

RoyalTek

RN5 (NS-4102) / RN5 (NS-4102F) / RN5 (NS-4102B)

Portable Navigation Device

Reference Manual



# Legal Notices

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RoyalTek RN5 Portable Navigation Device User's Guide Original issue: September 2008.

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**NOTE** : Record the device ID, serial number, purchase date, and place of purchase information in the space provided below. The serial number is indicated on the label affixed to your RoyalTek device. All correspondence concerning your unit should include the serial number, device ID, and purchase information.

## Revision: 1.00

September 2008

**NOTE:** Information in this manual is subject to change without notice.

## **Warnings and Notices**

For your safety, do not operate the controls of the product while driving.

GPS satellite signals cannot typically pass through solid materials (except glass). GPS location information is not typically available inside buildings, tunnels, or underground parking lots.

A minimum of 4 GPS satellite signals is needed to calculate your GPS position. Signal reception can be affected by weather events or overhead obstacles (e.g. dense foliage and tall buildings).

Other wireless devices in the vehicle may interfere with the reception of satellite signals and cause the reception to be unstable.

### **Adapter**

Do not attempt to service the unit. There are no serviceable parts inside. Replace the unit if it is damaged or exposed to excess moisture.

Do not use the adapter if the cord becomes damaged.

Connect the adapter to the proper power source. The voltage requirements are found on the product case and/or packaging.

### **Battery**

This unit contains a non-replaceable internal Li-polymer battery. The battery could be bursting or exploding and releasing hazardous chemicals in case of over battery specification and using in an abnormal conditions; disassemble, crush, puncture, or dispose of the battery in fire or water. Abnormal operation could be dangerous to your human body. Please be aware.

Use only the specified charger approved by the manufacturer.

Risk of explosion if battery is replaced by an incorrect type dispose of used batteries according to the instructions.

**WARNING:** The Lithium-Ion battery in the device must be recycled or disposed of properly.

## **FCC COMPLIANCE**

\* 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.

## **FCC WARNING**

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

## **CE Mark**

This equipment complies with the requirements for CE marking when used in a residential,  
commercial, vehicular or light industrial environment. R&TTE Directive. Products with the CE  
marking comply with Radio & Telecommunication Terminal Equipment Directive (R&TTE)  
(1999/5/EEC), the Electromagnetic Compatibility Directive (89/336/EEC) and the Low Voltage  
Directive  
(73/23/EEC) – as amended by Directive 93/68/ECC - issued by the Commission of the  
European Community.



## **NOTICE**

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.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

# Contents

Chapter 1	Features and Specifications.....	7
1.1.	RoyalTek RN5 PND features .....	7
1.2.	RN5 Specifications.....	7
Chapter 2	Getting Started .....	9
2.1.	Hardware Overview.....	9
2.1.1	Packing list.....	9
2.1.2	Basical Introduction .....	11
2.1.3	How to Use Car holder .....	13
2.2.	How to Use mounting bracket. ....	13
2.3.	Resetting the RN5 Device.....	16
Chapter 3	Start to Use RN5.....	17
3.1.	Turn on the device .....	17
3.2.	Configure system settings.....	17
3.3.	How to Use System settings .....	19
3.4.	Reset.....	19
3.5.	System Information .....	21
3.6.	Volume.....	22
3.7.	Backlight .....	22
3.8.	Set a favorite application category: .....	23
3.8.1	Add icons to the favorite page .....	23
3.8.2	Delete icon to the favorite page .....	24
3.9.	Power Supply .....	24
3.9.1	Charge .....	24
3.9.2	Discharge.....	25
3.9.3	Power outage .....	25
Chapter 4	Entertainment.....	26
4.1.	RN5 Multimedia Player .....	26
4.2.	Music player.....	27
4.3.	Photo Viewer.....	30
4.4.	Video Player.....	33
4.5.	Listen MP3 via Car Audio/Stereo (FM Transmitter) .....	35
4.5.1	Turn on FM Transmitter frequency .....	35
4.5.2	Change FM Transmitter frequency .....	36
Chapter 5	Communications.....	37
5.1.	RN5 Bluetooth.....	37
5.2.	Connection.....	37

5.3.	Mobile phone connection .....	37
5.4.	Call Out (Hands – free Calling) .....	39
5.5.	Contacts (Import phonebooks).....	40
Chapter 6	Troubleshooting and Maintenance.....	42
6.1.	General troubleshooting.....	42
6.1.1	If your device does not respond, do a “hard reset.” .....	42
6.1.2	Users can also perform a “system reset.” .....	42
6.1.3	Screen responds slowly .....	42
6.1.4	Inaccurate response to tap on touch screen.....	42
6.1.5	Connection Problems with PC.....	42
6.1.6	No GPS connection.....	42
6.1.7	No sound coming from the device. ....	43
6.1.8	Cannot see photos. ....	43
6.1.9	Take longer than normal time to get a GPS fix.....	43
6.1.10	Factory reset does mean a GPS reset.....	43
6.2.	Maintenance .....	43
6.2.1	Storage precautions .....	44
6.2.2	Accessories and repair precautions.....	44

# Chapter 1 Features and Specifications

## 1.1. RoyalTek RN5 PND features

The RoyalTek RN5 Portable Navigation Device is a powerful multifunction GPS/multimedia navigation and entertainment device.

- Compact size and lightweight
- Integrated GPS receiver for GPS navigation
- High-resolution color LCD
- 4.3" wide touch screen with 480 x 272 x 16 bits
- Multimedia functionality with high performance processor

## 1.2. RN5 Specifications

**Table 1: RN5 dimensions and specifications**

Category	Item
<b>Chassis</b>	
Dimension	123.5*81.9*14.8 mm
Weight	180g
Specifications	Operating Temperature: 0 °C to +55 °C Storage Temperature : -20 °C to + 70 °C Battery charge Temperature: 0 °C to +40 °C
<b>System</b>	
OS	Windows CE 5.0 Core Version
Storage	2GB MLC NAND Flash
Memory	64MB Mobile DDR SDRAM
<b>Display</b>	
Screen Type	TFT, Touch Panel
Screen Size	4.3"
Resolution	WQVGA 480* 272
Backlight	Yes, brightness with TSP 280 nits typical
Touch Panel	Yes, (Finger Tapped)

Category	Item
<b>Battery</b>	
General	930mAh, Li-ion Battery
Recharge Time	<b>Power On (charged by Car Charger)</b> About 4 hours charge from empty to full. <b>Power OFF (charged by USB or Car Charger)</b> About 4 hours charge from empty to full.
<b>Audio</b>	
Earphone	Yes (option)
Speaker	1.0W mono speaker
<b>Hardware Button\Slot</b>	
Micro SD	Supports Micro SD
Battery switch	On/ Off
<b>USB</b>	
USB solution	USB 2.0 device with supporting mass storage( High Speed)



## Chapter 2 Getting Started

This chapter describes the hardware interface of the RoyalTek RN5 and its peripherals. Instructions for setting up the device and some basic system operations are also discussed.

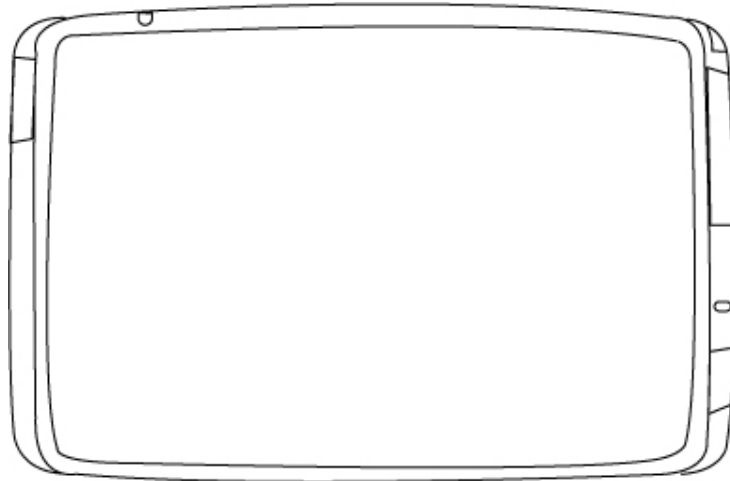
**NOTE:** Although the RN5 rechargeable Li-Polymer battery comes approximately 30% charged, before using, it is best to connect the AC adapter (Optional Accessory) or USB cable by PC connect and plug to power socket and fully charge the battery. The ON/OFF button will be orange when charging and green when charge done.

### 2.1. Hardware Overview

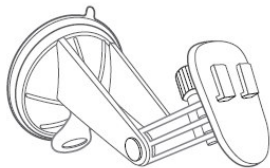
This section introduces the RN5 PND external features and hardware components.

