



User's Guide

Rev. 3.0

Table of Contents

Introduction	3
Important Safeguards	3
In the Box	4
Specifications	4
Parts List	5
Front View	8
Rear View	9
Side View	9
Computer Operation.....	10
Powering Up.....	10
Powering Down	10
Protecting the Solid State Drive	11
Loading a Disc.....	11
Opening an Application.....	12
Using Wi-Fi	12
Using Bluetooth™.....	12
Hardware Installation	12
Configuring the Shutdown Timer.....	14
Regarding Adobe Acrobat	18
Contact Information.....	18
Index	19

Introduction

The V-One is a ruggedized mobile data computer that combines a monitor and CPU in one compact unit. This unit can be easily mounted in the front of your vehicle using a console or pedestal solution.

The V-One has an Intel™ Quad Core i7 mobile processor, a 180 GB Solid State Drive, an optical CD/DVD player and recorder, 8 GB of RAM, and an impact-resistant IR dual touch screen. It supports Wi-Fi, GPS, and Bluetooth™.

The standard operating system for the V-One is Windows 7 Professional. The V-One has been tested with this operating system and comes pre-loaded with Windows 7 Professional.

The V-One's peripherals are connected to the unit in a similar manner to a PC.

Important Safeguards



- ☐ To reduce the risk of electric shock, do not perform any servicing other than that contained in this User Manual unless you are qualified to do so. Refer all servicing to qualified personnel.
- ☐ Do not block ventilation openings.
- ☐ Do not allow liquids to enter the V-One or any other component of the V-One. This could cause electrical shorts, fire, or other damage.
- ☐ Installation should be made by a qualified technician and must conform to SAE Requirements.
- ☐ Ground wires (black) must be connected to the vehicle's chassis. If your vehicle also has a Flashback in-car camera, make sure that both devices are grounded at the exact same point on the vehicle chassis.
- ☐ Do not install equipment or route wiring in the deployment path of an airbag. Failure to observe this warning will reduce the effectiveness of the airbag or potentially dislodge the equipment, causing serious injury.
- ☐ If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment. Failure to heed this warning could result in death or serious injury.
- ☐ To ensure proper operation of the V-One, do *not* remove the PowerVu software that comes pre-loaded from the factory.
- ☐ When drilling holes, check the area into which you are drilling to be sure you do not damage vehicle components while drilling. All drilled holes should be deburred and all sharp edges should be smoothed. All wire routings going through drilled holes should be protected by a grommet or convolute/split loom tubing.
- ☐ Do not disassemble this product. There are high-voltage areas inside which may give you an electric shock if you should touch them. Do not touch the pins and circuit boards inside, and do not allow foreign matter to enter inside. Any alterations or disassembly will void your Mobile-Vision warranty.

In the Box

- ☐ Combination CPU & Monitor
- ☐ Keyboard (if ordered)
- ☐ PCI Express Card Support Bracket
- ☐ Wi-Fi Antenna
- ☐ Power Cable
- ☐ GPS Antenna
- ☐ Windows 7 Professional
- ☐ Main System Fuse
- ☐ Ignition Fuse
- ☐ Phillips Bracket Screws
- ☐ Phillips Pan Head Screws
- ☐ Split Lock Washer
- ☐ Crimp Term Ring
- ☐ Flat Screw Washer
- ☐ Butt Connectors
- ☐ Hex 8 Screw

Specifications

System	
Housing	Cast-aluminum alloy
Software	Windows 7® Professional 32 bit operating system standard; 64 bit available
CPU	Intel® Quad Core™ i7- 3632QM 2.2 GHz processor with turbo boost to 3.2 GHz; Intel Smart Cache™ 4MB
Memory	8 GB RAM DDR3-1600
Storage	180GB solid-state drive (SSD) standard, 300GB optional
Display/Resolution	12.1" LED backlit with IR dual touch screen; 1600 nits, 1024 x 768
Keyboard	Full travel, 86 key, integrated backlight with touchpad (if ordered)
Multi-Media	Internal CD/DVD RW optical drive
Audio	Internal stereo speakers
Expansion	PCI express and SD cards
Wireless	802.11 a/b/g/n and Bluetooth™ v2.1
GPS	u-blox neo 7, 56-channel with external SMA connector
Mounting	Rear VESA 75
Dimensions	10.4" x 12.2" x 2.8"
Warranty	3-year; includes factory parts and labor
Power Management	Shutdown timer with reverse polarity protection

