



Viper

User Manual

User Manual

PN 68980042 Rev A

(16 April 2000)

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- Connect the equipment into an outlet on a circuit different from that on which the receiver is connected.
- Consult the dealer or an experienced radio-TV technician for help.
- Any changes or modifications not expressly approved by the manufacturer could void the warranty.
- Shielded I/O cables must be used when operating this equipment.
- This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:
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Preface

Congratulations for purchasing the Javelin Viper. Javelin is confident your Viper will prove to be a highly valued asset to your establishment over the years to come.

This guide contains detailed information about the *Javelin Viper*. It has been prepared to help the qualified service technician (or similar level) set up, use, and maintain the system. A brief description of each chapter is outlined below.

Chapter 1: Introduction

- reviews items included with the Viper (standard version), warranty, proof of software license, and views major features of the system.

Chapter 2: Setup

- helpful information on selecting the ideal working environment for the system, getting hooked-up (AC & I/O connections), and adjusting the display panel.

Chapter 3: Features

- detailed specifications of the system, including; system capabilities, reliability, PIN Call-outs, I/O ports, etc...

Chapter 4: Software

- lists compatible operating systems and points to our web site address for selecting and downloading ELO Touchscreen drivers & display drivers.

Chapter 5: BIOS

- describes fields in each BIOS screen and reviews their default settings.

Chapter 6: Options & Upgrades

- step-by-step instructions for installing the Customer Display, Magnetic Stripe Reader (MSR), and memory expansion (DIMM module).

Chapter 7: Troubleshooting & Maintenance

- covers solutions for common setup errors and system maintenance.

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Chapter 1: INTRODUCTION

NOTE: Please fill out and mail the registration card to activate your warranty.

1.0 INSPECTION

1.1 Carton Contents (*standard*)

1. Make sure each item listed below was included in the shipping carton and that no items are damaged. For missing and damaged items, please call us: 1.949.440.8302.

- 1 - Javelin Viper
- 1 - Power Cable (standard US type; special order for non-US type)
- 1 -Serial Printer Cable (RJ-45)
- 1 - Adapter (printer)
- 1 -Warranty Card
- 1 -Set of I/O Identification Labels
- 1 - Proof of Software License

1.2 Warranty Card

1. Immediately read and fill out the warranty card.
 - a. Detach the upper portion (warranty) of the card and file for your records.
 - b. Place postage on the lower portion of the card and mail.

1.3 Proof of Software License

1. Record the following information on the proof of software card.
 - a. Purchase date.
 - b. Model (*Viper*).
 - c. Serial number.
 - d. File and store card for your records.

1.4 Overview of the Viper

Please take time to familiarize yourself with these features.

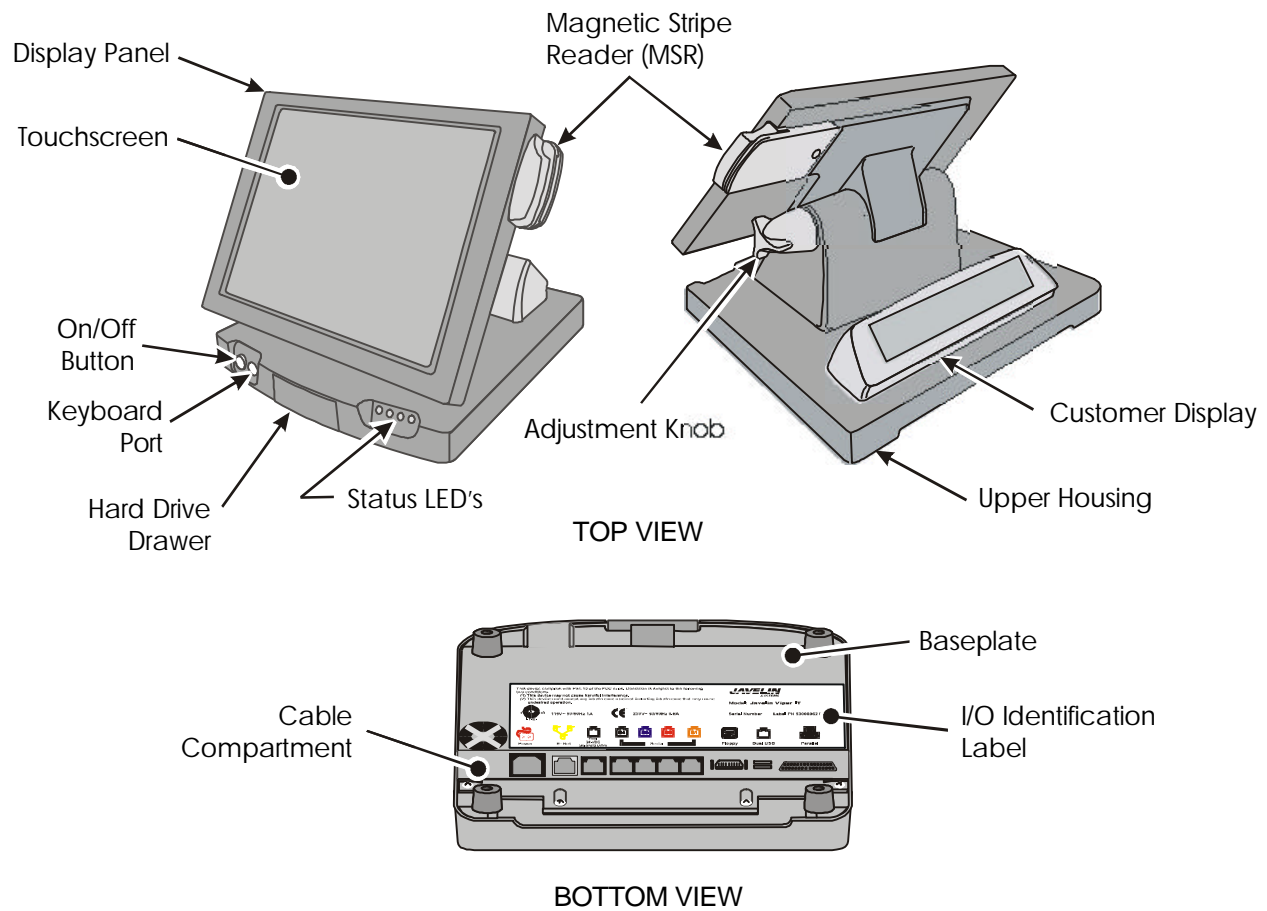






Figure 1.

1.5 Status - LED's

SYMBOL	PURPOSE	LED INDICATOR COLOR		FUNCTION
		AMBER	GREEN	
	LINK	X		10BaseT
			X	100BaseT
	TRANSMIT/ RECEIVE		X	ACTIVE
	HARD DRIVE ACTIVITY		X	ACTIVE
	POWER		X	ON

* When LED is off, the function is inactive.

Figure 2.

Chapter 2: SETUP

1.0 Work Area

NOTE: For quick setup, refer to the **Viper Quick Start Guide**.

1.1 Precautions

1. The **Viper** has been designed to operate in a wide range of working environments. Keep the following precautions in mind when choosing the best work area to set up your system.
 - a. Allow sufficient space for routing AC and I/O cables.
 - b. Place the system on a hard flat surface.
 - c. Area beneath and immediately around the unit should always provide unobstructed air-flow.
 - d. Avoid placing system in direct sunlight and under heat-lamps.
 - e. Avoid placing system in moist and/or wet areas.

2.0 AC & I/O Ports

NOTE: To access the I/O cable connection compartment, carefully turn the system over and place the *display panel* on a hard flat non-abrasive surface.

