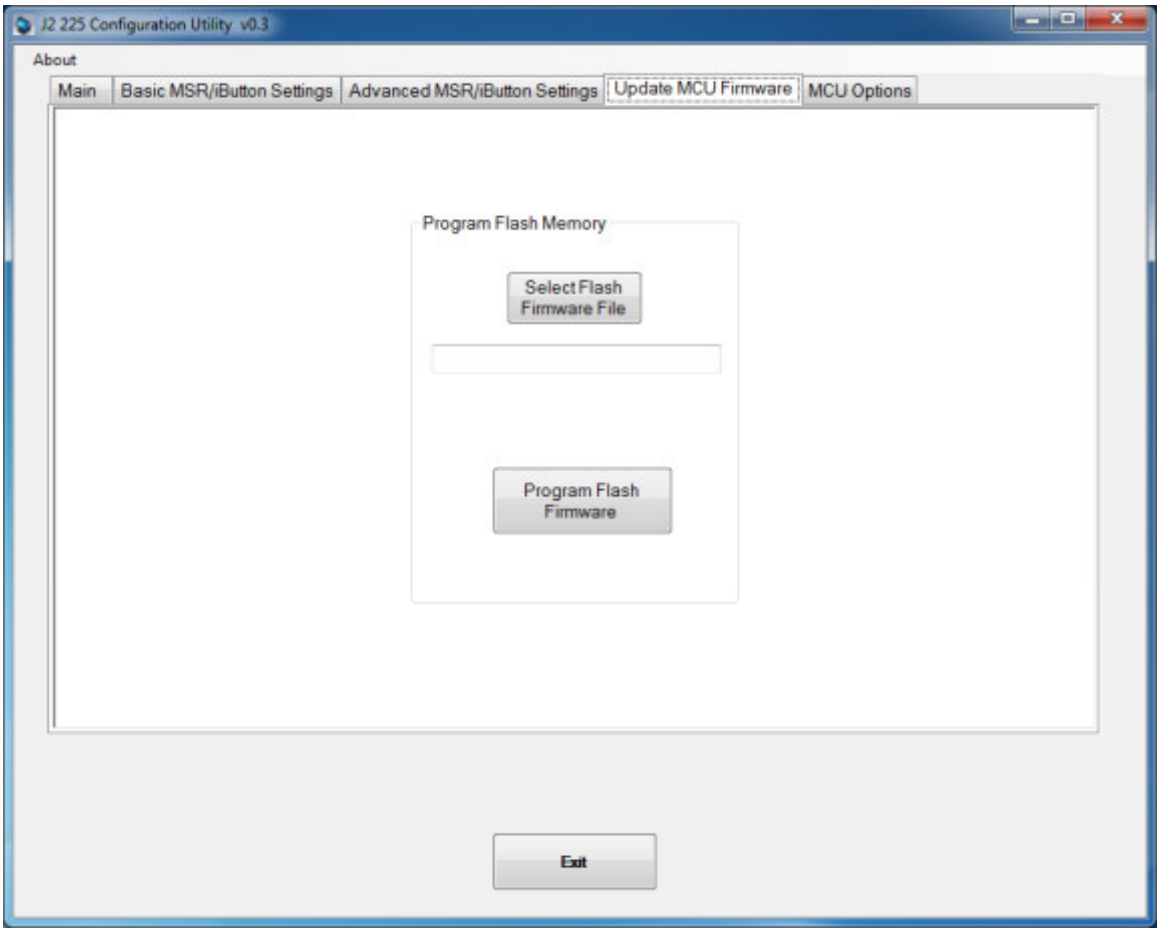
The brightness level that the screen dims to when auto dim is active is controlled by the Dim Brightness setting. This utility is used to change this value whose default value is 10%. The possible range is from 5-95%, in 5% increments.



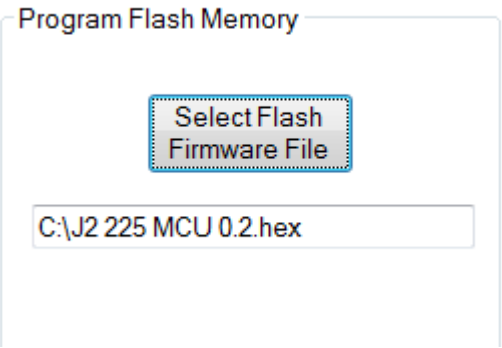
Note: Dimming is important for a few reasons: one is to lower the total power consumption of the unit; another would be to prolong the LCD screen backlight LED life.

