FALCON
WORLD CLASS TECHNOLOGY
TM

FALCON NAVIGATOR

| VEHICLE LENGTH | VEHICLE WIDTH | VEHICLE HEIGHT | VEHICLE WEIGHT | SPEED LIMITS | TOWING SUPPORT | POINTS OF INTEREST |

2.4 m

4.5 m

7.5 T

30

Hardware
User Manual

Falcon Navigator Hardware User Manual

Please read this user manual carefully so you are familiar with the operation of your navigation system.

Specifications are subject to change without notice.

Please read the operating instruction carefully and only use the accessories provided by the manufacturer to avoid any unexpected damage. The warranty will be void if the system is used with incompatible accessories, we assume no responsibility for any loss and damage caused hereby.

When using the navigation system you should always be aware of the real road conditions around you as road construction changes may result in the electronic navigation data differing from the actual road layout. Please be sure to comply with the real road conditions and follow the traffic rules.

Operating the system during driving without care may cause an accident, the manufacturer or its distributors are not responsible for any loss caused by an accident.

Chapter One   Product introduction

1. 1 Introduction

Your new navigation system can be used for more than just navigating, it also has the optional functions of video playing, audio playing, Bluetooth hands free, FM modulator, Bluetooth, photo viewing etc.

- High performance, low-power consumption 800MHz Arm Cortex A7 Processor
- Simple, easy to operate user interface
- Power management keeps the product working longer and more steadily
- Built in USB to communicate with a computer through USB cable
- Excellent signal reception with accurate position fixing
- Compatible with Bluetooth mobile phones, the navigator can also be used for making and answering call with hands-free
- Play MP3 and MP4 audio files

1.2 Package

The packing box contains the following accessories:

1. GPS navigator
2. 12/24V Car Power Adapter
3. Mains Power Adapter
4. MINI USB cable
5. Window mount bracket
6. CD with user manuals

If there is any damaged or missing items please contact your distributor as soon as possible.

Chapter Two   Features and specifications

2.1 Main features

- Operating system: Microsoft Windows CE 6.0

- 5"/7" TFT LCD display with resolution of 800*480 pixels

- Hi-Fi stereo earphone socket and built-in Hi-Fi speaker, volume adjustable

- Touch-screen operation

- Built-in highly sensitive GPS antenna

- Upgradable navigation software and mapping on Micro SD card

- Video format supported: ASF,AVI,WMV,3GP,MP4,FLV
- Photo format supported: BMP, JPG, PNG
- Mini USB port
- Built-in rechargeable Li-battery.

2.2 Specification

CPU	800MHz ARM Cortex A7
RAM	256 MB
LCD display	5" or 7" TFT LCD display, Resolution :800RGB(H)x480(V)
Touch-screen	High-accuracy, endurable touch-screen
USB	USB Client 2.0, MINI USB port
SD	Micro SD / MMC slot, the maximum capacity of SD Card supported is 16GB
Audio	A: Built-in high fidelity speaker B: High fidelity stereo earphone socket
GPS	Cold start <35s Hot start <1-3s (in the open air) Warm start <28s
Battery	Built-in rechargeable Li-on battery
Battery Charging port	DC 5V port
AC Charger	Mains Charger
Car Charger	12-24V Charger
Status of the LCD light	When charging the red light is on; when charging is finished the blue light is on.

Operating System	Microsoft Windows CE　6.0
Navigation Software	Micro SD card
Video Player	ASF,AVI,WMV,3GP,MP4,FLV；
Audio Player	MP3 and WMA
Photo viewer	JPG, GIF, BMP, PNG
System setting	[FM Transmitter] [Screen adjustment] [Default set] [Volume] [Power] [Backlight] [Time and Date] [Language] [Sys Info]
Temperature	Operating Temperature　0℃ to 60℃ Storage Temperature -20℃ to 60℃
Working　humidity range	45% to 80%RH
Storage　humidity range	30% to 90%RH
Atmospheric pressure	86KPa to 106KPa

This chapter will give an introduction to the basic functions of the navigation system so you can get up to speed quickly.

2.3 Product appearance

Chapter Three

3.1 Power supply and charge

Before using the Falcon Navigator for the first time please charge it fully using the mains adapter.