2.1 AC Cable

1. Use the I/O identification label to locate the AC port.

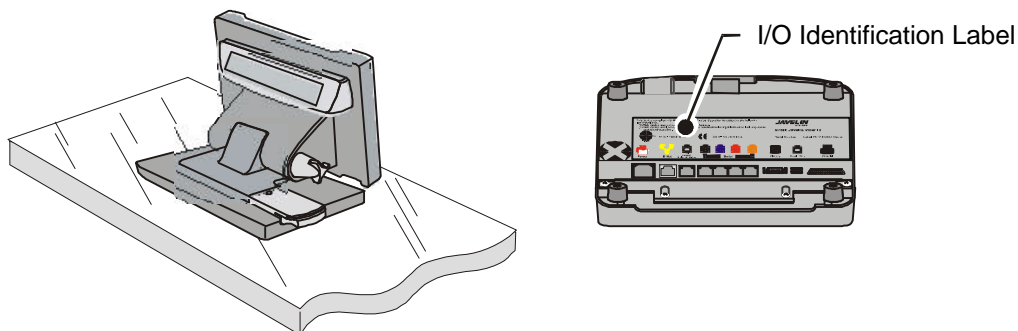


Figure 1.

- a. Connect AC cable to AC port and electrical outlet, refer to figure 2.

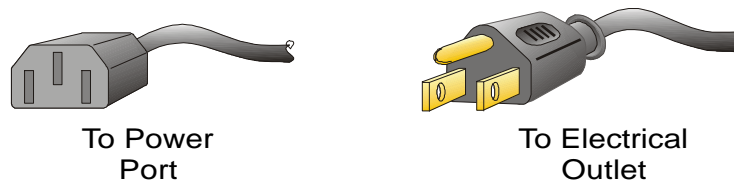


Figure 2.

2.2 Peripheral Cables

1. Connect all other I/O cables to their respective ports.
 - a. Refer to manufacturer's instructions for connecting I/O cables to respective peripherals.
 - b. Refer to the I/O identification label for connecting I/O cables to the Viper.

3.0 Panel Display

3.1 Adjustment

1. Turn the adjustment knob counter-clockwise to loosen.
2. Adjust the display panel to desired position.
3. Turn the adjustment knob clockwise to tighten.

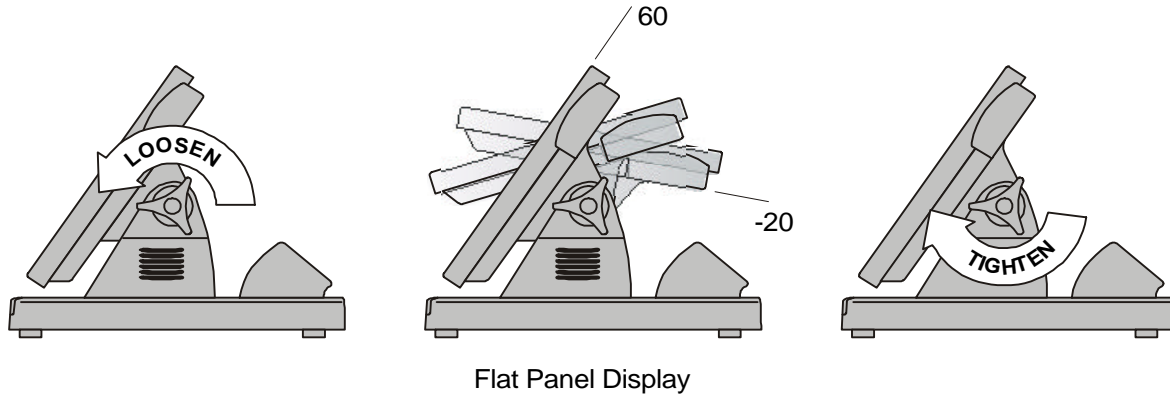


Figure 3.

3.2 Power Up

1. Press the ON/OFF button. The system should boot into the application per your order.
 - a. If the system does not power up, depress the power button, check the AC cable connections and press the ON/OFF button again.
 - b. If the system still doesn't power up, refer to: *Chapter 7 - Troubleshooting*.

Chapter 3: *FEATURES*

1.0 System Specifications

1.1 Processor

1. 333 MHz AMD K6-2 CPU (*standard*).
2. L2 Cache, 512K Synchronous Pipeline.

1.2 Memory

32MB to 256MB Synchronous DRAM DIMM.

1.3 Storage

1. 1 - IDE, removable 2.5 inch hard disk drive, local bus.
2. Support for one external 1.44-MB floppy disk drive.

1.4 Display Panel

1. Super-twist 12.1" TFT Active or HPA Display, spill proof / water-resistant.
2. Integrated 5-wire touchscreen controller with support for ELO TouchSystems touchscreen. Integrated resistive membrane touchscreen, mouse type emulation.
3. Full screen video playback for video files (e.g., AVI, MPEG, Quicktime).
4. Automatic backlight dimming (*Refer to Chapter 5 - BIOS System*).
5. 60 to -20 degree tilt angle display.
6. Video:
 - a. 800x600 resolution.
 - b. Integrated PCI Video Controller.

1.5 I/O Ports

NOTE: With the exception of the keyboard port, all other I/O ports are located on the bottom side of the unit (refer to chapter 1, figure 1). To access, carefully turn unit over and place the display panel on a hard flat non-abrasive surface.

1. Keyboard Port -PS/2 type interface.
2. Ethernet 10/100BaseT - integrated PCI controller, autodetect.
3. Dual Cash Drawer - supports up to 2 drawers using Y-cable.
4. Serial Ports: *16550 Universal Asynchronous Receiver Transmitter (UART), fully configured, industry-standard RS-232, high-speed serial ports.*
 - a. Four - external RJ-45 serial ports - connectors.

 Powered serial ports 3 & 4 can provide +5 Volts to external devices. Power is enabled or disabled on a per channel basis (*refer to Chapter 5 - BIOS System*). The +5V is channeled through pin 6 (DSR line) of the Serial Ports. (*If the customer display is configured on either of these ports, the +5 V power will be automatically enabled.*) Do not exceed 300mA per channel.
 - b. Two - internal - customer display & touchscreen.
5. Serial Port - PIN Call Out

RJ45	SIGNAL	FUNCTION	DB9 MOUSE (PN#10000330)	DB25 MODEM (PN#10000432)	SERIAL PRINTER (PN#10001941)
Pin 1	DCD	Data Carrier Detect	1	8	*
Pin 2	RxD	Received Data	2	3	2
Pin 3	TxD	Transmit Data	3	2	3
Pin 4	DTR	Data Terminal Ready	4	20	N/C
Pin 5	SG	Signal Ground	5	7	7
Pin 6	DSR	Data Set Ready	6	6	20
Pin 7	RTS	Request To Send	7	4	*
Pin 8	CTS	Clear To Send	8	5	*

Table 1.

1. Two powered USB ports.
2. Enhanced parallel, bi-directional, ECP/EPP.
3. Optional floppy drive available. See our web site: <http://www.jvlh.com>.