Update MCU Firmware

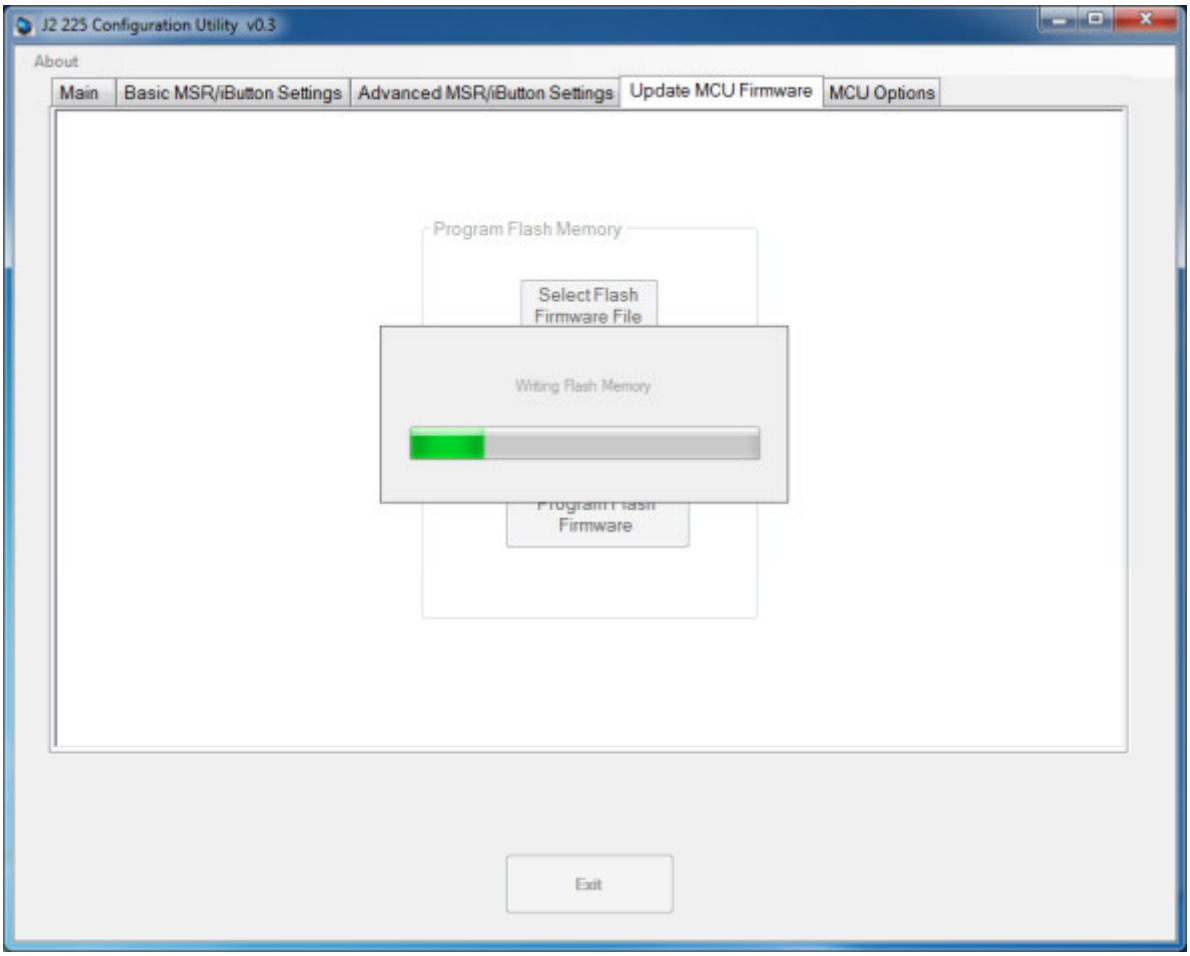
This tab is used to update the MCU firmware when necessary. This may be to add a new feature or function to the MSR/iButton. J2 will supply a firmware file for this when required.



Use the "Select Flash Firmware File" button to start the update, *as shown below*. This will let you browse for the correct file.

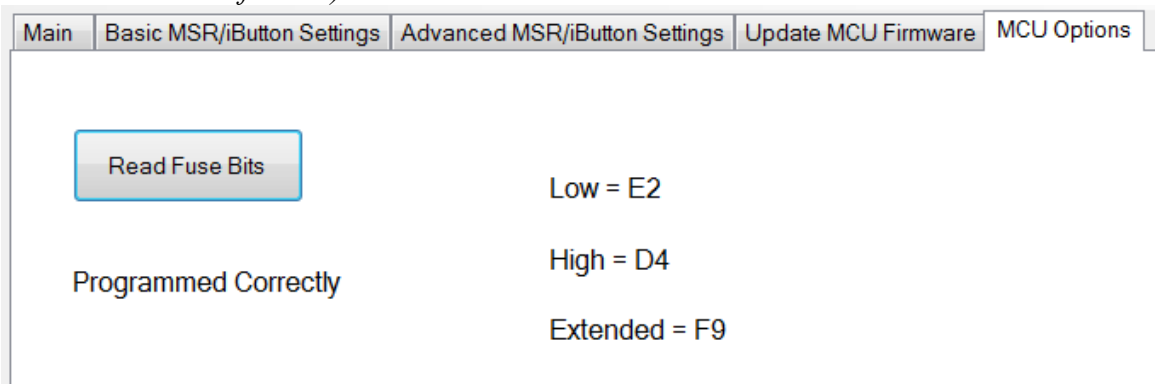


Once the hex file has been selected, touch the “Program Flash Firmware” button to start firmware update. The utility will now update the MCU firmware. It will first write the memory then verify it. Do not turn off the J2 625 power when updating.



