

# GPSmile<sup>51</sup> Portable Automobile Navigation System

## Product User Manual



### **Version: V.01**

July 2005

### **Registered info**

HOLUX and GPSmile are trademarks of HOLUX Technology, Inc.

All other trademarks belong to each registered companies.

### **Note**

Contents of this manual will be modified without further notice.



## Declaration of Conformity

The following products is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive (89/336/EEC). The listed standard as below were applied:

The following Equipment:

Product : GPSmile51 Car Navigator  
Trade Name : **HOLUX**  
Model Number : NAV-51

This product is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive (89/336/EEC). For the evaluation regarding EMC, the following standards were applied:

### RFI Emission:

EN 55022 : Emission standard  
EN 61000-3-2 : Limits for harmonic current emission  
EN 61000-3-3 : Limitation of voltage fluctuation and flicker in low-voltage supply system

### Immunity:

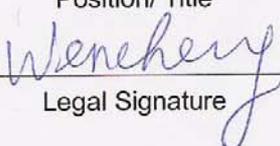
EN 55024 : Immunity standard

The following importer/manufacturer is responsible for this declaration:

Company Name : **HOLUX Technology, Inc**  
Company Address : 1F, No.30, R&D Rd. II, Hsinchu City 300, Taiwan (R.O.C.)  
Telephone : 886-3-6687000 Facsimile: 886-3-6687111

Person is responsible for marking this declaration:

Wen Cheng Chung  
Name (Full Name)  
June-09-2006  
Date

President  
Position/ Title  
  
Legal Signature

# DECLARATION OF CONFORMITY

Per FCC Part 2 Section 2. 1077(a)



The following equipment:

Product Name : GPSmile51 Car Navigator

Trade Name : **HOLUX**

Model Number : NAV-51

Company Name : **HOLUX Technology, Inc**

It's herewith confirmed to comply with the requirements of FCC Part 15 Rules. (Class B) Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

The result of electromagnetic emission has been evaluated by QuieTek Taiwan EMC laboratory (NVLAP Lab. Code: 200347-0) and showed in the test report. (Report No.: QTK-058H056F)

It is understood that each unit marketed is identical to the device as tested, and Any changes to the device that could adversely affect the emission Characteristics will require retest.

The following importer / manufacturer is responsible for this declaration:

Company Name **HOLUX Technology, Inc**

Company Address **1F, No.30, R&D Rd. II, Hsinchu City 300, Taiwan (R.O.C.)**

Telephone 886-3-6687000 Facsimile : 886-3-6687111

Person is responsible for marking this declaration:

Wen Cheng Chung

President

Name ( Full name )

Position / Title

June-08-2006

Date



Legal Signature

# Safety Precautions

## About charging

- Use the power adapter included with the package, using power adapters other than the one provided will result in malfunction and could prove dangerous.
- The device should only be used with the supplied batteries.

## About the power adapter

- Do not use the power adapter in a wet environment. When hands and feet are wet, do not touch the power adapter.
- While using the power adaptor ensure that the area is well ventilated. Do not let paper or other material cover the power adaptor, as this will interfere with cooling. Do not use the power adaptor whilst it is in a bag.
- Do not attempt to repair the device. If device is damaged or is in a wet environment, replace the device immediately.

## About the battery

- Use only the original factory approved charger.
- A Lithium battery is built in to the device. To prevent fire or skin burns, do not disassemble, pierce, impact, or expose the battery to fire. The battery will crack, explode, or release dangerous chemicals if placed in a fire.
- Important instructions
  - ❖ Note: Replacing with an incorrect battery may result in an explosion. When disposing of the battery, follow the instructions. The replacement battery must be original factory approved.
  - ❖ Regulations must be observed when recycling or disposing of batteries.
  - ❖ The battery should only be used in this device.

# Warranty Statement

- This warranty applies to parts and services of GP Smile51 manufactured and sold through Holux Technology Inc. The local area covered is Taiwan; the warranty length is one year from date of purchase (counting from the date on the sales receipt). Under normal user operation, Holux Technology provides free repair services.
  - ❖ The replaceable battery warranty is six months.
  - ❖ The replaced parts after repair are properties of Holux Technology Inc.
- Holux Technology is not responsible for providing repairs or replacements of any software; Holux Technology does not provide any warranty service for third party software/hardware.
- Important instructions
  - ❖ Note: This warranty does not cover damage or malfunction from the below causes: unauthorized disassembly/modification of unit, abuse or incorrect usage, accidental and other unpreventable causes, operation under variables mentioned other than in this product user manual, using parts not made or sold by Holux Technology, or repairs done by anyone other than Holux Technology and authorized retail/service provider.
  - ❖ Expendable parts are not covered in the warranty.
  - ❖ Any program, data, or portable storage media damages or loss are not responsible. Please contact your local Holux Technology authorized service provider to learn more about geographical limitations, proof of purchase requests, response time agreements, and other specific maintenance service requests.

# Technical Support

- If there are any questions regarding the use of this product, please logon to the website [www.holux.com](http://www.holux.com) and see the FAQ.
- If answers cannot be found on the website, please send us an e-mail at [Info@holux.com.tw](mailto:Info@holux.com.tw), stating your query and location.

# Maintenance Service

HOLUX Technology, Inc.

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E-mail: [Info@holux.com.tw](mailto:Info@holux.com.tw)

HOLUX Technology, Inc.

[www.holux.com](http://www.holux.com)

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# Preface

We appreciate your purchase of the GPSmile 51.

Please read all instructions thoroughly for a full understanding of the products' features.