1.6 Internal Components (*motherboard*).

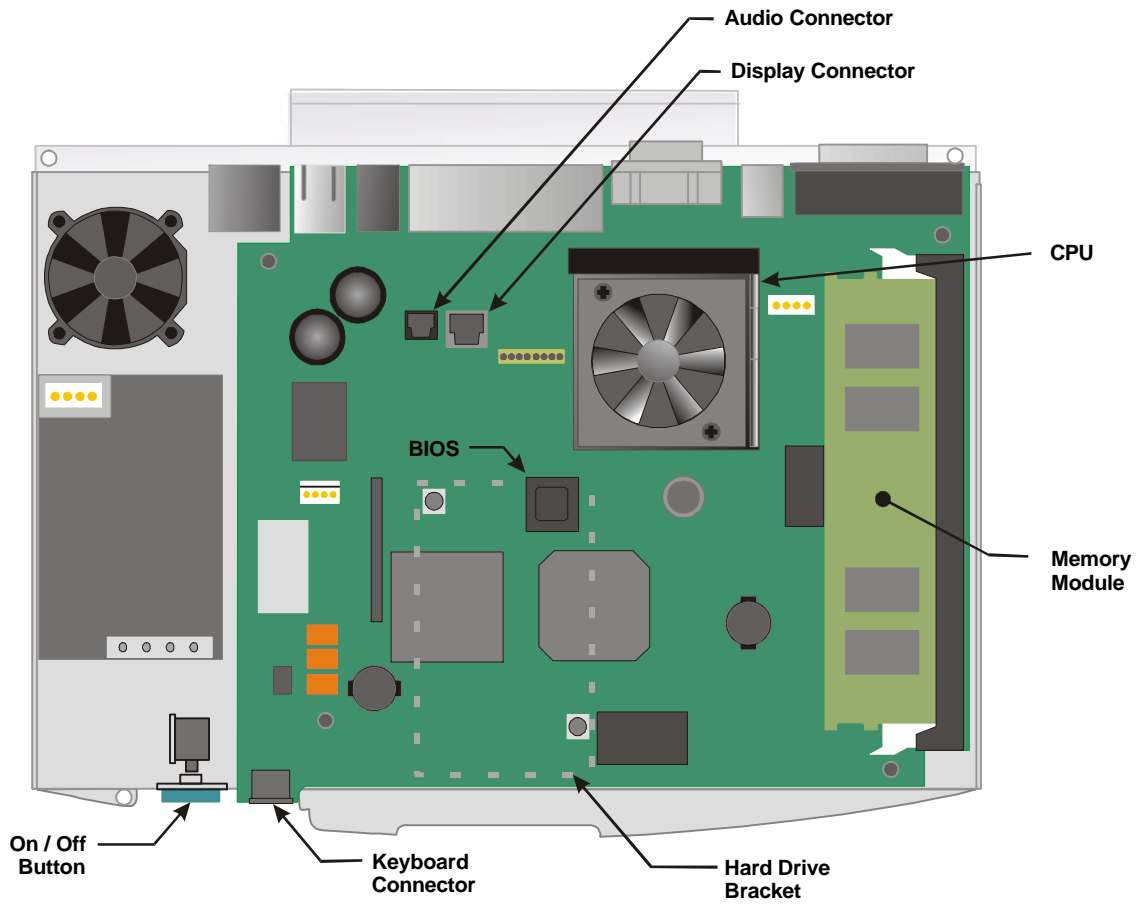


Figure 1.

2.0 Qualifications

2.1 Environmental

Altitude, operating	Up to 10,000 feet
Relative Humidity	10% to 95%, non-condensing
Shock, operating	5 G
Shock, non-operating	60 G
Temperature, operating	0 to 40 degrees Celsius
Temperature, storage	-25 to 60 degrees Celsius
Vibration, operating	3-200Hz at 1.0 G
Vibration, non-operating	3-200Hz at 1.5 G

Table 2.

2.2 Reliability

LCD Backlight	25,000 hours
Other Components	100,000 hours
Expected Touchscreen Life Performance	up to 35 million touches in one location using a stylus similar to a finger

Table 3.

2.3 Safety

Safety	UL, CUL, CE
--------	-------------

Table 4.

2.4 EMI

EMI	FCC Class A, CE
-----	-----------------

Table 5.

2.5 Dimensions

Without MSR	11.94" W x 10.50" D x 10.35" H
With MSR	12.75" W x 10.50" D x 10.35" H

Table 6.

2.6 Weight

Approx.	13 lbs
---------	--------

Table 7.

2.7 Materials

Materials	
Base	Die-cast aluminum
Housing Materials	PC-ABS plastic

Table 8.

2.8 AC Input

Internal power supply, autoranging with full international certifications (90V-260V / 50-60Hz).

Chapter 4: SOFTWARE

1.0 Drivers

NOTE: Drivers are pre-installed according to your specifications at the time of order. If drivers need to be reinstalled, they can be downloaded from our web site: <http://www.jvln.com>.

Unzipping Files - Select the '-D' switch to unzip files and contain them within the A: drivers directory.

2.0 Supported Operating Systems

Currently Supported
MS-DOS®
Microsoft® Windows® for Workgroups
Microsoft® Windows® 95, 98, 2000
Microsoft® Windows NT®
Citrix® WinFrame Enterprise

Table 1.

Chapter 5: BIOS SYSTEM

1.0 BIOS Access / Defaults

NOTE: This procedure requires a keyboard connected to the system. Changes to the BIOS setup should only be done by a qualified computer technician.

The BIOS setup program is used to configure how the computer will interact with a variety of internal and external devices. Use the BIOS setup program to change the system's configuration, remap I/O Ports, change customer display, emulation, etc.

Javelin is committed to an ongoing effort to provide quality products to its customers, therefore, applications are subject to change. If the BIOS configuration of your system differs from those within this section, please see your vendor and visit our web site: <http://www.jvln.com> for updates.

1.1 Access the BIOS Setup Program

1. Turn the system on, immediately after text appears on the screen, press **[Delete]** twice.
2. Navigate through the BIOS Setup program using the keystrokes outlined in Table 1.

KEYSTROKE(S)	ACTION
Esc	Exit out of the current menu.
Up or Down Arrow	Press these keys to move through the fields.
PgUp or PgDn	Pressing these keys will display available settings for the highlighted field.
F2 / F3	Allows for modifying the display colors.

Table 1.

1.2 Reload Default Settings

1. Select **Auto Configuration with Optimal Settings** from the main menu and press **[Enter]**.
2. When prompted, press **[Y]** and then **[Enter]**.

2.0 Bios Screens

2.1 BIOS Setup Utility

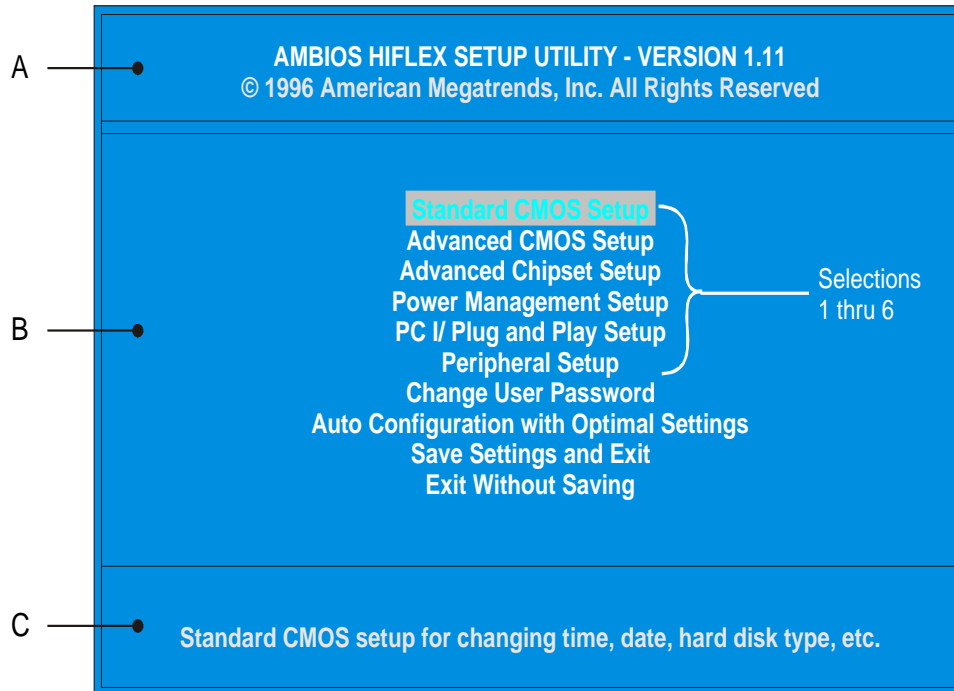


Figure 1.

