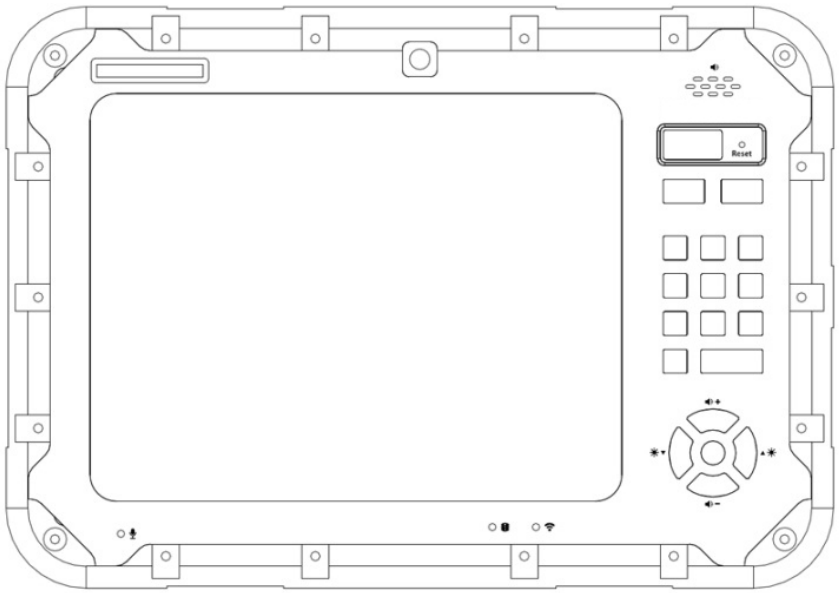
NETIS Information & Technology R&D Center

N9000 Tablet PC

User's Manual v1.1 (Eng)



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2013-12-16

Document History

Date	Ver.	History	Author
2013.12.13	1.0	First Release	
2013.12.16	1.1	Update contents	

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Limited Warranty

NetisIT warrants its products to be free from defects in materials and workmanship and to conform to NetisIT published specifications applicable to the products purchased at the time of shipment. This warranty does not cover any product which is (i) improperly installed or used; (ii) damaged by accident or negligence, including failure to follow the proper maintenance, service, and cleaning schedule; or (iii) damaged as a result of (A) modification or alteration by the purchaser or other party, (B) excessive voltage or current supplied to or drawn from the interface connections, (C) static electricity or electro-static discharge, (D) operation under conditions beyond the specified operating parameters, or (E) repair or service of the product by anyone other than NetisIT or its authorized representatives.

This warranty shall extend from the time of shipment for the duration published by SmarTerminla for the product at the time of purchase ("Warranty Period"). Any defective product must be returned (at purchaser's expense) during the Warranty Period to NetisIT's factory or authorized service center for inspection. No product will be accepted by NetisIT without a Return Materials Authorization, which may be obtained by contacting NetisIT. In the event that the product is returned to NetisIT or its authorized service center within the Warranty Period and NetisIT determines to its satisfaction that the product is defective due to defects in materials or workmanship, NetisIT at its sole option, will either repair or replace the product without charge, except for return shipping to NetisIT.

EXCEPT AS MAY BE OTHERWISE PROVIDED BY APPLICABLE LAW, THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER COVENANTS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, ORAL OR WRITTEN, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Important safety information

Before you use the N9000Tablet PC(referred to as the N9000), read these safety instructions and the operation instructions in this handbook.

Failure to observe all these instructions voids the Limited Warranty and may lead to suspension or denial of services to the offender, or legal action, or both.

Follow any special regulations governing the use of the N9000 and, if radio enabled, always switch it off in areas where radio devices are forbidden or when the radio device can cause interference or danger.

Always follow any safety laws and regulations pertaining to the use of cell phones and two-way radios, because these laws and regulations typically apply to the use of the wireless-enabled N9000.

Observe all restrictions on the use of radio equipment in fuel depots (fuel storage and distribution areas), chemical plants, and wherever blasting operations are in progress or in any area in which restrictions on radio transmissions are imposed.

Switch off the N9000 when in an aircraft. The N9000 is not FAA-approved for use on aircraft. The effect of the use of the N9000 in aircraft is unknown. Using the N9000 in an aircraft may affect aircraft instrumentation, communication, and performance; may disrupt the network; and may be illegal.

Operating the wireless-enabled N9000 may interfere with the functioning of inadequately protected medical devices such as pacemakers.

Consult a physician or the manufacturer of the medical device if you have any questions.

Radio signals from your N9000 will not affect the operation of most modern equipment, but certain electronic equipment, including automotive systems, may not be shielded against radio signals from your N9000.

Check with the manufacturer of your motor vehicle or the manufacturer's representative to determine whether using the N9000 will present any safety issues.

Avoid using the N9000 in any environment that requires your full attention, such as when driving a vehicle. If you need to use your N9000 while driving, have a passenger use it for you or find a safe location to halt your vehicle.

WARNING

Use only battery types specified in this handbook. Using any other type of battery can be dangerous and can disable the N9000.

Do not use any dock or any other accessory or attachment that is not manufactured or supplied by NetisIT or an authorized NetisIT accessories supplier.

Use of any accessory or attachment that is not supplied or approved for use with the N9000 by NetisIT is not permitted because it may cause hazards.

Operate the N9000 only from the type of power source indicated on the marking label Route power supply cords so that they are not likely to be walked on or pinched by items placed upon or against them.

Pay particular attention to cords at plugs and convenience receptacles, and at the point where cords exit from the N9000 or its dock. Do not overload wall outlets, extension cords, or integral convenience receptacles because this can cause fire or electric shock.

Unplug the N9000 and refer the N9000 and dock for service to qualified service personnel if any of the following conditions occur:

■The power supply cord or plug is damaged.

■ The N9000 or dock does not operate normally when you follow the instructions in this book.

■ The N9000 or dock exhibits a distinct change in performance.

Adjust only controls for which there are instructions in this book.

An improper adjustment of other controls can result in damage and may require extensive work by a qualified technician to restore the N9000 or dock to normal operation.

CAUTION

Avoid prolonged physical contact with the exposed metal surfaces on the front and back of the N9000.

Operation while the N9000 may not feel hot to the touch, if you maintain physical contact with the N9000 for a long time (for example, if you rest the N9000 on your lap for a long time), your skin may suffer low-heat injury. In addition, be careful when you remove a PC card that has been used for a long time, because the card may be hot.

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※ This product is used only for WIFI, Bluetooth.

Welcome

Congratulations on selecting the N9000, supported by Microsoft Windows®, XP, Vista, 7.

This unique N9000 offers a special combination of features that make it an ideal partner for a wide range of applications.

Our products can fulfill most of outdoor N9000 applications. Great thermal conduction and solid mechanical design make our products great reliability in harsh, highly-shock and vibration environment.

About this Manual

This User's Manual is intended for experienced users and integrators with hardware knowledge of personal computers. If you are not sure about any description in this User's Manual, please consult your vendor before further handling.

The following chapters contained in this manual are:

Chapter 1: Getting Started - Basic functions of the N9000.

Chapter 2: Starting N9000 Utility - Using the system management software included with the N9000.

Chapter 3: Maintenance and Troubleshooting - How to maintain, calibrate and replace components;

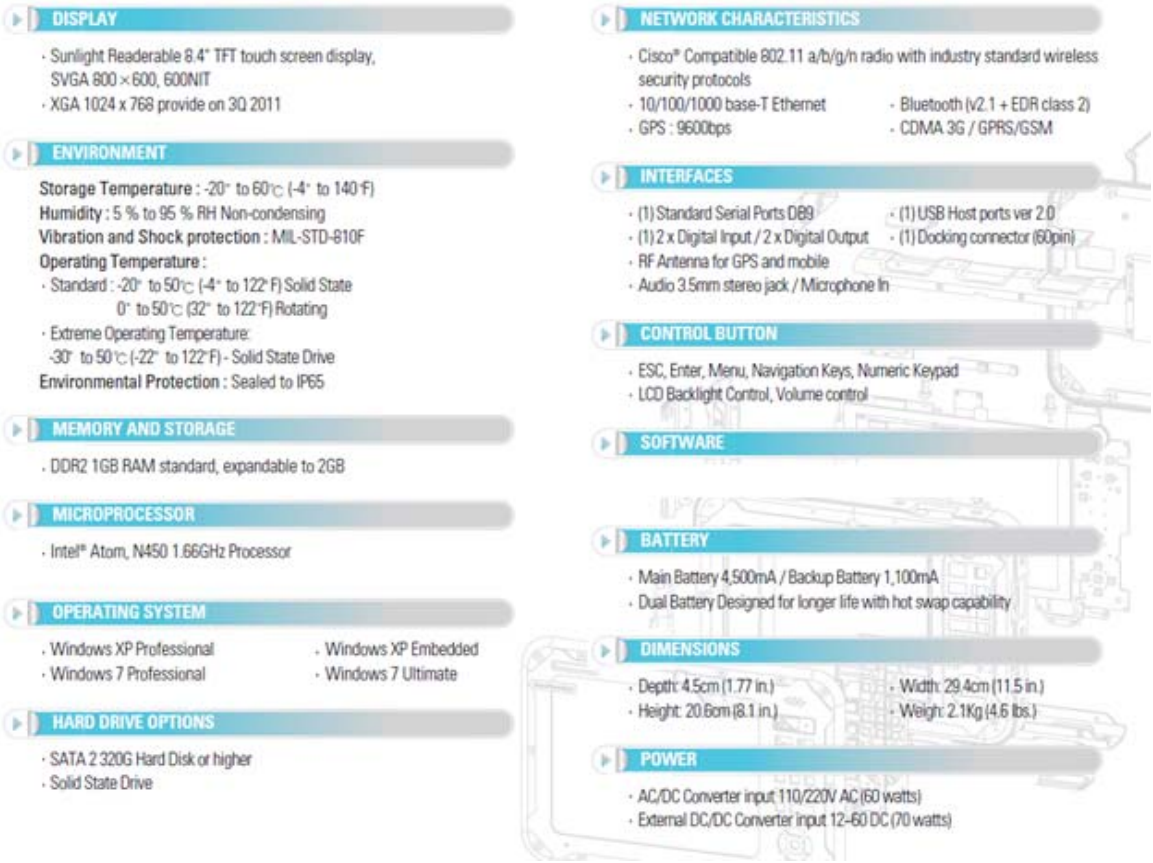
a troubleshooting FAQ details how to diagnose and correct typical problems.

Ordering Information

Ordering no.	Description
	N9000
	Vehicle cradle
	Desktop cradle
	Main battery
	Sub battery
	AC/DC Adapter (AC100-220V Input)
	DC/DC Converter(DC12 ~16V input)
	Cigar jack adapter
	Mobile Antenna
	GPS Antenna

System Specifications

The N9000 meets the following specifications. Unless otherwise noted, allthe specifications listed below are subject to change without prior notification.



DISPLAY

- Sunlight Readerable 8.4" TFT touch screen display, SVGA 800 × 600, 600NIT
- XGA 1024 x 768 provide on 3Q 2011

ENVIRONMENT

Storage Temperature : -20° to 60°C (-4° to 140°F)
Humidity : 5 % to 95 % RH Non-condensing
Vibration and Shock protection : MIL-STD-810F
Operating Temperature :

- Standard : -20° to 50°C (-4° to 122°F) Solid State
  0° to 50°C (32° to 122°F) Rotating
- Extreme Operating Temperature:
  -30° to 50°C (-22° to 122°F) - Solid State Drive

Environmental Protection : Sealed to IP65

MEMORY AND STORAGE

- DDR2 1GB RAM standard, expandable to 2GB

MICROPROCESSOR

- Intel® Atom, N450 1.66GHz Processor

OPERATING SYSTEM

- Windows XP Professional
- Windows XP Embedded
- Windows 7 Professional
- Windows 7 Ultimate

HARD DRIVE OPTIONS

- SATA 2 320G Hard Disk or higher
- Solid State Drive

NETWORK CHARACTERISTICS

- Cisco® Compatible 802.11 a/b/g/n radio with industry standard wireless security protocols
- 10/100/1000 base-T Ethernet
- Bluetooth (v2.1 + EDR class 2)
- GPS : 9600bps
- CDMA 3G / GPRS/GSM

INTERFACES

- (1) Standard Serial Ports DB9
- (1) USB Host ports ver 2.0
- (1) 2 x Digital Input / 2 x Digital Output
- (1) Docking connector (60pin)
- RF Antenna for GPS and mobile
- Audio 3.5mm stereo jack / Microphone In

CONTROL BUTTON

- ESC, Enter, Menu, Navigation Keys, Numeric Keypad
- LCD Backlight Control, Volume control

SOFTWARE

BATTERY

- Main Battery 4,500mA / Backup Battery 1,100mA
- Dual Battery Designed for longer life with hot swap capability

DIMENSIONS

- Depth: 4.5cm (1.77 in.)
- Width: 29.4cm (11.5 in.)
- Height: 20.6cm (8.1 in.)
- Weight: 2.1Kg (4.6 lbs.)

POWER

- AC/DC Converter input 110/220V AC (60 watts)
- External DC/DC Converter input 12~60 DC (70 watts)

Chapter 1
Getting Started

1.1 Getting started

This chapter gives you an overview of your N9000 and includes a quick-start guide to N9000 keys.