Interfaces
<ul style="list-style-type: none">▪ (1) VGA▪ (5) USB 2.0 ports▪ (2) USB 3.0 ports▪ (1) RS232 serial port▪ (2) 10/100/1000 Mbps LAN ports▪ Function buttons (F1 – F5 and Emergency) on front▪ PCI Express▪ SD card
Environmental
<ul style="list-style-type: none">▪ Designed to MIL-STD-810G▪ Operating temperature: -20°C to +60°C (-4°F to +140°F)▪ Non-operating temperature: -40°C to +85°C (-40°F to +185°F)▪ Humidity: 5% to 95% non-condensing▪ IP64 for front panel; IP 52 for side panel▪ EMI/EMC—CE/FCC Class A

Parts List



(Continued)



Keyboard (if ordered)



PCI Express Card Support Bracket



Wi-Fi Antenna



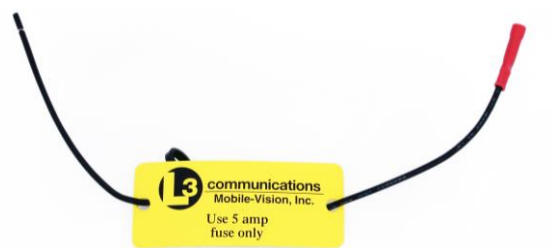
Power Cable



GPS Antenna



**Main System Fuse
LCVCBLBATFUSE**



**Ignition Fuse
W-BAT-FUSE-CA1**



Phillips Bracket Screws
HDW-95836A339



Phillips Pan Head Screws
HDW-90272A192



Split Lock Washers
HDW-91190A520



Crimp Term Rings
CO-571-36154



Flat Screw Washers
HDW-96765A120



Butt Connectors
CO-159-1622



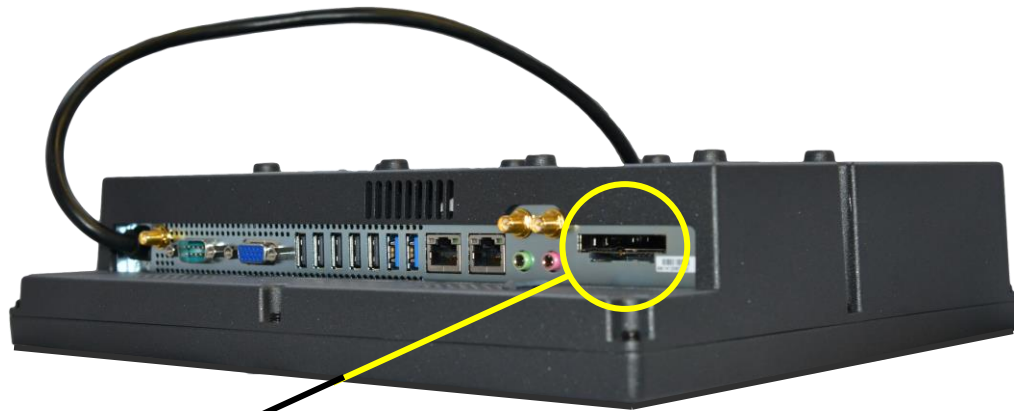
Hex Screw
HDW-92685A200

Front View

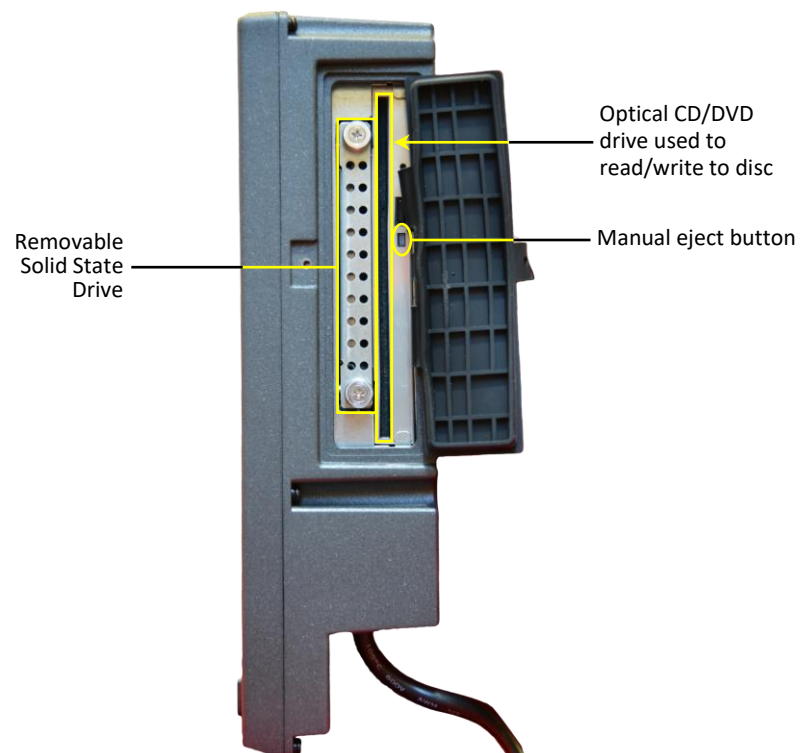


- 1 **Function buttons.** These backlight function buttons work in the exact same manner as the function buttons on your keyboard. Their use will vary depending on the software application that you are using them in. For example, pressing **F1** while you are using Microsoft Word will display the Word Help menu.
- 2 **Brightness control.** To *increase* the brightness of your monitor, press the up arrow button. To *decrease* the brightness of your monitor, press the down arrow button. To turn off the monitor display and the backlighting of the Function buttons, press the *up* and *down* arrows simultaneously.
- 3 **Audio Volume control.** Your V-One includes an on-screen volume display. To *increase* the audio volume, press the up arrow button. To *decrease* the audio volume, press the down arrow button.
- 4 **Power button.** This button may be used to turn the V-One on or off.
- 5 **SSD (Solid State Drive) light.** This light reflects activity on the Solid State Drive.