1. Areas of the BIOS utility screen.
 - A. Title Bar - displays manufacturer information.
 - B. Menu - options that may be selected.
 - C. Navigation Bar - provides brief summary of selected option.

2.2 Standard CMOS Setup

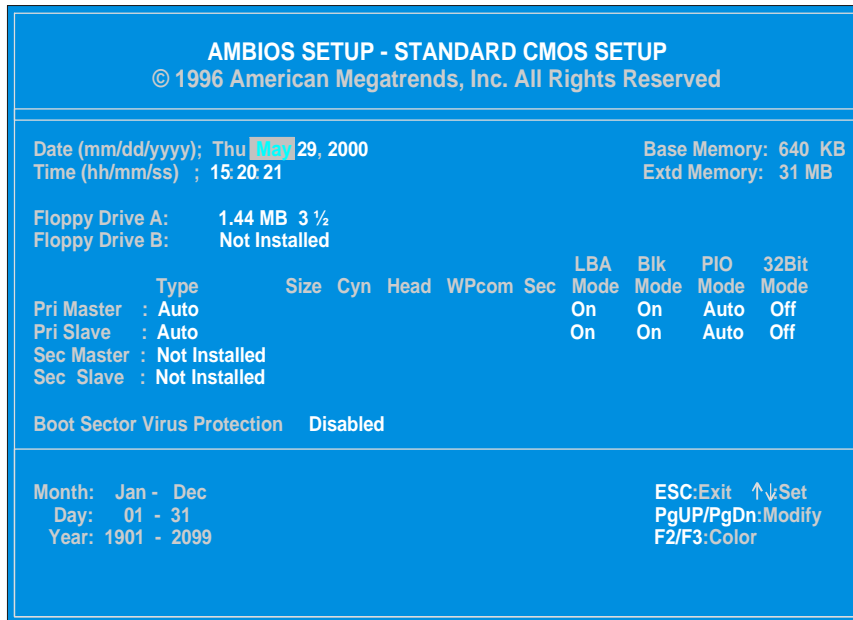


Figure 2.

1. **Date/Time** - set the date and time. Many programs require the correct date and time to perform properly.
2. **Floppy Drive(s)** - displays type of floppy drive(s) installed/not installed to the computer.
3. **Hard Drive(s)** - displays current setup of primary master and primary slave drives. Definitions of options are listed in the information bar.
4. **CylIn (cylinders)** - number of cylinders in a given drive.
5. **Heads** - number of heads in a given drive.
6. **WPcom** - no longer used.
7. **Sec** - number of sectors per track.
8. **Boot Sector Virus Protection** - factory preset.

2.3 Advanced CMOS Setup

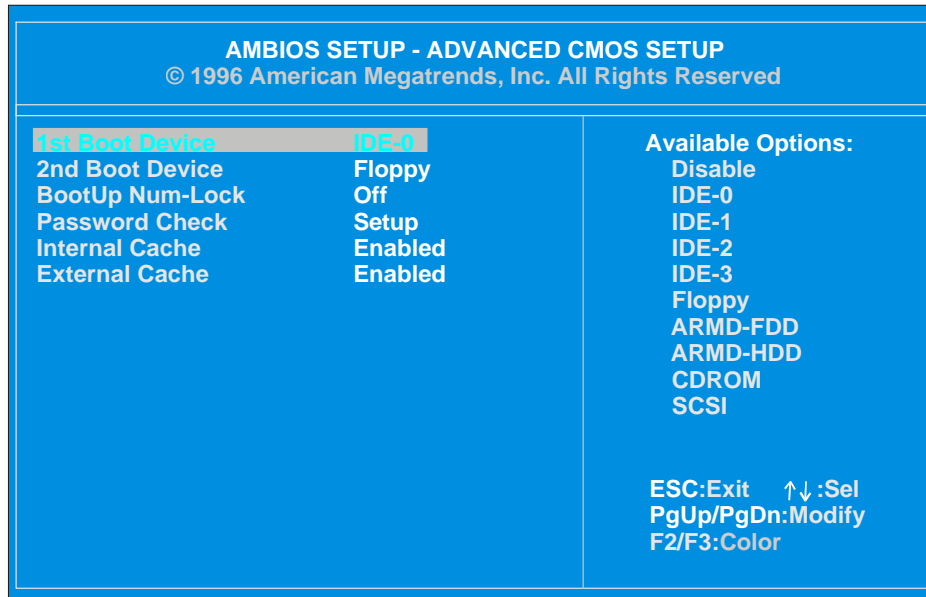


Figure 3.

1. **Bootup Sequence** - system will sequentially seek the pre-selected boot devices. If the 1st device is not found, the system will automatically seek the 2nd boot device.
2. **BootUp NumLock** - allows the Numlock key to be set to 'on' or 'off'.
3. **Password Check** - allows user to set up the system to invoke passwords.

NOTE: Disabling either the internal or external cache slows down the system.

4. **Internal Cache** - enable or disable the use of internal cache.
5. **External Cache** - enable or disable the use of external cache.

2.4 Advanced Chipset Setup

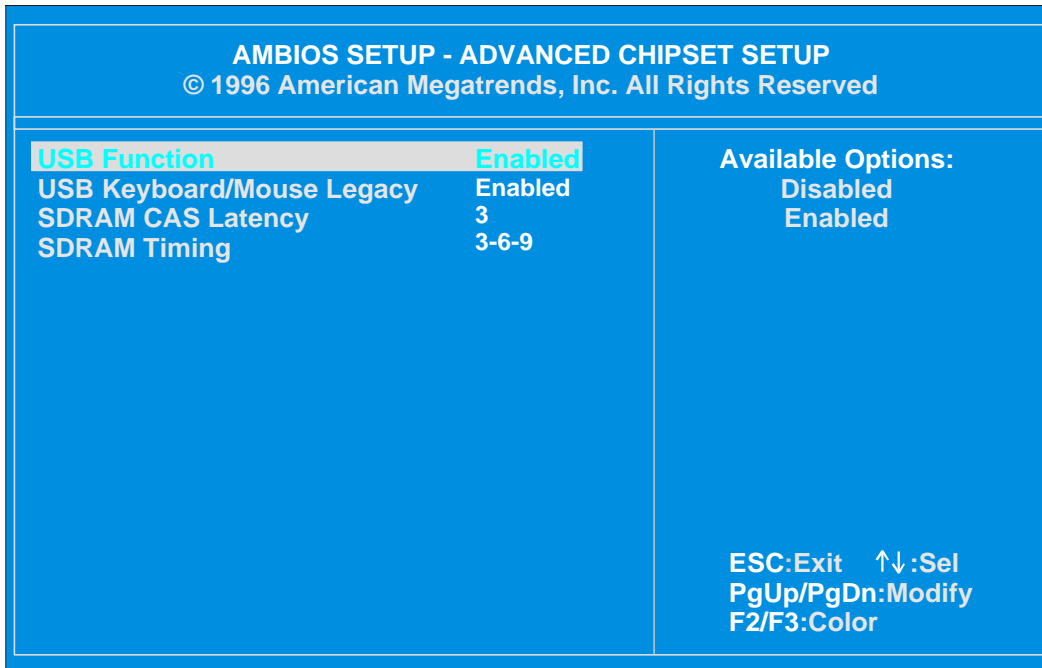


Figure 4.