There are three ways in which N9000 can be used or mounted

1. Desktop docking station
2. Vehicle docking station
3. Without any docking station

Make sure you have everything

After opening the package, carefully inspect the contents. If any of the items are missing or appear
damaged, contact your dealer. The shipping carton should contain the following:

N9000

Stylus Pen

AC/DC Adaptor

Lithium-Ion Rechargeable Battery Pack

Power cord

Quick Reference guide

Optional accessories

Docking station (Vehicle, desktop)

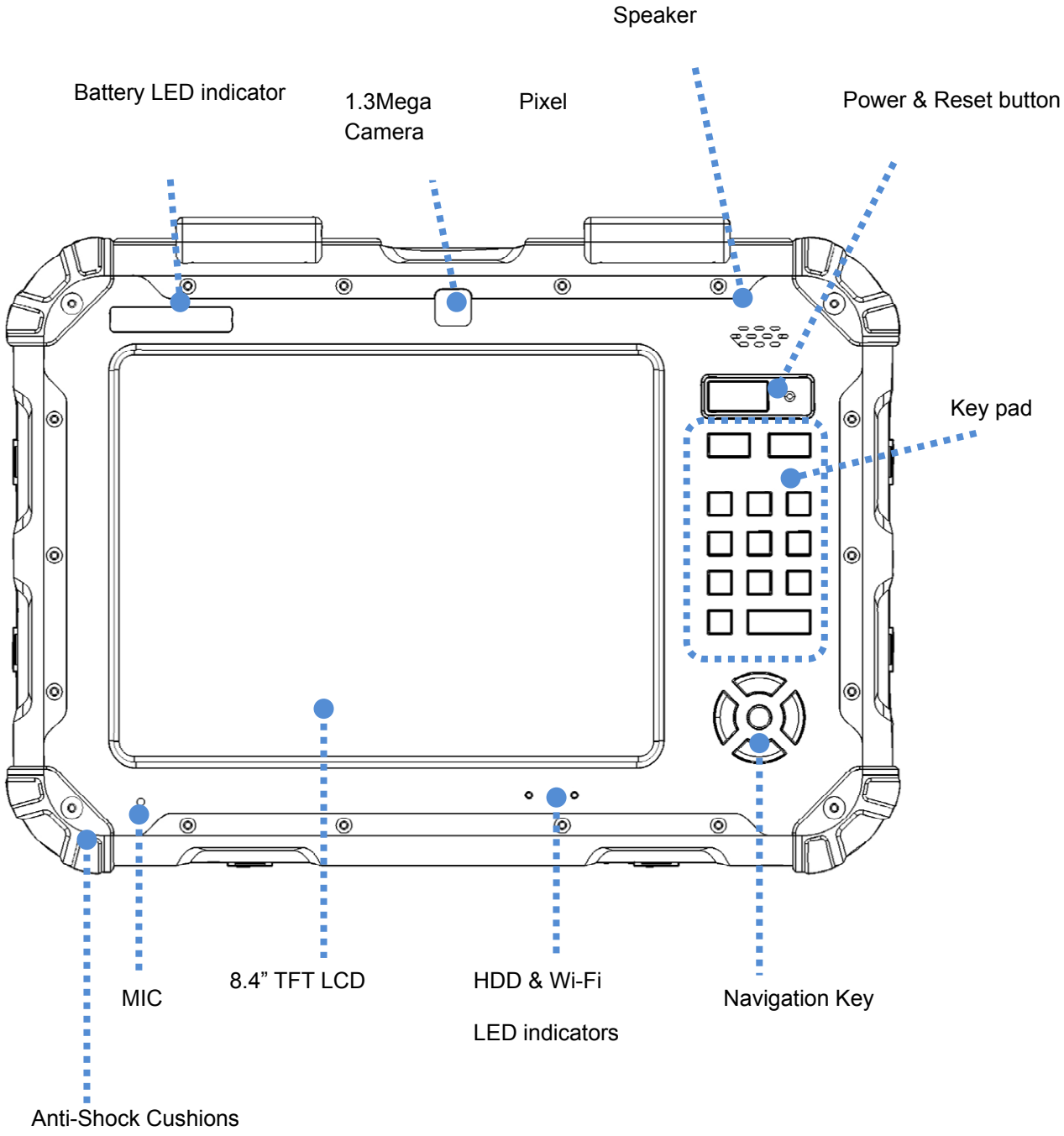
Cigar Jack adapter

DC/DC power supply

External LAN cable

1.2 Getting to know your N9000

1.2.1 Front view



LED Indicator

Icon	Light	Description
	Red	Power is on
	Flashing Red	System is in standby mode
	Blue	WLAN is enabled
	No light	WLAN is not powered
	Green	N9000 is reading from or writing to the built in SSD or HDD
	No light	HDD is idle
	Red	Battery is charging
	Green	Battery is fully charged

Power & Reset Button

When clicking power button (when you turn on), the button stays with red light.

Reset Button works simply as reboot, and this doesn't remove programs or anything just as general computers.

ESC Button

Works likewise as computer.

Menu Button

This button makes N9000 Utility to pop up to the display screen if it was minimized on the Tray.

Numeric Key Button

1) When 'Fn' is enabled: simply works as number button

2) When 'Fn' is disabled: use as Key Map definition function. (to help memorize functions, the drawings under the numbers are actually related each function. For example, #5 button shows radar wave, indicating WiFi On/Off)

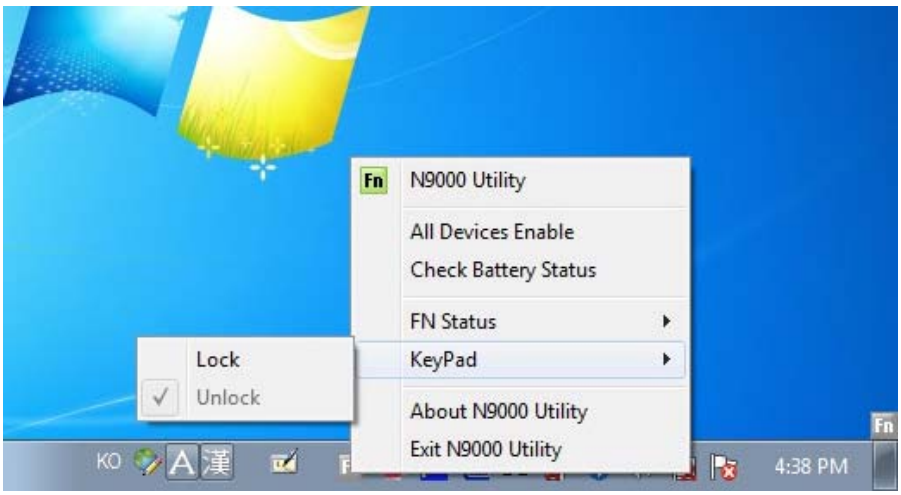
[Key Map]

KEYS	Function
Fn + 0	F4
Fn + 1	F3
Fn + 2	Turn on/off CDMA and 3G/GPRS
Fn + 3	Key Pad Lock
Fn + 4	F2 (BIOS Setup Key)
Fn + 5	Turn on/off WLAN
Fn + 6	Touch Calibration
Fn + 7	F1 (BIOS Multi-Boot)
Fn + 8	Display Rotate
Fn + 9	On Screen Keyboard

Key Pad Lock / Unlock

The main purpose of placing a keypad lock[**Fn+3]** to a N9000 is to prevent accidental key input.

You can unlock the keypad via N9000 Utility.



Navigation Key (arrow keys)

1) When 'Fn' is disabled: serves simply as arrow keys

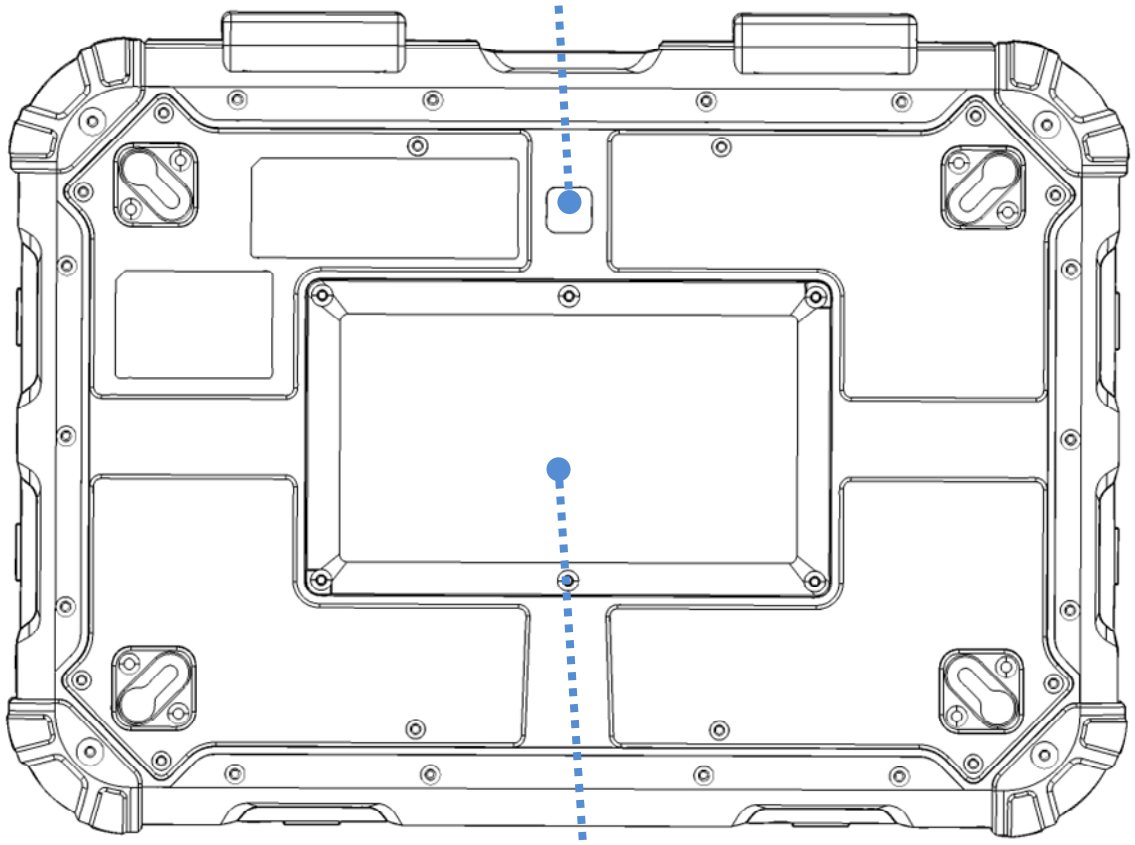
2) When 'Fn' is enabled: works as Seeking Bar in N9000 Utility

- Left / Right: Brightness control

- Up / Down: Sound Device volume

1.2.2 Rear view

3Mega Pixel Camera



Hot Swappable Battery

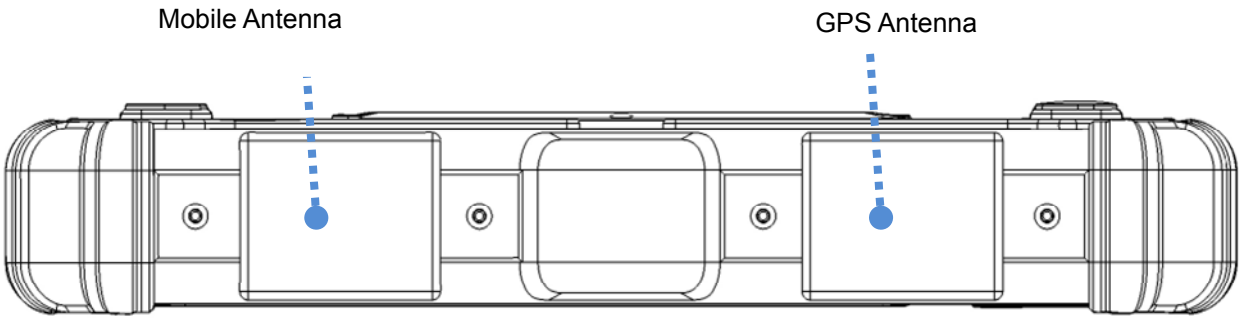
Camera

The 3MP Color Camera is located on the back panel of the computer. The camera can be used for picture capture as well as streaming video.

Hot-Swappable Battery

Refresh your power supply without shutting down. With a 30 minute swap time, the hot-swappable battery pack can easily be replaced in the field

1.2.3 Top view



GPS Internal Antenna

An internal GPS active antenna is suitable for mobile applications

Mobile Antenna

Mobile Antenna for GSM GPRS or CDMA

Service / Mode	USC	GSM900	GSM1800	US-PCS	WCDMA
	Frequency				
	824~894MHz	880~960MHz	1710~1880MHz	1850~1990MHz	1920~2170MHz
V.S.W.R..	< 4	< 3	< 4	< 3	< 3

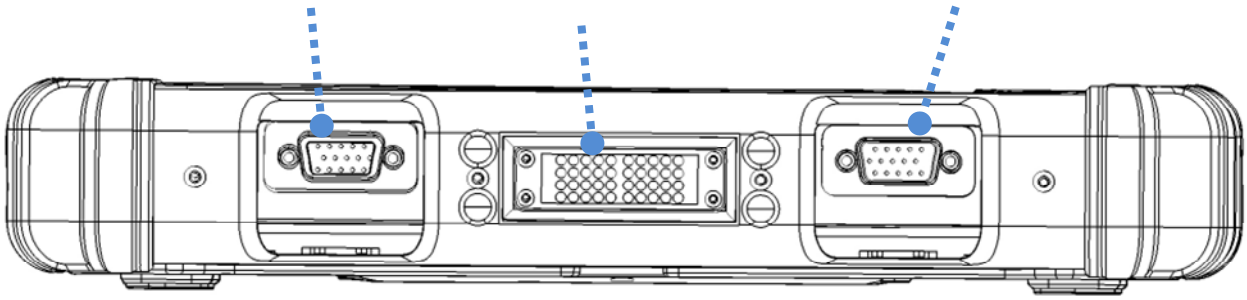
1.2.4 Bottom view

DIO Connector (Option)

RS-232 Port (Default)

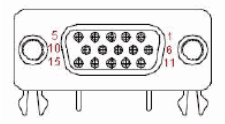
VGA Port

Docking Connector



VGA

D-Sub 15 pin VGA connector for display output



Signal Name	Pin	Pin	Signal Name
Red	1	2	Green
Blue	3	4	NC
GND	5	6	GND
GND	7	8	GND
VCC	9	10	GND
NC	11	12	DDC data
HSYNC	13	14	VSYNC
DDC clock	15		

Docking connector

When seated in a N9000 peripheral, the Device is powered, the batteries charged, and communication occurs via this connector.

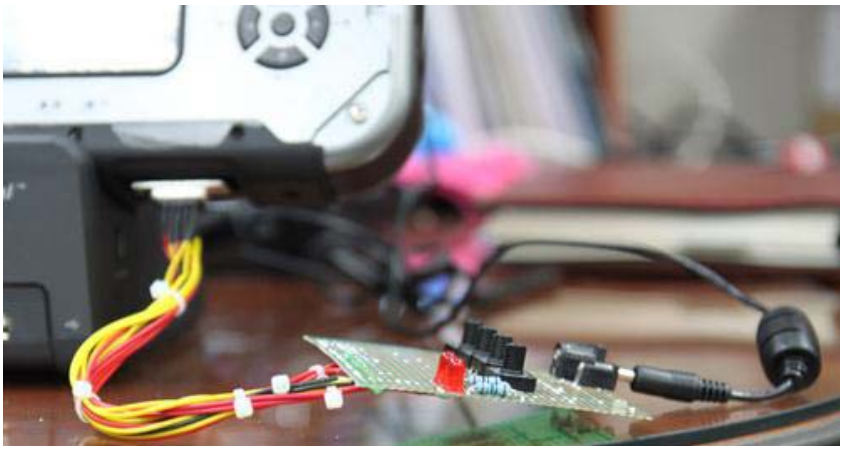
Connector Layout

	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10
Row 0	VCC	VCC	LinkLed+	+5V (USB)	CD	RI	BI_DA+	BI_DA-	GND	GND
Row 1	VCC	VCC	LinkLed-	DM	RXD	CTS	BI_DB+	BI_DB-	GND	GND
Row 2	VCC	VCC	ActLed+	DP	TXD	RTS	BI_DC+	BI_DC-	GND	GND
Row 3	N3	N2	ActLed-	N1	DTR	DSR	BI_DD+	BI_DD-	GND	GND

DIO Connector Pin Map

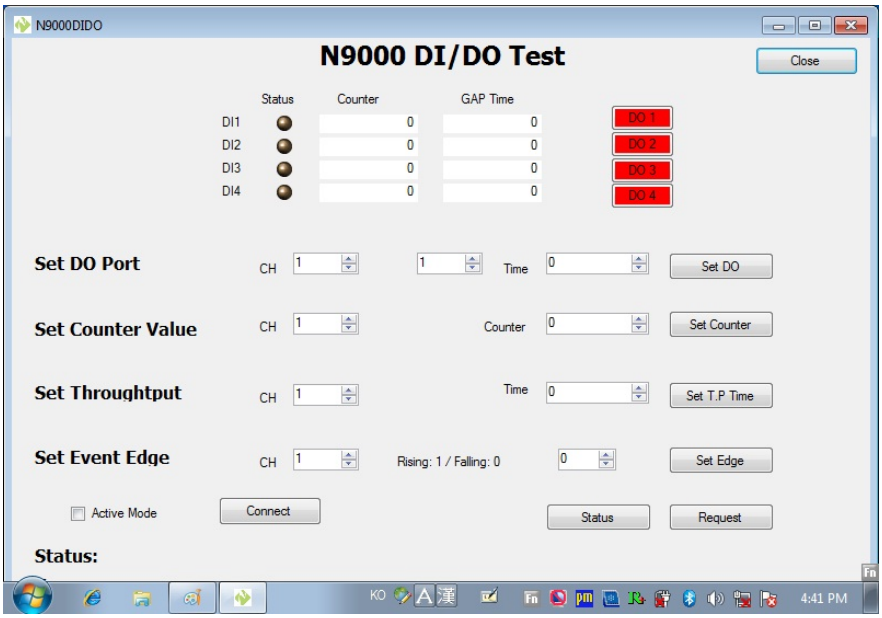
Connector	DIO (DB15 Male)							
Pin map	1	2	3	4	5	6	7	
	DI0+	DI0-	DI1+	DI1-	GND	DI2+	DI2-	
	8	9	10	11	12	13	14	15
	DI3+	DI3-	GND	DO0+	DO0-	DO1+	DO1-	GND