#### 2.1.1 Packing list

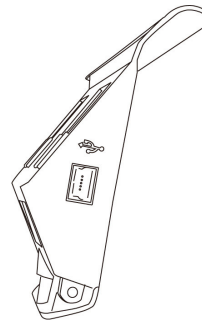
The RoyalTek RN5 box contains all of the items listed below:



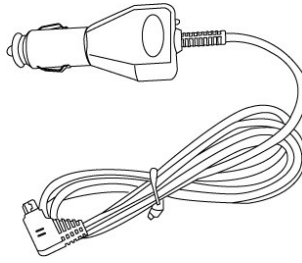
RN5 Portable Navigation Device



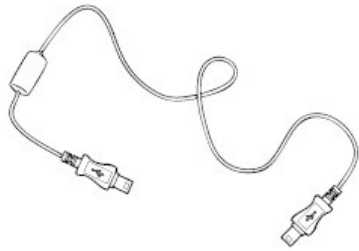
Car mount



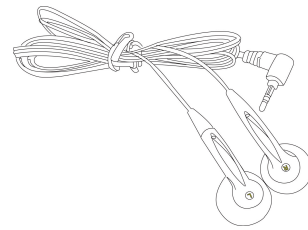
Car holder



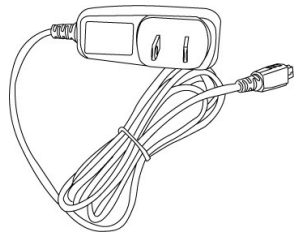
Car charger



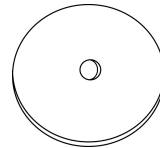
USB cable (Option Accessory)



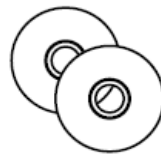
Earphone (Option Accessory)



AC adaptor (Option Accessory)



Dashboard (Option Accessory)



Portable Navigation Device Application Software DVD.



Portable Navigation Device Quick Start Guide.  
statement.



Portable Navigation Device Warranty

## 2.1.2 Basic Introduction

Figure 1: **Front/Back View**

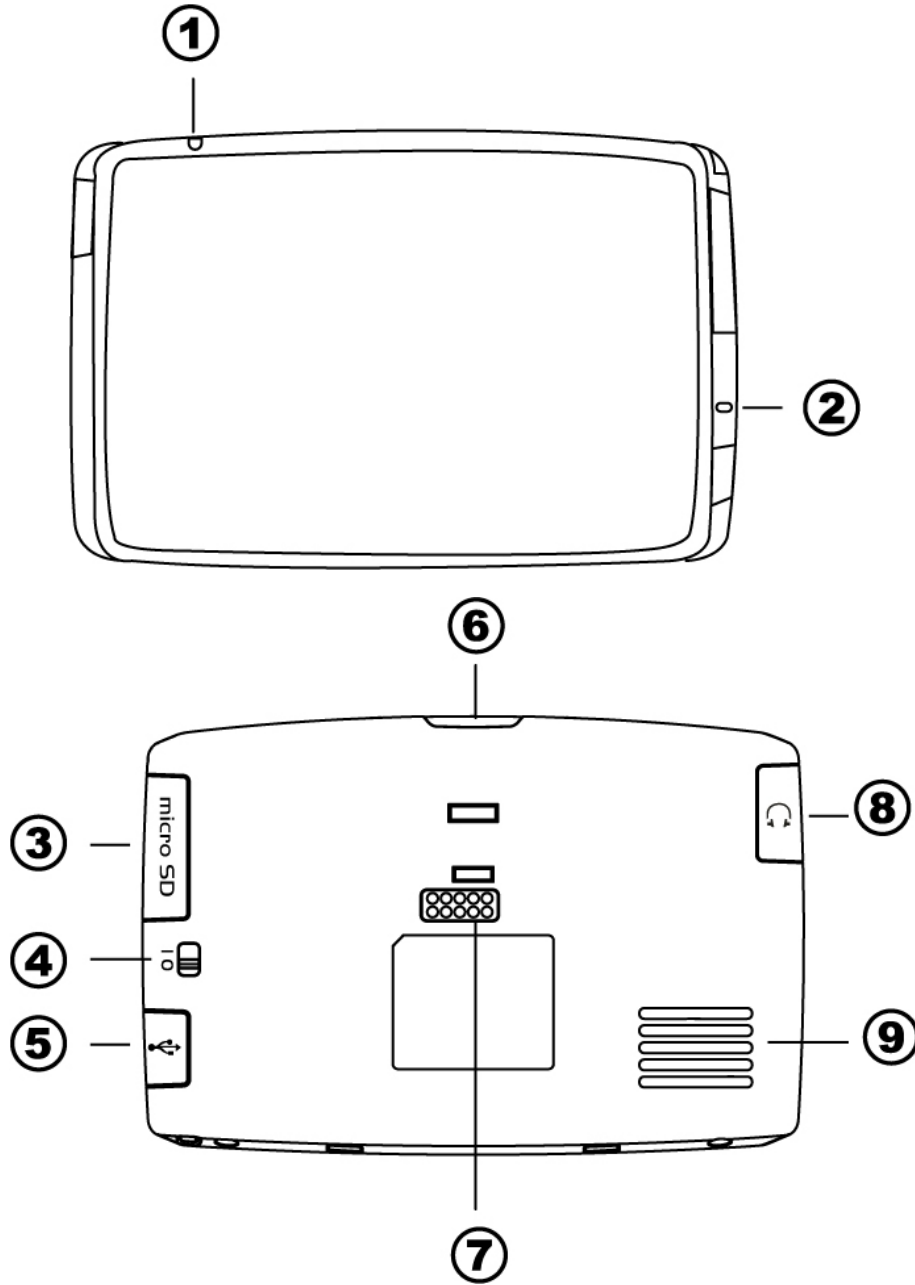


Table 2-1: Top and Left/Right side controls

NO	Function	
1	Microphone	Receives your voice while using hands-free of Bluetooth function.
2	Charge status LED	Indicated the battery charging status. ● On: Charging

		<ul style="list-style-type: none"> <li>● Off: Charging down</li> </ul>
3	Micro SD	Accepts Micro SD storage cards, allows you to use audio, image files stored in it for using internal applications.
4	Battery Switch	On/ Off
5	Mini-USB port	the mini-USB connector of the main device can be used to charge power or upload files from computers.
6	Power Button	Standby mode by pressing the button for sleep/wake.
7	I/O port of Car Holder	I/O port while connecting with car holders.
8	Earphone	Standard stereo headphone jack.

### 2.1.3 How to Use Car holder

Figure 2: Car holder side views

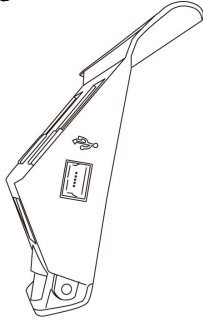


Table 2-2: Car holder

No	Function	
1	USB Port/Docking connector	The mini-USB connector of car cradle can be used to charge power only.

**Warning:** The mini-USB connector is only for charging, not for files(data) transition.

### 2.2. How to Use mounting bracket.

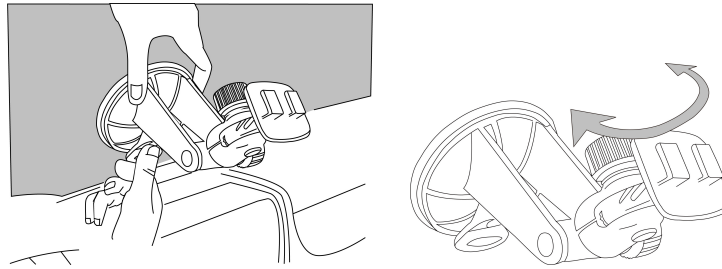
The RN5 comes with a car mount kit and a car charger to help install your device in your vehicle. The car mount kit uses a suction cup on the windshield to offer flexible mounting options for the RN5.

**Warning:** Some countries prohibit the mounting of any electronic device on the vehicle dashboard. Be sure to check your local laws for acceptable mounting areas before installing the car mount bracket.

This section shows how to install the car mount kit in your vehicle's windshield using the suction cup. The RN5 uses a snap on mounting cradle to use when the device attaches to the car mount. Below is the backside view of the RN5 in the cradle.

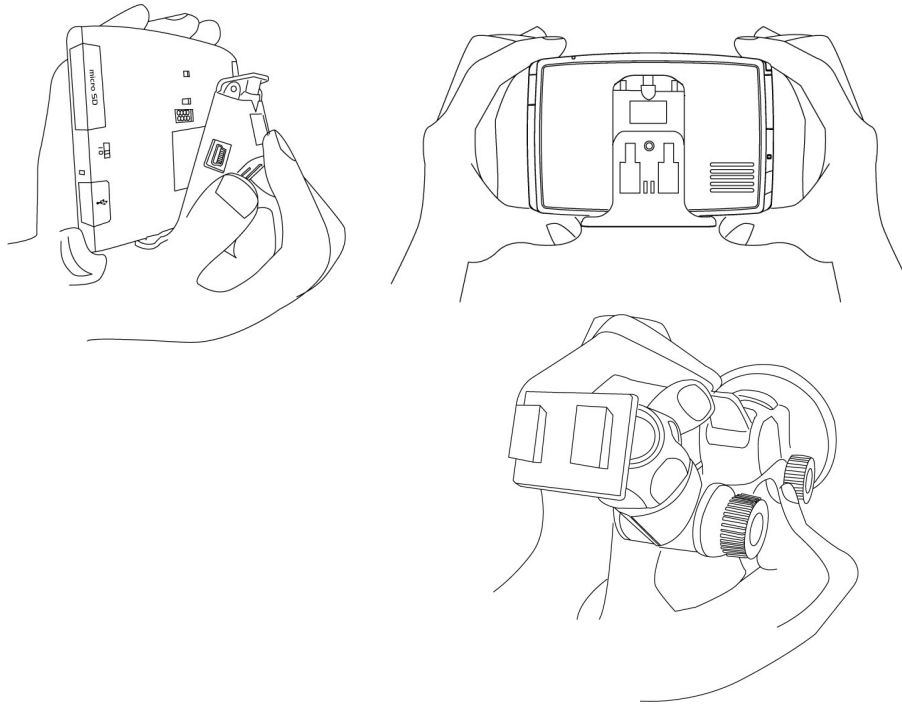
1. Clean the mounting surface with a glass cleaner and a clean cotton cloth.
2. If the ambient temperature is below +15°C (60°F), you can warm the mounting area and the suction cup (e.g. with a hair dryer) to ensure a strong suction bond.
3. Install the car mount on the selected area.
  - a. Press the suction cup of the car mount firmly against to the windshield. (See Figure 2-3-1)
  - b. Press down the lever to fix the suction cup in place.

c. Adjust the angles of the arm to your proper viewing position.