1. **USB Function** - universal serial bus.
2. **USB Keyboard Function** - enabled, factory preset.
3. **SDRAM CAS Latency** - factory pre-set.
4. **SDRAM Timing** - factory pre-set.

2.5 Power Management Setup

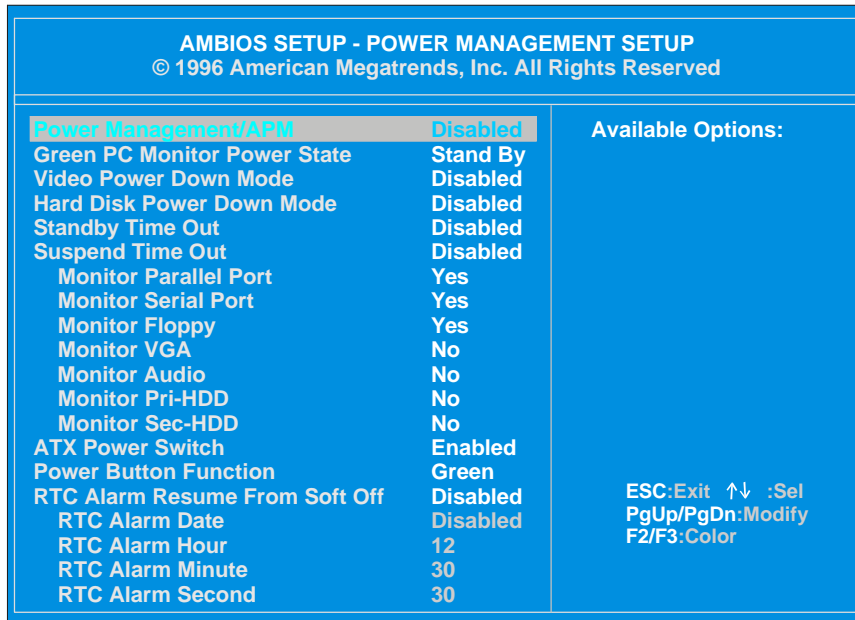


Figure 5.

NOTE: When running Windows NT 4.0, the Power Management/APM field must be disabled. Windows NT power management configuration is set up differently and may cause unpredictable system behavior.

1. Parameters - defined.
 - a. Power Management/APM - when **Enabled**, the following may be modified

NOTE: The following defaults are factory set and should not be changed.

Green PC Monitor Power State	Suspend Time Out	Monitor Audio
Video Power Down Mode	Monitor Parallel Port	Monitor Pri-HDD
Hard Disk Power Down Mode	Monitor Floppy	Monitor Sec-HDD
Standby Time Out	Monitor VGA	RTC Alarm Resume from Soft Off

Table 2.

- b. **ATX Power Switch & Power Button Function - [Enabled]**
- c. **RTC Alarm Resume from Soft Off** - when Enabled, the following may be modified.

RTC Alarm Date	RTC Alarm Hour	RTC Alarm Minute
RTC Alarm Second	Modem Use IRQ	

Table 3.

2.6 I / O Plug and Play Setup

AMBIOS SETUP - PCI / PLUG AND PLAY SETUP © 1996 American Megatrends, Inc. All Rights Reserved		
On Chip USB	Enabled	Available Options: Disabled Enabled
PCI Slot1 IRQ Priority	Auto	
PCI Slot2IRQ Priority	Auto	
PCI Slot3 IRQ Priority	Auto	
PCI Slot4 IRQ Priority	Auto	
IRQ3	ISA/EISA	
IRQ4	ISA/EISA	
IRQ5	PCI/PnP	
IRQ7	ISA/EISA	
IRQ9	ISA/EISA	
IRQ10	ISA/EISA	
IRQ11	ISA/EISA	
IRQ12	PCI/PnP	
IRQ14	PCI/PnP	
IRQ15	ISA/EISA	
		ESC:Exit ↑↓ : Sel PgUp/PgDn:Modify F2/F3:Color

Figure 6.

1. Parameters - defined.

All parameters for PCI / Plug and Play are factory preset.

2.7 Peripheral Setup

AMBIOS SETUP - PERIPHERAL SETUP		
© 1996 American Megatrends, Inc. All Rights Reserved		
OnBoard Parallel Port	Auto	Available Options: Disabled Enabled
Parallel Port Mode	Normal	
EPP Version	N/A	
Parallel Port IRQ	Auto	
Parallel Port DMA Channel	N/A	
Peripheral Configuration	Standard	
I/O Base Serial Port 1	3F8h	
I/O Base Serial Port 2	2F8h	
I/O Base Serial Port 3	3E8h	
I/O Base Serial Port 4	2E8h	
I/O Base Customer Port	238h	
I/O Base Touch Screen	338h	
I/O Base Serial Port 1	IRQ-4	
I/O Base Serial Port 2	IRQ-3	
I/O Base Serial Port 3	IRQ-9/2	
I/O Base Serial Port 4	IRQ-10	
IRQ for Customer Display	IRQ-15	
IRQ for Touch Screen	IRQ-11	
Customer Display Emulation	Ultimate	
Customer Display Baud Rate	9600	
		ESC:Exit ↑↓:Sel PgUp/PgDn:Modify F2/F3:Color

Figure 7.

1. Peripheral BIOS Defaults

NOTE: Table 4 - When using [Custom], make sure there are no IRQ or I/O Base conflict(s). Check with your vendor or installer for the optimal Peripheral Configuration.

Setting	Default	Options
OnBoard Parallel Port	Auto	Auto, Disabled, 378, 278
Parallel Port Mode	Normal	Normal, Bi-Dir, EPP, ECP
EPP Version	Default is automatically changed when parallel port mode is changed.	N/A, 1.7, 1.9
Parallel Port IRQ	7	5, 7
Parallel Port DMA Channel	Default is automatically changed when parallel port mode is changed.	0, 1, 3
Peripheral Configuration	Standard	Standard, Custom
I/O Base Serial Port 1	3F8h	Disabled,
I/O Base Serial Port 2	2F8h	3F8h, 2F8h
I/O Base Serial Port 3	3E8h	3E8h, 2E8h
I/O Base Serial Port 4	2E8h	338h, 238h
I/O Base Customer Port	238h	220h
I/O Base Touch Screen	338h	
I/O Base Serial Port 1	IRQ-4	None,
I/O Base Serial Port 2	IRQ-3	IRQ-3, IRQ-4
I/O Base Serial Port 3	IRQ-9/2	IRQ-5, IRQ-9/2
I/O Base Serial Port 4	IRQ-10	IRQ-10, IRQ-11
IRQ for Customer Display	IRQ-15	IRQ-12, IRQ-15
IRQ for Touch Screen	IRQ-11	
Customer Display Emulation	Noritake	Sunwood, Ultimate, Noritake
Customer Display Baud Rate	9600	4800, 9600, 2400
Serial Port 3 Powered	Off	Off, On
Serial Port 4 Powered	Off	Off, On
LCD Backlight Brightness	100%	20% - 100%

Table 4.