DIO Functional Test



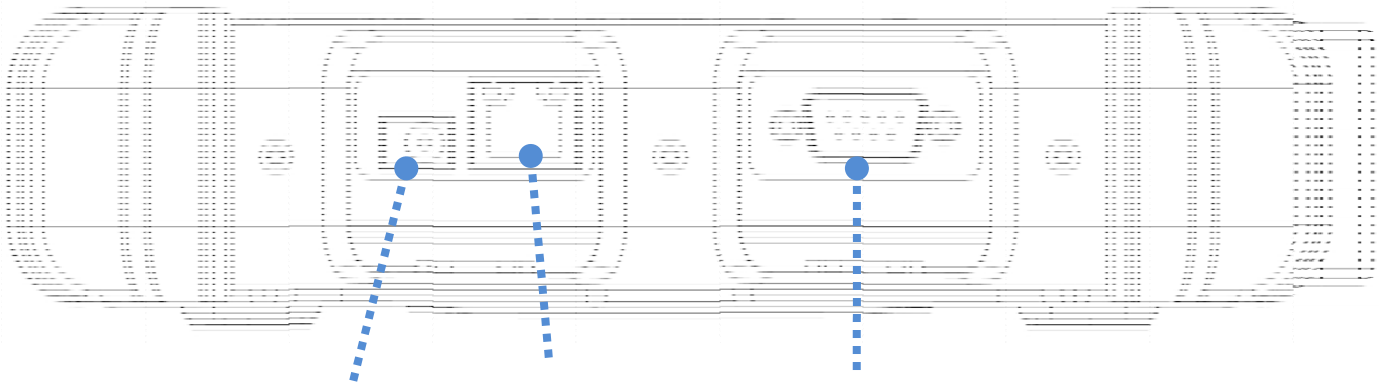
Connect to DIO Test board to the DIO port of N9000 or own

Run N9000DIDO on the desktop



You can check and test for DI and DO on the N9000 DIDO utility.

1.2.5 Right view



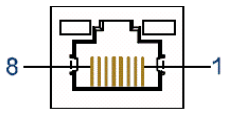
DC-in jack

Power supplied through this jack supplies power to the PC. To prevent damage to the PC, always use the supplied power adapter.

LAN RJ-45 jack

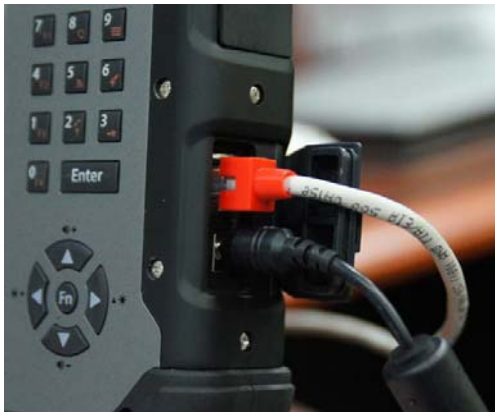
The eight-pin RJ-45 LAN port supports a standard Ethernet cable for connection to a local network.

LAN RJ45 Connector with LED Indicators.



Pin	Signal	Pin	Signal
1	Tx+	5	NC
2	Tx-	6	Rx-
3	Rx+	7	NC
4	NC	8	NC

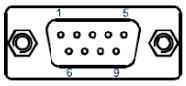
Status / Led	Orange / Green	Yellow
No link	Off	Off
10M link	Off	Off
10M active	Off	Blink
100M link	Green on	Off
100M active	Green on	Blink
1000M link	Orange on	Off
1000M active	Orange on	Blink



9-pin Serial communications jack

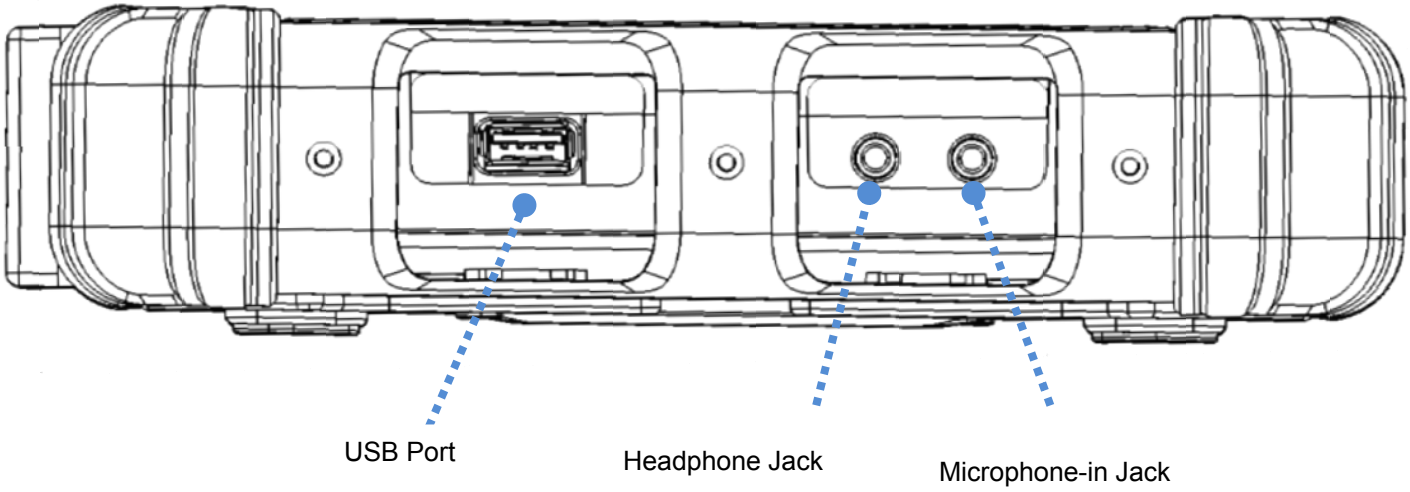
Use this jack to connect to your printer for hard-copy printing.

Com1 RS232(DB9 male connector)



Pin	Signal
1	Data carrier detect
2	RXD, Receive data
3	DTR, Data terminal ready
4	GND, ground
5	TXD, Transmit data
6	DSR, Data set ready
7	RTS, Request to send
8	CTS, Clear to send
9	+5V / +12V / RI, Ring indicator *Note : Selected by BIOS Setting*

1.2.6 Left view



USB ports

The Universal Serial Bus (USB) is the latest standard for attaching monitors, input devices, scanners, and other devices to a PC. USB devices can be chained together on a single cable.

Headphone jack

Connect a stereo headset or external speakers to this jack to listen to multimedia.

Microphone-in jack

Connect a microphone in this jack to record audio.

Chapter 2
Quick Start

2.1 Turning on the N9000 for the First Time

Use the following instructions the first time an N9000 is turned on. After which you will only need to press the power button on the keypad as N9000 should be fully charged andready to go.

To turn on the N9000

1. Connect the AC adapter power cord to the AC adapter.
2. Connect the AC adapter power cord to an AC outlet.
3. Connect the AC adapter to the DC power port on the left side of your N9000.
4. Press the power button 3sec. or more on the keypad to turn on the power.

2.2 Turning Off the N9000

Turning off the N9000 properly is important to maintaining your rugged N9000.

To turn off the N9000

Select **Start** >**Shut down**.

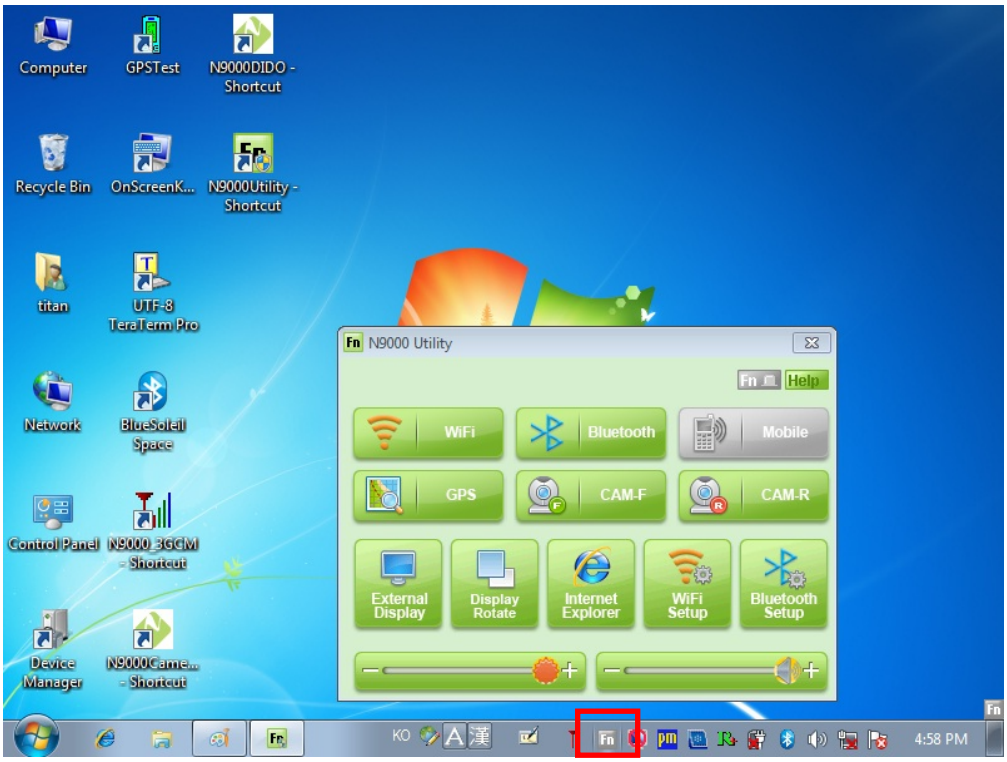
Caution: **Shutting off the N9000 improperly may result in loss of data.**

Chapter 3
Using a N9000 utility

This Chapter will give you how to use menu function including basic hardware function adjustment and theN9000 Utility software that is very easy & helpful for operating the computer.

As N9000 start, N9000 Utility will then automatically run (start) through forwarding process.

As illustrated below, on the bottom right side of Tray Icon, you can see the N9000 Utility icon minimized indicated as a red square.



To show N9000 Utility, simply double click on the Tray Icon if it's minimized.

If 'Fn' button is enabled (pressed down), then you will see the tray icon like below, shown as blue color

If 'Fn' button is not active (or not pressed down, not touched), then gray color as below.

Device Control

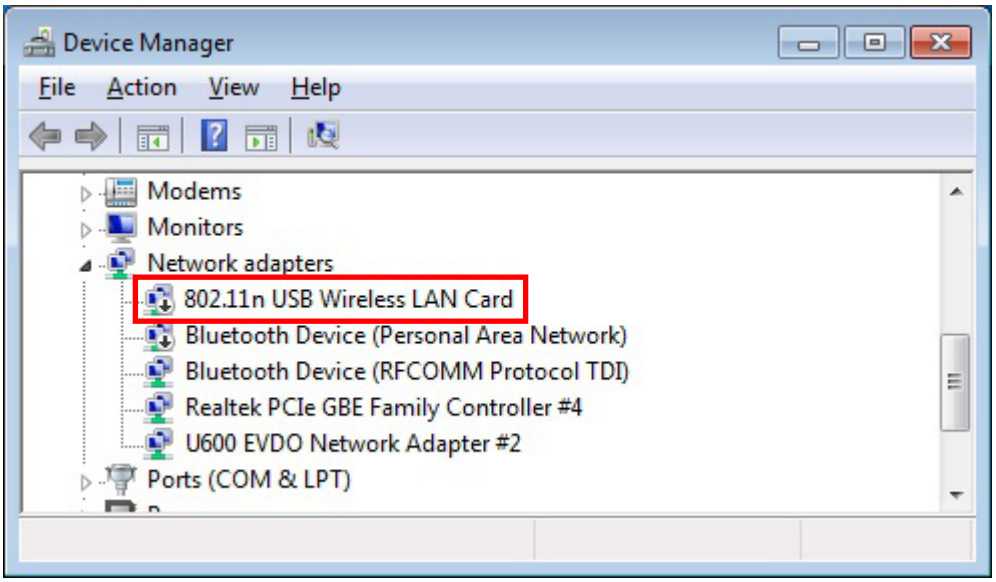
You can also utilize each device respectively by using N9000 Utility to toggle it as 'Enable / Disable'

WIFI Enable/Disable

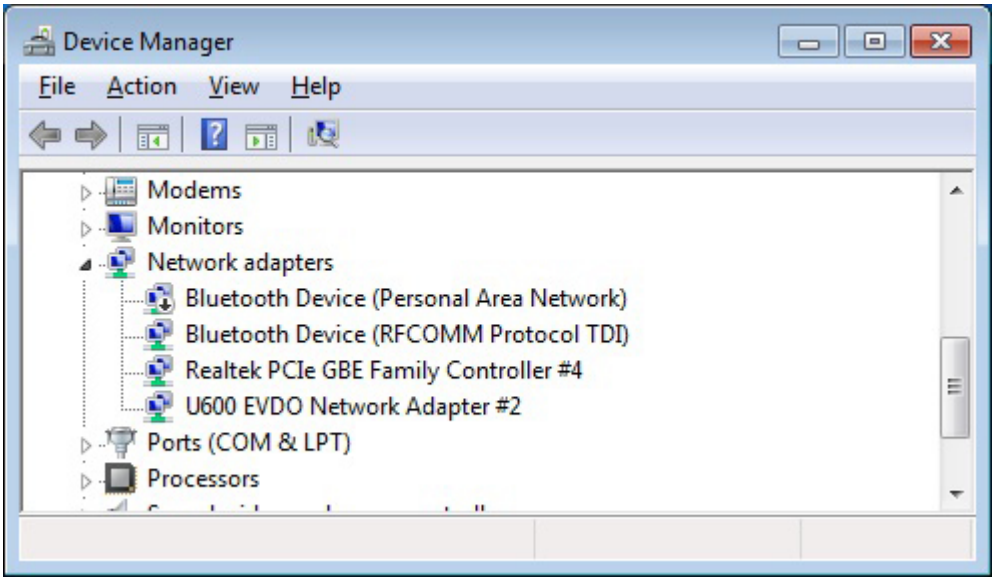
When clicking Wifi button from the N9000 Utility, you can enable / disable of N9000.

When disabling the Device, you can't access (connect) to Wi-Fi.

1) When Wi-Fi is enabled: You can check Wireless LAN Device from the Device Manager as illustrated below.



2) When WiFi is disabled: You won't be able to see nor check Wireless LAN Device from the Device Manager.