## Symbols

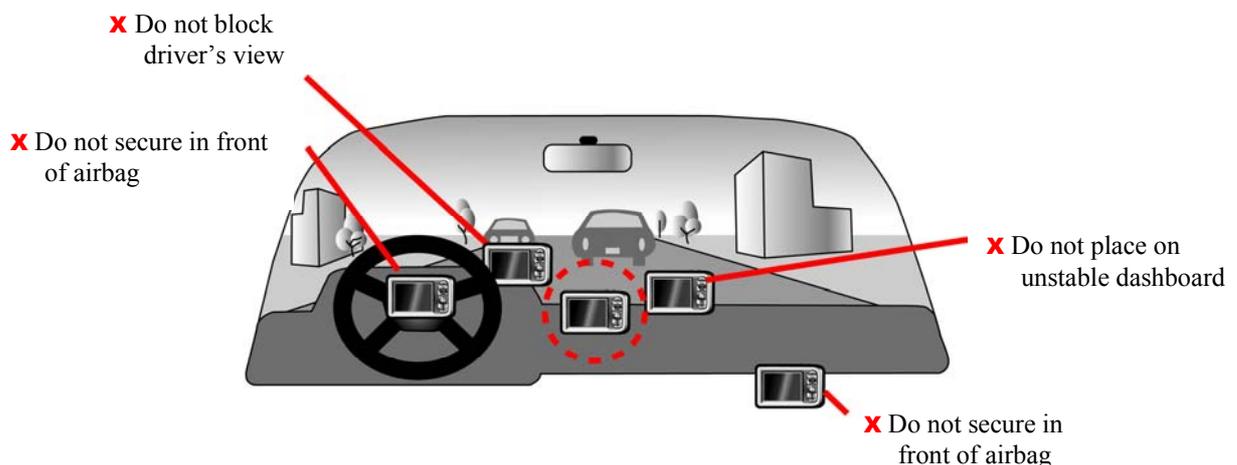
For fast reference to the data you wish to find, this manual uses the following symbols.

- ✓ This icon means to take note to messages and to read for while during use.
- ☠ This icon means a warning and should take care not to damage the unit.
- 👉 This icon means useful tips for extra information while using.

## Important Notice

- This system only provides a navigational reference. Do not use this system for any directional, distance, and geographic etc precise measurements.
- The first GPS positioning should be performed at a single set point, wide-open area without building shelters. Positioning time length will depend on the satellite signal strength, cloud levels; possibly taking up to 10 minutes.
- GPS (Global Positioning System) is the satellite system used by the United States of America Department of Defense. All maintenance and operations are also managed by the United States of America Department of Defense. Should the system be modified and adjusted, the precision and operation of GPS related systems might be affected.
- Any wireless communication products (mobile phone, radio, speed detection unit etc) might affect the GPS signal, resulting in a poor signal.
- For safety reasons, do not operate this system while driving a vehicle.

- Do not leave this unit under your front windshield after you leave the vehicle. Exposure to high temperatures might be dangerous and cause overheating to the battery, resulting in malfunction of the device.
- Window tinting might interfere with the reception of satellite signals. We recommend you install a vehicle antenna to strengthen and stabilize the signal.
- The planned navigational route is for reference only; changes in roadside conditions (one way streets, no right turns) may happen so please respond accordingly to the situation and decide whether or not to follow the planned course.
- When placing this system in the vehicle, please secure with brackets on the car to ensure safety. The recommended installation location is illustrated below.



- ✓ Differences between manufactured and shipped versions may be present; this software may be updated frequently. If the descriptions in this manual are different from your software version, please follow the software version currently on hand.

# Functions and Features

- Realistic full scene 3D view, 'go where you see'.
- Smart road travel display, zoom-in on cross roads.
- GPS speed limit warning setting (city and highway speed limit settings).
- Voice cue for information such as turning, u-turn, distance etc.
- Highway info display and voice cueing function, including for next interchange, rest stop, tollbooth.
- GPS map rotation.
- GPS street traveled, administrative divisions, map direction information displays.
- Custom "speeding camera location". Under GPS, voice cueing from a distance of 300m before contact.

## Other Functions

- Music playback: plays MP3 music files.
- Image display: displays photographs or image files.

# First Time Use

## Copyright

Without the written consent of HOLUX Technology, Inc, this manual including the product and the software may not be duplicated, transmitted, recorded or saved on storage devices; nor shall it be translated under any circumstances into any other languages.

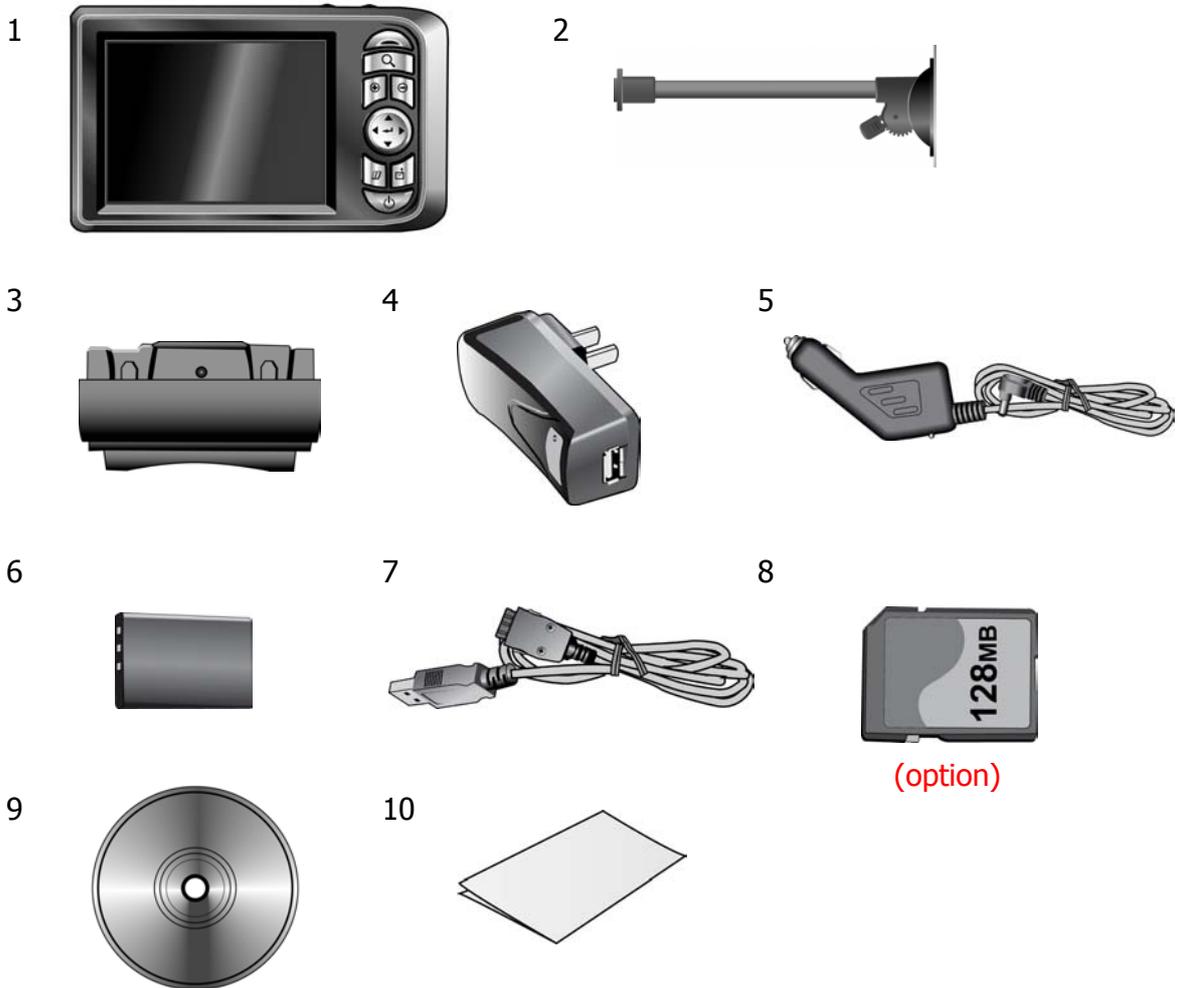
Copyright ©2005 HOLUX Technology, Inc. All rights reserved.