2. BIOS - Backlight Default Settings

Backlight Time-out Function	LCD Backlight Time-out	Result
Dim	Always	Backlight will stay 'ON' always.
"	1,2, 5, 15, 30 min., 1hr., 1.5hrs., 2 hrs.	Backlight will 'DIM' within specified time.
Off	Always	Backlight will remain 'OFF' always.
"	1,2, 5, 15, 30 min., 1hr., 1.5 hrs., 2 hrs.	Backlight will turn 'OFF' within specified time.

Table 5.

WARNING: Do not plug any peripherals into the power serial ports while the unit is ON.

- a. **Serial Port 3 and 4 Powered** - allows for supplying the corresponding serial port (3 or 4) with +5 Volts for external powered device(s) usage.
- b. **LCD Backlight Brightness** - sets the brightness of the LCD. Brightness can be changed in increments of 20, ranging from 20% - 100%.
- c. **Backlight Time-out Function** - determines whether the backlight will dim or turn off the LCD when not used for a specified period of time. Range is 1 minute to 2 hours. See *LCD Backlight Time-out* below. Refer to table 5.
- d. **LCD Backlight Time-out** - when enabled, sets the display to dim or turn off for a specified period of time during periods of inactivity. Option settings range from 1 minute to 2 hours. These settings dictate the time it will take before the display goes into the "time-out" mode. Upon re-activating the touchscreen, the first touch of the screen is not detected, touch the screen twice to activate. **[Always On]** - disables this function. Refer to table 5.

2.8 BIOS Setup - Selections 7 thru 11

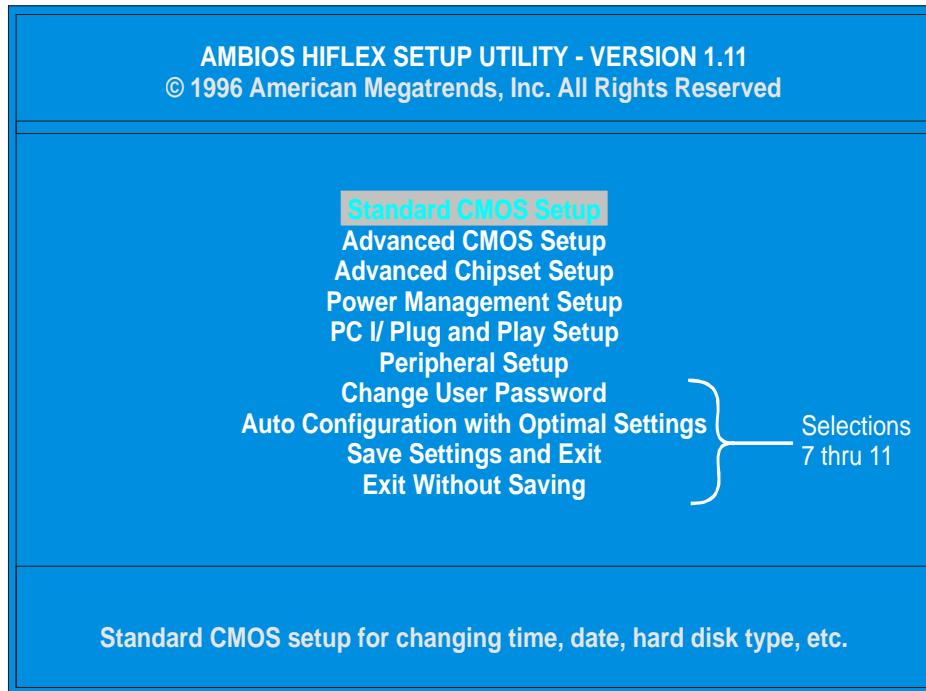


Figure 8.

1. **Change User Password** - invokes password option.
2. **Auto Configuration with Optimal Settings** - reloads the default settings.
 - a. Select **Auto Configuration with Optimal Settings** from the main menu, press **[Enter]**.
 - b. When prompted, press **[Y]** and then **[Enter]**.
3. **Save Settings and Exit** - saves changes made to the BIOS setup and exits the BIOS setup program.
4. **Exit Without Saving** - exits the BIOS setup without saving changes.

BIOS SYSTEM NOTES

Please use the following table to record default changes.

BIOS Screen	Field	Current Setting	Previous Default

Table 6.

Chapter 6: *OPTIONS & UPGRADES*

NOTE: Javelin Systems Inc. offers an extensive variety of options and upgrades for all of its products. We are confident that available configurations will meet the needs of any point-of-sale environment. See these items at: <http://www.jvln.com>.

All upgrades and maintenance (servicing) should be done by a qualified computer technician.

WARNING: Risk of electric shock! Make sure the system and all peripheral devices are turned OFF. Disconnect the AC cable from the electrical outlet.

1.0 ElectroStatic Discharge

WARNING: Electrostatic Discharge (ESD) occurs when insulator surfaces make contact or come in close proximity with each other. If one insulator has a higher electron count than the other, an exchange of electrons (*electrostatic discharge*) may take place. Studies have shown humans can build a charge up to 3,000 volts by walking across carpet, more than enough volts to seriously damage or destroy integrated components (IC's) of electronic devices.

1.1 Precautions

1. To avoid costly damage to your system.
 - a. Wear only ESD approved wrist-straps or heel-straps.

Wrist straps must be properly grounded and footwear must make contact with a grounded flooring.

If ESD protective wear is not available, maintain physical contact with the metal frame of the unit during any procedure that poses an ESD hazard.
 - b. Replacing components - do not remove components from protective packaging until you are ready to be installed.
 - c. The lower the relative humidity (<60%RH), the higher the potential of ESD.

1.2 Tools Needed

1. All maintenance and upgrade procedures outlined in this section require the following tools:
 - a. ESD protective wear.
 - b. Phillips screwdriver.

2.0 Memory Expansion

2.1 Remove Baseplate

1. Make sure the ON/OFF button is set to OFF.
2. Disconnect the AC cable from electrical outlet.
3. Remove the hard drive from the unit.

Press down on the release tab and pull hard drive drawer out of unit.

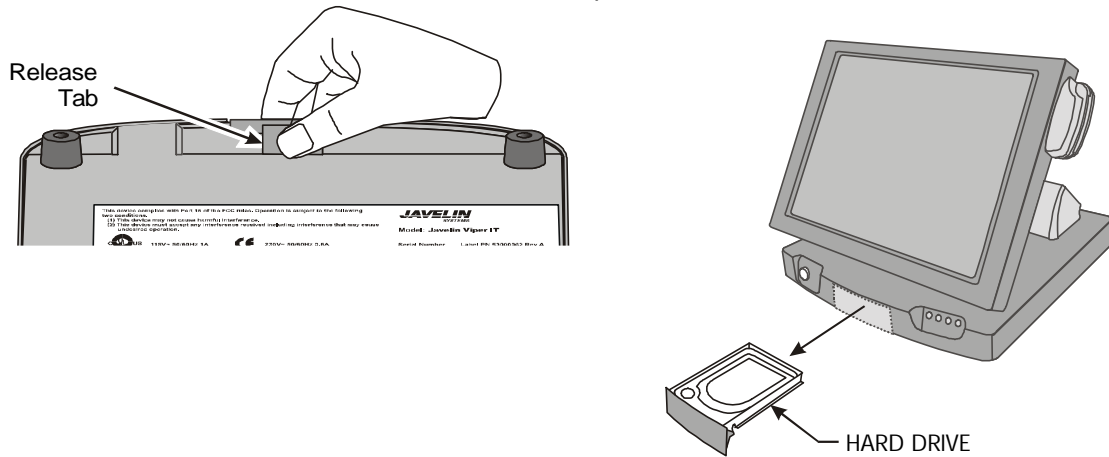


Figure 1.