3.1.1 Power supply

There are three ways of supplying power: battery, charger, USB cable.

The Falcon Navigator uses the battery to supply power when it is not connected with to a charger or USB. The mark [] on the up right of interface indicate the current charge level.

The Falcon Navigator uses the external power when a charger is connected and uses the USB cable to supply power when connected to a PC.

【Remark】The built in Lithium battery is not user replaceable. Under normal conditions (if the back light is not so bright), the actual running time will be different depending on how it is used. Some functions (audio playing, video playing, bright back light) will consume more power, which will reduce the running time.

【Note】The built in battery is a Lithium battery. In order to avoid fire and burning, please do not poke, bump or take it apart or throw it into fire or water.

3.1.2 Use the travel charger to supply power

When the Falcon Navigator is first used, please use the mains charger to charge it.

1.　Connect the USB connector on the charger to the socket on the left side of the unit.

2. Plug the mains charger in to the mains.

【Remark】Red LED indicates it's being charged. Please wait until it is fully charged

and don't pull out the adaptor while charging. When it is fully-charged, the LED will turn to blue. If the battery is low or empty charge it as soon as possible, leaving the Falcon Navigator with a flat battery for extended periods can harm the future performance of the battery.

3.1.2 Use the car charger to supply power

1. Connect the USB connector on the charger to the socket on the unit.；

2. Plug the charger into your accessory/cigarette lighter socket. 12V and 24V sockets are supported.

3.2 Power on/off

3.2.1 Power on:

Please check：The battery is charged or it is connected to external power source;

Please press the button on the top of the unit to boot.

【Note】If bringing the unit from a cold environment into a warm one please wait for it to warm up naturally before turning on as large humidity changes can cause condensation which may cause short circuits.

3.2.2 Power off

Press the button on the top of the unit to turn off, the unit will enter the power saving mode and maintain the last operation status when boot next time.

3.3 Reset system

If the system is not working you can reset the system in the following way:

Use the stylus (7" Falcon Navigator only), pen or bent paperclip to press the reset button that is recessed in a small hole on the rear of the unit.

3.4 Use bracket to fix navigator

When using the Falcon Navigator in your vehicle, you should fix the device to the window using the bracket.

【Note】 When use the bracket, please take care of the position. Please don't fix the Falcon Navigator so that the driver's view is obstructed and do not fix it to or obstruct any air bags or position within the range of the air bag.

3.5 Stylus (7" Falcon Navigator only)

The stylus can be used to operate the touch screen. It is clipped into the back of the bracket.

1、Single click ：

Singly click the screen with the stylus point.

2、Double click：

Double click the screen with the stylus point.

3、Drawing：

Click one point and hold to move on the screen.

【Note】 Any broken stylus, ball pen or sharp object will damage the LCD if you use it to operate the device.

3.6 **Micro SD card**

The Micro SD card contains the navigation software, map data and your own media files. Please insert the card correctly when use it.

【Note】 Do not take out the Micro SD card when the system is navigating or playing.

【**Note**】

1. Don't bend   the Micro SD card

2. Avoid high temperature or high humidity when storing the card, don't expose the card directly to sun light or let it come into contact with liquid or corrosive material.

3. Please pay attention to correct orientation when inserting the Micro SD card. If you insert the card improperly you may damage the card.

3.7 **Connect with a computer**

The device can be connected with the computer through the MINI USB on its left side. You can copy the document between navigator and computer or copy the data from the navigator to computer.

1. Please confirm the Falcon Navigator is powered on;
2   Connect the MINI end [　　　] of USB cable with the USB port on the left part of GPS device and the normal end [　　　] with the Host port on computer.

3   Please pull out the MINI USB cable after you finished your operation, the GPS navigator will return to the pre-operation interface.

【Remark】Other functions of the Falcon Navigator cannot be used while it is connected with a computer.

【Note】In the process of communication, the following operations will break off the connection with computer, any unfinished data transfers will be lost.