## Important Notice

Please read thoroughly this manual of operating instructions and explanations. Use only original factory approved batteries and accessories to prevent unexpected damage. If the correct procedures were not followed for operation or incompatible accessories were connected, this violates the warrantee agreement and will automatically void the warrantee; even causing personal safety issues.

# Package Contents

Your product should include the following accessories:

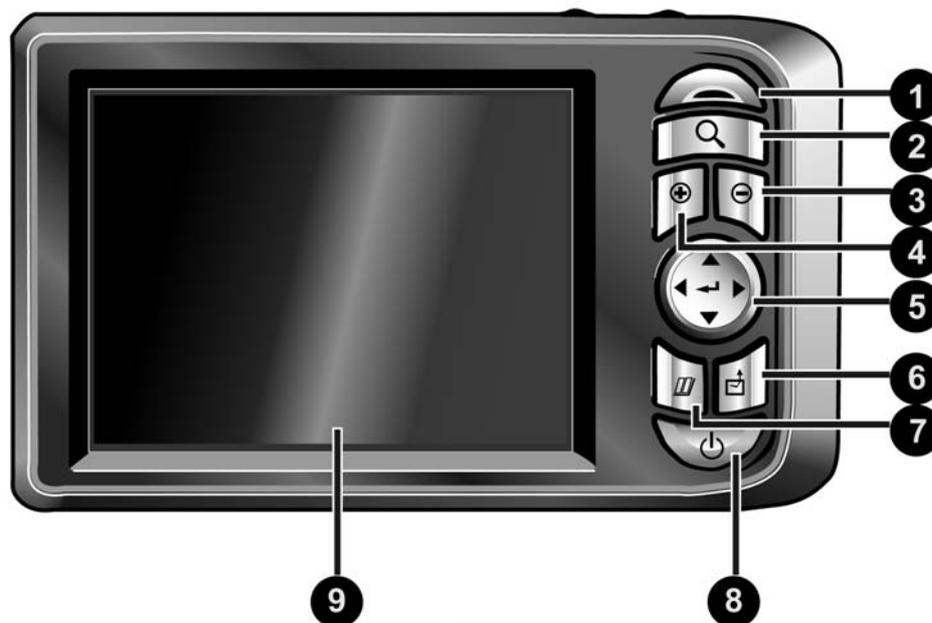


1	NAV-51 Unit	6	Battery
2	In Vehicle Bracket	7	USB Charging Cable
3	Base Unit for Bracket	8	128 MB SD Memory Card (Option)
4	Travel Adapter	9	CD-ROM
5	Car Adapter	10	Quick Guide

# Basic Operation

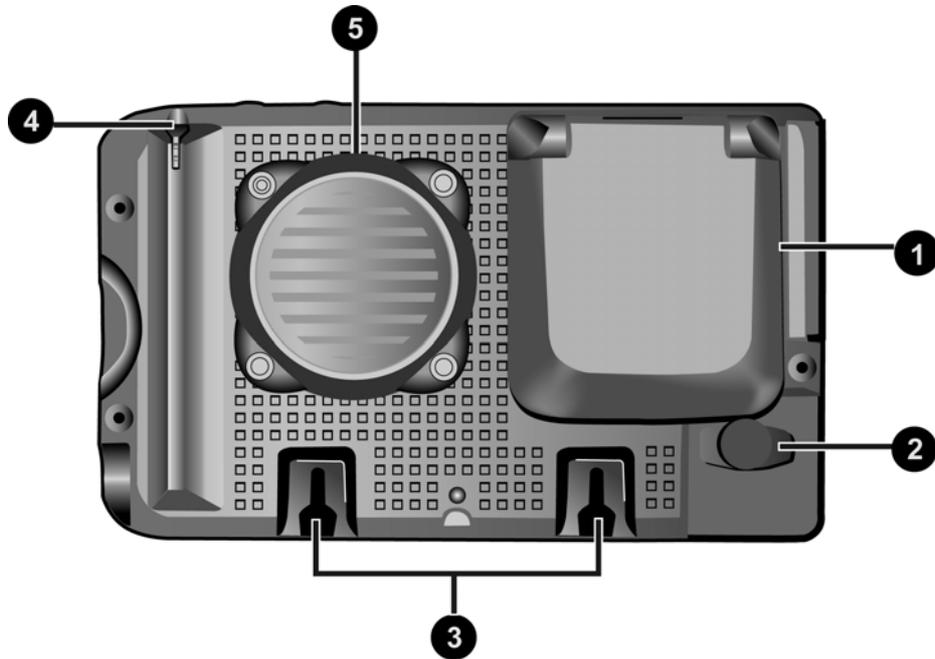
## Introduction

### Front View



<b>1</b>	<b>Charge Indicator</b>	Displays the battery charging status
<b>2</b>	<b>Find-Target Hotkey</b>	Press to quickly enter the destination window
<b>3</b>	<b>Zoom-Out</b>	Zooms out of the map
<b>4</b>	<b>Zoom-In</b>	Zooms in on the map
<b>5</b>	<b>Directional Pad</b>	Press up/down/left/right keys to move around onscreen or press on the center to select items
<b>6</b>	<b>ESC Key</b>	Exits current operation
<b>7</b>	<b>Menu Directory</b>	Returns to the main menu window
<b>8</b>	<b>Power Button</b>	Switches on/off the power
<b>9</b>	<b>Touch Screen</b>	Displays system status/use stylus to directly input data or select items on the screen