1. Turn the unit over and place the display panel face down on a hard flat non-abrasive surface.
2. Disconnect all cables from AC and I/O ports.

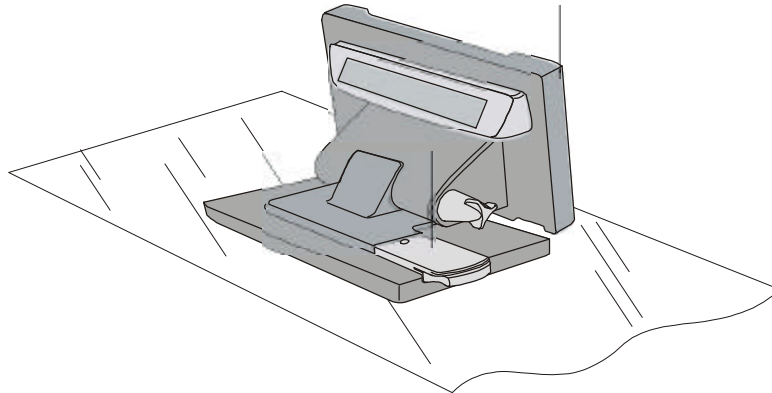


Figure 2.

3. Remove the four (4) screws from the baseplate.

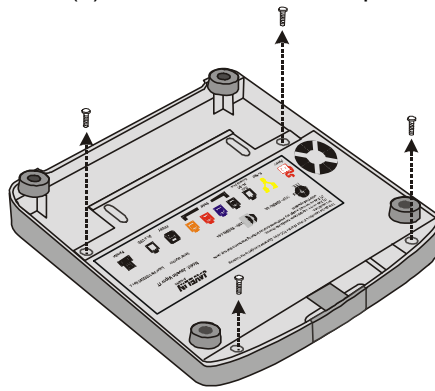


Figure 3.

4. Pull the baseplate a short distance from the upper housing.

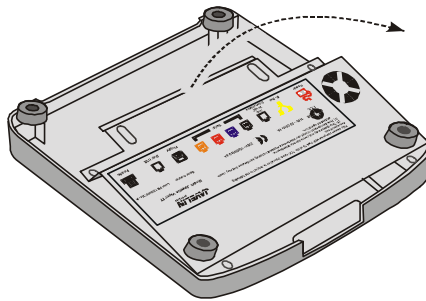


Figure 4.

5. Look between the upper housing and the motherboard. Locate and disconnect the display and audio connectors from the motherboard (refer to chapter 3, section 1.1.8, figure 1). Check for other cables routed through the tilt-stand to the motherboard. Note the locations of cables for reassembly.

6. Remove baseplate from unit.

2.2 Remove DIMM module

1. Open both latches (A) of the DIMM socket.
2. Pull the memory module out from the DIMM socket (B).

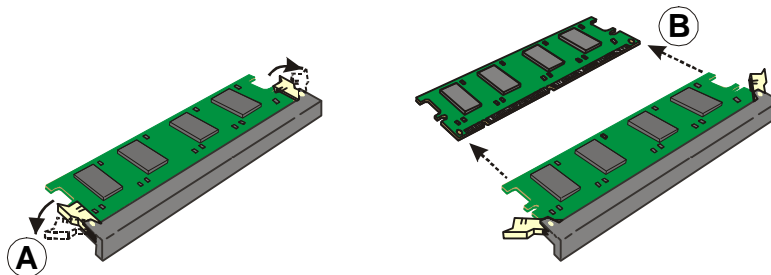


Figure 5.

2.3 Install Memory Module

1. The memory module can only be installed one way. Match the notches on the module to the closed spaces of the socket.

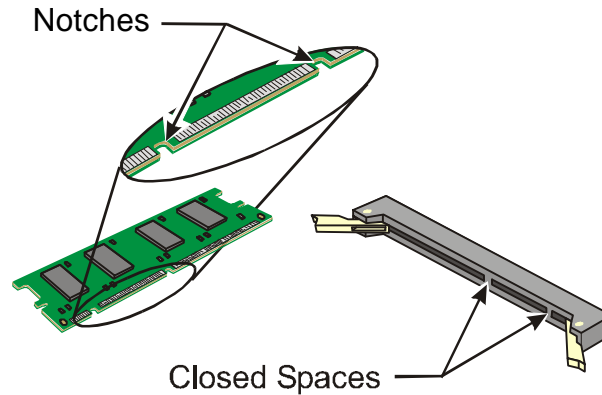


Figure 6.

2. Place the corners of the memory module into the slots located on the latches as illustrated in figure 7 (A).
3. Push the memory module into the socket. The latches should close as the module slides into the socket. If not, press in on the latches while pushing the module into the socket. (**Do not force!**)

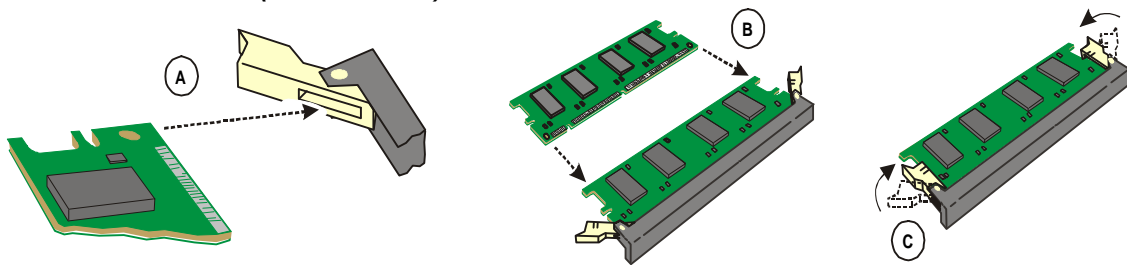


Figure 7.

1. Follow the reverse order of this section to reassemble unit.

NOTE: Remember to reconnect any cables that were disconnected during disassembly.

3.0 Customer Display

3.1 Remove Cover Panel

WARNING: Risk of electric shock! Make sure the system and all peripheral devices are switched to OFF. Disconnect the AC power cable from the electrical outlet.

1. Make sure the ON/OFF button is set to OFF.
2. Disconnect the AC cable from electrical outlet.
3. Turn the unit over and place the display panel face down on a hard flat non-abrasive surface.
4. Remove the two (2) screws and the cover panel.

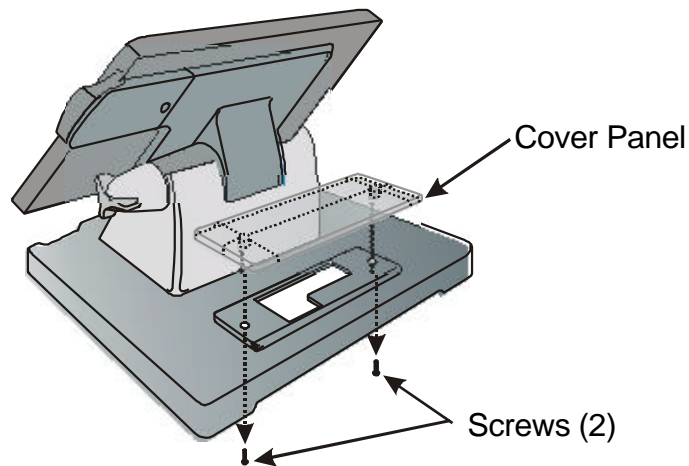


Figure 8.