1. Pull out the MINI USB cable;

2. Power off

3   Reset the system by using reset button or electric switch

Chapter Four　　Primary functions

4.1 The main interface and the functions

4.1.1. Main menu：

4-1

Click the top left corner of the interface ![icon] to shows the desktop and the date, see Figure4-2

4-2

Double-click the date icon to enter the date setting interface，see Figure 4-3

4-3

Click the top left corner of the interface change the desktop background，see Figure 4-4

4-4

Click the button ![Navi] quick access to navigation software, please refer to the separate user manual for operating the navigation software.

Click the button ![Music] to open the audio player

Click the button ![Desk] to view the desktop and calendar

4.1.2 Function introduction

Navigation	Start the navigation software
Bluetooth	This device can answer and make phone after connecting with a mobile phone via Bluetooth
Video player	Supports ASF, AVI, WMV, 3GP, MP4 and FLV format.
Photo viewer	Supports JPG、BMP and PNG format. Supports photo rotate, enlarge/shrink pictures, automatic play etc.

Audio player	Audio playing formats supported: WMA, MP3. Supports random playing, sequential playing, repeat playing, pause, previous/next, volume
Setting	Brightness, Volume, Languages, Power, Time, System, Restore Defaults, Touchscreen Calibration, GPS Info, Navi Path.

This chapter will introduce the navigation function and notes.

4.2 Navigation functions and features

Please refer to the separate user manual for operating the navigation software.

Notes

1. Map information

Although map information is updated frequently, on occasion the navigation data may not be consistent with the current road layout due to recent changes or construction development. Please comply with the actual highway conditions and traffic rules.

2. Navigation

The navigator offers the route for reference and assistance, the driver may be more familiar with the route than the navigation software.

3. Receiving signal

Many factors such as high, dense buildings, tunnels, between high buildings, underground parking, various weather conditions, and closure of the satellite will affect the ability to receive signal so as to result in inaccurate position, inefficiency of navigation operation and system function。
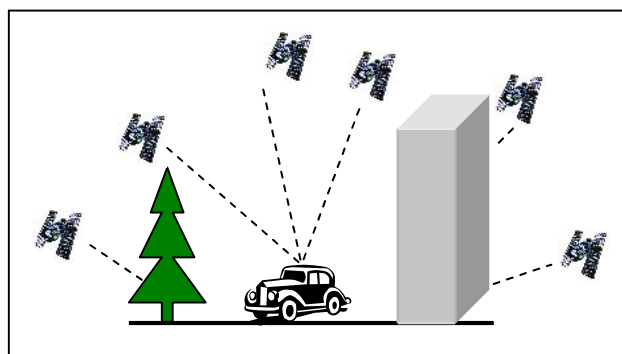
4.3 Video operation Interface

This chapter introduced how to use the video player.

4.3.1Functions and features

1. Support ASF, AVI, WMV, 3GP, MP4 and FLV
2. Support full-screen playing, progress choosing and file selection;

Before using the Video player, please copy your video file（ASF, AVI, WMV, 3GP, MP4 and FLV）to any folder

4.3.2 Operation：

Single click the Video button to enter the video file list as the picture 4-5
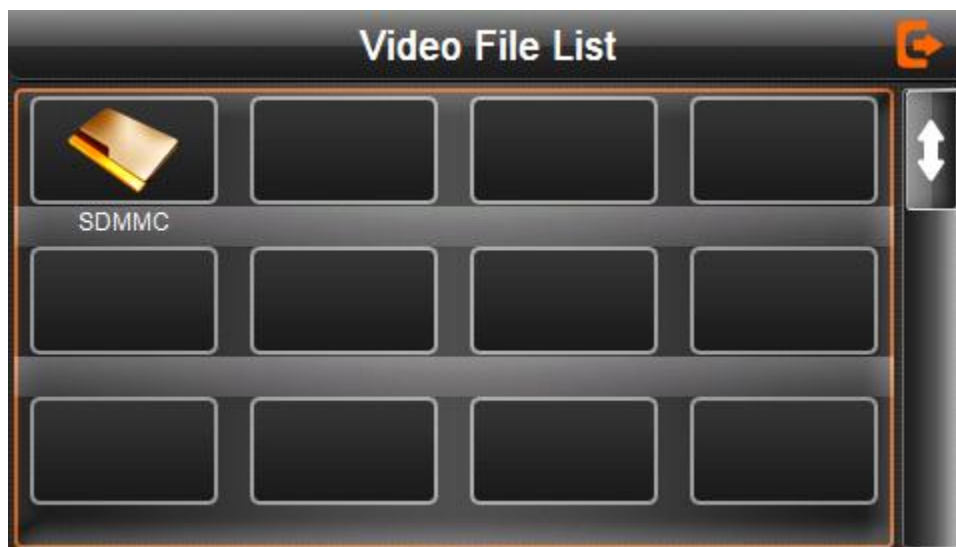
4-5