- 6 **Emergency Button.** The Emergency button works in the exact same manner as the **Shift + F1** command on your keyboard. As with the F1 – F5 function buttons, its use varies depending on the software application that you use it in.

Rear View



With PCI Express Card
Support Bracket Installed



Computer Operation

Powering Up

The V-One is designed to power on automatically whenever you turn your vehicle's ignition *on*. This is the recommended method for turning your V-One on.

Powering Down

There are three ways to power down the V-One:

- 1** Turn off your vehicle's ignition (recommended). The V-One will automatically power off after a programmed ignition timer delay. By default, this occurs 13.5 minutes after the vehicle's ignition is turned *off*. If desired, you can change this setting to meet your agency's needs. For more information, see "Configuring the Shutdown Timer" on page 14.
- 2** Press the Power button on the front of the V-One.
- 3** Select the **Shut Down** button in Windows.

Keep in mind that the method you select can affect your USB ports, particularly the USB 2 ports, as described below.

USB 2.0 Power Management		
Where USB 2.0 Power Control is ENABLED		
Power Down Method	USB 2.0 Ports	USB 3.0 Ports
Vehicle ignition	ON	ON*
V-One Power button	ON	ON
Windows <i>Shut Down</i> button	ON	ON
Where USB 2.0 Power Control is DISABLED		
Vehicle ignition	OFF	ON*
V-One Power button	OFF	ON
Windows <i>Shut Down</i> button	OFF	ON*



NOTE: The USB 3.0 Ports are not affected by the USB 2.0 Power Control setting. The *USB 3.0 Ports* column is included in this table for comparison purposes only.

* Port will power off X minutes after the vehicle's ignition is turned off, where X = the Ignition Shutdown Timer setting

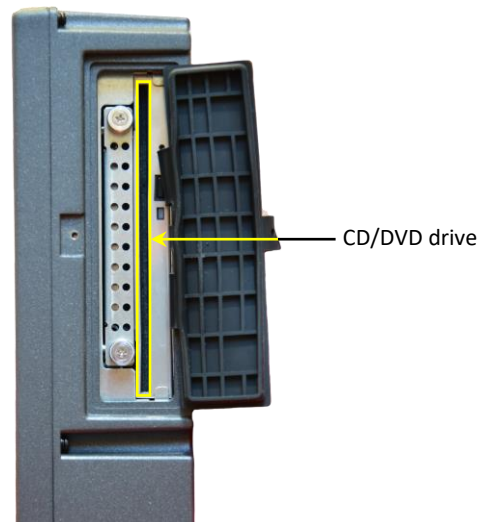
Protecting the Solid State Drive

Use the rubber cover included with your V-One to protect the Solid State Drive from accidental spills, dust, etc. Manually snap the cover in place using your fingers. If you will not be using the CD/DVD drive on a regular basis, you may also wish to secure the rubber cover with a screw. This screw can only be removed using a special screw driver provided by Mobile-Vision.