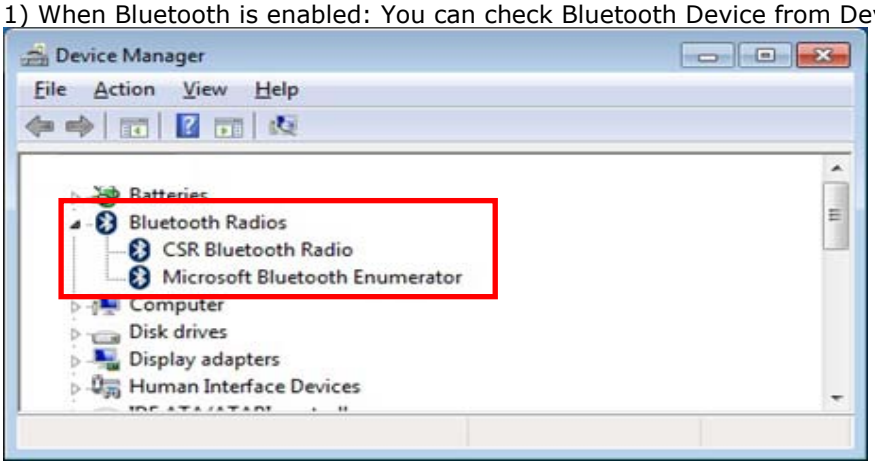
Even if you go to Network -> Property -> adapter, you still won't be able to see nor check it.

Bluetooth Enable/Disable

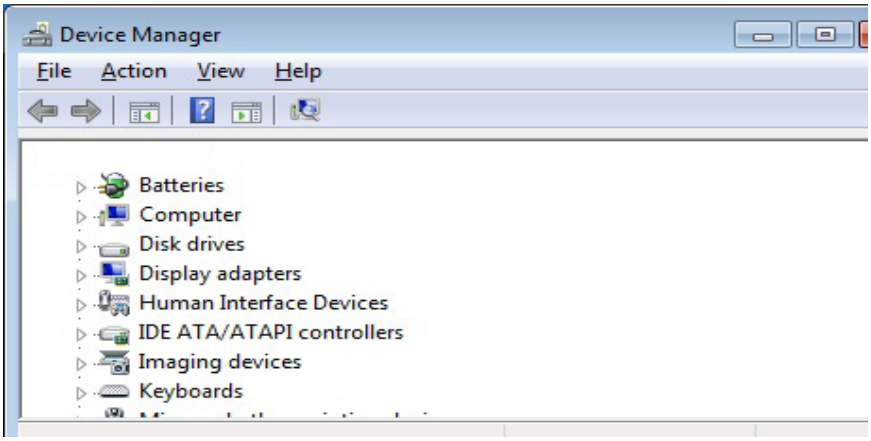
When clicking Bluetooth button at the N9000 Utility, you can also enable / disable Bluetooth Device of N9000.

When disabling Device, it's impossible to access to Bluetooth.

1) When Bluetooth is enabled: You can check Bluetooth Device from Device Manager.



2) When WiFi is disabled: WiFi Device is disabled as well. From the Device Manager, you will see Bluetooth Device has disappeared as shown below.



Mobile Enable/Disable

When clicking 'Mobile' button from the N9000 Utility, you can enable / disable of CDMA Device or GPRS/GSM of N9000.

When disabling Mobile Device, it's impossible to connect or access through 2G.

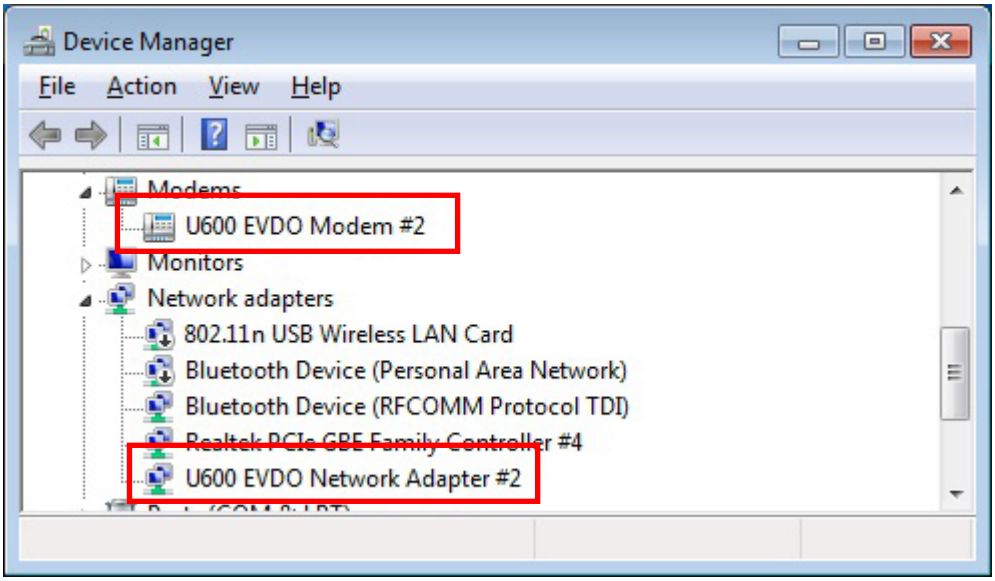
For CDMA Model

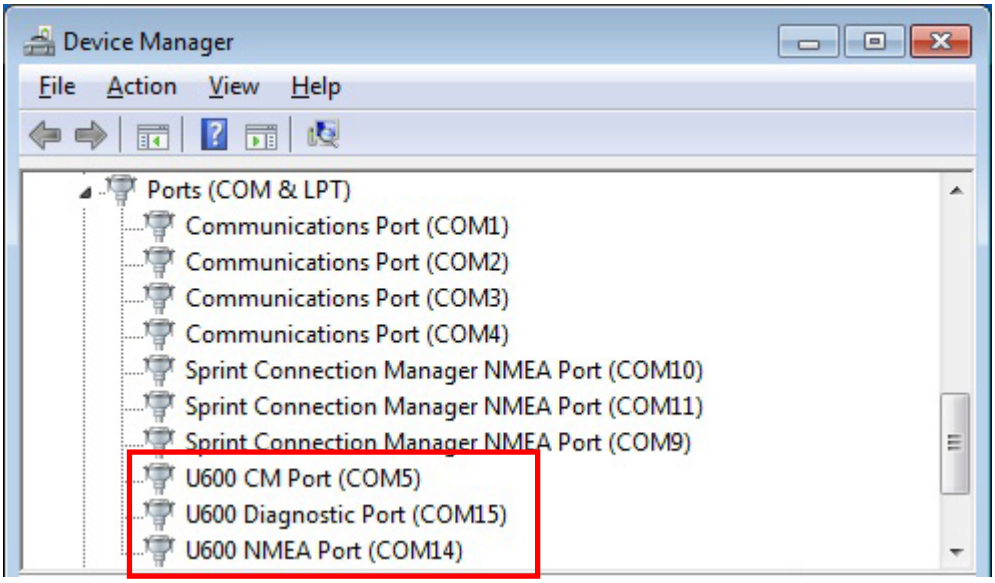
1) For CDMA model, when 'Mobile' button is enabled:

CDMA 2G

As shown below, U600 EVDO Modem (for phone connection), U600 EVDO Network Adapter (for WWAN), 3 serial ports (for GPS data base, serial connection etc.), when they are shown in the Device Manager as red squares, it means CDMA model is enabled (working normally).

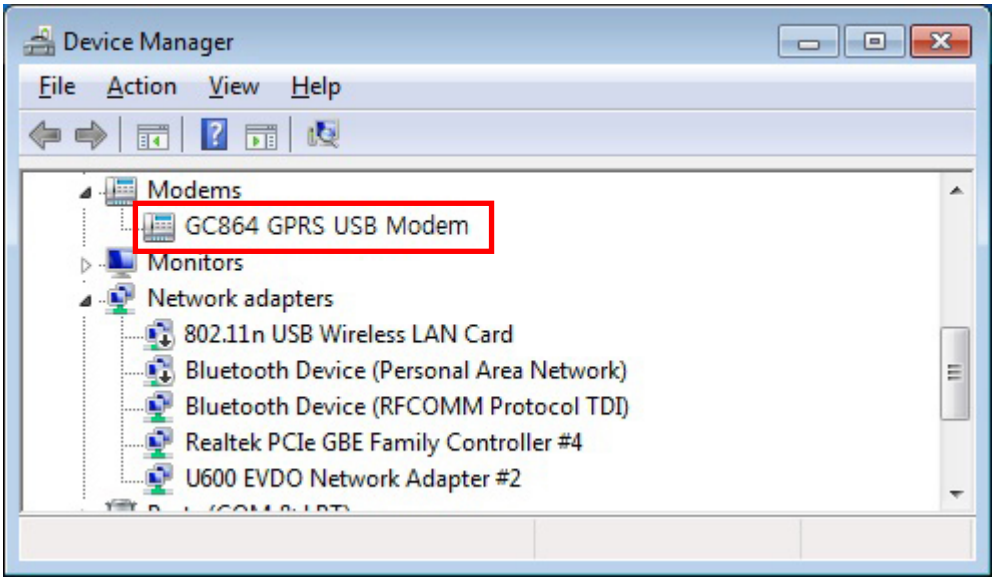
(For additional info, U600 CM Port's default value is COM5, and the administer (user) of computer can change it.)

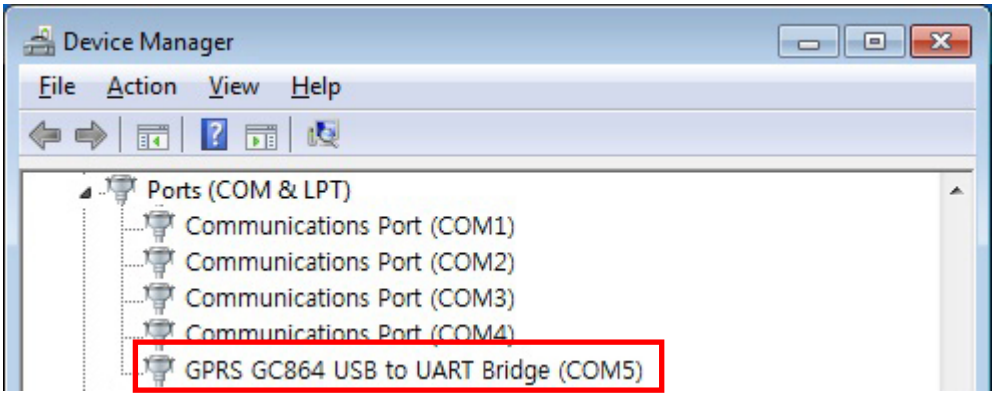




2) When disabling 'Mobile' button of GPRS/GSM model:

If you see 'GC864 GPRS USB Modem', 'GPRS GC864 USB to UART Bridge' at the Device Manager, it means GPRS is disabled. It's illustrated as below in red squares.

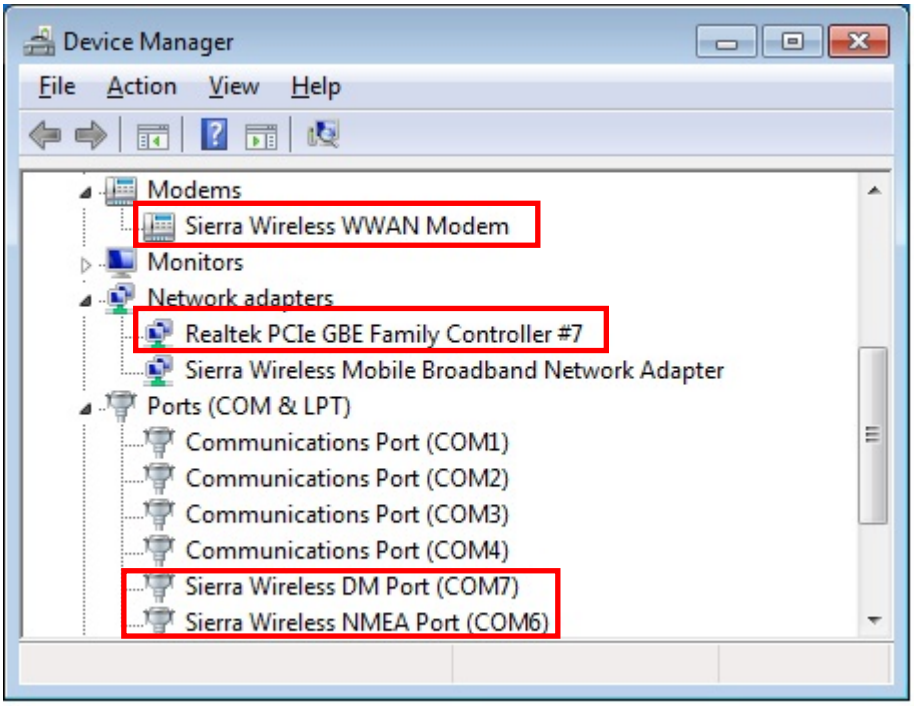




For GPRS/GSM Model(GoBi3000 for Sierra MC8355)

1) For GPRS/GSM model, when 'Mobile' button is enabled:

Check if all the 3G related devices are detected from the device manager. Refer the image below.



▷ Sierra Wireless WWAN Modem

▷ Sierra Wireless Mobile Broadband Network Adapter

▷ Sierra Wireless DM Port

▷ Sierra Wireless NMEA Port

GPS Enable/Disable

When clicking 'GPS' button in N9000 Utility, you can also enable / disable the function of GPS of N9000.

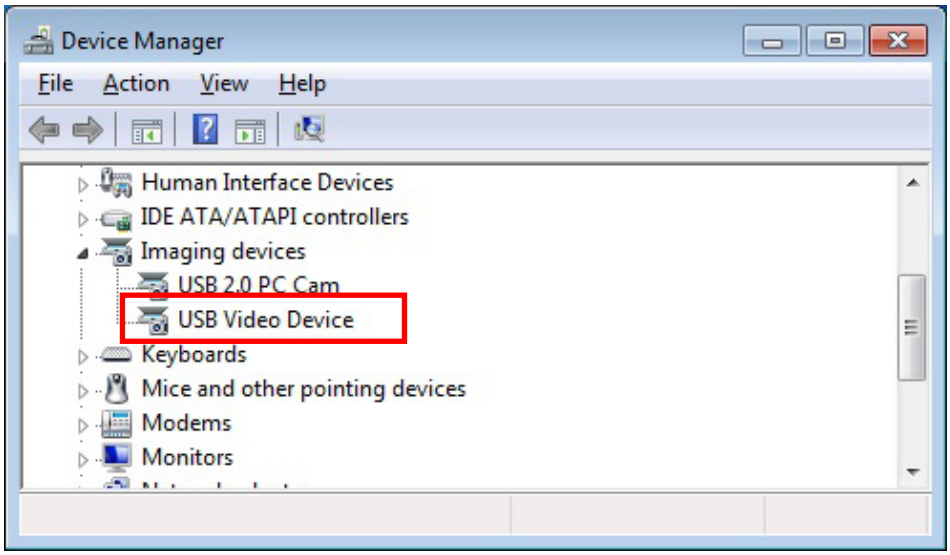
When disabling the Device, access (or connect) to GPS becomes impossible.