NOTE: Do not touch pads on the customer display interface (PCA). Contamination can lead to corrosion and component failure.

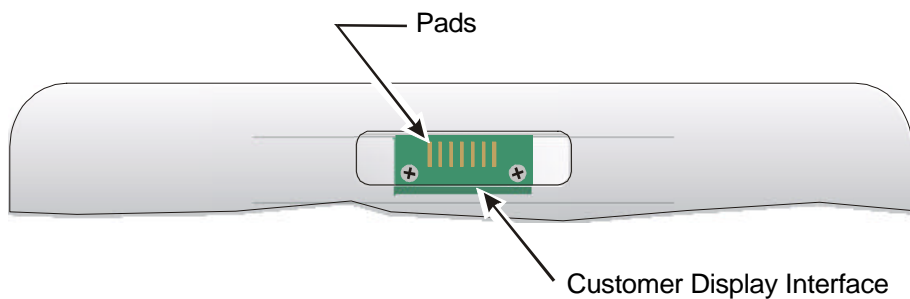


Figure 9.

3.2 Install Customer Display

1. Place customer display assembly on upper housing. Replace and tighten the two (2) screws.

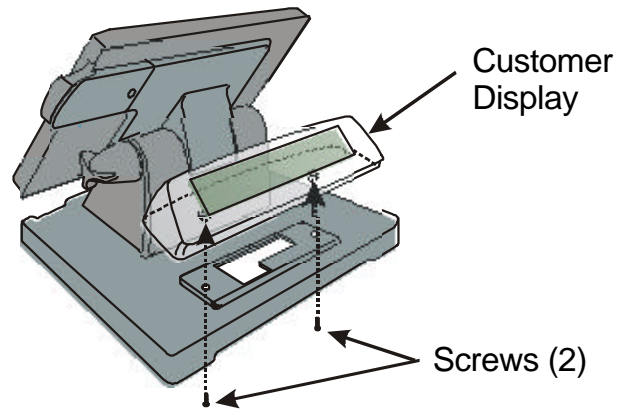


Figure 10.

4.0 Magnetic Stripe Reader (MSR)

4.1 Remove Cover Panel

1. Remove screw (A).
2. Remove the two (2) screws from the back of the display panel (B).
3. Slide cover panel out from display panel (C).

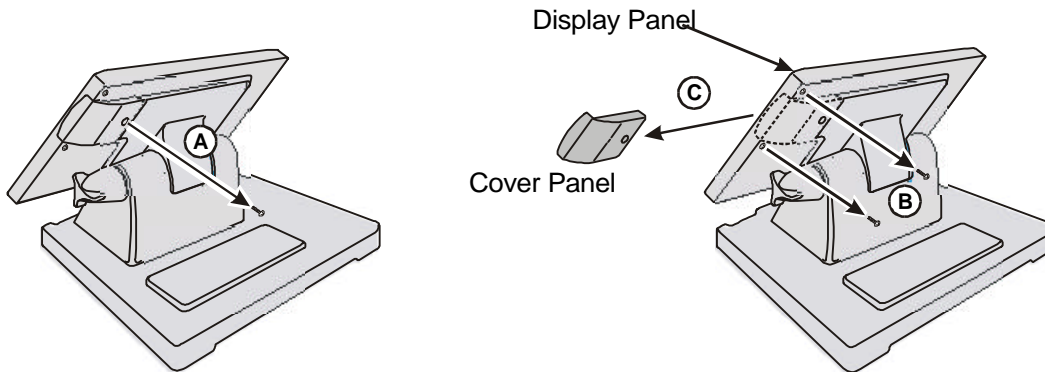


Figure 11.

4.2 Install MSR

1. Slide MSR into the display panel (A).
1. Replace and tighten screw (B).
2. Set the card guides in place (C) and tighten screws (D).

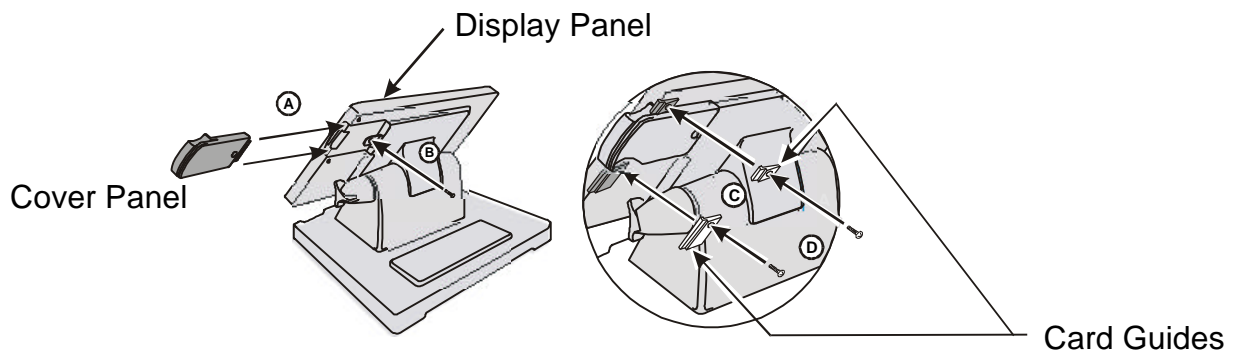


Figure 12.

Chapter 7: TROUBLESHOOTING & MAINTENANCE

1.0 Before Calling

1.1 Problems & Solutions

1. Please review this table for common errors before calling your dealer.

Symptom	Possible Cause	Action
Unit will not power up.	System is switched OFF. AC cable disconnected or loose.	Turn unit ON. Check AC cable connections at electrical outlet and at the system AC port. Make sure connections are not loose.
Customer display does not function. Customer display still does not work properly.	Improperly installed. Poor contact with customer display interface.	Remove assembly from upper housing and reinstall. Make sure the assembly is fully seated into the housing. Make sure no debris has fallen into opening and is preventing contact. DO NOT touch the pads on the printed circuit board. Contact your dealer.
Magnetic Stripe Reader (MSR) does not work. MSR does not read magnetic strip. MSR still does not work properly.	Improperly installed. Head(s) may be dirty.	Remove MSR and reinstall. Make sure the MSR fully seats into the display panel. Clean head - check with vendor for head cleaner. Contact your dealer.
Viper does not communicate with peripheral(s). Viper still does not communicate with peripheral(s).	Peripheral(s) are switched OFF. Peripheral AC and/or I/O cable(s) is disconnected or loose.	Turn Peripheral(s) ON. Check peripheral AC connections at the electrical outlet and at the peripheral(s) AC port. Make sure connections are not loose. Check I/O connections at the peripheral(s) and the Viper. Contact manufacturer of peripheral. Call Javelin Service Desk. Contact your dealer.

Figure 1.

2.0 Maintenance

2.1 Recommended Cleaners

WARNING: Do not pour or spray cleaners directly into any openings such as vents, I/O connectors, or slots of the MSR.

1. For the touchscreen and body:
 - a. Fantastic
 - b. Formula 409
 - c. Joy
 - d. ammonia-based glass cleaner
 - e. laundry detergents
2. Spray or pour cleaner (*per manufacturer's instructions*) directly onto a non-abrasive cloth or paper towel and gently wipe the unit.
3. Dry with non-abrasive cloth or paper towel.

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