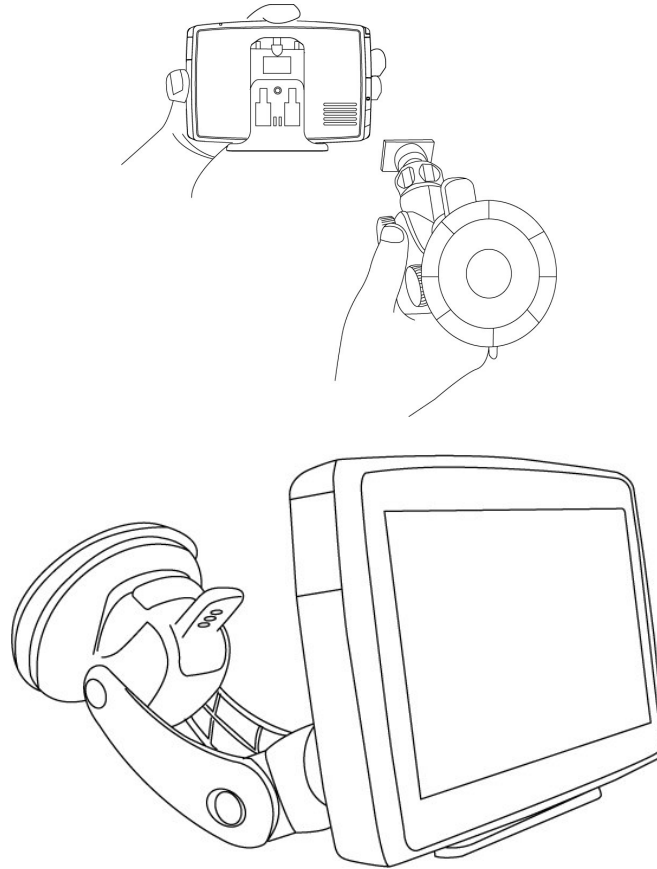
**Figure 2-3-1**

4. Mounting the device holder with your RN5.
  - a. Fit RN5 down in the device holder first, and then lock it using the plugs on the bottom of the device holder. (See Figure2-3-2)
  - b. Firmly lock the RN5 with device holder on the car mount which has been mounted to your windscreen.(See Figure2-3-3)



**Fig  
ure  
2-3-  
2**



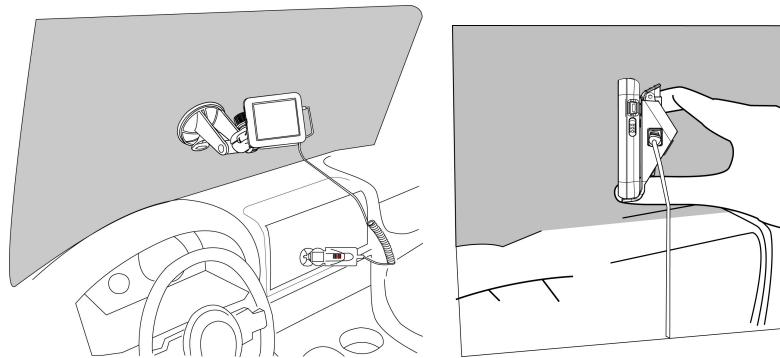


**Figure 2-3-3**

5. Charging your RN5 device.

a. Plug the car charger to the 12 V outlet of your car and then connect the charger cable to the Mini USB port of the RN5 car holder : Please make sure the battery switch status in “ON” mode. (See Figure 2-3-4)

b. now You can let your RN5 have the continuous power by the car charger.



**Figure 2-3-4**

**NOTE:** Your car may be required to switch the vehicle ignition into the accessories position to power the cigarette lighter. Your NS-4102 will not charge with the ignition off.

NOTE: In some condition of charging NS-4102, if room temp. is over 35 degree C, PND might not be charged because of internal heat protection. After a while, internal heat is decreasing, then NS-4102 can be charged again.

#### 6. Starting your RN5

- a. Push the battery switch ON.(Default status OFF), and then the main menu screen appears.
- b. Tap Navigation, you will see the map screen displayed.
- c. Please read the User's Guide of Navigation software for the detail setting information.

Please be noted, the first time turning on your RN5 may take some time to obtain a valid GPS fix.

### 2.3. Resetting the RN5 Device

In the normal situation, unnecessary to reset your RN5. However, in the event that a problem cannot be corrected, you may reset the RN5 device by the following way :

Hard reset :

- To do a "Hard reset" Disconnect all cables, including the AC adapter, from your device.

By sliding the hard reset switch on the primary ON/OFF switch on the back side of the device from OFF to ON position.

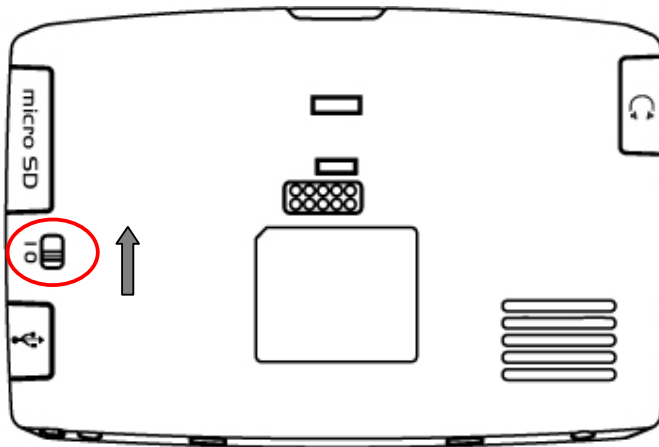


## Chapter 3 Start to Use RN5

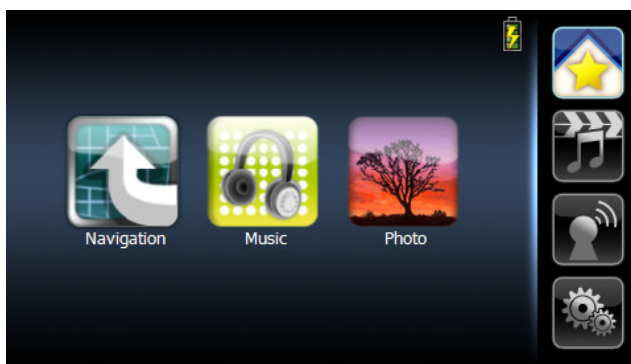
After fully charging the RN5 it is ready to be used. You can now turn it on and proceed to system settings configuration.

### 3.1. Turn on the device

1. Sliding the battery switch to “ON”. (Default status OFF)



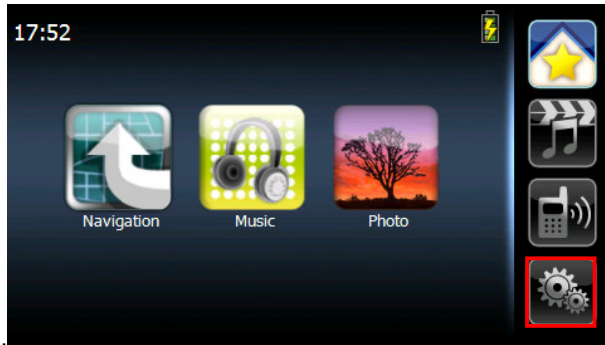
After turning on the device, main page will display. This is also referred to the Favorite page.



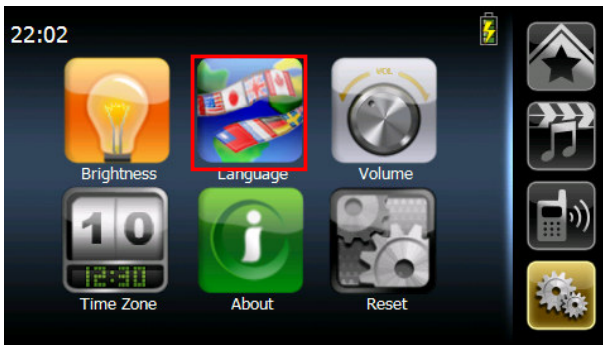
### 3.2. Configure system settings

If you intend to start using your RN5 at once, we recommend that you configure the language and time zone settings first. The rest of the user preferences can be set up later.