MCU Option

This tab is only used for factory programming and verification of the MCU option fuses. It will display the current value of the MCU option fuse (*note that end-users normally would not use this feature).*



DimWake

DimWake is a very small and simple utility that loads on any Windows OS, but normally is only used with variations of the XP operating system (like XP Pro, POSReady 2009, WEPOS, or XP Embedded). The DimWake program is used to take the J2 625 out of auto dim mode. The hardware can only take the system out of dimming by either a touch of the touch screen, MSR read, iButton read, or keyboard activity that changes the keyboard LED status. Sometimes it is desirable for other events to take the system out of dim mode, like a mouse movement. The DimWake program provides this function.

Installation

The utility can be downloaded from the J2 web site: http://support.j2rs.com/625/utilities/ To install just unzip anywhere and run setup. Like other J2 utilities it can be uninstalled through the Windows control panel.

Once having installed DimWake, you will need to reboot the system for it to take effect. DimWake will then be running in the background.

Once installed and running - any mouse, keyboard or high CPU activity (like playing a video) will bring hardware auto dimming out of dimming mode, or prevent it from going in to dimming. This combination of hardware auto dimming and DimWake provides that same function to XP, as comes standard with Windows 7 and Windows 8. When using Windows 7 or 8 it is best to use the built-in dimming feature.

J2 Health

J2 has a standard program that works with all its POS products, called J2 Health. This program is used in either a standalone mode or in conjunction with J2 remote monitor/asset tracking software. The J2 Health program monitors different aspects of the POS hardware to ensure the hardware is running within specification. For the J2 625 it monitors critical system voltages, as well as system and CPU temperatures.

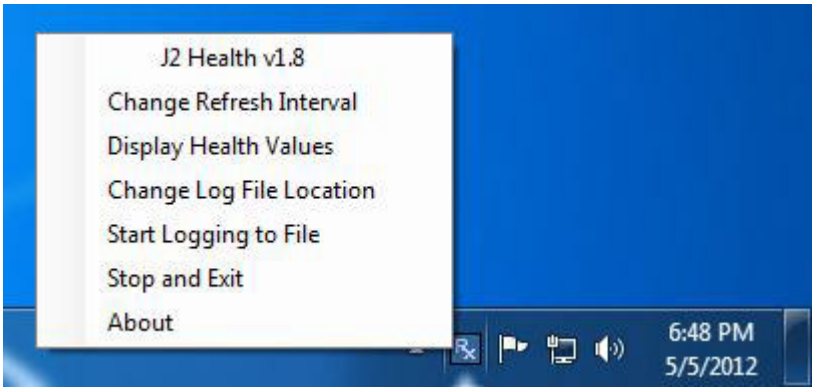
Installation

The utility can be downloaded from the J2 web site:
http://support.j2rs.com/Utilities/Health/ To install just unzip anywhere and run setup. Like other J2 utilities it can be uninstalled through the Windows control panel.

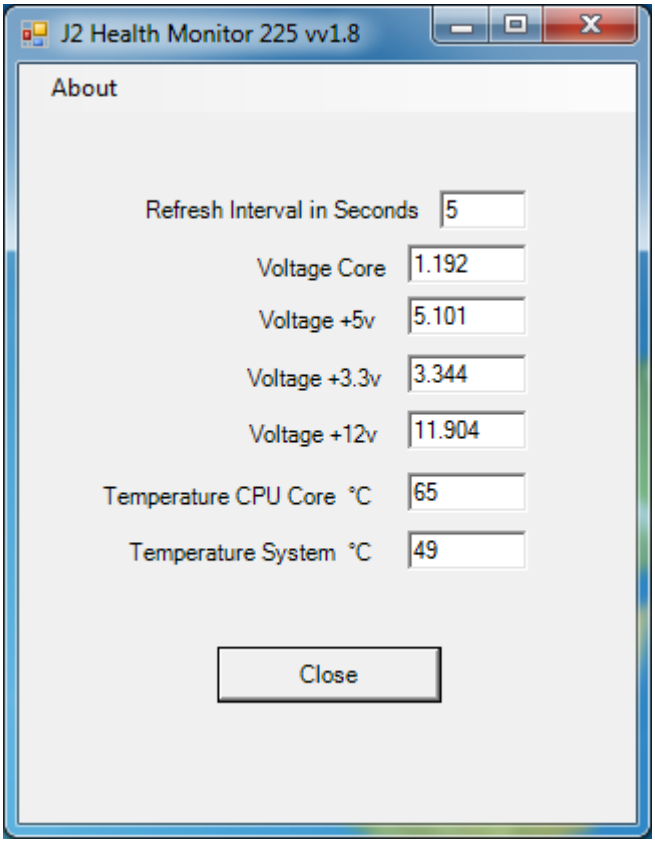
Tray Icon

Once installed and the system has rebooted, J2 Health will be running in the background. The J2 health icon will appear in the task bar tray:

Right-clicking on this icon displays different Health options, *shown below*:



The current health values will display by clicking on “Display Health Values”.
A sample screen is shown below:



As can be seen above, when running on the J2 625 the J2 Health program displays critical system voltages and system and CPU Core temperatures. For other J2 POS systems, J2 Health may display more or less information. An example would be the J2 625 unit, which in addition to the above information would also display the fan speed of the two J2 625 fans.