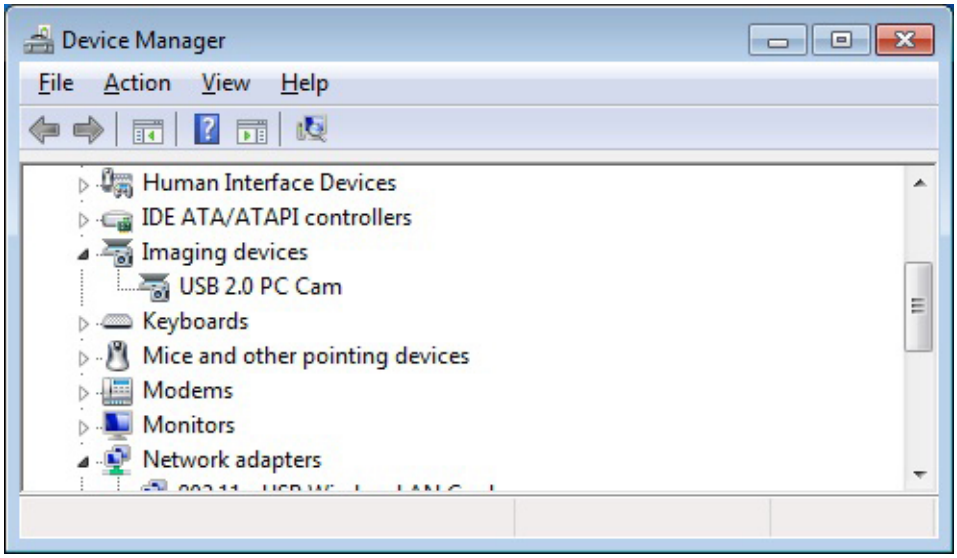
*It is important to note that when CDMA is disabled, GPS will also be disabled simultaneously, it's normally done by mechanism of the computer.

CAM-F Enable/Disable

When clicking 'CAM-F' button from N9000 Utility, you can enable / disable the Device of frontal cam of N9000.

When disabling the Device, you can't use the cam at all, the 'USB Video Device' won't be shown as illustrated as below to prove.





In order to see if CAM is working normally, simply go to "N9000 Camera" (Use the N9000 Camera

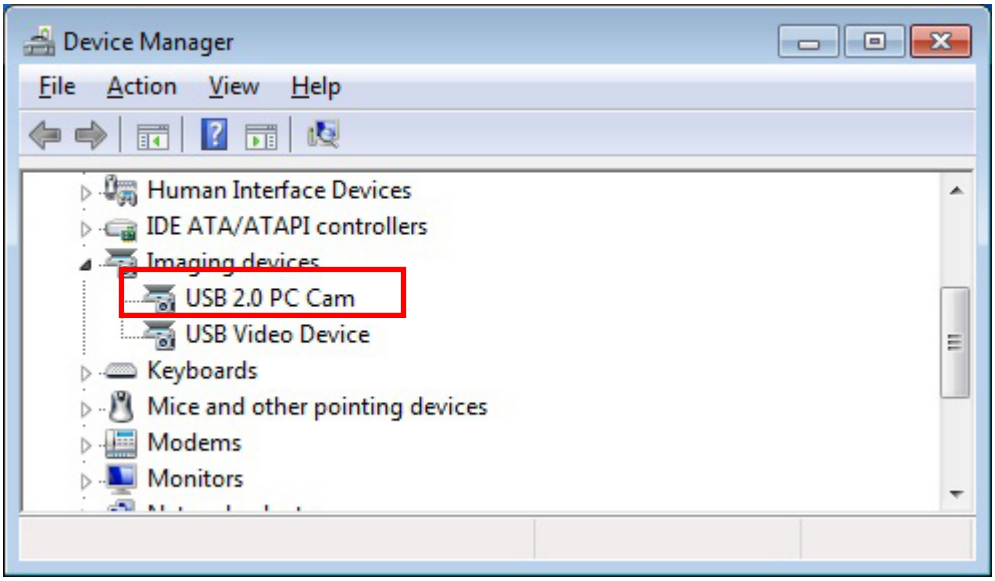
Shortcut in the desktop background)

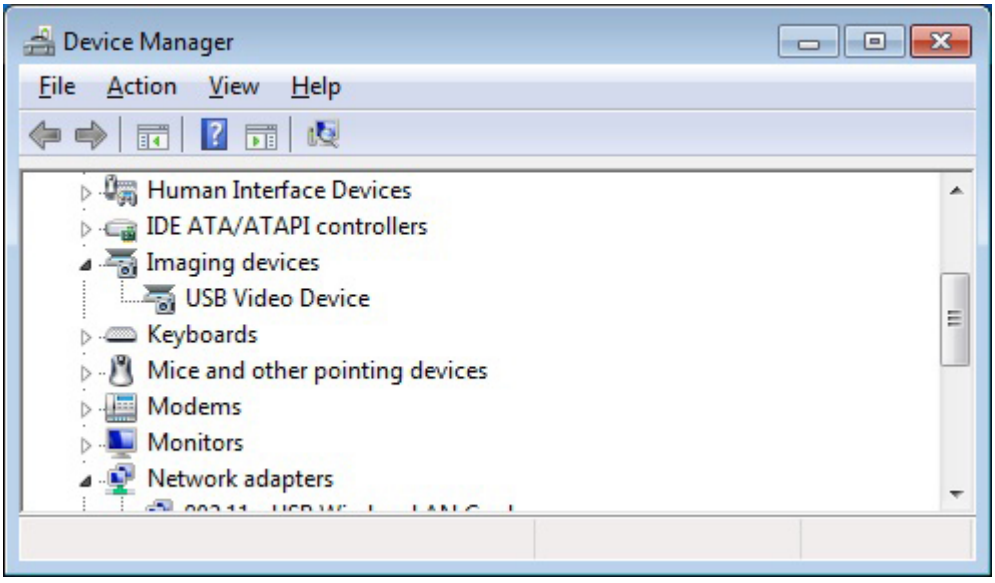
caution: When updating USB Video Device Driver, the frontal camera might not work properly.

CAM-R Enable/Disable

When clicking 'CAM-R' button from N9000 Utility, you can enable / disable the Device of the rear side of the cam.

Once the device becomes disabled, the rear side cam will not work.





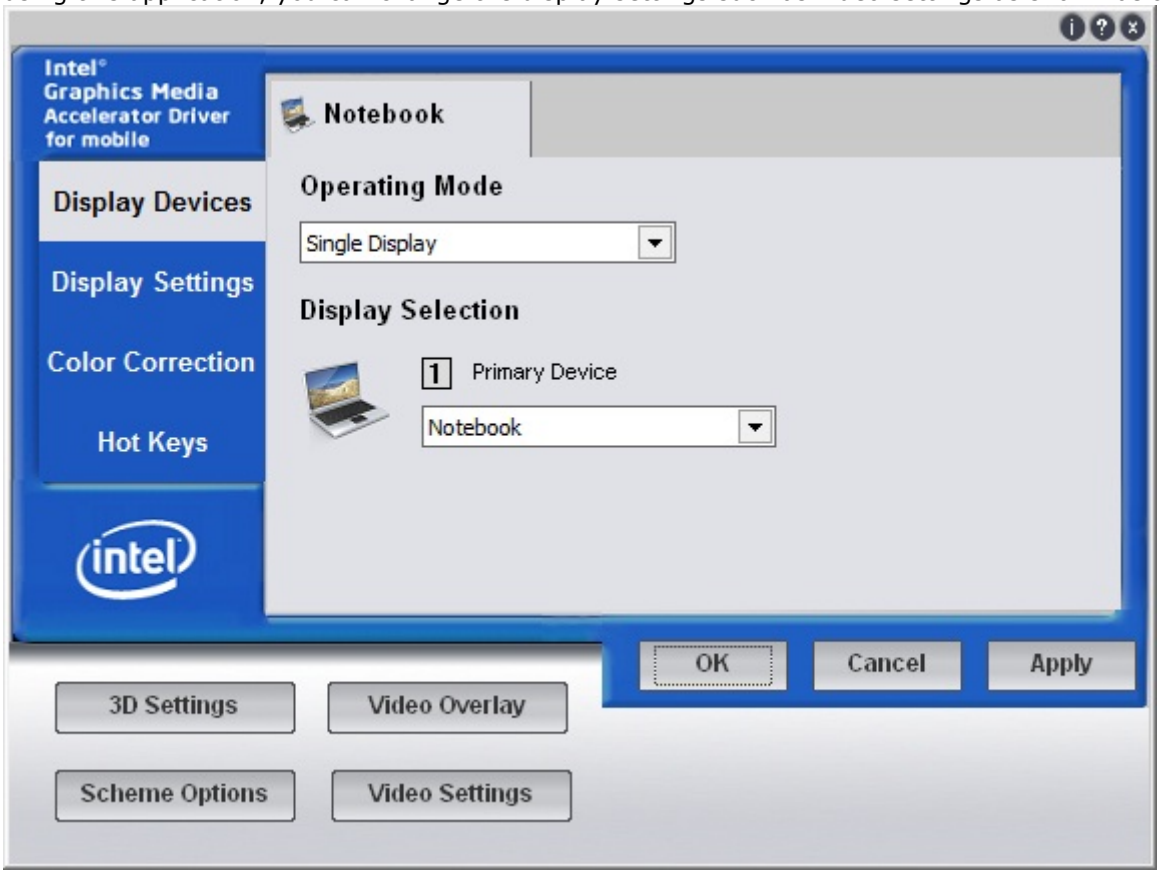
In order to see if rear cam is working, go to "N9000 Camera" application. ("N9000 Camera" shortcut in the desktop background)

Application Launch

By using the N9000 Utility, you can launch the application related to each function.

External Display

When clicking 'External Display' button from N9000 Utility, it will information regarding Display, and using this application, you can change the display settings such as video settings as shown below.



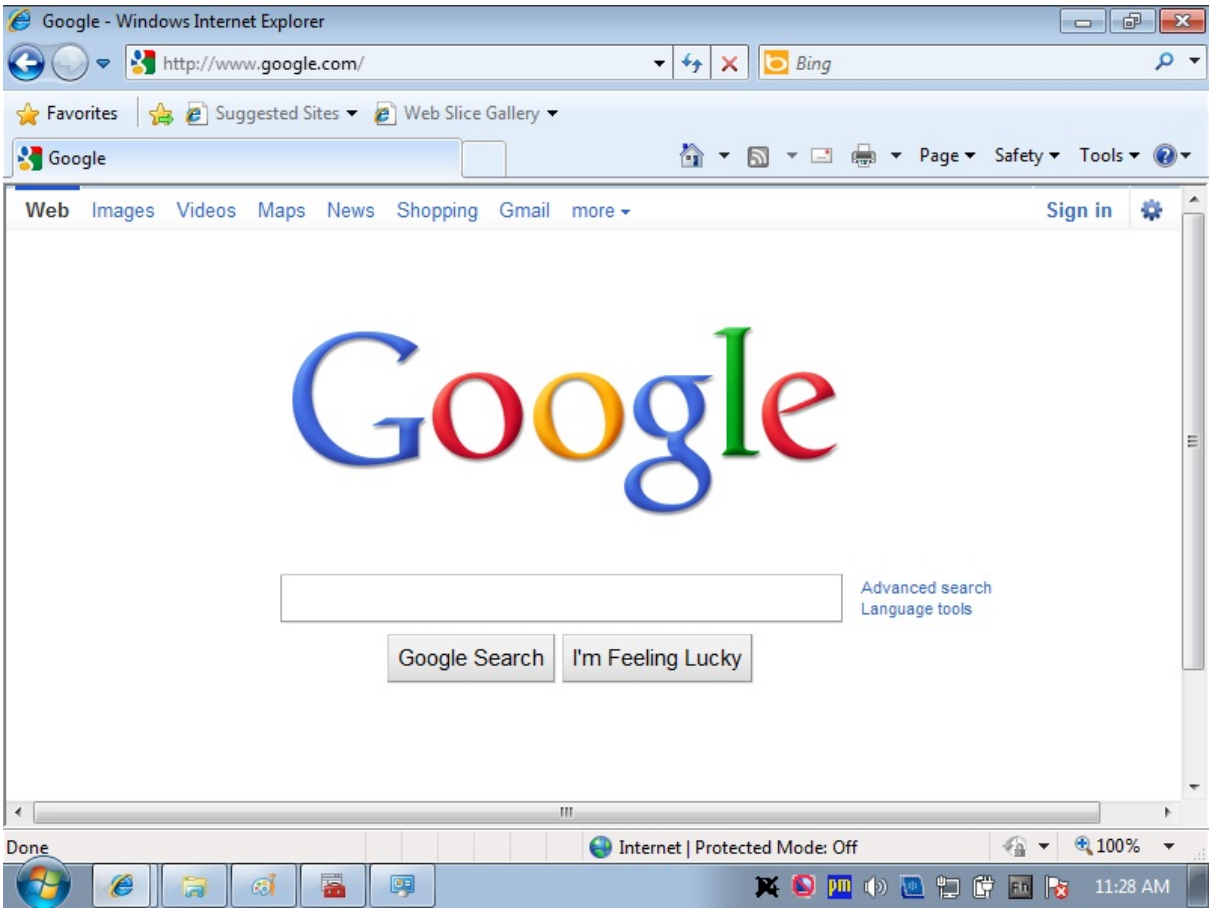
Display Rotate

When clicking 'Display Rotate' button, you can also turn the N9000 screen with 90 degree angle anti-clock wise.

For example, it changes 800x600 to 600x800..

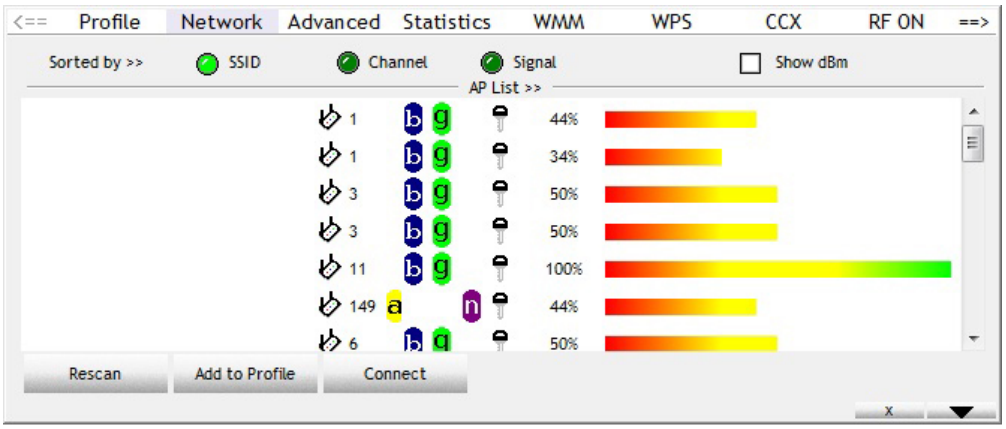
If you click Display Rotate button again, it goes back to 800x600.

Internet Explorer



Wi-Fi Setup

When you click WiFi Setup from N9000 Utility, 'Wireless LAN Driver Configuration Program' which is installed in N9000 will run.



Bluetooth Setup

When you click Bluetooth Setup button, 'Bluetooth Driver Setup Program' will run.

* You need to install Bluetooth program (which works similar to BlueSoleil), because the current N9000 doesn't have it installed. *Bluetooth module is already installed in the N9000.

Seeking Bar (Brightness and sound control)

Brightness control

Simply use this flower looking button to move left and right. It's located at the bottom of N9000 Utility when it pops up.

Sound Volume Control

It Works same as brightness control.