1. Tap “System” in the right category bar



2. Tap "Language" on the System page.

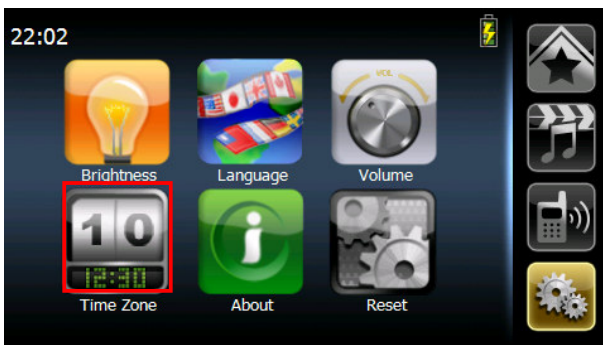





3. It will display current language in central area.

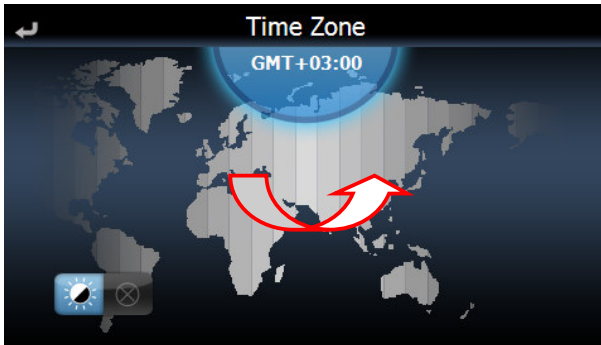
4. To drag wheel scroll language tags.



5. To set the system time zone, tap "Time Zone" in System Menu.

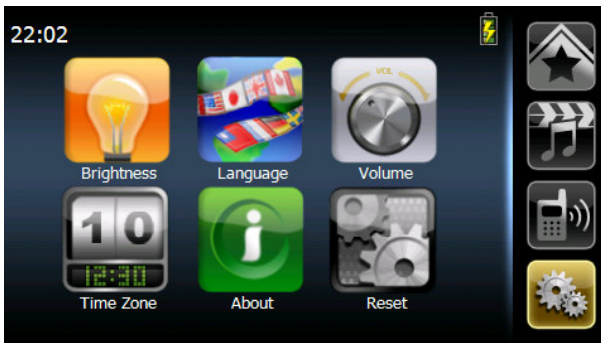


6. Tap the  icon to set up the function of daylight saving s time.
  - a.  represent enable the function of daylight savings time.
  - b.  represent disable the function of daylight savings time.
7. Drag the Map to adjust the time zone.



### 3.3. How to Use System settings

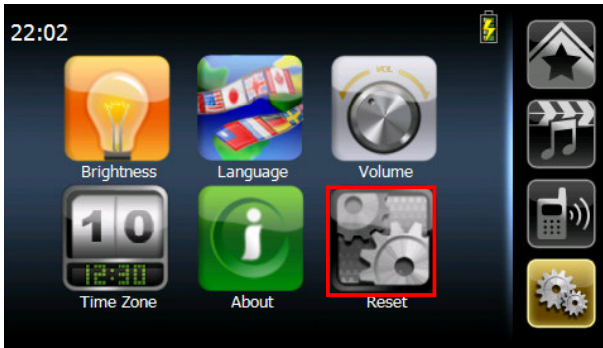
Other system settings can be used to view and adjust your device current preferences. Navigate from the System Menu.



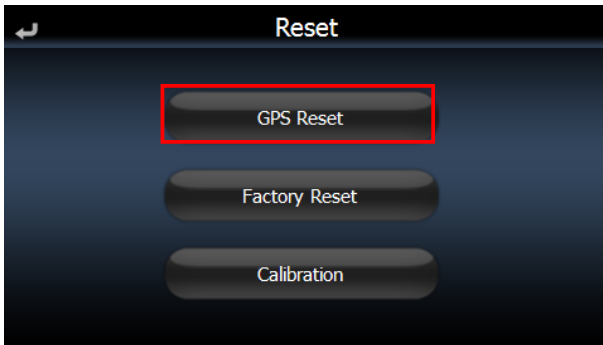
### 3.4. Reset

- GPS Reset : When user wonder if GPS receiver perform properly or not .( ex : Change the region)
- Factory Reset : The factory reset function not only resets the operating system settings to default factory values, but also reset the GPS settings.
- Calibration : When the touch screen does not respond well, calibrate the screen of your device.

- 1 Tap the “Reset” icon in the System Menu.



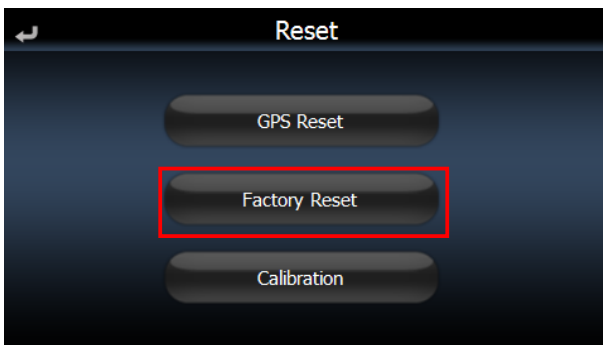
2 Tap the “GPS Reset” icon in the Reset Menu.



3 Tap the “YES” to reset the GPS.



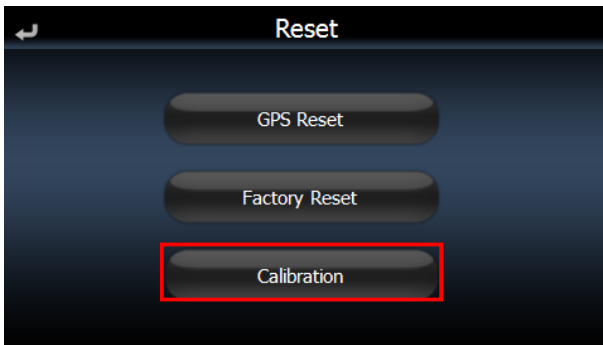
4 Tap the “Factory Reset” icon in the Reset Menu.



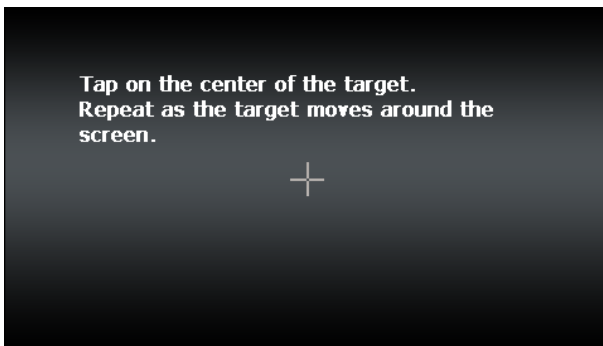
5 Tap the “YES” to do the Factory Reset.



6 Tap the "Calibration" icon in the Reset Menu.



7 Tap on the center of the target. Repeat as the target moves around the screen.



### 3.5. System Information

1. Tap the Sys Info. icon in the System Menu.

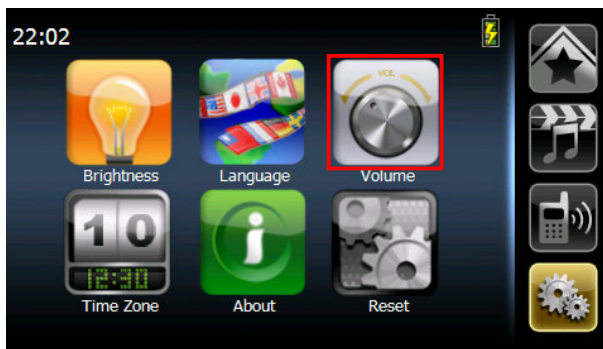


2. You can view the OS version, GPS firmware version and other system information..

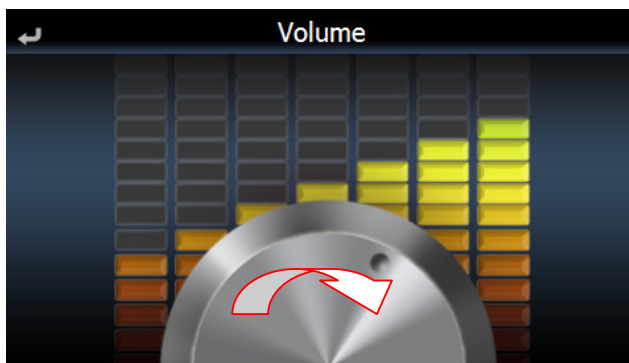


### 3.6. Volume

1. Tap the Volume icon in the System Menu.

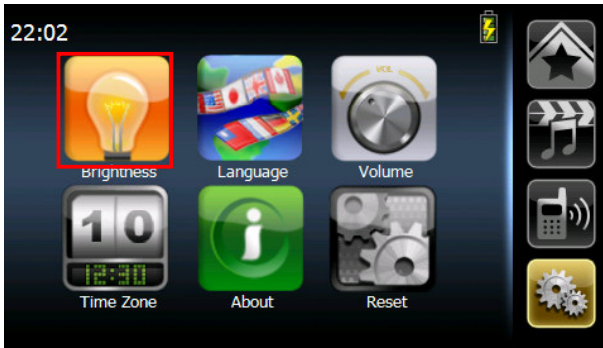


2. Adjust the volume by dragging the wheel.
3. Dragging to left will become mute, and opposite will become larger.

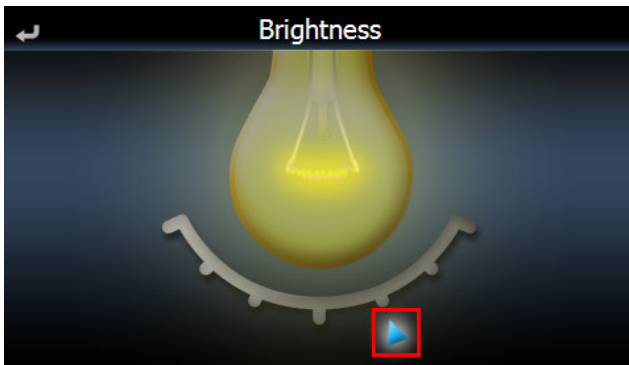


### 3.7. Backlight

1. Tap the Backlight icon in the System Menu.



2. Adjust the Backlight brightness by dragging triangle icon.
3. Dragging to left will become darker; dragging to right will become lighter.