Loading a Disc

To load a CD or DVD, gently insert it into the V-One's CD/DVD cavity. You will feel the computer "grab" the disc when you insert it in this manner.



Opening an Application

To open a software application, either double-tap on the appropriate desktop icon using the IR dual touch screen, or tap the **Start** button and select **Programs** from the Windows menu.

Using Wi-Fi

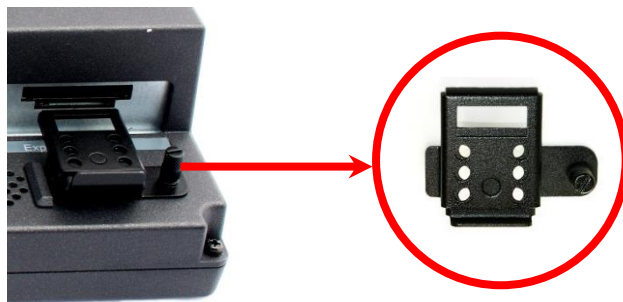
The V-One is Wi-Fi compatible. The exact manner in which you connect to your agency's network, however, will depend on the type of network your agency is using and how it's configured. For more information, speak with your agency's network specialist or IT manager.

Using Bluetooth™

The V-One is Bluetooth™ enabled. For instructions on how to pair your Bluetooth with various devices, refer to the instructions that come with your Bluetooth device.

Hardware Installation

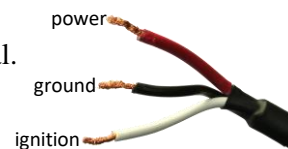
- 1 Attach the PCI Card Support to the back of the V-One and secure with thumbscrew.



- 2 Install your console or pedestal mounting solution, as per the manufacturer's instructions.
- 3 If your mounting solution includes a mounting plate, connect that plate to the back of the V-One using M4 x .7 x 12mm Black Phillips Screws (part no. HDW-95836A339).



- 4 Connect the red power wire to the 15-amp main system fuse (red label) included in your hardware kit.
- 5 Connect the main system fuse to the battery positive terminal.
- 6 Connect the black ground wire to the vehicle chassis (ground).

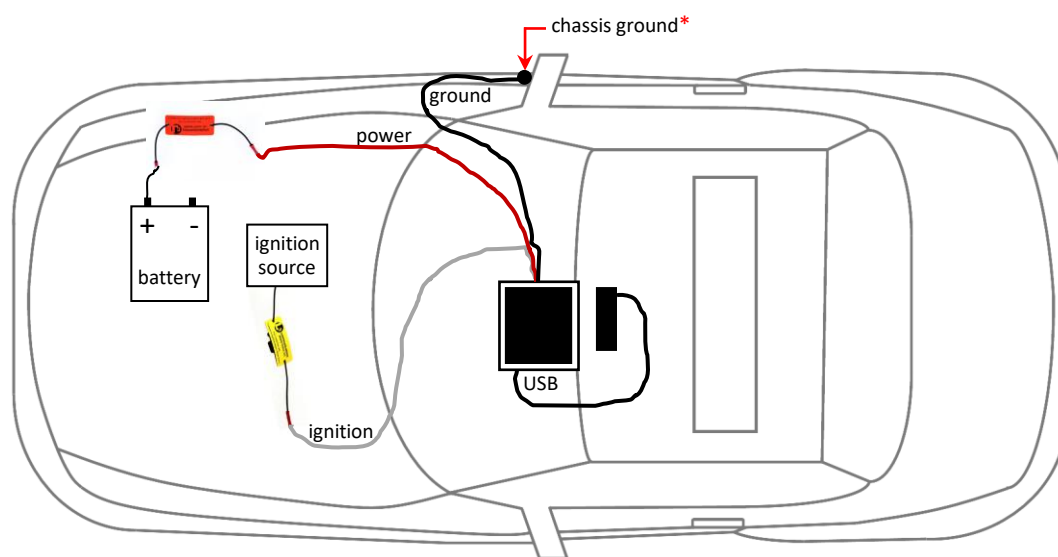


NOTE: If you also have a Flashback digital in-car video system installed in your vehicle, *both* the Flashback unit and the V-One must be grounded to the same point on the vehicle chassis.

- 7 Connect the white ignition wire to the 5-amp ignition fuse included in your hardware kit (see yellow label fuse).
- 8 Connect the ignition fuse to your vehicle's ignition source (see **EXCEPTION** below).