Logging to File

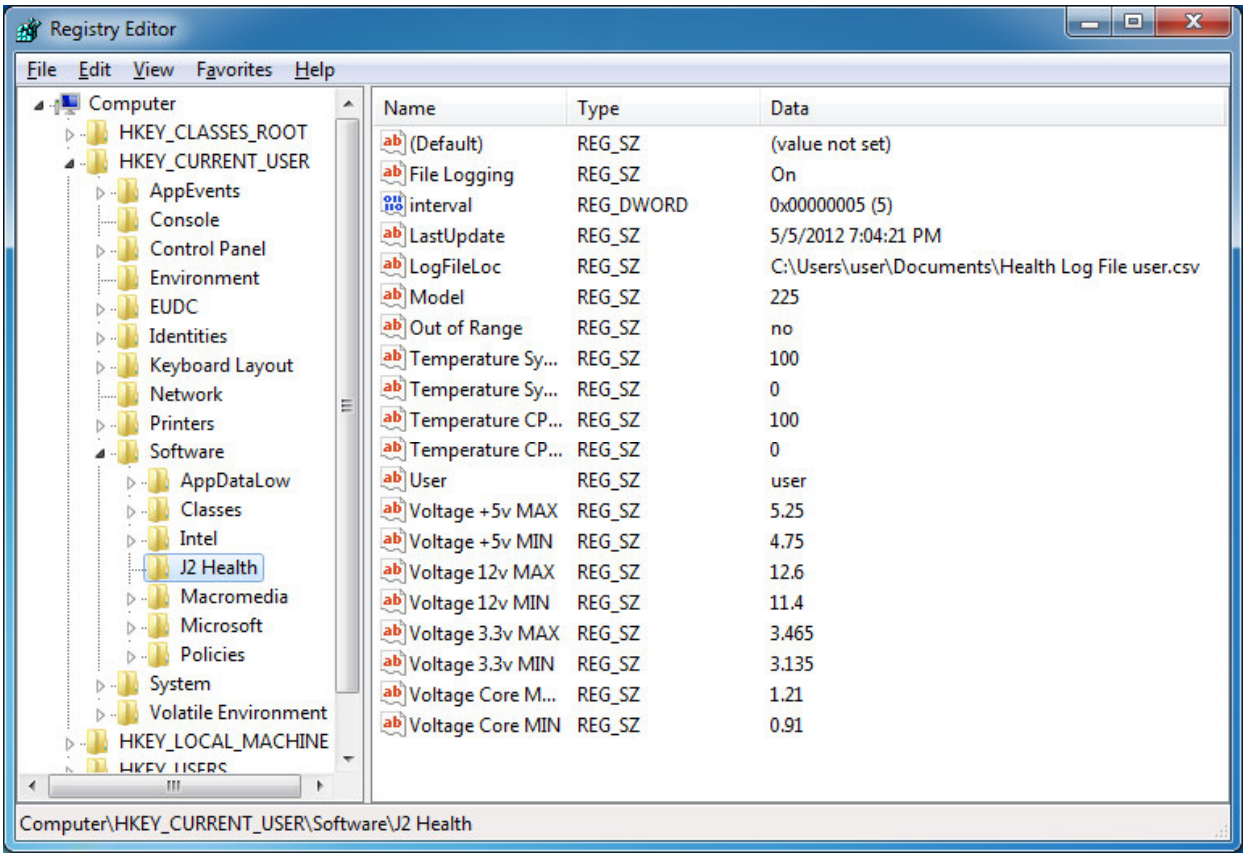
The J2 Health program can log the health data to a file in the csv text format for importing to other programs, like Excel. This can be handy for finding “time of day” related problems.

When logging is enabled, the tray icon Rx symbol will change to red to indicate logging in is taking place.

Registry Entries

The J2 Health program creates registry entries for the different health values. Dynamic values are updated at the user defined interval, which is by default 5 seconds. Other software may use these registry entries to access the J2 health information.

J2 625 Health keys are shown below:



J2 Remote Monitoring Software

J2 now offers a full remote monitoring and asset tracking solution that works in conjunction with J2 Health to ensure the highest uptime possible of your POS hardware. Please contact J2 sales for more information on this fully customizable, remote monitoroption.

For more information, please visit us at
http://www.j2retailsystems.com/newsarticle.php?news_id=57

SMI BIOS Info Utility

The J2 SMI BIOS Info program allows for the reading of all populated BIOS DMI/SMI information. With some J2 products including the J2 625, this information also includes dynamic system health information. Normally this dynamic DMI health information BIOS is only supported on very high end servers. Now J2 brings this feature to POS hardware.