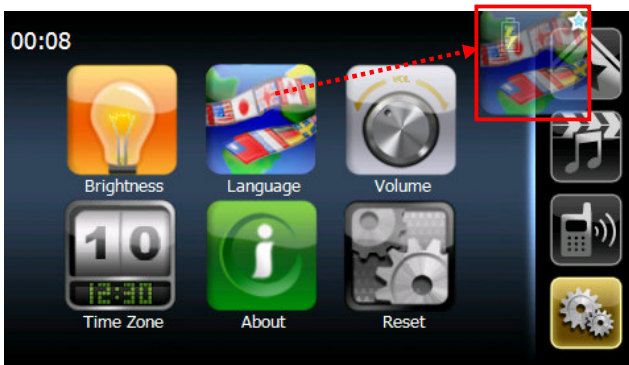


### 3.8. Set a favorite application category:

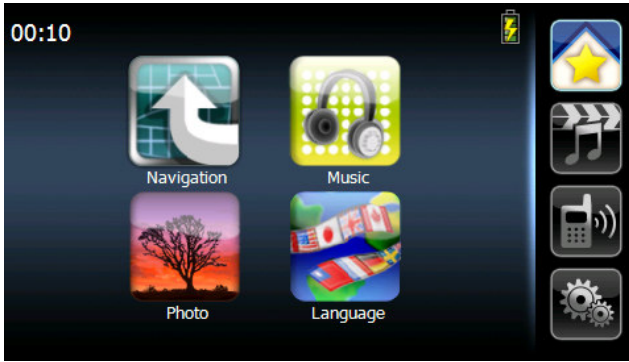
In order to provide more organized and friendly application management interface for users organizing their own favorite application category by drag-and-drop, but the maximum number of favorite application shortcut is six.

#### 3.8.1 Add icons to the favorite page

1. Drag the icon to the category bar of favorite category.



2. That will show the icon in favorite page.



### 3.8.2 Delete icon to the favorite page

1. Drag the icon from Favorite page to category bar and drop it. Confirm dialog will pop up, just tap “YES” to delete.



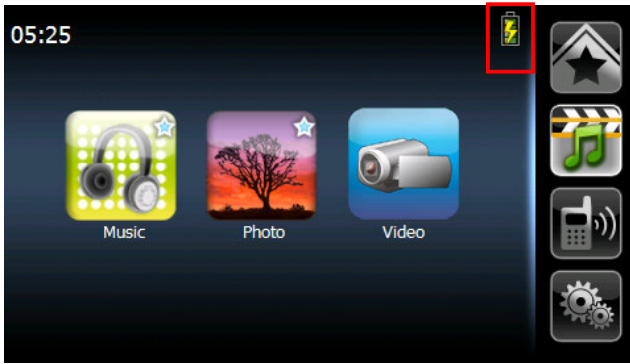
## 3.9. Power Supply

RN5 has a complete power management system, and enhances its standby time. In addition, it can make end-users more convenient to carry it for entertainment purpose, not only using in cars but also at home, outdoor activities.

### 3.9.1 Charge

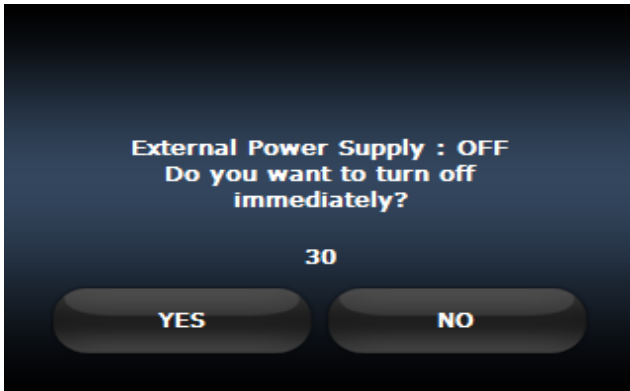
While end-users use our standard car charger or AC adapter to charge RN5, the main screen would remind you.





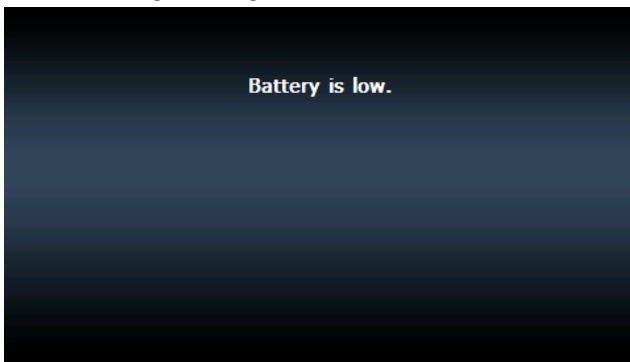
### 3.9.2 Discharge

While end-users remove out our standard car charger or AC adapter, the main screen would remind you to turn off RN5 or not.



### 3.9.3 Power outage

While battery capacity is lower than 20%, the main screen would remind end-users the following message.



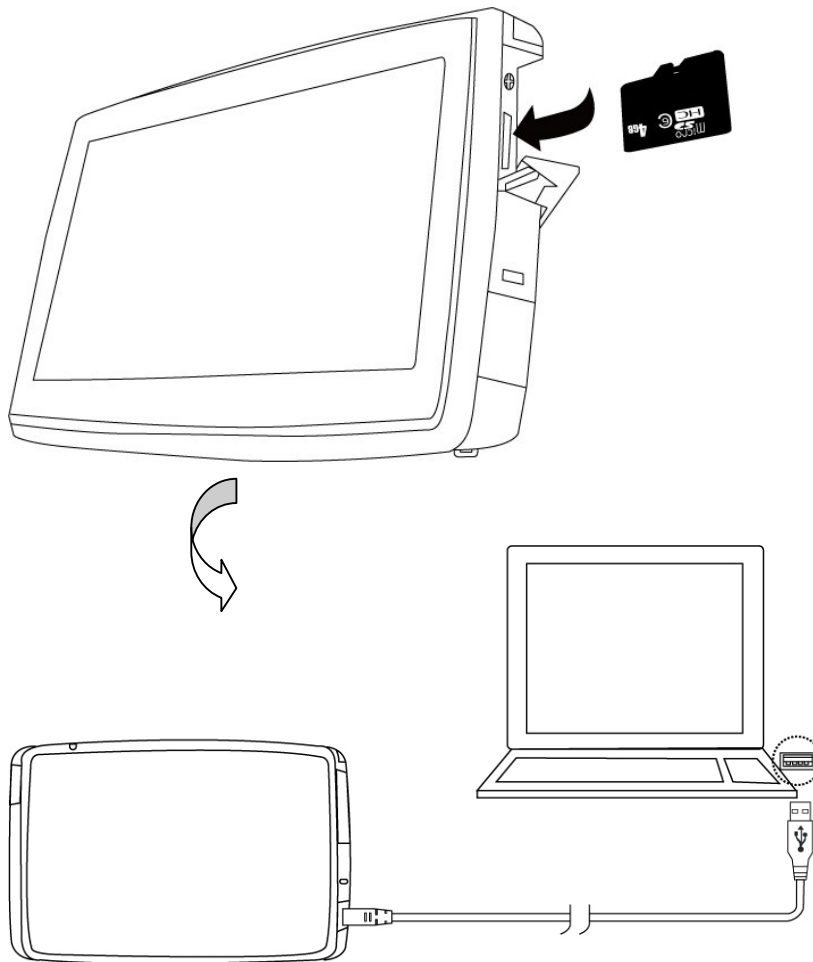
## Chapter 4 Entertainment

### 4.1. RN5 Multimedia Player

RN5 is a fully capable multimedia player that can enhance your portable entertainment. In addition to its navigating function, RN5 is also a mobile entertainment tool to let you enjoy digital music, view photos. These functions make RN5 a true multimedia device.

To enable access of multimedia files from your PC folders, there are two ways to do:

- Copy multimedia files into a micro SD card from your PC, and then insert this micro SD card into RN5.
- Insert micro SD card and connect USB cable from PC to RN5, and then directly copy multimedia files from PC to RN5



It is recommended to organize files into subfolders. These folders will make files easier to find and play.

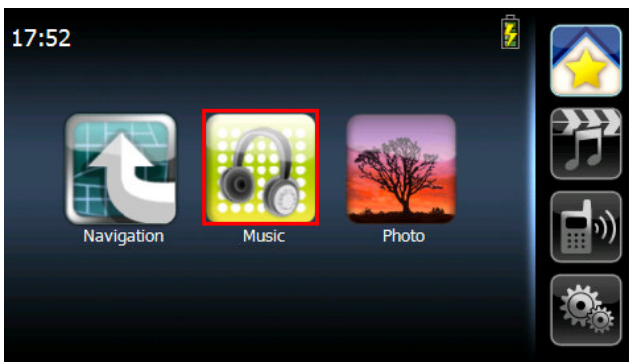
## 4.2. Music player


Enjoy your favorite music on the road. The program features:

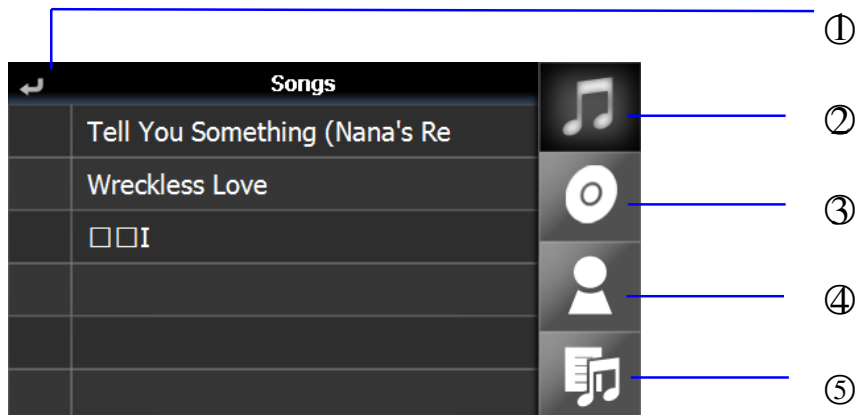
- Support to MP3 files (MP3, WMA format)
- Auto-scan supported files in the device's Micro SD card
- Separate volume control enabling you to adjust the playback sound level while retaining the volume level set for system sounds

Each sub directory containing compatible music files is treated as an individual playlist. For a more organized file search, it is advisable to name sub directories based on listening preferences.