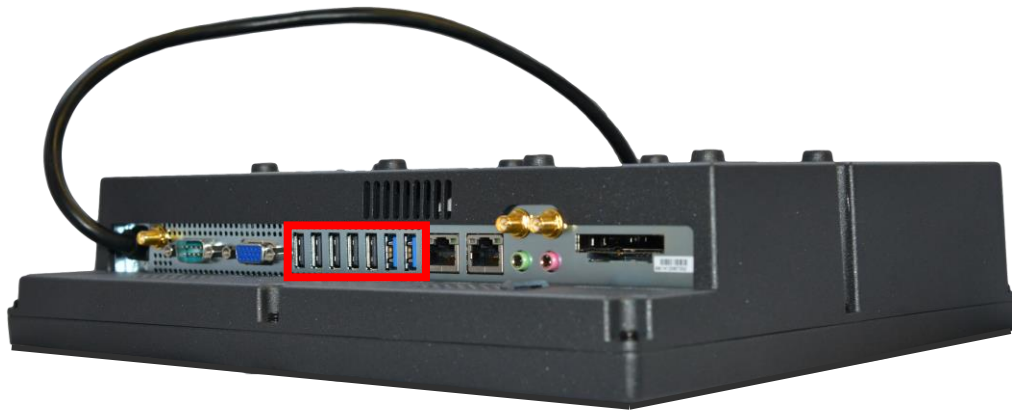
EXCEPTION: If the V-One will be installed in a vehicle that is always powered on (such as a fire truck), connect the ignition fuse to the battery positive terminal.



* Exact location may vary

- 9 Connect your keyboard's USB cable to the V-One using one of the seven USB ports located on the bottom of the unit.

(Continued)



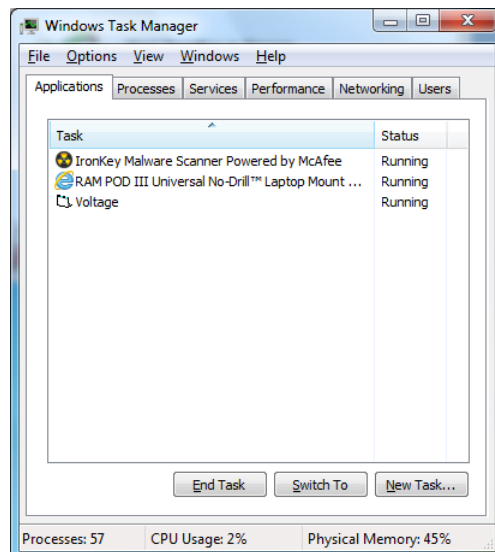
Configuring the Shutdown Timer

This procedure describes how to change the default settings for the V-One's Shutdown Timer, if desired. Specifically, you can:

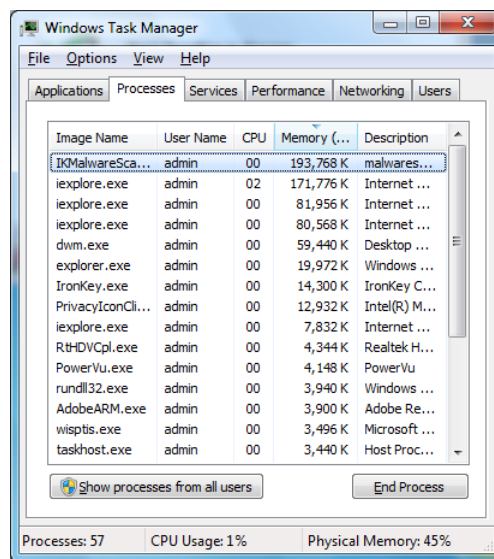
- ☐ Specify the number of hours and minutes that the computer will remain powered on after the vehicle's ignition is turned off.
- ☐ Specify the number of additional minutes that the computer will remain powered on when you click the Snooze button located on the PowerVu menu.

This procedure is performed only *once* at system start-up.