4-6

		Close	Single click to close current file.
		Last	Show last page
		next	Show next page
		Video folder name	Video folder name
		Video name	Show video name

Choose the video to enter the playing interface as 4-7
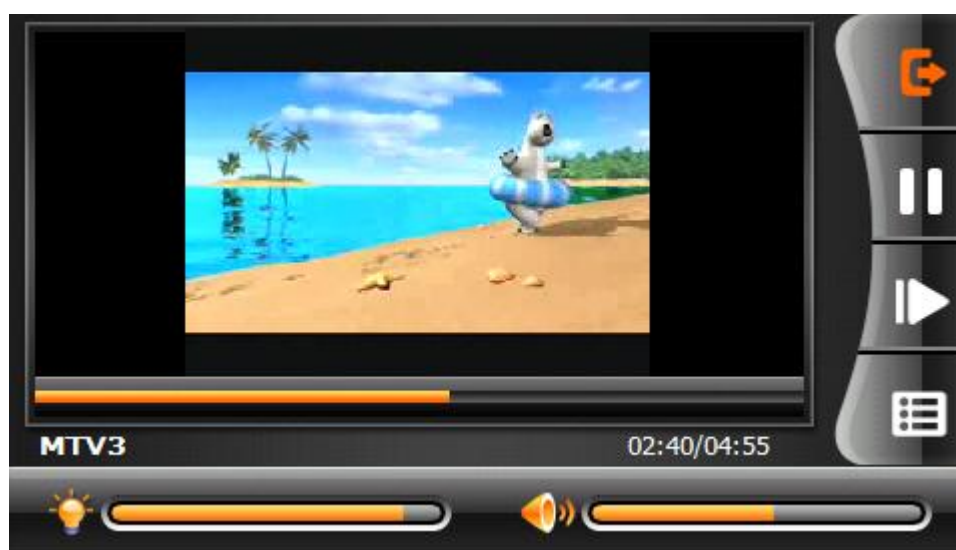
	Close	Click to close the video list;
	Play	It shows stop playing. Single click will continue to play.
	Next	Play next video.
	File list	Single click and shift to video file list, and then choose your favorite video.
	Volume	Single click volume. It shows volume is decreased when it shift toward left. While volume is increase when it is shifted toward right.
	Playing progress	Adjust the progress by slide the progress-displaying bar; go left for backwards, go right for forwards;
	Brightness adjust	Adjust brightness with stylus while moving toward left and right. Turn right means turn brighter.
	Play interface	Full screen play. Double click to return normal play status.
MTV3	Video name	Show current Video name
02:40/04:55	Time	Show the time consumed / The total time of the video

4.4 Audio player operation interface

This chapter introduces how to use the mudic player to play your favorite music.

4.4.1 Functions and features

The audio player supports MP3 and WAV format, you could set the playing sequence as you wish.

Before using the audio player, please copy the files to any folder.