## Rear View



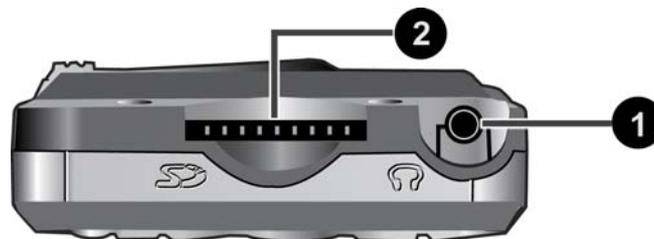
<b>1</b>	<b>Retractable Antenna</b>	Receives satellite signals
<b>2</b>	<b>External Antenna Connector</b>	For connection of an external antenna
<b>3</b>	<b>In Vehicle Securing Bracket Base</b>	Fast secure to the in vehicle securing bracket
<b>4</b>	<b>Stylus</b>	Use stylus to directly input data or select items on the screen
<b>5</b>	<b>Speaker</b>	Increase audio output

## Left Side



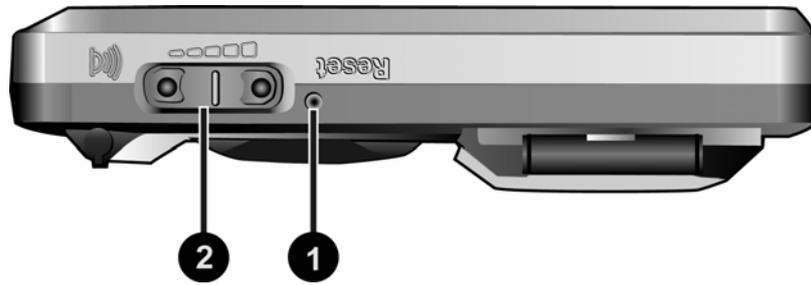
<b>1</b>	<b>Battery Lid</b>	Open the battery lid to replace the rechargeable battery
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## Right Side



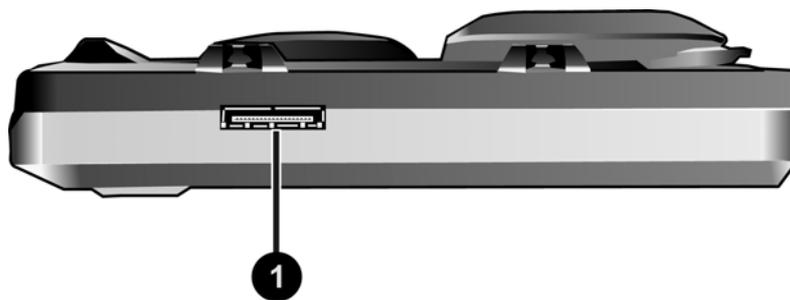
<b>1</b>	<b>Headphone Jack</b>	Connection to external headphones
<b>2</b>	<b>SD Memory Card Slot</b>	SD memory card slot, the required programs and maps are saved on this memory card, please do not remove memory card while in use.

## Top View



<b>1</b>	<b>Reset</b>	System reset switch
<b>2</b>	<b>Volume Adjustment Key</b>	Adjusts volume level

## Bottom View



<b>1</b>	<b>USB/Power Connection Port</b>	Dual function port for USB connector and charger
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# Getting Started

If you are a first-time system user, the following explanations will help you quickly understand the system operations, and experience the system's powerful and convenient functions.

## **1. Battery installation**

This system uses a proprietary Lithium battery, charge after installation. For details please refer to page 12 in this manual.

## **2. SD memory card installation**

The system included memory card contains the digital map files and important data for GPS navigation. Install first and refer to page 20 in this manual.

## **3. Using the stylus**

The stylus is the main tool for operating this unit and is concealed in a pen slot at the rear. Pull out to use. For details please refer to page 19 in this manual.

## **4. Initial GPS positioning**

Perform GPS positioning at an outdoor open location. Press the power switch and select [GPS] to enter the navigational screen. Select [Menu] for the control menus and then select [GPS status] to enter the GPS positioning screen. The system will automatically search for a satellite signal and begin the positioning procedure. After GPS positioning is complete, a GPS satellite status icon will appear onscreen and related data will be displayed. For details please refer to page 5 "Navigation software manual".

## **5. Voice settings**

Sets the language type. Startup > select [GPS] > press [Menu] key > enter the control menu > select [Navigation setting] > at [Language selection] select the arrows on both sides to switch between Chinese and English. For details please refer to page 58 "Navigation software manual".

## 6. Experience the GPS navigation

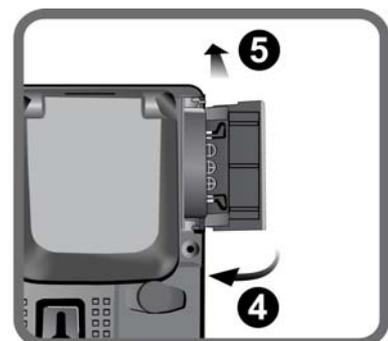
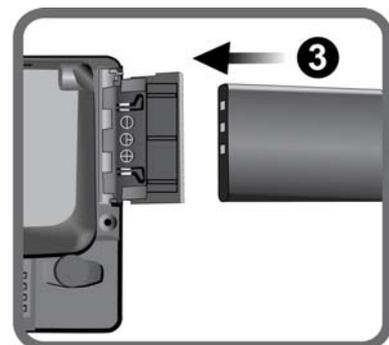
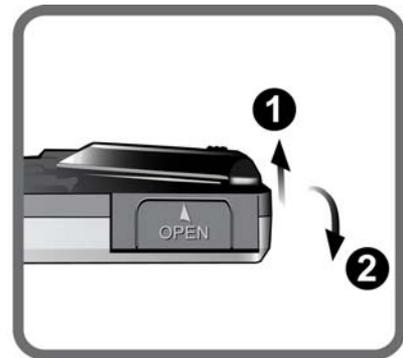
Startup > select [GPS] > press [Find] key > enter the destination screen > select [Area] > select city > zoom in/out or scroll map to find destination > select [Find nearest location] > select [Sort] > select a type > select an entry > select [Set destination] > select [Simulate navigation] > system will begin to plan a route and then start simulation of navigation. For details please refer to page 13 "Navigation software manual".

# Preparing for Use

## Installing Battery

Follow these procedures to install the proprietary rechargeable battery:

1. Follow these directions to open the battery compartment.
2. Insert the rechargeable battery observing the correct polarity.
3. Close the battery compartment as shown.



# Connecting to AC Adapter and Charging

Before using the device for the first time, we strongly suggest you use a fully charged battery.