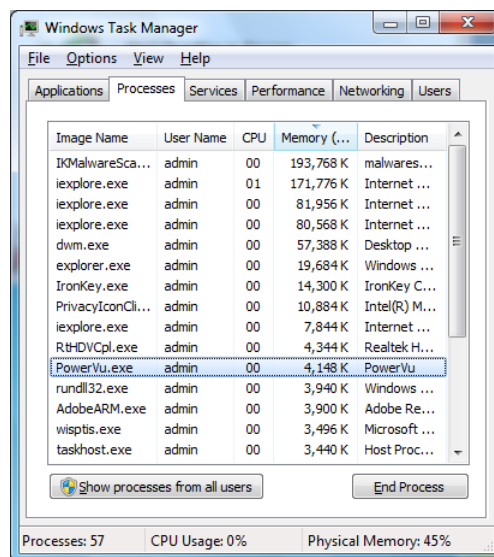
- 1 Press **Ctrl + Alt + Del**.
- 2 Click **Start Task Manager**. The Windows Task Manager displays.



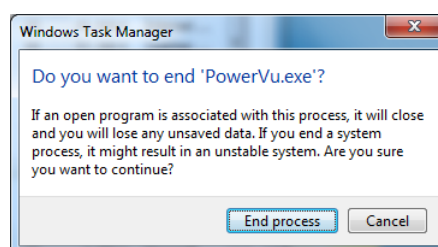
- 3 Click the **Processes** tab.




- 4 Click on **PowerVu.exe** to select it.

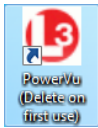


- 5 Click **End Process**. A confirmation popup displays.

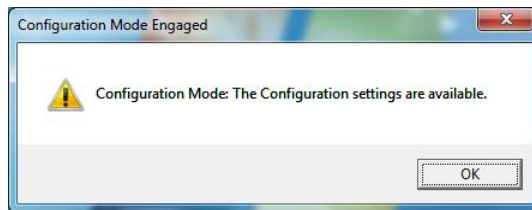


- 6 Click **End process** again.

- 7 Click the  in the upper right corner of the Windows Task Manager to close it.



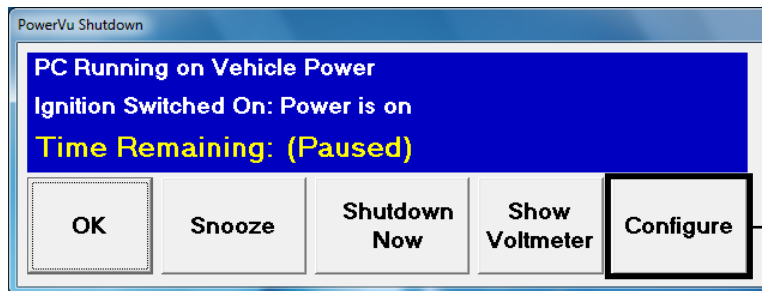
- 8 Double-click on the desktop icon that reads *L3 PowerVu (Delete on first use)* icon. The Confirmation Mode Engaged popup displays.



- 9 Click **OK**.

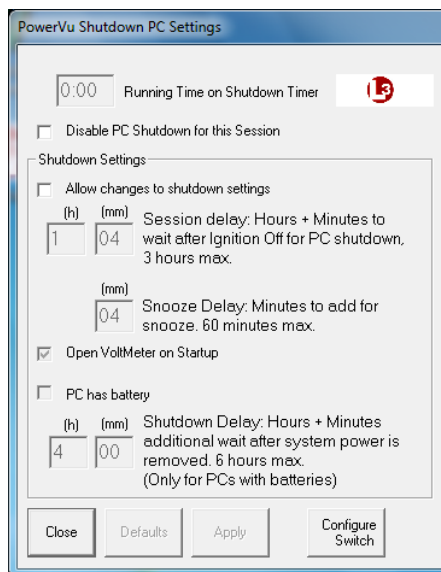


- 10 Double-click on the PowerVu lightning bolt icon in the lower right corner of your screen. The PowerVu menu displays.

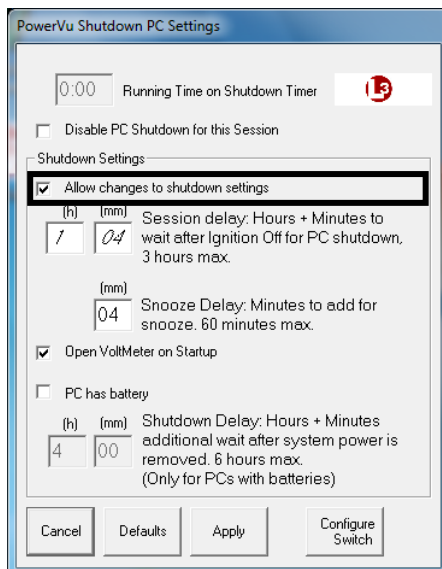


After you configure the PowerVu at system start-up, this button will disappear from the PowerVu menu


- 11 Click the **Configure** button. The PowerVu Shutdown PC Settings popup displays.