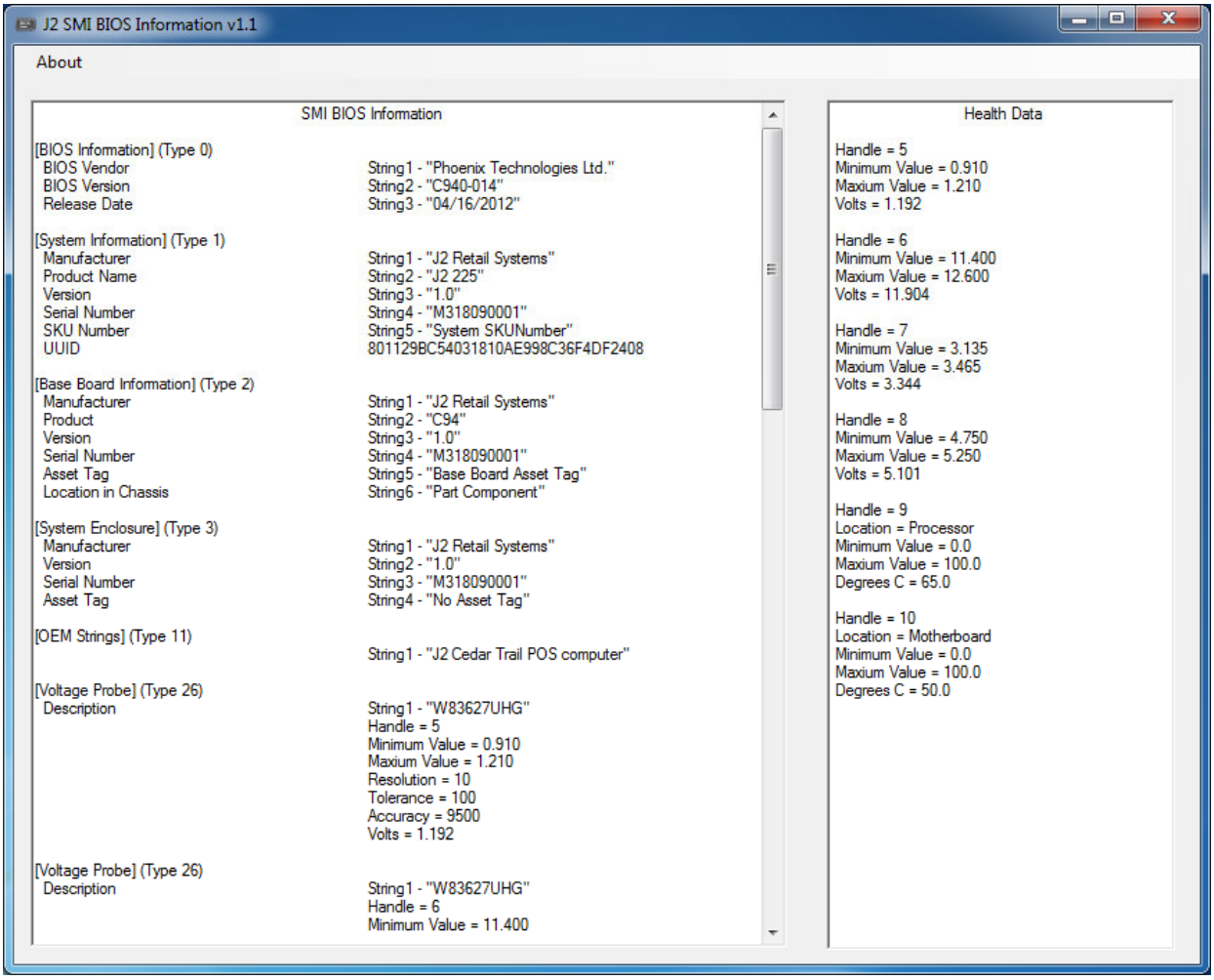
The J2 SMI BIOS Info program will run on any J2 POS hardware or for that fact on any PC hardware. It can display all DMI/SMI information on a formatted form.

Installation

The utility can be downloaded from the J2 web site: http://support.j2rs.com/Utilities/
To install just unzip anywhere and run as you wish to run the utility form.

Operations

Just click on the .exe file to run. The following screen will be displayed *(see below)*. Note that the health data will only display on newer J2 systems that support the dynamic DMI health BIOS.



Cash Drawer Test Utility

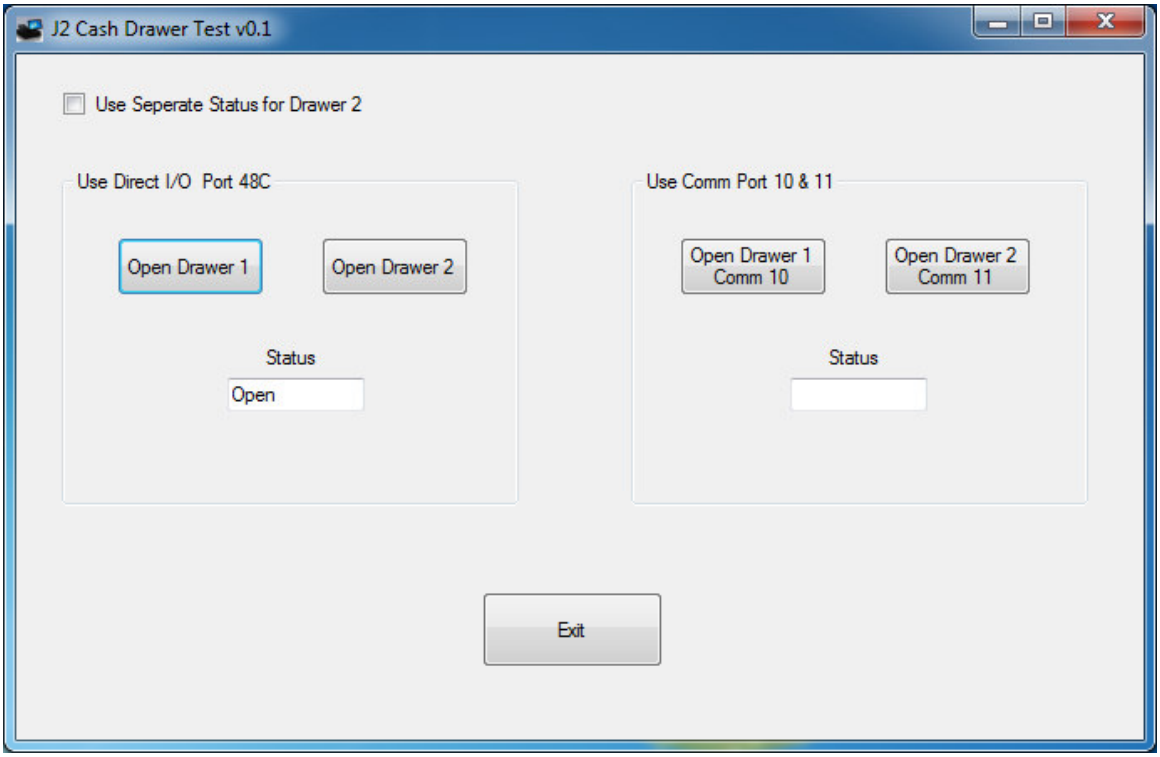
J2 has a generic cash drawer test utility that works on all J2 products, including the new J2 625 computer. This test program also supports the J2 625 separate status lines, such as when the special J2 625 "Y" cable is used, supporting two cash drawers.