4.4.2 Operation method

1．Single click the button **Music** to enter Music file list as 4-8
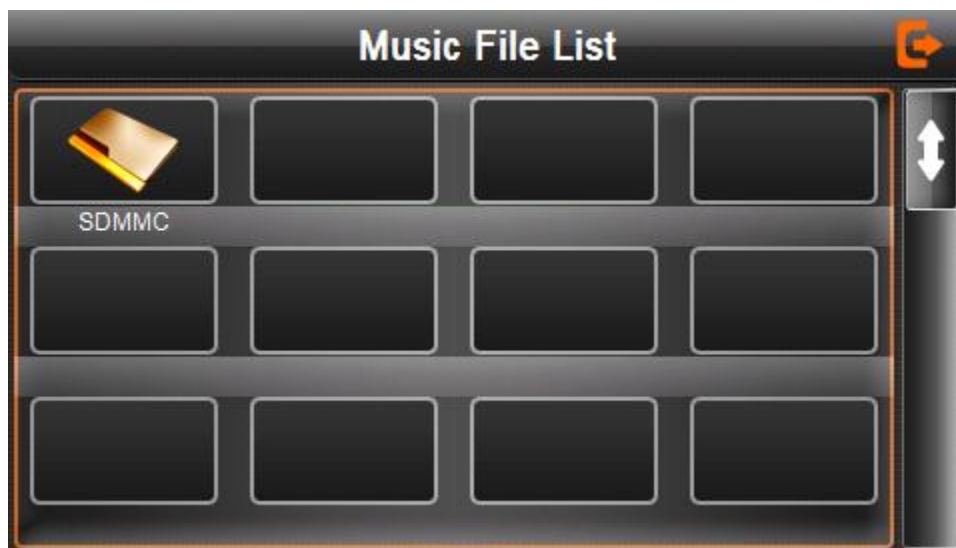
4-8

4-9

Function instruction

	Close	Close current file
	Last	Show last page
	next	Show next page；
	Song name	Show song name

Choose the song to enter the playing interface as 4-10

4-10

	Previous song	Play the previous song；
	Play/pause	To play and pause, single click to pause, click again to play continuously;
	Stop	Single click to stop playing；
	Next song	Play the next song；
	Volume	Adjust volume. It shows volume is decreased when it shift toward left. While volume is increase when it is shifted toward right.
	Close	Single click to close the audio player；
	Setting the playing mode	Support sequencial playing, loop playing, repeat playing and random playing.
	Open the play list	Single click to display the play list, and choose your favorite as picture 4-22 shows；
	Playing progress	Adjust the progress by slide the progress-displaying bar; go left for backwards, go right for forwards;
Part I(38-72)	Song title	Show the song title
00:05	Time consumption	Show the time progress；
26:58	Total time	Show the total time for playing the song;
	Homepage	

4.5 Photo viewer operation interface

This chapter introduces how to use the photo viewer to browse pictures.

4.5.1 Function features:

1．Supports JPG、BMP and PNG

2．Support picture rotate, picture enlarge/shrink and automatic play.

Before using the photo viewer, please copy your photos to any folder.

4.5.2 Operation method

Single click the button ![Photo View] to open the photo list as picture 4-11

4-11

4-12
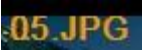
	Close	Click to close the photo list;
	Last page	Show the last page
	Next page	Show the next page
	File	Single click to enter the photo file;

Choose the picture to enter play interface as 4-12

4-13

	Close	Click to close the viewer
	Shrink	Shrink current picture in proportion
	Enlarge	Enlarge current picture in proportion
	Previous	Show the previous picture
	Next	Show the next picture
	File list	Single click and shift to video file list, and then choose your favorite picture
	Rotate	Click to rotate the picture by 90 degree
	Automatic Play	Play all the pictures circularly on full screen from the current picture

:05.JPG	Photo name and format	Show the photo name and format

4.6 Volume adjust

Single click into the vlume adjust interface as shown4-24：

"Volume adjustment" includes:

1. Speaker volume adjustment

2. "Screen click tone" setting。

4-24

	Close	Exit "volume setting" interface;
	Volume -	Single click to decrease the volume gradually; there are 10 ranks for volume from mute to maximum. Single click will decrease one rank.

	Volume +	Single click to increase the volume gradually; there are 10 ranks for volume from mute to maximum. Single click will increase one rank.
LOUD	Click the screen tone	By clicking the left/right shift button to set the on/off key tone,with loud,soft,and off the three states;
	Turn left	Turn on/ off screen click tone;
	Turn right	Turn on/ off the screen click tone;
	Present volume	Yellow blanks shows the present volume level;