For extra information, and help

Fn' button on N9000

When pressed:

When Un-Pressed:

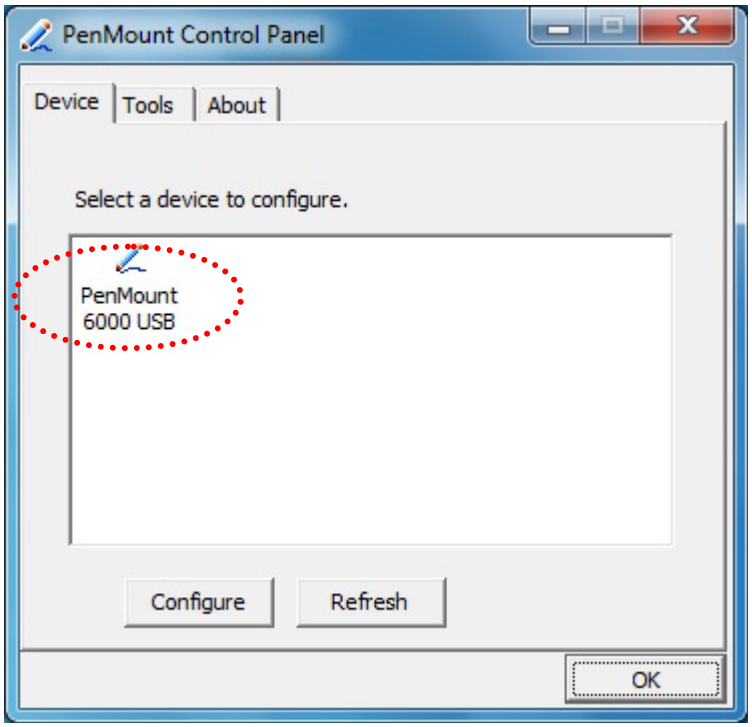
Configure Touchscreen In Windows Vista / 7

With PenMount Windows Universal V2.2.0.283 and later versions, since the touchscreen is automatically installed as a digitizer device in Windows Vista/7, the functions which are built within Windows Vista / 7 such as rotation, multi-monitors, flicks, and context menu function (which launches a context menu by user's long-pressing on touchscreen rather than clicking the right-mouse button or pressing the application key on the keyboard) will be supported.

To configure touchscreen in Windows Vista / 7:

Double-click on the **PenMount Control Panel** icon on the Desktop.

PenMount Control Panel opens. You will be able to see the icon of PenMount 6000 USB under **Device** tab. In **Device** tab, you can see the devices detected on your system. Select a device and press the **Configure** button to configure it.



Chapter 4
Power management

4.1 Checking the Battery Level

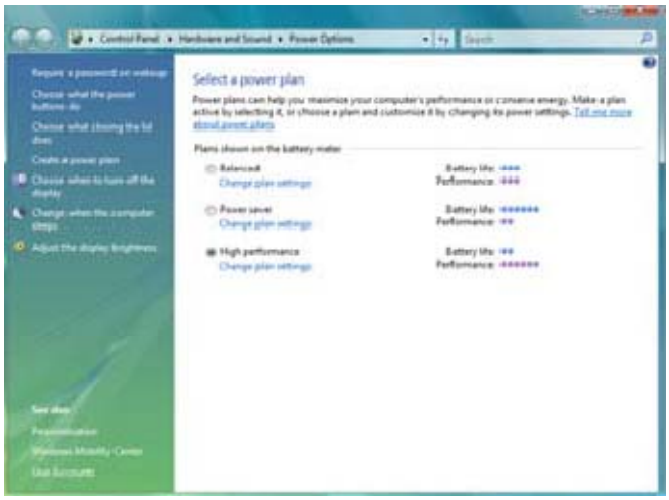
You can check the remaining battery power in the Windows® battery status indicator located at the lower right-hand corner of the task tray. The Battery status icon only appears in the task tray while the unit is running on the battery power.

Battery Power Indicator

4.2 Monitoring Battery Power

There are four ways to monitor how much power battery has left.

1. Click Start / Settings / Control Panel / Power Options then click Power Meter.



If you do not see the battery icon, enable it in **Start / Settings /Control Panel / Power Options.**

Choose the Advanced tab and click"Always show icon on the taskbar."

2. Moving the cursor to the battery icon on the task bar is the simplest way to check on battery power status.

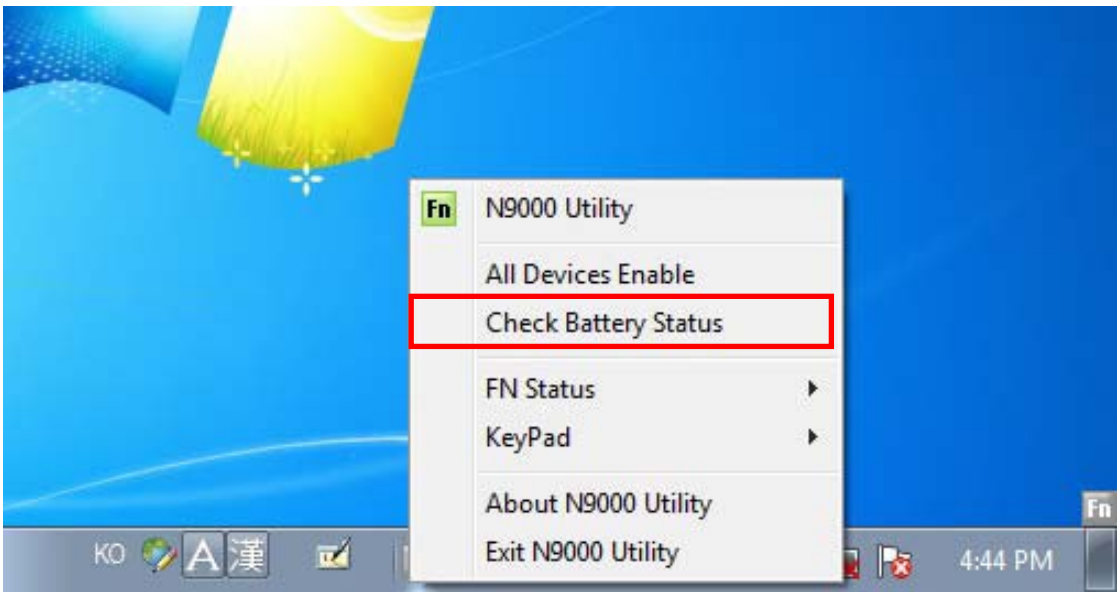
3. You can check for battery status by NetisIT Logo LED Color.

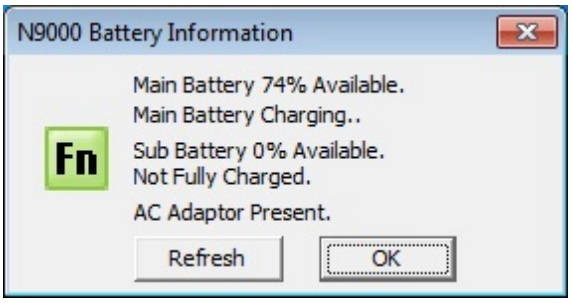
Green LED means that fully charged

Red LED means that battery charging.

Red LED flicker alternately means that low battery less than 10%

4. You can check battery status via N9000 Utility.





Low Battery Alarms

How your N9000 responds to a low battery condition is set under

Start / Settings / Control Panel / Power Options / Alarms.

Two different power alarms can be enabled or disabled: the Low

Battery Alarm, and the Critical Battery Alarm.

Warning: When battery power is low, the battery

indicator will flash red, and the alarm will

display a warning on your screen. Take immediate

action, such as saving files or connecting to the AC adapter, or data may be lost.

Battery Charging

When you use the AC adapter to connect your N9000 to a power outlet, the internal battery will automatically begin to recharge. While the battery is charging, the Battery Charge icon on the Indicator panel will be active after 6~12 seconds. When the battery is fully charged, the Battery Charge icon will turn off.

If your N9000 is turned off, a fully discharged battery will take about 3 hours to recharge. If your N9000 is turned on and is not in suspend mode, it will take about 4~5 hours to recharge the battery.

Refer to the following table:

	Charging
System on Under Screen Saver Mode)	4~5 hours
System off (suspend to RAM)	~4 hours

Note: A fully charged Li-Ion battery can run the N9000 for approximately 6.0 hours.

When to Replace the Battery

Over time, the battery's capacity gradually decreases. We recommend that you replace your battery when you notice that it begins to store significantly less charge.

Changing the Battery

Change the main battery pack as follows:

1. Turn off the N9000.

2. To replace the Battery remove the screw and the Battery Bay Cover.

3. Make sure the replacement battery is properly orientated. Then insert the battery into the battery compartment.

Power-Saving Tips

The following are some Power-Saving Tips suggestions to maximize the battery's operating time.

Do not disable Power Management.

Decrease the LCD brightness to the lowest comfortable level.

Shorten the length of time before Windows turn off the display.

USB devices use power just by being connected. If you use a USB mouse, you can save powerbydisconnecting the mouse and using the optional touch screen pen.

If you use a USB flash drive, unplug it when you are not using it.

If you work with an application that uses a PC card, exit the application when you finish using it.

If you have a PC card installed, remove it when not in use. Some PC cards drain power even while they are inactive.

Deactivate the Wireless LAN function if you are not using it (see Chapter 2).

Deactivate the Bluetooth wireless feature if you are not using it (see Chapter 2)

Turn off the N9000 PC when you are not using it.

Chapter 5
Calibration

PenMount Control Panel

The functions under **PenMount Control Panel** are:

Device

In this tab, you can find out how many devices are detected on your system.

Select any device by clicking on its icon.

Calibrate

This function offers two ways to calibrate your touchscreen. '**Standard**

Calibration' adjusts most touchscreens while '**Advanced Calibration**' adjusts aging touchscreens.

Standard Calibration Click this button and arrows appear pointing to red squares. Use your finger or stylus to touch the redsquares in sequence. After the fifth red point calibration is complete. To skip, press 'ESC'.

Advanced Calibration Advanced Calibration uses 9, 16 or 25 points to effectively calibrate touch panel linearity of aged touchscreens. Click this button and touch the red squares in sequence with a stylus. To skip, press 'ESC'.

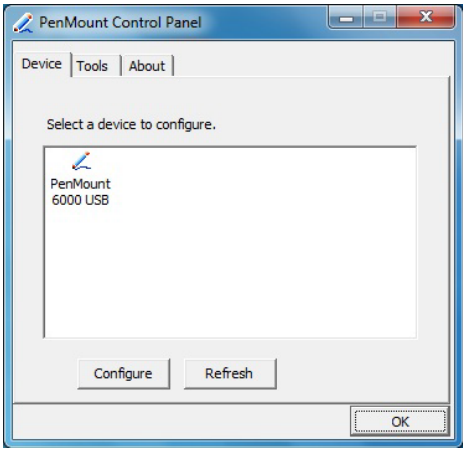
Command Calibration Command call calibration function. Usecommand mode call calibration function, thiscan uses Standard, 4, 9, 16 or 25 points tocalibrate.

E.g. Please run ms-dos prompt or commandprompt.

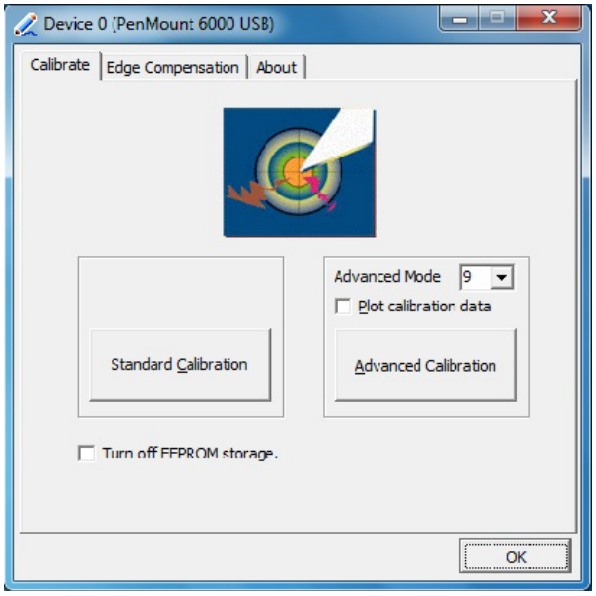
c:\Program Files\PenMount Universal Driver\DMCCtrl.exe -calibration 0 (Standard Calibration)

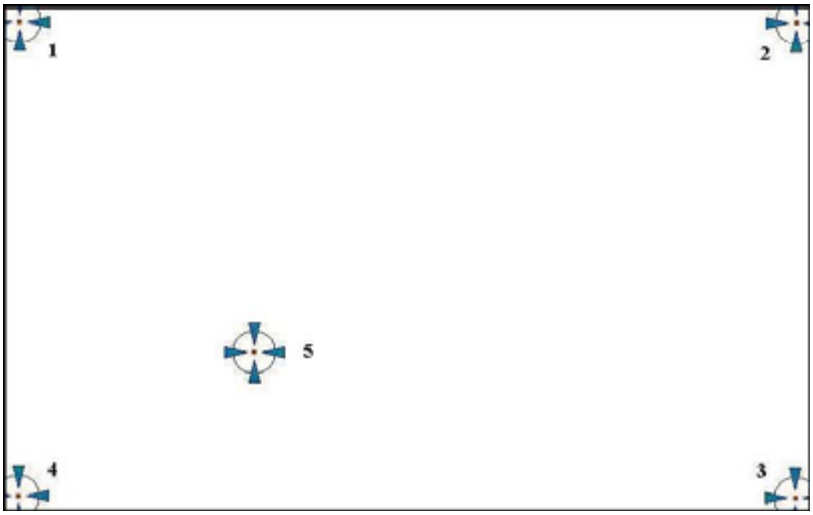
To calibrate your touchscreen:

1. Please select a device then click "Configure". You can also double click the device too.



2. Click "Standard Calibration" to start standard



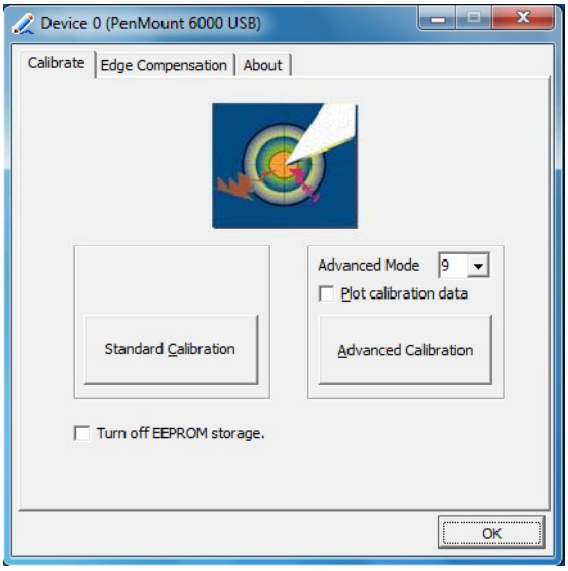


NOTE: The older the touchscreen gets, the more **Advanced Mode** calibration points you need for an accuratecalibration.