1. Tap "Music" icon in the Main Menu.



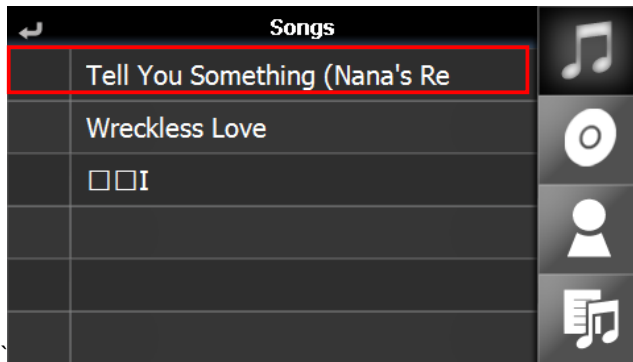
**NOTE:** You can also enter the music player by entering 



**Table 4-2-1: MP3 player functions**

NO	Function		
1		Return	Return to list page
2		Songs	List all song by alphabet
3		Album	List all albums by alphabet.
4		Artist	List all Artists by alphabet
5		Search	Current play list

2. Tap a song on the music list.



3. Tap bottom information bar will switch to song's progress.

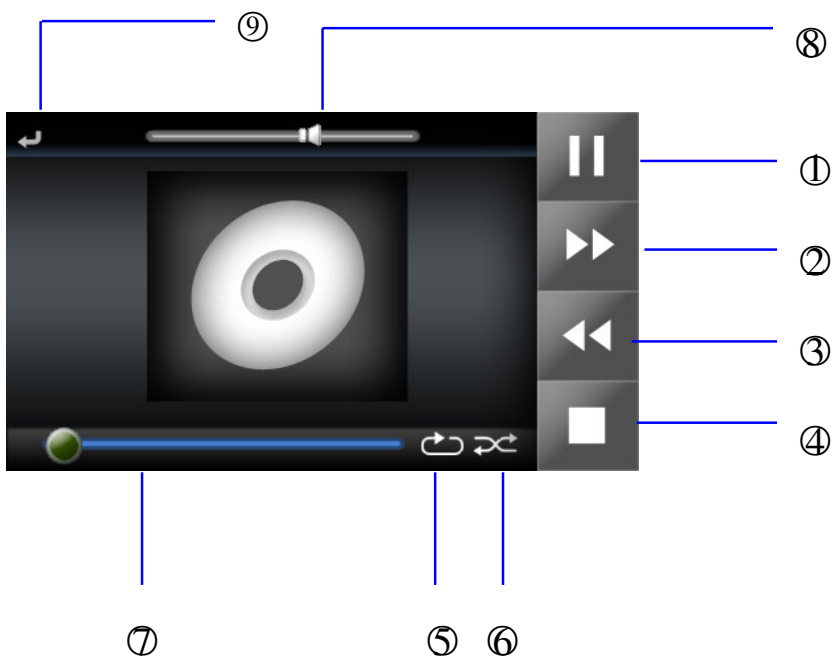
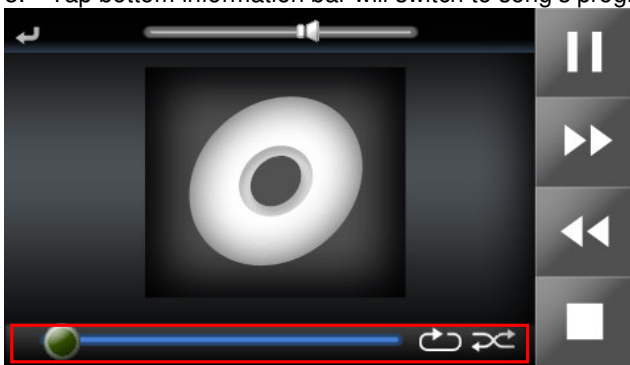











Table 4-3-2-2: Play sound functions

NO	Function		
1		Play/Pause	Play/Pause song
2		Forward	Forward to next song.
3		Previous	Return to previous song
4		Stop	Stop music play.
5		Repeat	Repeat play songs.
6		Random	Random play songs.
7		Sound bar	To adjust the sound.
8		Bottom info. bar	No even: This place will scroll song's name and total play time. Tap: Tap this bar. Will switch to song's progress.
9		Return	Return to list page.

### 4.3. Photo Viewer

RN5 has a great photo viewer option that makes it easy to share and view digital photos anywhere you like. The program features:

- Support for JPEG files (Support Max. 500 photos)
- Auto-scanning of supported files in the device's Micro SD card
- Three viewing modes: Thumbnail, Full Screen, and Slide Show
- Album support based on sub-directory contents

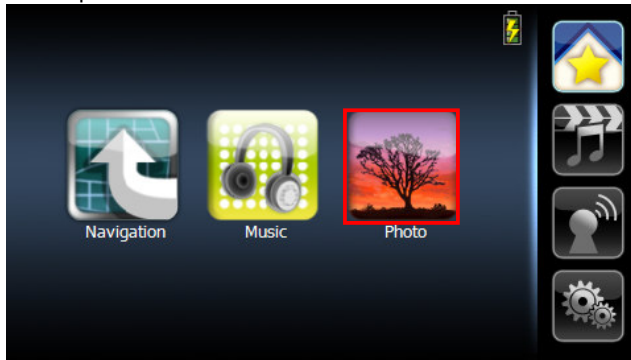
Each subdirectory can hold multiple images and be used as an individual album. For a more organized file search, it is advisable to sort image files into sub directories based on meaningful name or date. An example could be "summer vacation pictures" or "New baby" or "2005 Best."

#### 4.3.1. View files in Slide Show mode

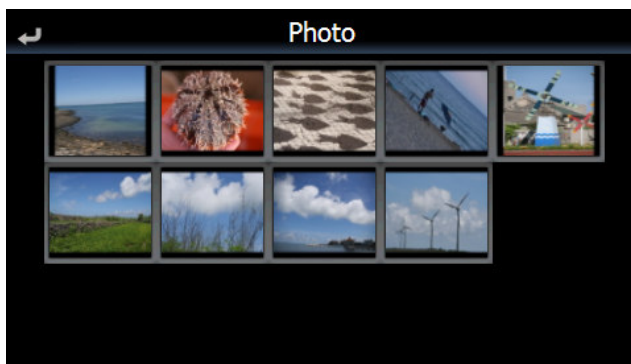
You have the option to view images in a slide show much like viewing a Power- Point presentation in your computer. Images are adjusted to fit the entire display area and are shown in a 5-second interval.

#### 4.3.2. Use the Photo Album

1. Tap "Photo" icon in the Main Menu.



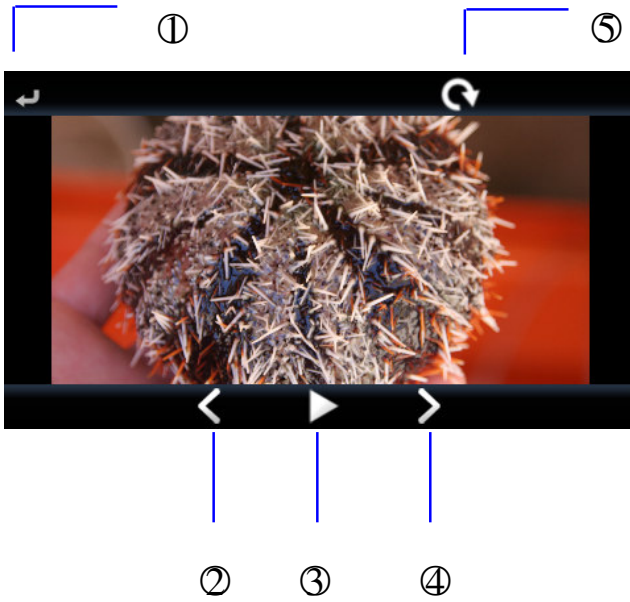
2. List all thumbnails in SD card.
3. Dragging upward or downwards to make photo move to next or previous page.