1. Insert the USB connector into the adapter.
2. Insert the other end into the power port under the unit.
3. Plug the adapter into a power outlet.



4. When charging starts, the charging indicator light will be red, please wait for the charging to complete (this might take several hours). After charging is completed the indicator light will be green.



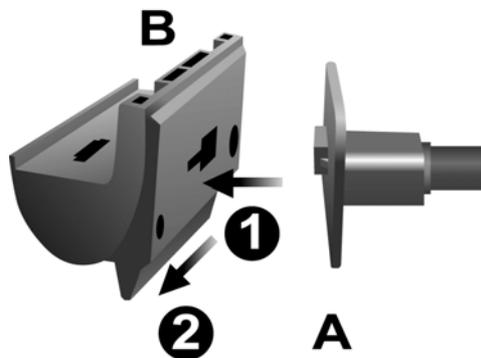
- ✓ This device uses a Lithium battery, please note the following:
- Please do not charge in a hot environment, such as on a balcony or expose to direct sunlight.

- Lithium batteries do not need to be discharged. Do not wait until the battery is depleted to recharge.
- When not in use for a long period, charge the battery every two weeks to prevent excessive discharge affecting battery performance.
- ☞ When charging a completely depleted battery, wait at least one minute before system startup. This will prevent excessive battery discharge.

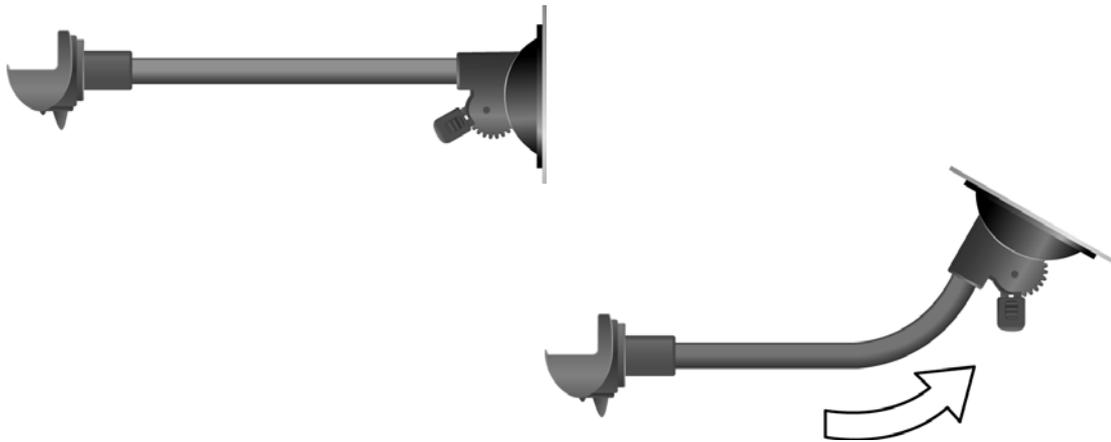
## Using the In Vehicle Bracket

The included in vehicle bracket set can be securely suctioned on the front windshield, or using the adhesive plate, securing on top of the glove compartment. This device will effectively secure the GPS unit in the vehicle. Follow the procedures below to secure the bracket:

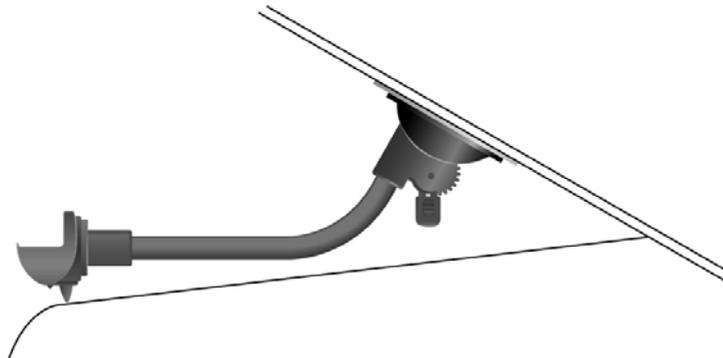
1. Follow the indicated directions and insert component A into slots on base B, slide in the direction indicated by the arrows to secure.



2. Once the base is secure, bend the bracket arm as shown below.



3. Suction the vehicle bracket securely to the windshield, ensuring its base is resting firmly on the dashboard.



4. Finally, insert the GPS unit onto the base.

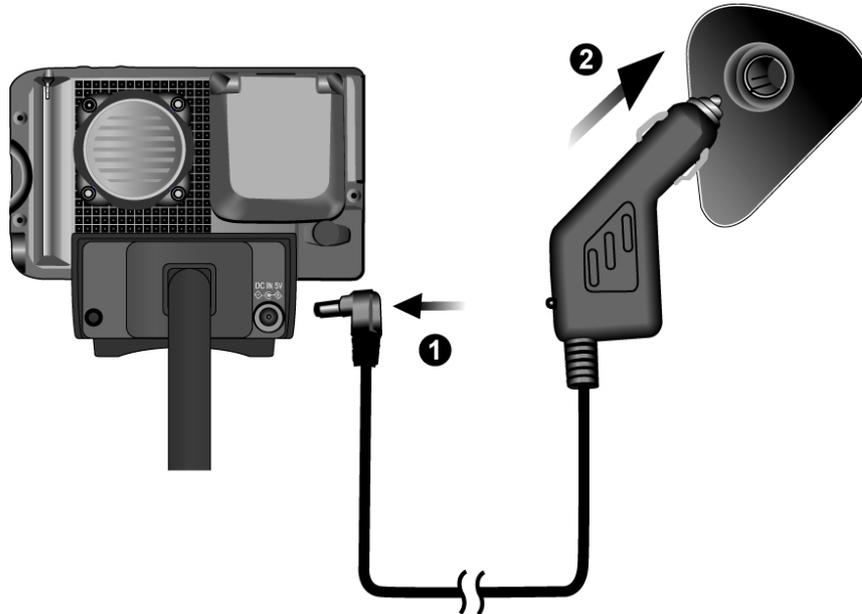


- ✓ When using the in-vehicle secure bracket, do not install in a location that will block the view of the driver
- ✓ Recommended installation requirements:  
The bracket base should be resting securely on the dashboard to prevent excessive shock.

## Using the Car Charger

While using the device in a vehicle, use the included car charger for long periods of usage.