Installation

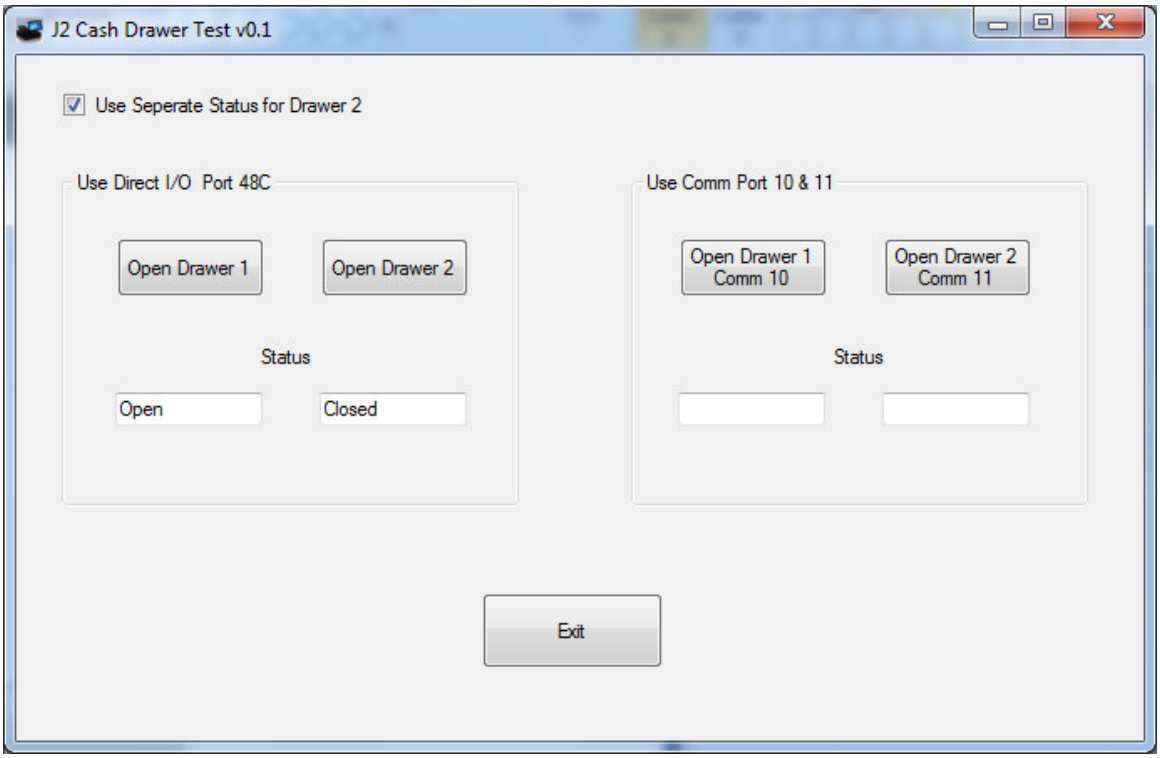
The utility can be downloaded from the J2 web site: http://support.j2rs.com/Utilities/
To install just unzip anywhere and run as you wish to download the utility form.

Operation

Just run the cash drawer test from whatever folder it was installed into. Use the "Use Direct I/O Port 48c" setting to test the cash drawer(s). *(See example below)*