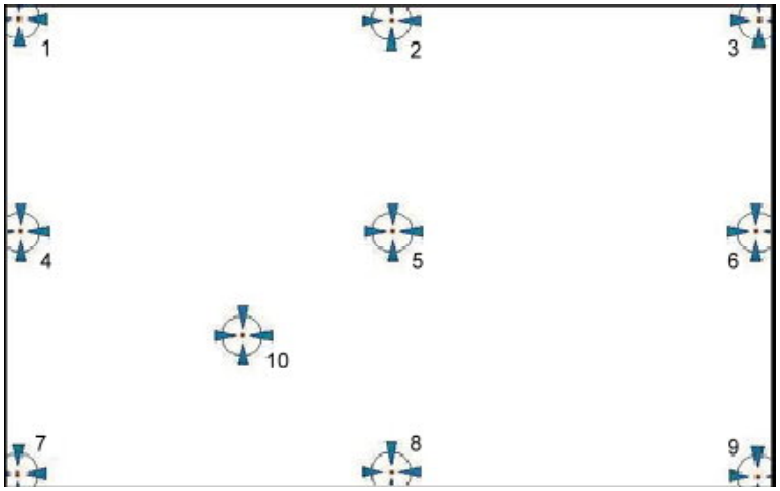
Use a stylus for **Advanced Calibration** forgreater accuracy.

Do the following for **Advanced Calibration**:

3. Back in Calibrate tab, press "**Advanced Calibration**" button to start Advanced Calibration.



NOTE: It is recommended that you use a stylus for **Advanced Calibration** for greater accuracy.

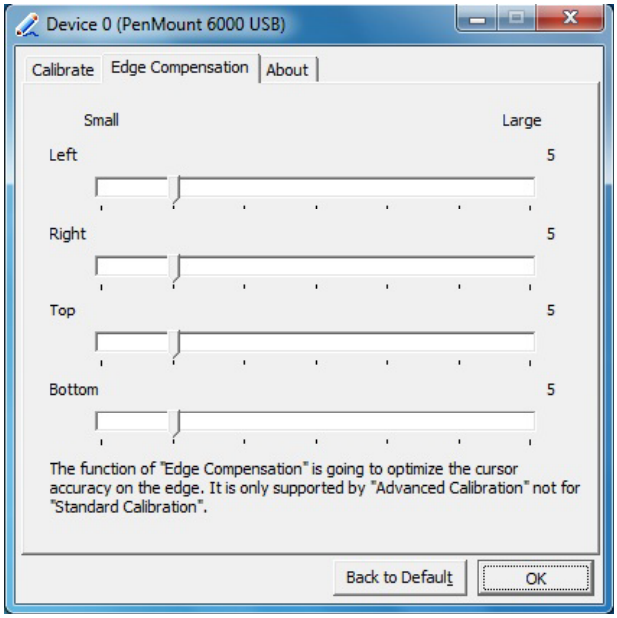


Plot Calibration Data	Check this function to have touch panellinearity comparison graph appear whenyou finish Advanced Calibration. Theblack lines reflect the ideal linearityassumed by PenMount's applicationprogram while the blue lines show theapproximate linearity calculated byPenMount's application program as theresult of user's execution of AdvanceCalibration.

Turn off EEPROM Storage	This function disables the write-in ofcalibration data inController. This function is enabled bydefault.

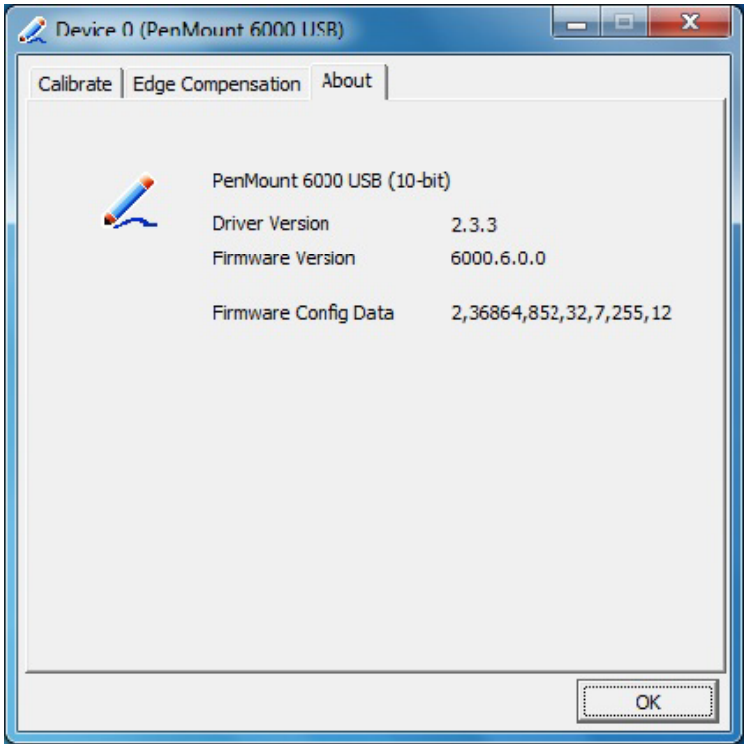
Edge Compensation

This page is the edge compensation settings for the advanced calibration. You can adjust the settings from 0 to 30 for accommodating the difference of each touch panel.



About

This panel displays information about the PenMount controller and driver version



Chapter 6
Cradle Reference Guide

6-1. Desktop cradle

Overview

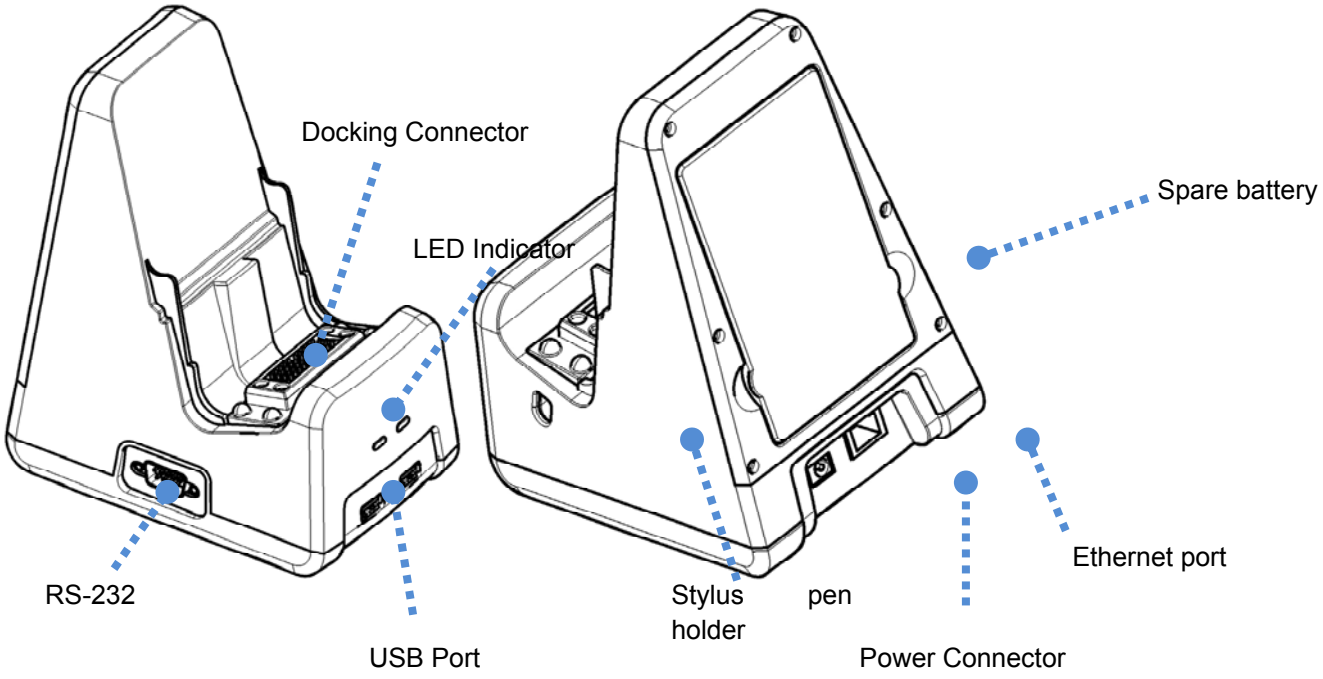
The desktop cradle restrains the N9000, re-charges batteries, and enables serial, USB communication with a PC,scanner, printer or other peripheral device.

Using a wall AC adapter the desktop cradle can also recharge a spare N9000 battery in approximately 4 hours.

The N9000 cradle is not certified for use in Hazardous Locations.

Key Features

- Recharges the 1x Spare battery pack.
- Provides a connection for serial communications between the N9000 and the host computer or another serial device, such as a Barcode scanner or modem.
- Power supplies are available that meet either 110V -120V or 200- 240V.



Preparing the Desktop cradle for Use

Note: Keep dirt and foreign objects out of the docking bays.

Do not short circuit any of the charging terminals (pins) in thedocking bays, as this action could result in injury or property damage.

NetisIT recommends a stable, horizontal surface out of the way of:

- inclement weather conditions,
- extremely high concentrations of dust or windblown debris,
- accidental knocks, bumps or other shocks to the docking bay.

Leave enough space at the dock power connector to ensure the power supply and power cable are protected fromjostling, tugging or being disconnected by passing objects.

Do not place the Charging dock in a closed area withrestricted airflow.

Dock the N9000

The N9000 is inserted into the docking bay with the keypad facing forward.

Carefully press the N9000 straight down into the docking bay until the multi-pin connector at the base of the N9000 clicks intoplace with the multi-pin charging connector at the bottom of the docking bay.

TheSmaterminal logopower LED illuminates of front N9000.

Undock the N9000

Remove the N9000 from the Cradle by pulling it straight up and out of the docking bay.

If necessary, brace the cradle with one hand while the other hand removes the N9000.

The Smaterminal logo power LED turns Off on the N9000.

Using the desk top cradle

Note : The power LED on the front of dock is illuminated when the dock is receiving AC power.

Batteries will not charge unless the Power LED is on.

Place the N9000 in the cradle with the touch screen facing out.

The dock will begin charging the batteries. The N9000 can begin communicating with the host

(If the dock is cabled to the host)

Status LED

Power : Red when receiving power from an AC/DC adapter.

Battery : The LED illuminates Red when power is received. A spare battery is seated in the battery bay.

Quick Start Installation for Desk Top Cradle

Place the cradle on a stable surface, close to an uninterrupted AC power source, if a connection to AC power is required.

1. The desktop cradle can be mounted to a flat surface.
   NetisIT does not supply the mounting hardware.
2. If required, connect the AC/DC power supply to the cradle.
   The LED indicator on the front of the powered cradle will illuminate orange.
3. The Desk Top cradle is ready for use.
   See following section titled "Desk Top Cradle" for full instruction.

Cleaning

Do not use paper towels or harsh-chemical-based cleaning fluids since they may result in damage to the surfaces and/orbattery charging terminals (pins).

Use a clean soft cloth to wipe any dirt, moisture or grease from the N9000, charging contacts (pins) or the desktop cradle.

Periodically wipe the cradle with a dry lens tissue or other cleaning materials suitable for optical applications: such aseyeglasses.

Lintparticulates can be removed from the connectors, charging terminals and charging/docking bays with clean.

Safety Guidelines and Cautions

- It is recommended that a grounded three (3) prong AC outlet be used to power this device. The user should insure thatthe AC outlet is grounded before using this device. If you are not sure that the AC outlet has appropriate ground, we suggestthat a qualified electrician be called for verification.
- Do not pour, spray or spill any liquid into or on the cradle. If liquid does come in contact with the cradle, immediatelyun-plug the cradle and remove any devices in the docking bays.
- For Indoor Use Only.
- Before using this cradle, please read all instructions and cautionary notations on the cradle and on the N9000.
- To reduce risk of injury, only use authorized battery products in the N9000.
  Other non-approved batteries may cause personalinjury and / or damage to the equipment.

- Do not expose the cradle to excessive moisture, temperature extremes or direct sunlight.
- Place cradle in a well ventilated area, which is free of foreign materials.
- To reduce risk of electric shock, unplug cradle from power source before cleaning.
- Dispose of used batteries in accordance with your state or local hazardous material laws.
- Dispose of cradle correctly according to local regulations to comply with WEEE regulations.
- Do not disassemble, incinerate, modify, or short circuit the multi-dock, any battery, or related components.

6-2. Vehicle cradle

Overview

Vehicle mounted brackets are specifically designed for vehicle mount applications.

The vehicle mounted assembly restrainsthe N9000 and isolates it from shock and vibration.

Overhead, dash and roof support pillar mounting is via a RAM Mount accessory which includes all the hardwarerequired for vehicle mounting.

In most cases, disconnect any power and peripheral cables from the N9000 before it is secured in the vehicle mounted assembly.

Never put the N9000 into the vehicle mounted assembly until the assembly is securely fastened to the vehicle.

Using the Powered Vehicle Mounted Assembly

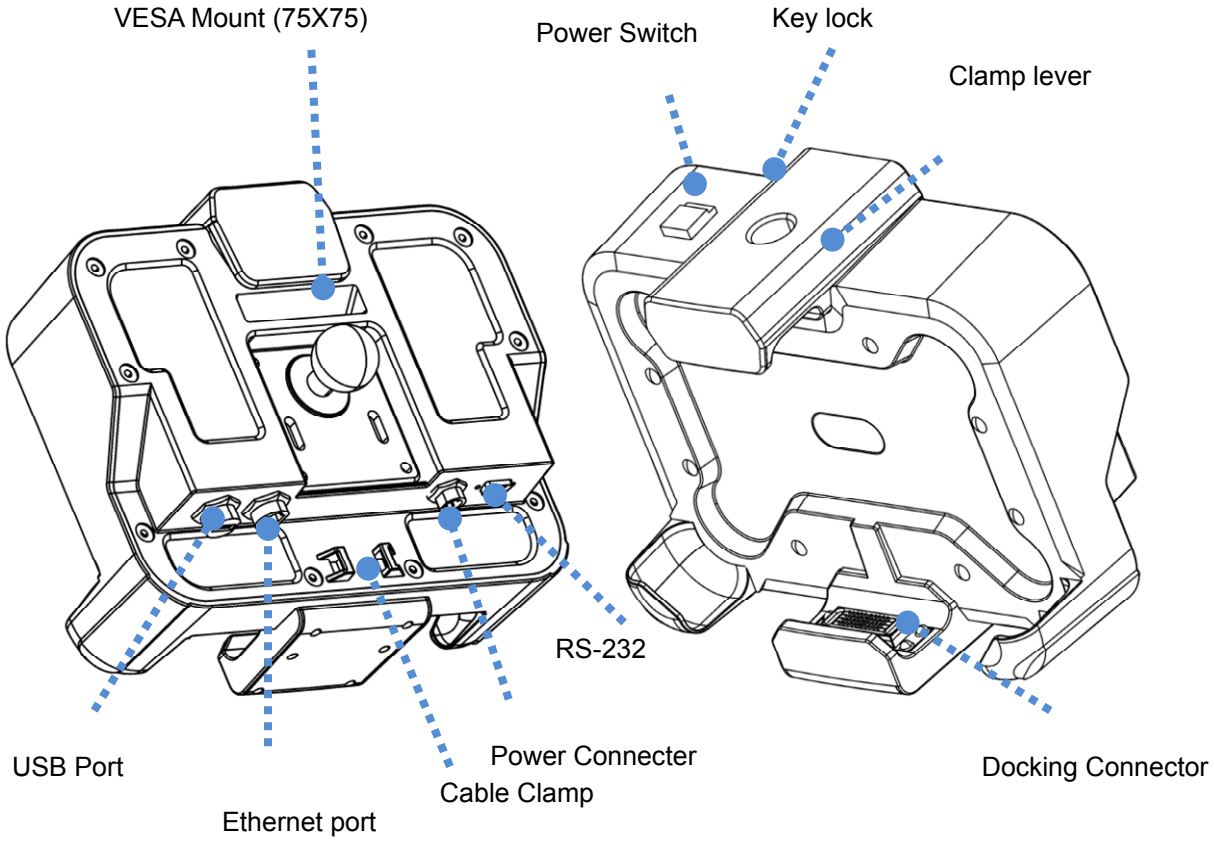
Before installation begins, verify you have the applicable vehicle mounting bracket assembly components necessary for yourmount type.