4. Tap specific thumbnail will enlarge thumbnail.



5. Tap the screen will display control bar display



**Table 4-3-4-1: Photo Album Viewer**

NO	Function		
1		Return	Return to thumbnail page
2		Previous page	Display previous photo.
3		Auto Play mode	Auto play all photos.
4		Next page	Display next photo.
5		Rotate	Rotate photo



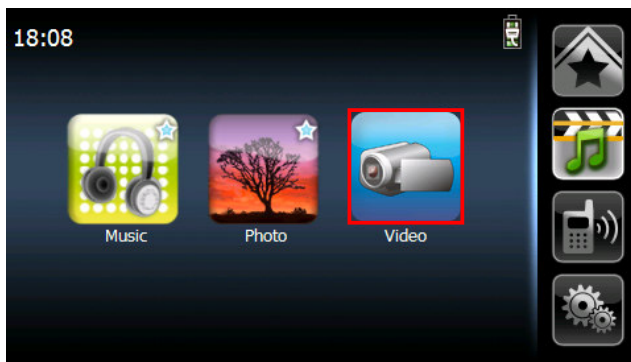
## 4.4. Video Player

Video Player is a very unique function in RN5, which can make end-users enjoy your DIY video via this device. The program features:

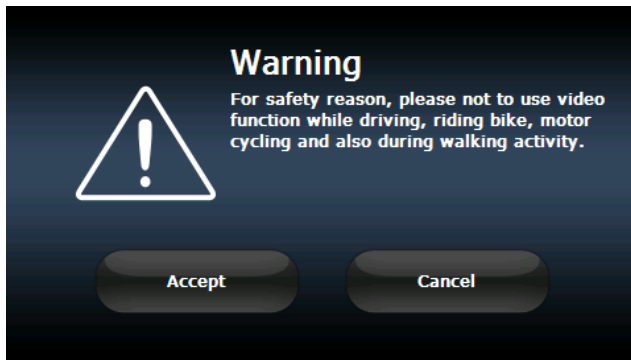
- Support MP4 files (including mp4, mv4, 3gp, m4a and avi formate, but Maximum 500 files)
- Auto-scanning of supported files in the device's Micro SD card
- Three viewing modes: Thumbnail, Full Screen, and Slide Show
- Album support based on sub-directory contents

### 4.4.1. Use Video Player

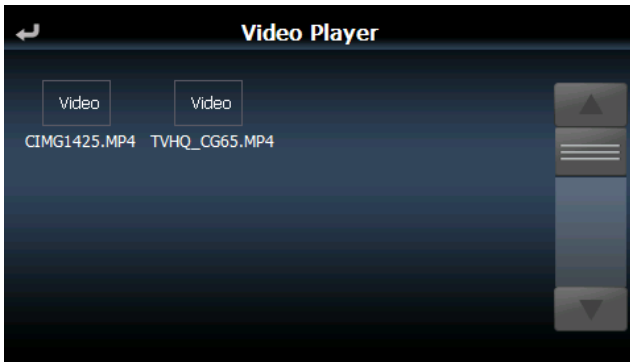
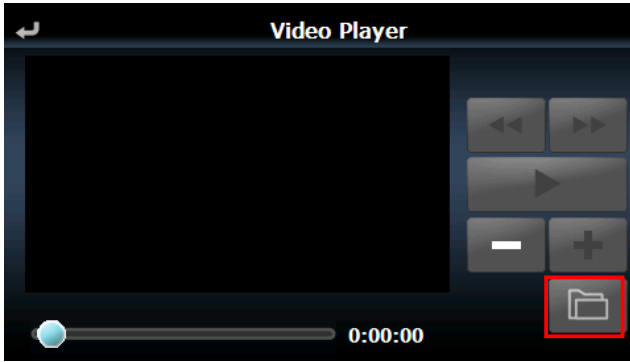
1. Tap "Video" icon in the Main Menu.



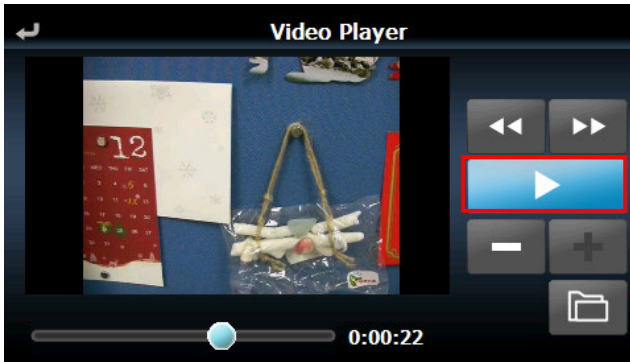
2. Tap "Accept" icon to enter Video Player function screen, or tap "Cancel" not to enter into.








3. Tap "File Manager" to choose a file, which you would like to play.







4. Tap “Play” to play the file which you choose.



**Table 4-4-1-1: Video Player Display**

NO	Function		
1		Play	Play a video file
2		Pause	Pause to play a video file
3		Forward	
4		Downward	
5		Volume down	Turn down volume

6		Volume up	Turn up volume
7		File Manager	List video files
8		Progress bar	Show playing progress (Tap or drag to control playing progress)
9		Return	Return to the previous page

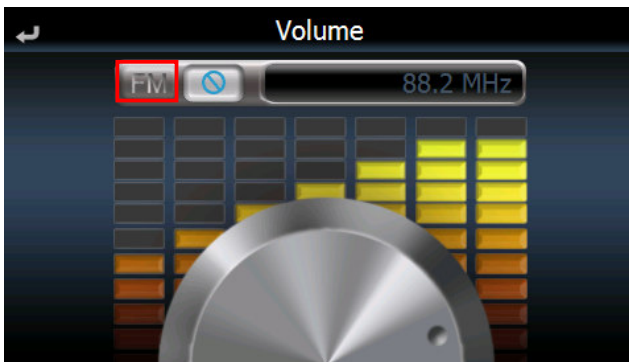
#### 4.5. Listen MP3 via Car Audio/Stereo (FM Transmitter)

RN5 has a great music-player-supported function that makes you play MP3 files via your car audio/stereo.

- Set FM frequency range from 88.2 to 107.8Mhz

##### 4.5.1 Turn on FM Transmitter frequency

1. Tap the Volume icon in the System Menu.
2. Tap “FM” to open FM Transmitter function






3. Set FM frequency 88.2 MHz in your car radio.
4. Play “Music Player”, “Video player” or “Navigation”, and audio will be come out from your car radio.

NOTE : there is a sign to remind end-user that FM Transmitter function is open on the main menu.



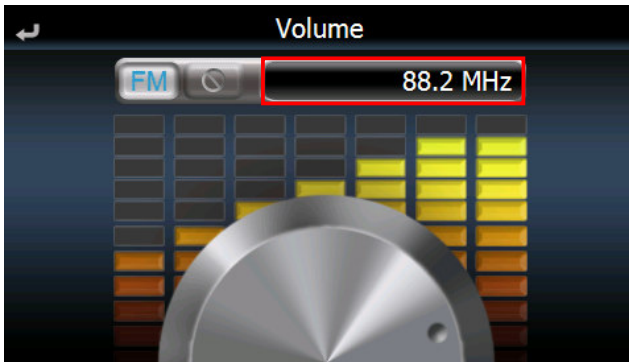
**Table 4-4-1-1: FM Transmitter Setting**

NO	Function		Description
1		FM Transmitter	Open FM Transmitter function

2		Stop	Stop FM Transmitter function
3		Frequency	Set frequency (Default: 88.2 MHz)

## 4.5.2 Change FM Transmitter frequency

1. Tap frequency entry





2. Set the frequency number, and tap "Enter"



3. Set the same frequency number to make your car radio receive audio from RN5.

**Table 4-4-2-1: FM Frequency Setting**

NO	Function		Description
1		Delete	Delete frequency number
2		Enter	Implement this frequency number

NOTE : FM Frequency can only set from 88.2 to 107.8Mhz.

# Chapter 5 Communications

## 5.1. RN5 Bluetooth

Once your Bluetooth-enabled mobile phone is paired with your RN5, you can make hands-free phone calls through your RN5's integrated micro- phone and speaker. RN5 makes it easy to make and receive phones calls with ease while end-users drive cars. Hands-free calling keeps things safe, letting you keep your eyes on the road, while your RN5 integrates seamlessly with your mobile phone. Easy to connect and use, just follow a few quick steps to enjoy the benefits of Hands- free calling. (That is option function)

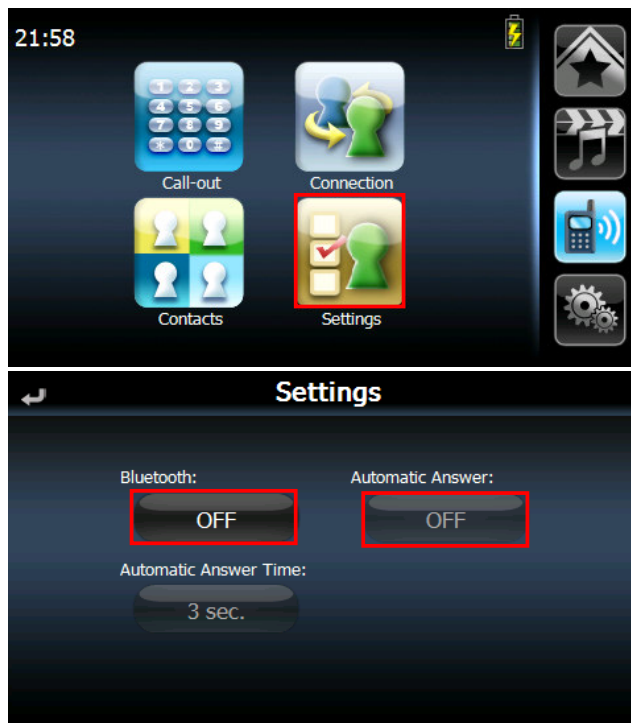
## 5.2. Connection

NOTE : Make sure the Bluetooth settings of your mobile phone.