1. Plug in the small plug into the power jack on the rear of the in vehicle bracket.

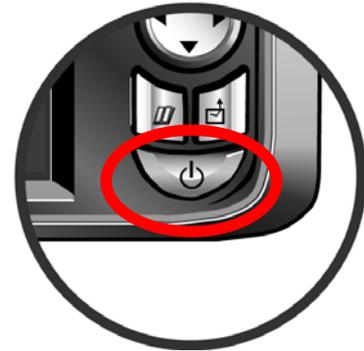


2. Insert the other end into the cigarette lighter.

# Operating Methods

## Startup

1. Press and hold the power button for about two seconds to turn on the power.



## Shutdown

2. While power is on, press the power button to turn off power.

During the first startup, the screen will show the main screen consisting of four functions: navigation, music, photo, and settings. Directly select the icon onscreen to use the function.



<b>GPS</b>	Loads the navigation program and navigation screen
<b>Music</b>	Plays MP3 music
<b>Photo</b>	Plays images
<b>Setting</b>	Function adjustments and operation instructions

# Using the Function Buttons

Control the main functions with the buttons on the right hand side.

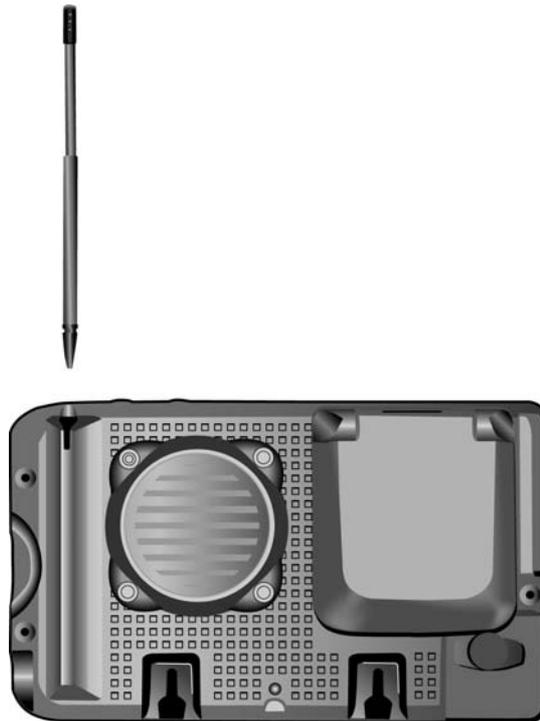


<b>1</b>	<b>Find-Target Hotkey</b>	Fast forward to the target window, this window provides 7 location searches enabling quick setting of destinations.
<b>2</b>	<b>Zoom-Out</b>	Zooms out of the map
<b>3</b>	<b>Zoom-In</b>	Zooms in on the map
<b>4</b>	<b>Directional Pad</b>	Press up/down/left/right keys to move around onscreen or press-on the center to select items
<b>5</b>	<b>ESC Key</b>	Exits current operation
<b>6</b>	<b>Menu Directory</b>	Returns to the main menu
<b>7</b>	<b>Power Button</b>	Switches the power on/off

# Using the Stylus

The stylus is the main tool for operating this unit. Use the stylus to select icons/items on the screen, scroll around the map onscreen, or even input hand written data.

The stylus is concealed in the pen slot on the back, pull out and extend for easy usage. Replace the stylus after use to prevent it being misplaced.



## Functions of the stylus:

### **Selection:**

Use the stylus point to select items and functions onscreen. On the map display, select the street or indicators on the map for details of building or road names.

### **Drag:**

Touch the stylus point on the screen and drag to scroll around the map for a specific location or landmarks.

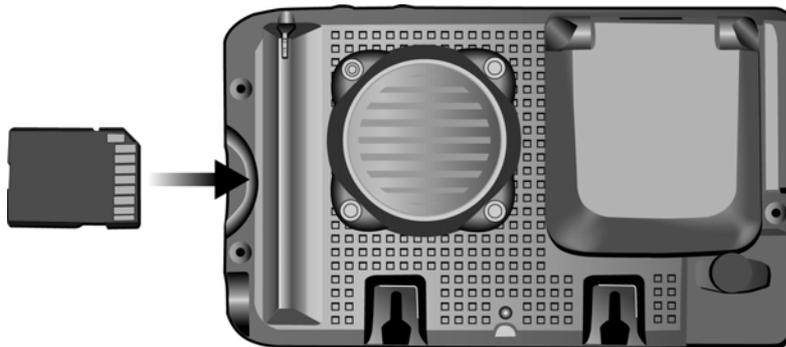
### **Select and hold:**

Select the item/icon and hold for a second to show the floating context menu, and then select the item to be executed.

# Using the SD Memory Card

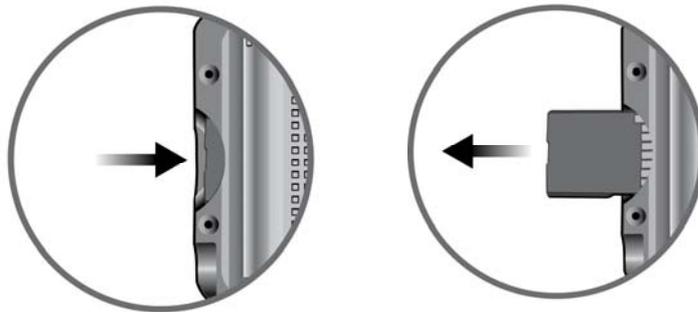
This unit is equipped with a SD memory card slot; you can purchase SD (Secure Digital) Cards to expand the memory capacity.

Insert the memory card as below: With the metal contacts of the memory card facing back, insert the card into the slot on the right side of the unit.



## Removing the Memory Card

1. Gently press the top of the memory card, and the card will eject automatically.



2. Then remove the memory card.

- ✓ The included memory card contains the digital map files that are required for the GPS navigational data. Please do not delete.
- ✓ When removing the memory card, please make sure the card is not reading data, or it will cause a system crash.
- ✓ Do not set the SD memory card as write protected, or the system will not operate properly.
- ⚠ When operating, accidental removal of the memory card will result in showing an error message. Please reinsert the memory card and the system may need to be reset before further use.

## Function Menu

The function menu is the main function window other than the navigation screen and includes system settings, navigation settings, schedule plans, GPS status, MP3, image browsing.

### Entering the Operation Menu

Under the navigation screen, press the Menu key to enter the operational menu.



For other detailed operational explanations, please refer to the navigational software manual.

# Setting

The setting function gives you the ability to adjust the basic system options, including time settings, volume control, screen calibration, startup message, backlight setting, version info, and GPS reset etc. You can modify the settings according to personal preferences.