4.7 Backlight setting
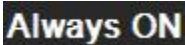
Single click to enter backlight setting interface as 4-25；
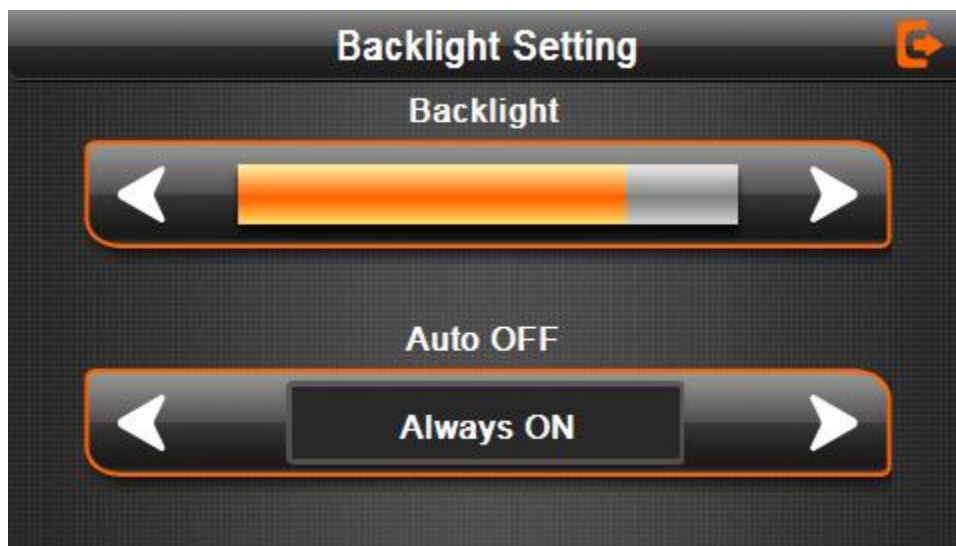
4-25

	Close	Exit "backlight setting" interface;

	Brightness decrease	Click to decrease backlight gradually to the lowest level;
	Brightness increase	Click to increase backlight gradually to the highest level
	Present Brightness	Red blank shows the present brightness
	Shift left	Single click and it will shift left, and it will show last column. This display is in circle.
	Shift right	Single click and it will shift right and it will show last column. This display is in circle.
Always ON	Time interval	System backlight will be closed automatically when no operation for a period time to save power. There are several time interval choice for you: never, 3 min, 2min, 1min, 30second later, 10second later.

4.8 Date and time setting

Single click into the date time interface as shown in 4-26：

Date and time include:

1. System time set;

2. System date set;

3. Sytem time zone set.

4-26

1. Single click button or to set time and date.

2. Single or to choose time area。

Click to exit current interface after setting，and then it will show in 4-44. Choose

 or to exit current interface.
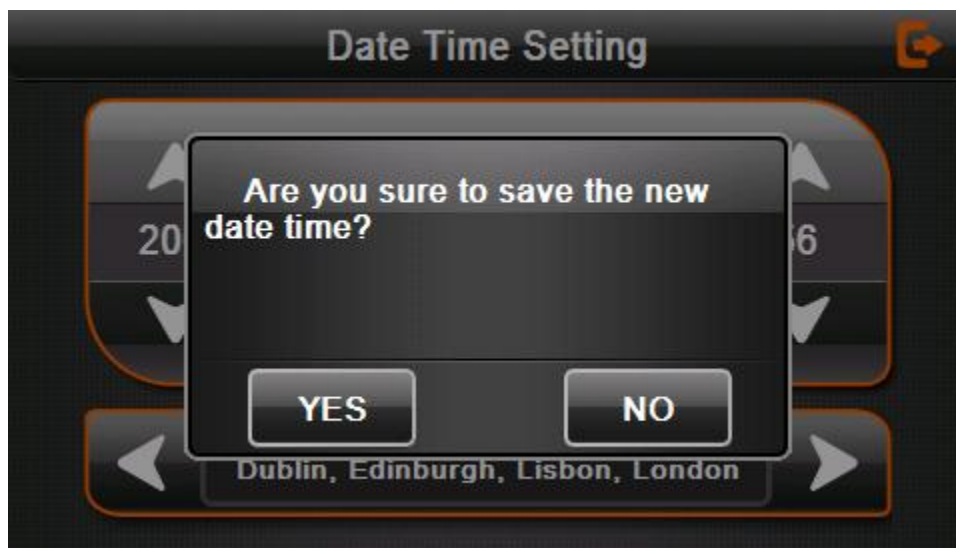
4-27

4.9 Screen Calibration

Click the to enter the screen calibration as 4-28。

4-28

Click **YES** it will then show the screen below, carefully select the center of the cross using the stylus, and repeat as the cross moves from the center, to left top, left bottom, right bottom and right top to complete the calibration, then click any where on the screen to save the calibration and exit to the main interface automatically. To exit without saving please wait 30 seconds and it will exit from current interface automatically.