The powered vehicle mounted assembly should be secured to an area in the vehicle where it:

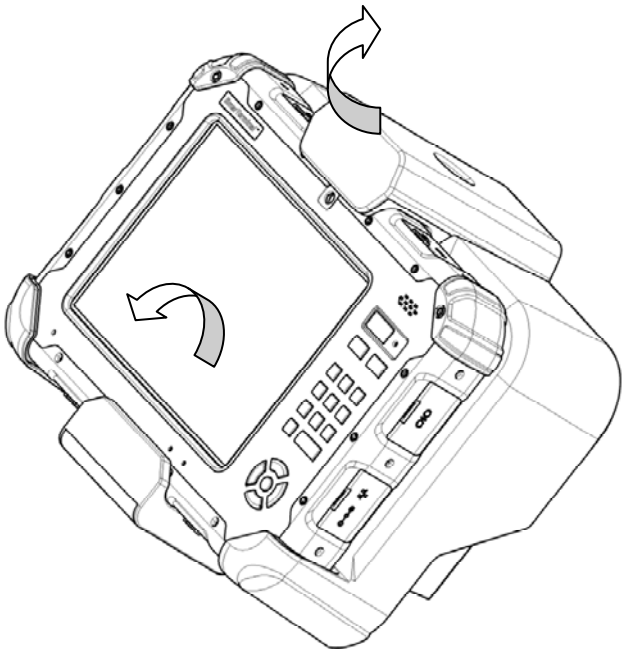
- Does not obstruct the driver's vision or safe vehicle operation.
- Will be protected from rain or inclement weather.
- Will be protected from extremely high concentrations of dust or wind-blown debris.
- Can be easily accessed by a user seated in the driver's seat while the vehicle is not in operation.

Key Features

- Provides a connection for serial communications between the N9000 and the host computer or another serial device, such as a Barcode scanner or modem.
- Wide input power range from 10V to 60V.



Dock the N9000



To dock the N9000that the key unlock and Raise the clamp arm up to its open position.

The N9000 is inserted into the docking bay with the keypad facing forward.

Carefully press the N9000 straight down into the docking bay until the multi-pin connector at the base of the N9000 clicks intoplace with the multi-pin charging connector at the bottom of the docking bay.

Close the Clamp lever and then locking it.

Undock the N9000

Turn off the power switch of the vehicle cradle.

Turn the key counter clockwise.

Remove the N9000 from the Cradle by pulling it straight up and out of the docking bay.

If necessary, brace the cradle with one hand while the other hand removes the N9000.

The NetisIT logo power LED turns Off on the N9000.

Quick Start Installation for Powered Vehicle Mounted Assembly

1. Attach the RAM base vehicle mounting assembly to the vehicle.
2. Attach the RAM arm assembly to the vehicle mounting assembly.
3. Attach the N9000 assembly to the RAM arm.
4. Adjust the N9000 to the best viewing angle.
5. Connect peripheral cables.
6. Secure the DC/DC or 12VDC power connector from the vehicle mounted power supply to the Power port.

7. Secure all cables in strain relief cable clamps.

The N9000 in the powered vehicle mounted assembly is ready for use.

Cleaning

Clean the surface contacts of the N9000 everymonth or as needed if the contacts seem overly

tarnished or dirty.

Clean the docking surface contacts by using asilver polish / cleanser wiped with a soft cloth.

Clean the gold contact pins of the cradlecommunications module by using a softtoothbrush to clean between the contact pins.

CAUTION: Do not use this computer system whileoperating a motor vehicle.

WARNING: Use of this system while operatinga motor vehicle or heavy equipmentmay be distracting, dangerous, andprohibited based on your location.

WARNING: Failure to pay attention tooperating the vehicle may cause anaccident resulting in serious bodilyinjury and property damage.

To use this system safely

- Stop the vehicle in a safe location or have apassenger use the system.
- Safely operate the vehicle, obey all laws andregulations, and use good judgment at all times.

User assumes sole responsibility for and all risksin using this system.

Chapter 7
Trouble shooting guide

Troubleshooting for Wireless

This chapter provides solutions to problems usually encountered during the installation and operation of the adapter.

1. Symptom:

The Wireless adapter is linking, but can't share files with others.

Possible Remedy:

Make sure the File and printer-sharing function is enabled.

2. Symptom:

Slow or unstable performance.

Possible Remedy:

Try to change the channel of the communicating group or move your device closer to the communicating device.

3. Symptom:

Can't find the utility icon in the taskbar when plug in the Wireless adapter.

Possible Remedy:

You could enable the function by click the icon of Start _ All Programs _ Ralink Utility.

4. Symptom:

No wireless signal.

Possible Remedy:

Move the antennas of the access point or wireless router into an L shape (one vertically, and one

horizontally). Click on the Refresh button on the Site Survey screen. If the computer still does not see the Access Point, and then try to move your Access Point closer to the computer. Then click on the Refresh button again. If the computer still does

not see the Access Point, move all things that may cause interference with the wireless signal.

5. Symptom:

If you still cannot get a wireless connection of the network.

Possible Remedy:

Step 1- Turn the computer off

Step 2- Turn the Access Point off

Step 3- Turn the Access Point on

Step 4- Wait 30 seconds

Step 5- Turn the computer back on

Step 6- Using the Utility reconnect to the Access Point:

Step 7- Double click on the bar graph icon in the system tray

Step 8- Select the Site Survey Link

Step 9- Highlight the SSID of your wireless network and click connect

Step 10- Click OK if all the settings are correct

Troubleshooting for battery

Symptom:

The battery does not charge (Battery Charge indicator does not light green.)

Possible Remedy:

Make sure that the AC adapter is properly connected.

Make sure that the battery is not too hot or cold. Allow time for the battery pack to return to room temperature.

Make sure that the battery pack is installed correctly.

Make sure that the battery terminals are clean.

Troubleshooting for Bluetooth problem

Symptom

I cannot connect to another device with Bluetooth wireless technology.

Possible Remedy:

Make sure that both devices have activated Bluetooth feature.

Make sure that the distance between the two devices are not over 10 meters or that there are no walls or other obstructions between the devices.

Make sure that the other device is not in "Hidden" mode.

Make sure that both devices are compatible.

Troubleshooting for Display Problem

Symptom

Nothing appears on the screen.

Possible Remedy:

During operation, the screen may automatically turn off as a result of power management. Press any key to see if the screen comes back.

The brightness level might be too low. Increase brightness by pressing the button.

Troubleshooting for Date/Time Problems

Symptom

The date/time is incorrect.

Possible Remedy:

Correct the date and time via the operating system or BIOS Setup program.

After you have performed everything as described above and still have the incorrect date and time every time you turn on the N9000, the RTC (Real-Time Clock) battery is at the end of its life. Call an authorized dealer to replace the RTC battery.

Troubleshooting for Sound Problems

Symptom 1

No sound is produced.

Possible Remedy:

Make sure that the volume control is not set too low.

Increase volume by pressing the button.

Make sure that the N9000 is not in Standby mode.

If using an external speaker, make sure that the speaker is properly connected.

Symptom 2

Distorted sound is produced.

Possible Remedy:

Make sure that the volume control is not set too high or too low.

In most cases, a high setting can cause the audio electronics to distort the sound.

Symptom 3

The external audio device does not work.

Possible Remedy:

Make sure that your N9000 is equipped with the driver needed.

Click the speaker symbol on the taskbar and check the Windows volume control.

Check the volume control of your N9000.

Chapter 8
Firmware update

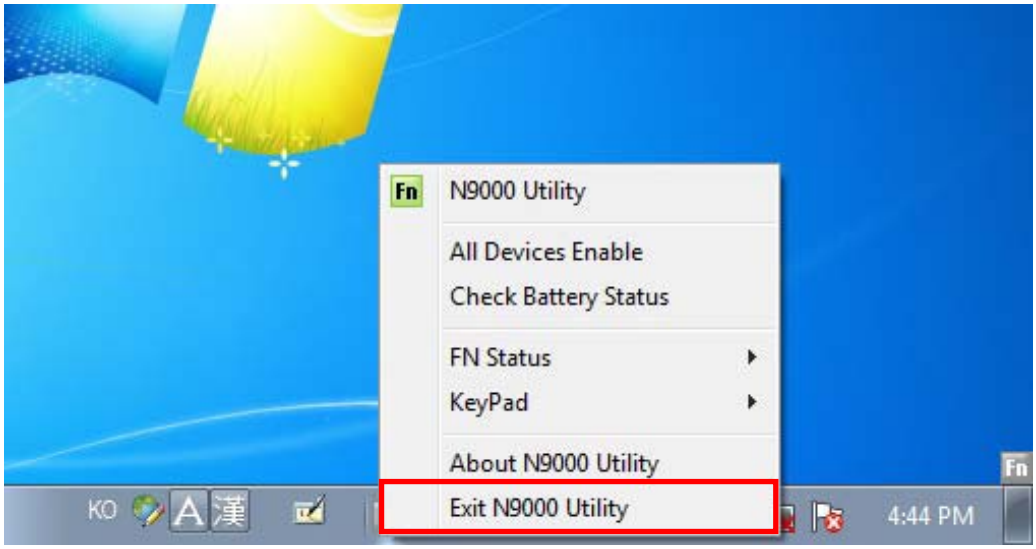
DO NOT REMOVE USB DRIVE FROM THE N9000 DURING UPGRADE.

IF POWER GOES OFF WHILE UPGRADE, N9000 WILL NOT TURN BACK ON.

Firmware update guide.

1. Ensure that the N9000 has power source connected.
   The AC adapter should be the correct one and the main battery needs to be at least 20% of it's charge.

2. Terminate the N9000 Utility

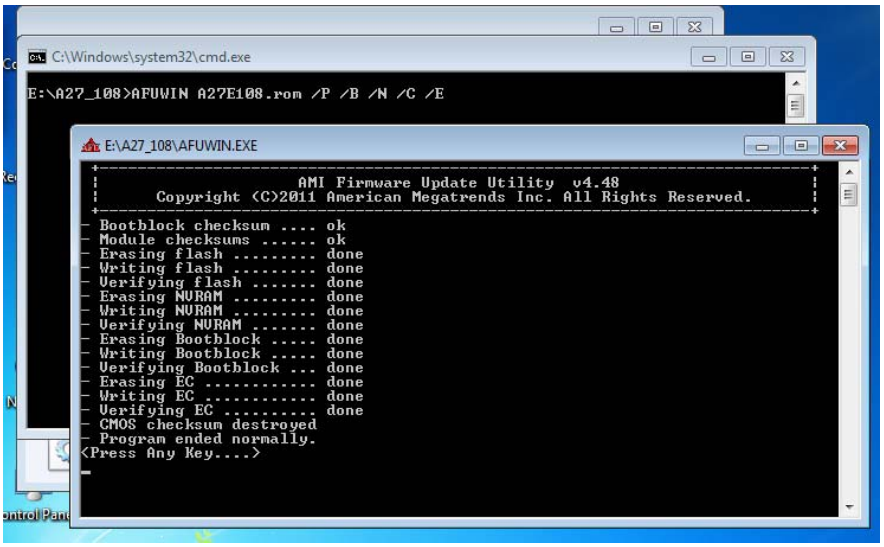


3. Save the BIOS file to the N9000.

4. After downloading the file, close any application open.
   Go to the folder where you download the file.

5. Overwrite attached N9000Utility.exe to c:\N9000Utility (Do not run)

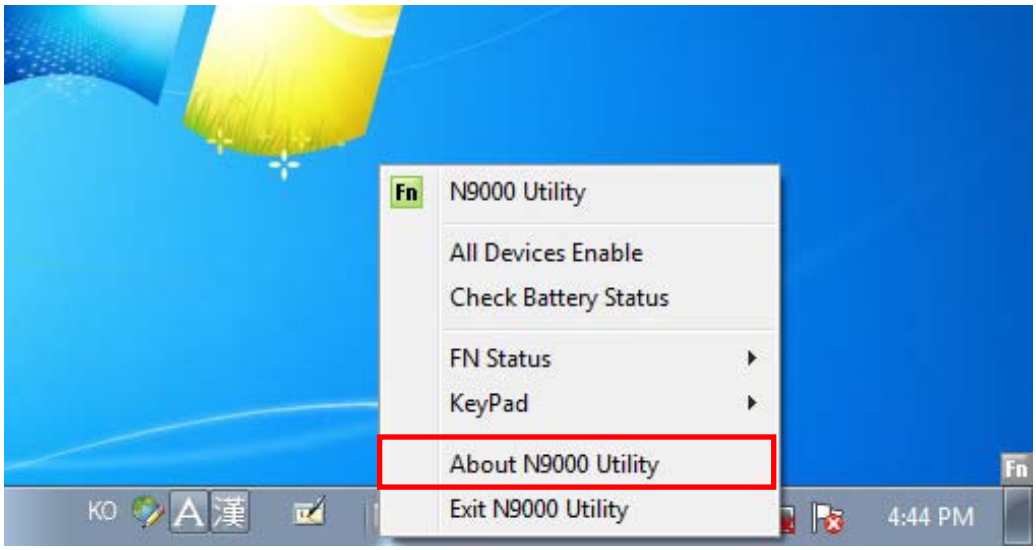
6. Run the file as "Administrator" and click on "Win_all.bat".



7. After the system finishes the Flash process then shutdown the N9000.
   You should plug out the AC adapter and plug in it after the shut down.

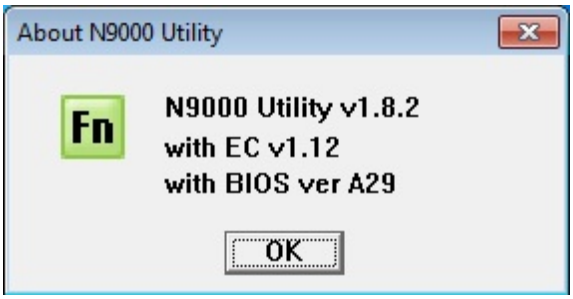
How to check for firmware updates.

1. You will need to turn it on again.



Press mouse right button on the N9000 and then click the"About N9000Utiltity button"

2.Verify the Firmware was correctly updated with the version you just ran.



Chapter 9
Appendix

FCC Compliance Statement

This product 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 product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instruction manual, may cause harmful interference with radio communications.

Operation of this product in a residential area is likely to cause harmful interference, in which case you will be required to correct the interference at your own expense.

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.

2) This device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE: FCC RF Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Notice: The FCC regulations provide that changes or modifications not expressly approved by EMC Corporation could void your authority to operate this equipment.

These limits are designed to provide reasonable protection against harmful interference in a non-residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference with radio or television reception, which can be determined by turning the equipment off and on, you are encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the antenna of the radio/television receiver.
- Increase the separation between this equipment and the radio/television receiver.
- Plug the equipment into a different outlet so that the equipment and the radio/television receiver are on different power mains branch circuits.
- Consult a representative of EMC Corporation or an experienced radio/television technician for additional suggestions. For more information about FCC rules and their applicability to the N9000