- 12** Select the *Allow changes to shutdown settings* checkbox, as pictured below.



PowerVu Shutdown PC Settings

0:00 Running Time on Shutdown Timer 

☐ Disable PC Shutdown for this Session

Shutdown Settings:

☒ Allow changes to shutdown settings

(h) (mm) Session delay: Hours + Minutes to wait after Ignition Off for PC shutdown. 3 hours max.

7 04

(mm) Snooze Delay: Minutes to add for snooze. 60 minutes max.

04

☒ Open VoltMeter on Startup

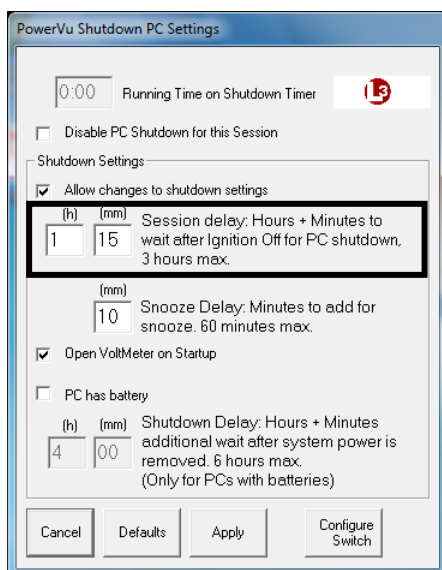
☐ PC has battery

(h) (mm) Shutdown Delay: Hours + Minutes additional wait after system power is removed. 6 hours max. (Only for PCs with batteries)


4 00

Cancel Defaults Apply Configure Switch

- 13** Enter the shutdown time you want to use, as pictured below. For example, if you want the V-One to shut down one hour and 15 minutes after the vehicle's ignition is turned off, enter **1** in the *(h)* field and **15** in the *(mm)* field.



PowerVu Shutdown PC Settings

0:00 Running Time on Shutdown Timer 

☐ Disable PC Shutdown for this Session

Shutdown Settings:

☒ Allow changes to shutdown settings

(h) (mm) Session delay: Hours + Minutes to wait after Ignition Off for PC shutdown. 3 hours max.

1 15

(mm) Snooze Delay: Minutes to add for snooze. 60 minutes max.

10

☒ Open VoltMeter on Startup

☐ PC has battery

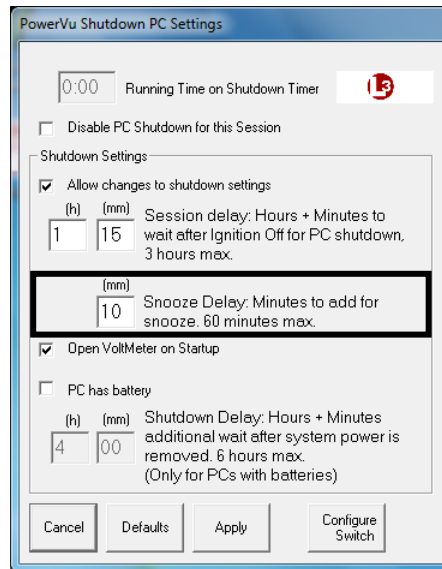
(h) (mm) Shutdown Delay: Hours + Minutes additional wait after system power is removed. 6 hours max. (Only for PCs with batteries)

4 00

Cancel Defaults Apply Configure Switch

If you want to set the shutdown timer to less than one hour, leave the *(h)* field blank.

- 14** Enter the Snooze Delay time you want to use, as pictured on the next page. This setting allows you to extend the shutdown time “on the fly” by clicking the **Snooze** button on the PowerVu menu.



15 Click **Apply** to save your changes.

16 Click the **Close** button.

Regarding Adobe Acrobat

Your V-One unit comes preloaded with the Adobe Acrobat Reader. When you use the computer for the first time, you will be prompted to accept the product's license terms and agreements.

Contact Information

Our goal at Mobile-Vision is to provide you with the most dependable, rugged equipment for your mobile workforce. To ensure that you get the most from your investment, Mobile-Vision technical experts are available for training and questions. We take pride in our ability to provide you with the most comprehensive support available. This minimizes downtime and allows your workforce to concentrate on the "task at hand."