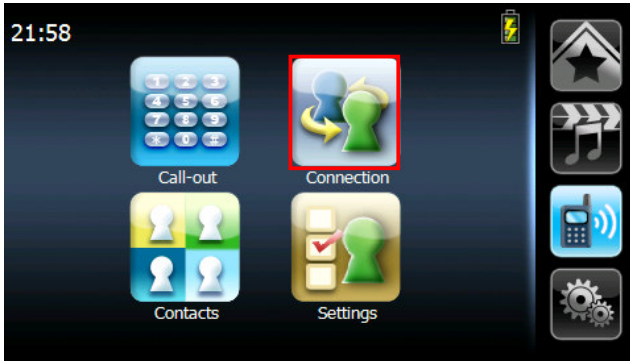
- The Bluetooth switch is set to “ON” or “enable”.
- The visibility is set to “Discoverable”, “Show my phone”, (For more detailed information, see your phone’s manual.)

## 5.3. Mobile phone connection

1. Tap “Settings” to turn on Bluetooth function, and end-users can also turn on “Automatic Answer” while the mobile phone is ringing.



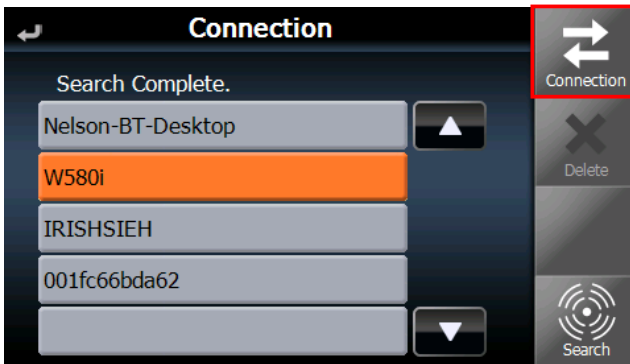
NOTE : "Automatic Answer Time" can be set three mode "3sec.", "10sec.", and "30sec."



2. Tap "Search" to look for Bluetooth on of mobile phones, and



3. Choose one which you want to connect to, and tap "Connection"



4. Choose "HFP"



5. The mobile phone will often require you to enter a password to connect the device. Enter

“0000” on the mobile phone in this case.

- When the connection completes, the name of the connected phone is displayed on the title bar of the “communications” screen.

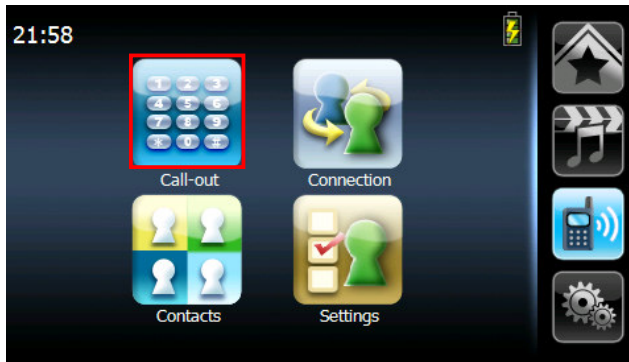
NOTE : If the connected mobile phone has the Bluetooth auto-accept function, set this function to “NO”  
(For more detailed information, see your phone’s manual.

NOTE : Bluetooth function has distance limitation. While the mobile phone is away, and make Bluetooth function disconnect, NS-4102 would try to re-connect within 10 seconds.

NOTE : While end-user is turning on FM Transmitter and Bluetooth Hands-free function (connecting with a cell phone), call conversation would still come out from NS-4102 speaker, not from car audio/stereo.


#### 5.4. Call Out (Hands – free Calling)

- Tap “Call-out” screen is as follows:




- Call-out



No.	Name	Description
1		Start to make a call.
2	History	Call-out from the history of the incoming /outgoing call
3	Contacts	Call-out from the contacts. In detail, refer to 4.3.

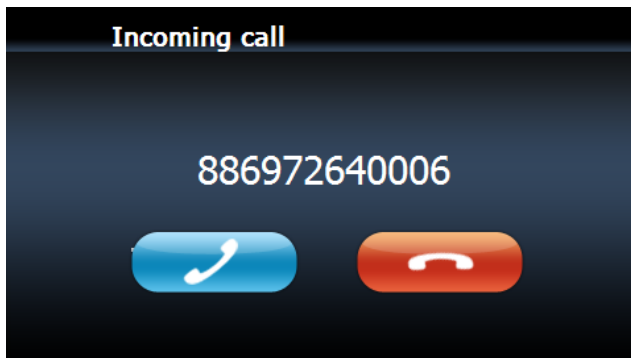
3. Call-out (in a phone call)



No.	Name	Description
4		Close a phone call.

4. Receiving a call

(1) When the connected mobile phone receives a call, the caller's phone number and two buttons are displayed on the screen.



(2) Receive a call, tap ; Quit a call, tap .

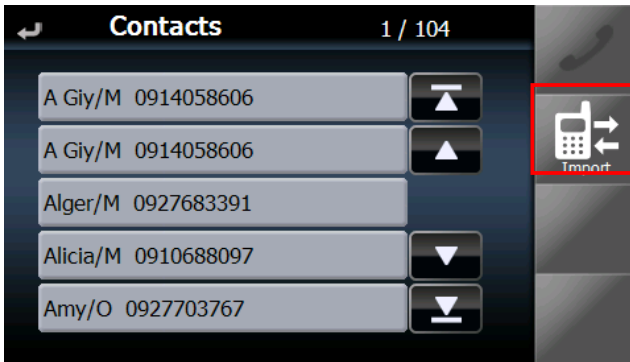
## 5.5. Contacts (Import phonebooks)

1. Tap "Contacts" screen is as follows:





2. Tap "Import" to import the contact information from the connected mobile phone.



# Chapter 6 Troubleshooting and Maintenance

## 6.1. General troubleshooting

### 6.1.1 If your device does not respond, do a “hard reset.”

- ✓ Do a “hard reset,” Disconnect all cables, including the AC adapter, from your device.
- ✓ Switch “Battery Switch” on the back side of the device from OFF to ON position then tap the power button.

### 6.1.2 Users can also perform a “system reset.”

- ✓ Do a “system reset,” in the Main menu, tap System, then tap System Info. This will allow you to do a factory reset (restore to default settings), reset the GPS status and recalibrate the touch screen interface.

### 6.1.3 Screen responds slowly

- ✓ Make sure you have enough battery power.

### 6.1.4 Inaccurate response to tap on touch screen.

- ✓ Recalibrate the touch screen.

### 6.1.5 Connection Problems with PC.

- ✓ Make sure that the cable is securely plugged into the USB port on your computer and on the device. Connect the USB cable directly to your computer—do not use the cable through a USB hub.
- ✓ Reset your device before connecting the cable. Always disconnect your device before you restart your computer.

### 6.1.6 No GPS connection

- ✓ Make sure RN5 is put near car windshield or no obstacle on its top.
- ✓ Note that the GPS reception can be affected by:
  - Bad weather
  - Dense overhead obstacles (e.g. trees and tall buildings)
  - Other wireless devices in the car

### **6.1.7 No sound coming from the device.**

- ✓ Make sure mute is not selected for Volume in system settings. The built-in speaker turns off when the headphone jack is being used.

### **6.1.8 Cannot see photos.**

- ✓ Make sure you are using supported image formats JPG.

### **6.1.9 Take longer than normal time to get a GPS fix.**

- ✓ If the previous GPS fix position was more than 500 km or 12 hours apart from your current position and time, it will also take significantly longer than the standard TTFB time to get a GPS fix. This is due to the nature of the GPS algorithm and rotational velocity between the satellites and planet Earth, and deemed normal.
- ✓ Perform a GPS reset in the main/system/system info menu to get a faster GPS fix.

### **6.1.10 Factory reset does mean a GPS reset.**

- ✓ Yes. The Factory Reset function resets the OS settings to their default factory values and it will reset the GPS settings.

## **6.2. Maintenance**

- ✓ Avoid exposing your device to direct sunlight or strong ultraviolet light for extended periods of time.
- ✓ Do not drop your device or subject it to severe shock.
- ✓ Do not subject your device to sudden and severe temperature changes. This could cause moisture condensation inside the unit, which could damage your device. In the event of moisture condensation, allow the device to dry out completely before use.
- ✓ The screen surface can be easily scratched. Sharp objects may scratch the screen. You may use non-adhesive generic screen protectors designed specifically for use on portable devices with LCD panels to help protect the screen from minor scratches.
- ✓ Never clean your device with it powered on.
- ✓ Never use organic solvents such as benzene or paint thinner to clean your device. Use of these solvents can cause deformation or discoloration.
- ✓ Use a soft, clean, lint-free cloth to clean the display screen. Moistened LCD screen wipes could also be used as required.

- ✓ Never attempt to disassemble, repair or make any modifications to your device. Disassembly, modification or any attempt at repair could cause damage to your device and even bodily injury or property damage and will void any warranty.

### **6.2.1 Storage precautions**

- ✓ Do not store your device anywhere it may be exposed to water or in conditions of high humidity.
- ✓ When the device is not in use for an extended period of time, bring it indoors and store it in cool dry area.

### **6.2.2 Accessories and repair precautions**

- ✓ Only authorized accessories should be use with the device. The use of incompatible accessories could result in bodily injury and/or damage to the device.
- ✓ The use of unauthorized accessories will also void your warranty.
- ✓ Never attempt to disassemble, repair or make any modification to your device.