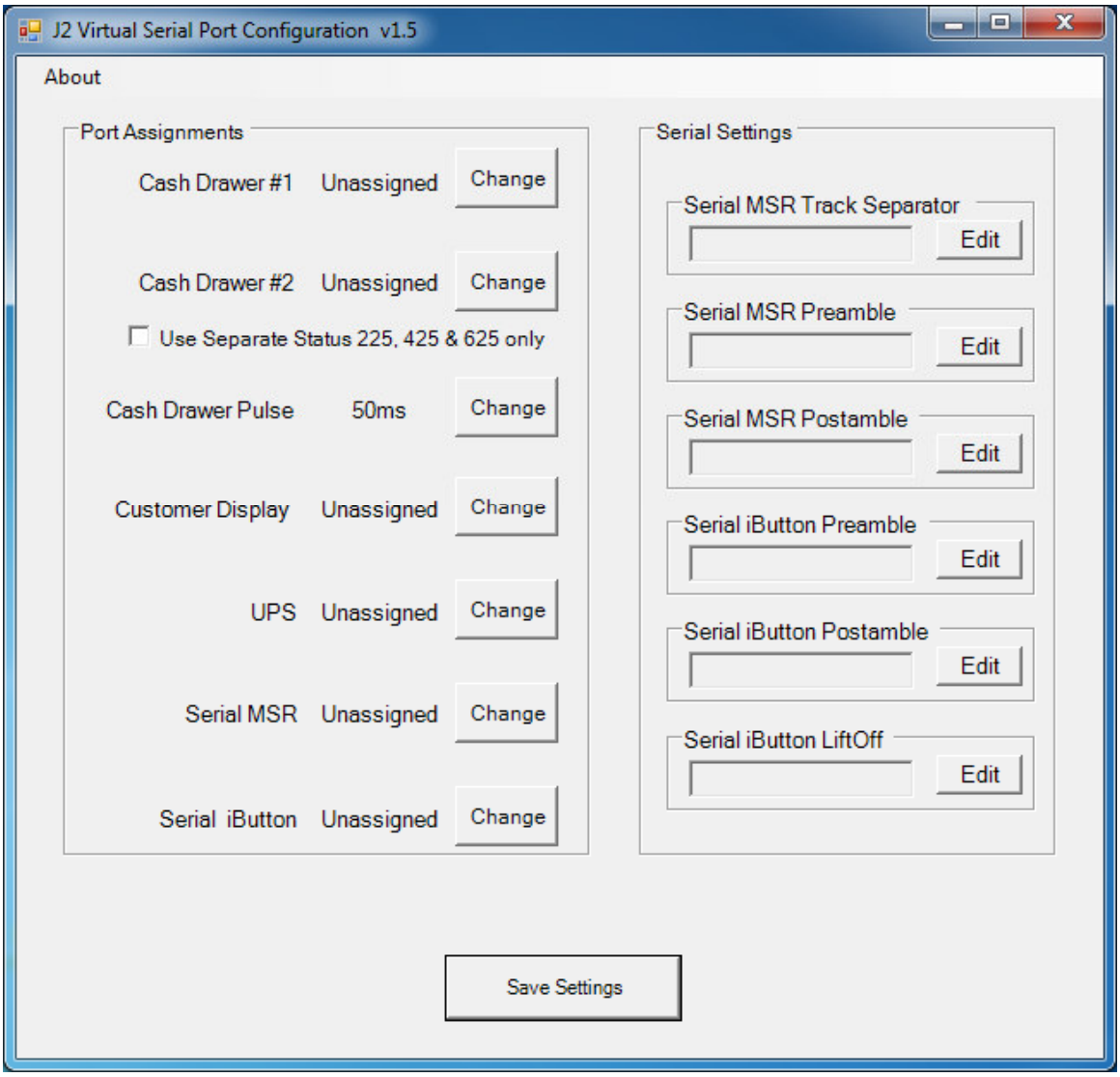


To use two cash drawers with the J2 625 you use a “Y” cable, either the J2 standard “Y” cable that also works with Epson printers or the special J2 625 “Y” cable that supports separate status lines (The standard cable supports shared status lines.). When using the special cable check the “Use Separate Status for Drawer2” box. The test screen will now look like this:



The “Use Comm Port 10 & 11” option is to test the cash drawer you set up using the J2 virtual serial ports program. The virtual serial port program must be installed with the cash drawer virtual serial ports set to Comm 10 & 11.

J2 Virtual Serial Ports Drivers



Virtual serial ports can be used for the cash drawers, virtual 2x20 line display on the optional 10.1 LCD, Smart UPS, MSR and iButton.

To open virtual serial cash drawer send a bell character to the Com port it is assigned to. (The bell character is the ASCII 07 hex character “Control G.”) 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 a hardware serial cash drawer and will work with drivers for serial cash drawers.

J2 625 Options

MSR

Overview

The 625 can be ordered with a 3 track MSR. This MSR is the same as used on the J2 580/615/630/680 POS systems. The MSR mounts on the right side of the 625 and uses a front facing MSR slot. This allows the 625 unit to be placed side by side, or in tight spaces, and still be able to swipe the card. The MSR appears to the software as a wedge type MSR with all data from the MSR being sent to the keyboard port. The MSR configuration utility can be down loaded from J2 web site.

625 with front swipe MSR

Installing the 625 MSR

The 625 MSR is installed by first removing the two rubber plugs for the option attachment point as shown below.