Technical Support/Service: (800) 336-8475, option 3

Fax: (973) 316-9509

Website: <http://www.mobile-vision.com/support>

Index

- Adobe Acrobat, 18
- Antenna
 - GPS, 6
 - Wi-Fi, 6
- Audio
 - Control, 8
 - Features, 4
- Backlighting of function buttons, 8
- Battery
 - Connecting ground wire to, 13
 - Connecting main system fuse to, 13
- Black ground wire, 13
- Black Phillips bracket screw, 7
- Black Phillips bracket screws, 7
- Black screw washer, 7
- Black split lock washer, 7
- Bluetooth, 4, 12
- Bracket
 - Screws, 7
 - Support, 6, 9
- Brightness control, 8
- Butt connector, 7
- Cable
 - Power, 6
 - USB, 13
- Cache, 4
- CD, loading, 11
- CD/DVD RW optical drive, 9, 11
- Configuring the Shutdown Timer, 14
- Connector
 - Butt, 7
 - SMA, 4
- Contact information, 18
- Control panel, 8
- Cover, for solid state drive, 11
- CPU, 4, 5
- Crimp term rings, 7
- Customer Service, 18
- Dimensions of V-One, 4
- Disc drive. *See* CD/DVD RW optical drive
- Disc, loading, 11
- Display features, 4
- DVD drive. *See* CD/DVD RW optical drive
- DVD, loading, 11
- Eject button, 9
- Emergency button, 8

- Expansion cards, 4
- Flat black screw washer, 7
- Front panel, 5
- Front view of V-One, 8
- Function buttons, 8
- Fuse
 - Ignition, 6
 - Main, 6
- GPS, 6
- Ground wire, 13
- Hard disc. *See* Solid state drive
- Hardware installation, 12
- Hex screw, 7
- Housing material for V-One, 4
- Humidity, acceptable level for V-One operation, 5
- Ignition
 - Fuse, 6
 - Wire, 13
- Installation instructions, 12
- Keyboard, 4, 6
- Light, SSD, 8
- Loading a disc, 11
- Lock washer, 7
- Main system fuse, 6, 13
- Manual eject button, 9
- Memory, 4
- Monitor, 4, 5
- Mounting plate, 12
- Mounting solution, 12
- NEMA compliant keyboard, 6
- Operating temperature, 5
- Optical drive. *See* CD/DVD RW optical drive
- Pan head screw, 7
- PCI Express Card
 - Support Bracket, 6, 9
 - Using with V-One, 4
- Phillips bracket screw, 7
- Phillips pan head screw, 7
- Power
 - Button, 8
 - Cable, 6
 - Management, 4
 - Wire, 13
- Powering *down* the V-One, 10
- Powering *up* the V-One, 10
- PowerVu, 14
- Protecting the solid state drive, 11
- RAM, 4
- Rear VESA mount, 4
- Rear view of V-One, 9

- Red butt connectors, 7
- Red crimp term rings, 7
- Red power wire, 13
- Resolution, screen, 4
- Reverse polarity protection, 4
- Rings, crimp, 7
- Rubber cover, for solid state drive, 11
- Screen. *See Also* Monitor
- Screen resolution, 4
- Screw
 - Bracket, 7
 - Hex, 7
 - Phillips bracket, 7
 - Phillips pan head, 7
 - Washer, 7
- SD cards, 4
- Service Department, contacting, 18
- Shutdown Timer
 - Configuring, 14
 - Description of, 4
- Side panel, 5
- Side view of V-One, 9
- SMA connector, 4
- Snooze button, 14
- Software
 - PowerVu shutdown timer, 14
 - Windows operating system, 4
- Solid state drive
 - Light indicator, 8
 - Protecting, 11
 - Specifications, 4
- Speakers, stereo, 4
- Specifications, V-One, 4
- Split lock washer, 7
- SSD light, 8
- Stereo speakers, 4
- Storage, 4
- Support bracket, for PCI express card, 6, 9
- Technical specifications, 4
- Technical Support hotline, 18
- Temperature, optimal for operation, 5
- Term rings, crimp, 7
- Timer, shutdown, 14
- Touchpad keyboard, 4, 6
- USB
 - Cable, 13
- VESA mount, 4
- Volume control, 8
- WAAS, 4

Warranty, 4
Washer
 Black split lock, 7
 Flat black screw, 7
White ignition wire, 13
Wi-Fi, 4, 6, 12