Press and briefly hold stylus on the center of the target.
Repeat as the target moves around the screen.
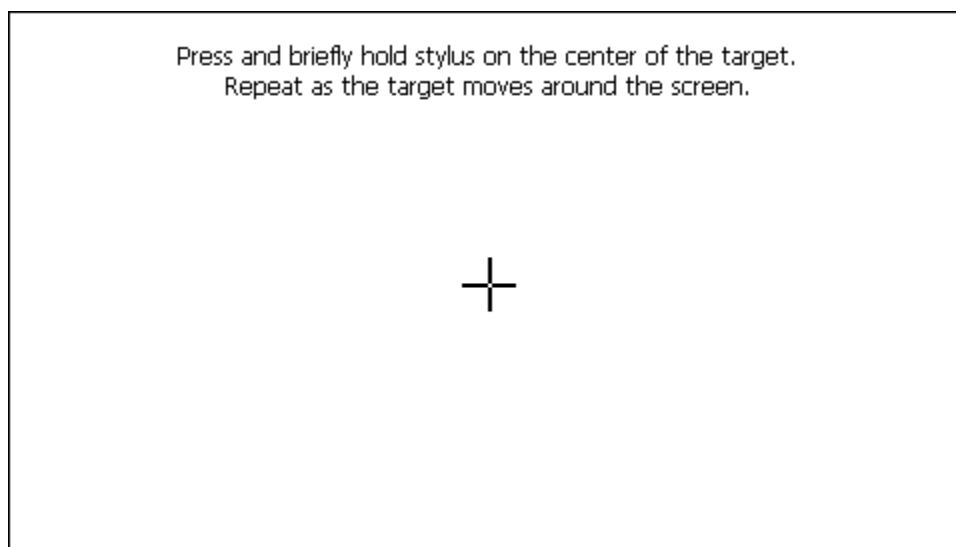
4-29

4.10 FM Transmitter

Single click   to enter the FM setting as 4-30

4-30

The FM Transmitter will transmit the audio to a radio device. Take 86.7 MHz frequency for example, both the Falcon Navigator transmitting frequency and the received frequency of the radio should be 86.7MHZ, then all the sounds will be heard through the radio。

4.11 Language setting

Single click into the language settings interface as shown in 4-32

4-32

Single click language column to choose desired language。

4.12 Navigation path

Click the set the interface into navigation path, set the default navigation paths as shown in Figure 4-33：
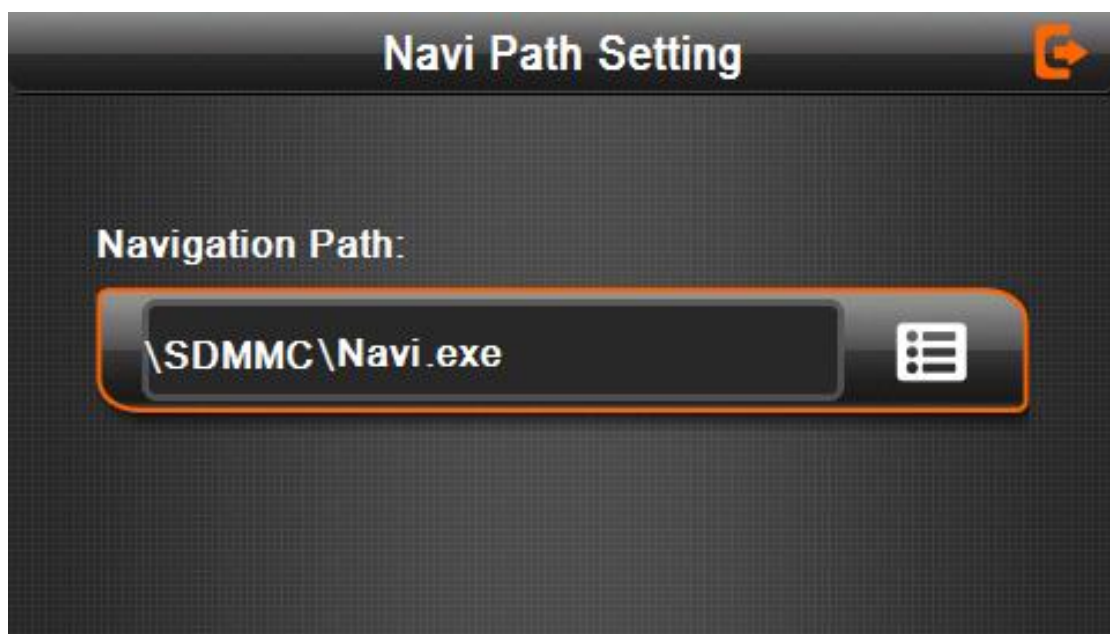
4-33