## System Settings

### [Time]

1. After system startup, select [Setting] from the main screen to go into the System Settings window.



2. Select from the [Hour] pull down menu and choose the correct value.
3. Select from the [Minute] pull down menu and choose the correct value.
4. Select  to confirm, or select  to keep original settings.
5. Select  to return to main menu screen.

## [Volume]

1. Under the settings window, control the volume directly with the scroll bar. There are six levels of volume in total.



## [Startup Message]

1. Under the settings window, select [Warning Voice] On or Off for whether the startup message is to be broadcast.



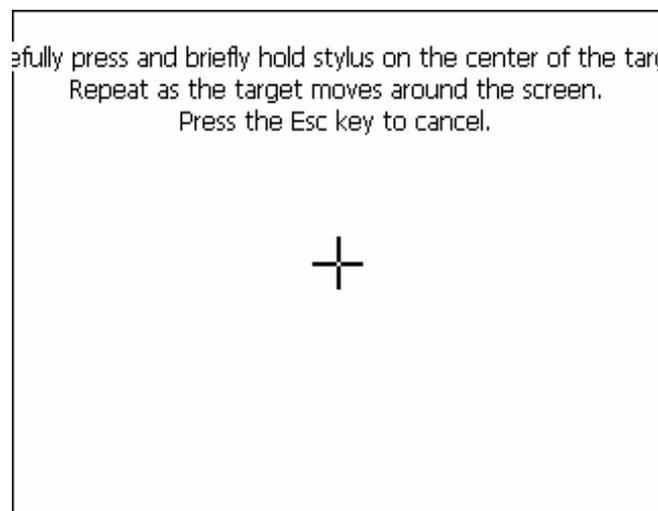
## [Stylus Adjustment]

Control of the unit is accomplished primarily through the stylus by touching/writing on the screen. If the system cannot correctly identify your stylus' input, please run through the screen calibration procedure.

1. From the settings window, select [Stylus Adjustment] to start the screen calibration procedure.



2. Use the stylus and touch the cross at the center of the screen once.



3. Touch the cross in the second position once.
4. Touch the cross in the third position once.
5. Continue the calibration by touching the cross in the positions that follow

6. To finish the calibration procedure, press the Enter key to accept the new settings. Press the Esc key to keep the old settings.
7. Select  to go back to the main menu screen.

## Backlight Settings

The backlight settings will adjust the brightness of the backlight and the auto-off time.

1. Under the settings window, select [Backlight] to enter the backlight settings window.



2. Select the time to turn off backlight when running off the battery. (1 min, 3 min, 5 min, 10 min, 30 min, Always On)
3. Select the time to turn off backlight when running off external power. (1 min, 3 min, 5 min, 10 min, 30 min, Always On)

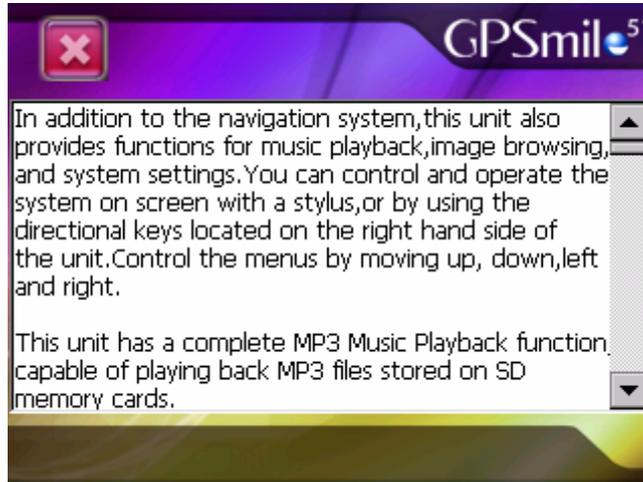
4. Scroll the brightness bar to control backlight brightness. There are six levels in total.



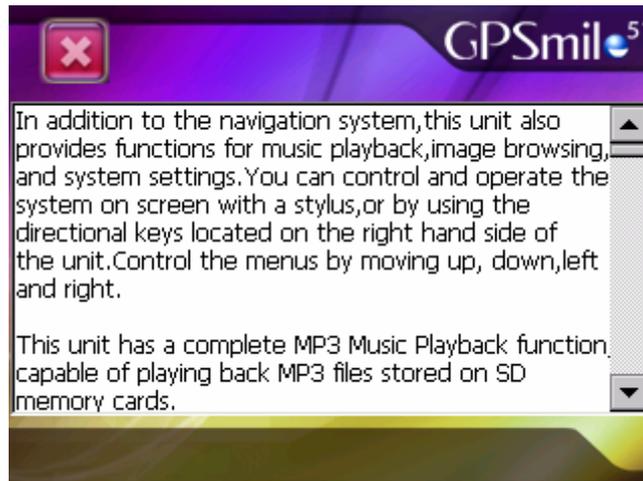
5. Select  to confirm or select  to keep the original settings.
6. Select  to return to main menu screen.

# Help

1. Under the settings window, select [Help] to enter the help window.



2. The screen display will show instructions for operation of music playback and image browsing functions.



# Music Playback Function

This unit has an MP3 Music Playback function that is capable of playing back MP3 files stored on SD memory cards.

## Storing MP3 files onto SD memory cards

On your computer, you must first convert the music from an audio CD into MP3 files, then save them onto the SD memory card.

## Starting music playback

1. Insert the SD memory card with stored MP3 files into the SD memory card slot on the unit.
2. Power on, and select the [Music] icon on the main menu.



### 3. The Music Playback Window.



4. Use the buttons in the Music Playback Window to control each playback function.
5. For functions of different buttons in the Music Playback Window, please refer to the illustration below:



## Create custom playlist

The Create custom playlist function lets you create a personalized playlist, specifying which songs to play and in what order. Adding/removing a song from the playlist will not copy or delete the actual file, it will only add/remove it from the playlist.

1. Under the Music Playback Window, select [Menu] and go to the Song Selection Window.



2. The panel on the left lists the source directories, select a directory and double click to enter the directory.



3. After loading the list of MP3 files contained in the directory, select the desired file to be played and double click to add to playlist. Or click the [Add] button to add to playlist.

4. The file will be added to the panel/playlist on the right.
5. Clicking the [Add All] button will add all songs currently in the left panel into the playlist.
6. To remove a song from the playlist, please select the song from the right panel and then click the [Delete] button.
7. Clicking the [Delete All] button at the right panel removes all songs at once.
8. Click the  button to exit the Song Selection Window and go back to the Music Playback Window.