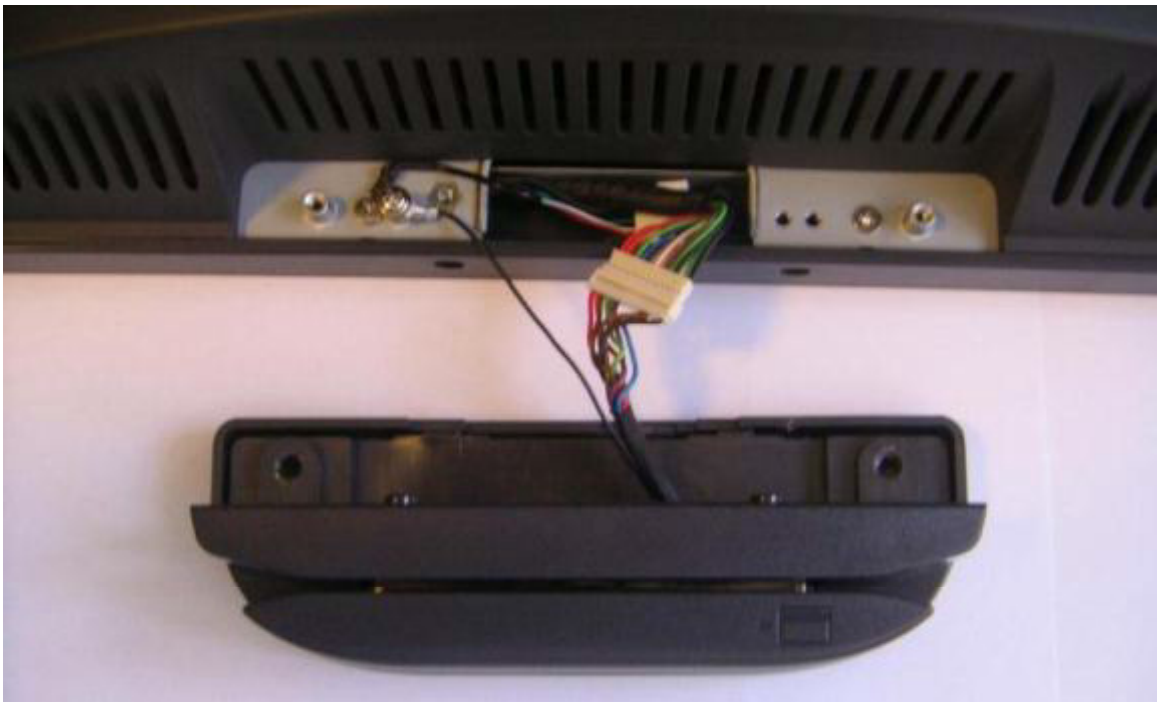
Remove Rubber plugs

Then remove the MSR cover plate on the right back side of the unit by removing the two screws, as shown.

Remove MSR cover plate

Connect the cable together as shown add secure the static ground wire with screw provided as shown.

Attach cables



Attach the MSR using the two screws at the locations shown below.

Mounting MSR

You may now power up the 625 and the MSR should be working. For a quick test you can open *Notepad* and swipe a card, the information should appear in *Notepad*. You can now run the J2 MSR utility if you need any custom settings for the MSR.

Customer Display

Overview

A 2 line by 20 character VFD or LCM customer side display is available optional for the J2 625. This customer display is the same as used on the J2 580/615/630/680 POS systems.

VFD 2x20 Customer Display

LCD 2x20 Customer Display

Secondary Video Display

The J2 625 has the same options as available on the J2 580/615/630/680 POS systems. Secondary display of 10 inch, 12 inch 4:3 and 10.1 inch 16:9 displays are available.

10 inch 4:3 Display

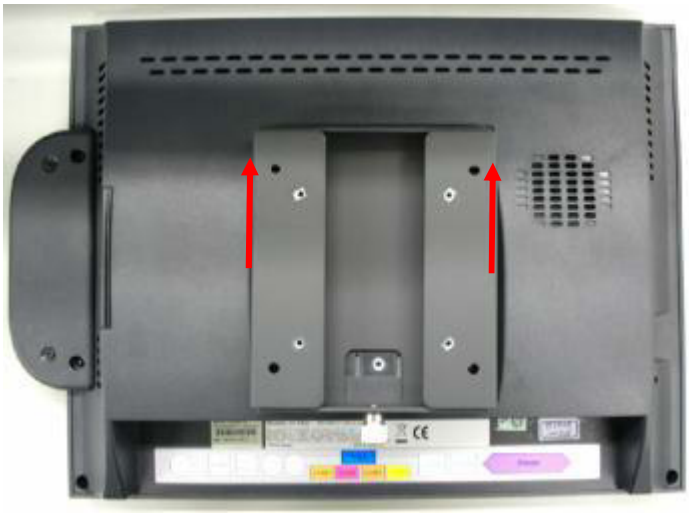
10.1 inch 16:9 1024x600 Display

Optional Wall Mount Bracket

This option is the same as available on the J2 580/615/630/680 POS systems. The 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 625 on the bracket.

Install screw to secure thumbscrew clip



The bracket slides on to the J2 625 mount posts, *as shown*. Normally the bracket would already be mounted to the wall or a VESA mount and the 625 would be hung on the bracket. Once in place the thumb screw would be tightened.

Fingerprint Reader / MSR

This option is the same as available on the J2 580/615/630/680 POS systems. This reader uses the Digital Personal module.

iButton / MSR

This option is the same as available on the J2 580/615/630/680 POS systems.

625 UPS

Available Q3 2012

RFID

Available Q3 2012

Pole Mount Options

The J2 625 has the same options as available on the J2 580/615/630/680 POS systems.

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Website

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FCC Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment.
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, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Caution!
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.