## Image Browsing Function

The system has an Image Browsing function that is capable of displaying images/photographs stored on SD memory cards.

1. Insert the SD memory card with stored image files into the SD memory card slot on the unit.
2. Power on, and select [Photo] icon on Main Menu.



3. The Image Browsing Window.



4. Double click on the directory in the lower right panel where image files are stored.

5. Double click the image/photograph file to be displayed.



6. Click the expand/shrink button to expand or shrink the viewed image. (1x, 2x, 4x, 8x)

7. An expanded image can be panned by dragging the stylus around on the screen.

8. Click  to go back to Main Menu.

# Using the CD

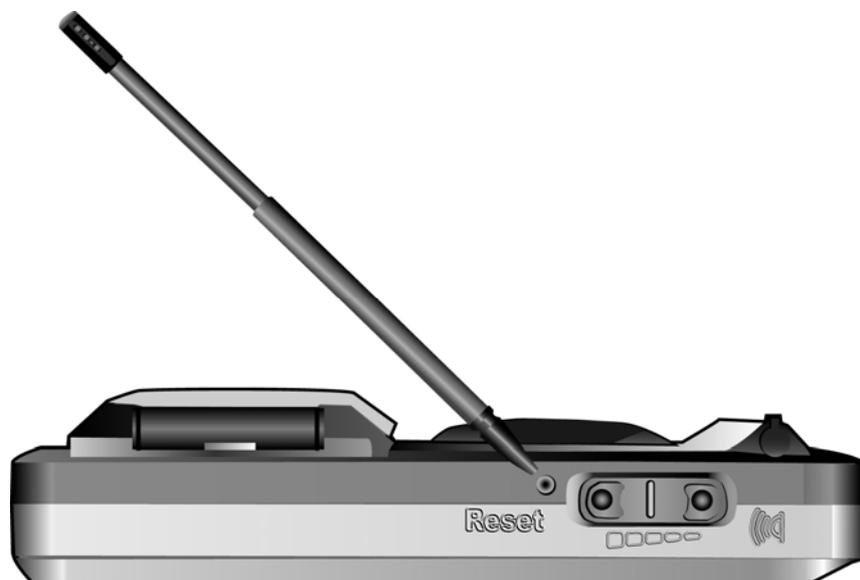
## Appendix

### Troubleshooting

#### System reset

Only under extremely few circumstances will it be required to reboot the system. Reset your system if the following situations occur:

1. Heavy lag experienced with screen refresh or operations, resulting in an inoperable system.
  2. Cannot turn off the system with power button.
  3. No response with selection on the screen.
- Use the tip of the stylus and insert into the reset switch on top of the unit.



- The system will immediately reset.
- You will now see the main screen and the system is ready for use.



## Quick Troubleshooting

Power	Cannot startup	Insufficient battery charge, please connect to the adapter and restart system.
Screen	No screen displayed	After powering up, if the system does not respond, try the following: 1. Connect adapter, restart system. 2. Reset system.
	Display speed is too slow	1. Check if the battery is low on power. 2. Reset system.
	Screen has no response	Reset system.
Navigation	GPS cannot display my current location	Make sure your current location is not obstructed by buildings or other interferences.

# Normal Care and Maintenance

To ensure the unit's normal operation and extended life span, please note the following while using and storing:

## **Keep dry**

This product is not waterproof. If it comes into contact with water spray or is submerged it will seriously damage the components, resulting in irreversible damage.

## **Do not drop the unit**

If violently impacted or shocked, serious damage may be caused.

## **Avoid sudden temperature changes**

Condensation may occur when entering a warm room on a cold day. To prevent condensation from damaging the unit, please place into an airtight plastic bag before sudden temperature changes.

## **Keep away from strong magnetic fields**

When using or storing, please keep away from strong electromagnetic/radioactive or magnetic field equipment.

## **Operating temperature**

The products operating temperature is between -10° and 55°C; please do not operate under extreme temperatures.

## **Avoid exposure to sunlight**

Please avoid long periods of sunlight or high temperature exposure.

## **Using the stylus**

The LCD screen is easily scratched; please use only the stylus for operation. Do not use any other sharp objects on the screen to avoid damaging the LCD screen.

## **Cleaning the screen**

Using a soft clean cloth to wipe the screen is recommended; do not use ordinary tissue to wipe the screen.

## **Do not disassemble**

Please do not disassemble the product, this may void the warranty and damage the unit.

## **Storage**

When the product is not being used for a long period, please remove the battery and store in a cool and dry place. For long-term storage, keeping the unit in a dry box is recommended.

Please do not keep the product in the following environments:

1. Unventilated and humid locations.
2. In a car window that is exposed to excessive amounts of sunlight.
3. In an environment where humidity is over 60%.

# Specifications

Integrated GPS Receiver	20 parallel channels
Acquisition Time	<ul style="list-style-type: none"> <li>• Reacquisition : 0.1 sec.</li> <li>• Hot start : 1 sec.</li> <li>• Warm start : 35 sec.</li> <li>• Cold start : 42 sec.</li> </ul>
Accuracy	Position: 10 m. for 90% Velocity: 0.1 m/s
Handheld Software (Pre-loaded)	Companion CD: Adobe Acrobat Reader® for Pocket PC - PDF file viewer GPSmile51 Handheld Manual
Processor	Centrality Atlas Processor at 200 MHz. O.S. Microsoft Windows CE .Net 4.2
Operating System	Microsoft Windows CE.Net 4.2
Memory	32 MB flash memory and 64MB SDRAM memory for operating system and embedded applications
Weight	< 180 g
Size	125.5(L) x75.8 (W) x21 (H) mm (H: 26.5 antenna included)
Car Holder / Charger	Input voltage: 11V. ~ 28V. Output voltage: 5.4V. ± 0.3V.
Battery	Rechargeable 1050 mAh. Li-ion 2 hours battery life for full function 3 hours to fully charge with AC adaptor or car charger
Extension Slot	SD
Display	3.5" transfective TFT LCD (262k colors) with 240 x 320 (QVGA) resolution
LED	Red/Green LED for battery charging status
Audio	Built-in 15 mm speaker and stereo earphone jack
Operation Temperature	0°~55°C
Storage Temperature	-20°~70°C
Proprietary 24-pin Connector	USB client; DC power in
Special Keys and Buttons	5-way directional pad (up, down, left, right, enter); Four quick-launch application buttons

## **FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/ TV technician for help.

### **CAUTION:**

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.