4.13 Default set
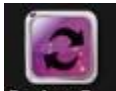
Single click to reset to the default settings as shown in 4-34：

4-34

Single click **YES** to restore the default settings，single click **NO** to keep the current settings。

4.14 GPS Information

Click the button to enter the GPS information interface as in 4-35；
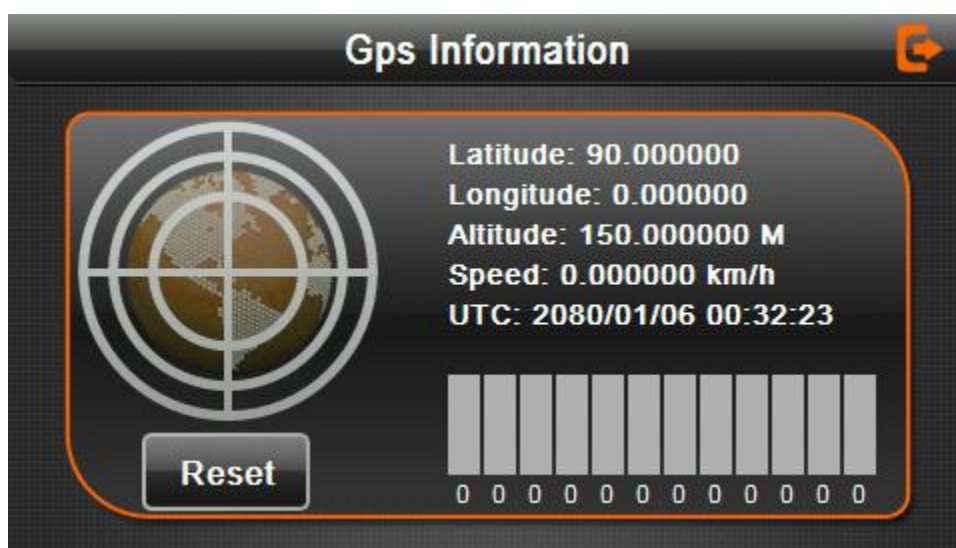
4.15 Bluetooth setting and Instructions:

This chapter introduces how to use this navigator's Bluetooth to connect with cell phone for call making and answering。

Operation method：

4.15.1 Single click the button in main menu to open the Bluetooth interface as the following picture；

图 4-36

	Exit	Single click to exit the Bluetooth interface
	Phone book	Display contact list of paired cell phone
	Call history	Display current call history
	Dial pad	Phone number dialing

	Message	Download SMS of paired phone
	File manager	Download files of paired phone
	Bluetooth setting	Cell phone searching, profile management, Bluetooth switched on and disconnect

4.15.2 Single click the button ![Settings] and open Bluetooth setting as the following picture:

4-37

	Close	Single click to close current interface
	Searching	Search for Bluetooth devices
	File management	File and ring tones management

Bluetooth On	Bluetooth on/off	Bluetooth on/off
Connect	Connect/ Disconnect	Connect/Disconnect Bluetooth

4.15.3 Single click botton you will get the following two pictures: the one is in searching and the next one is the searching result.

4-38
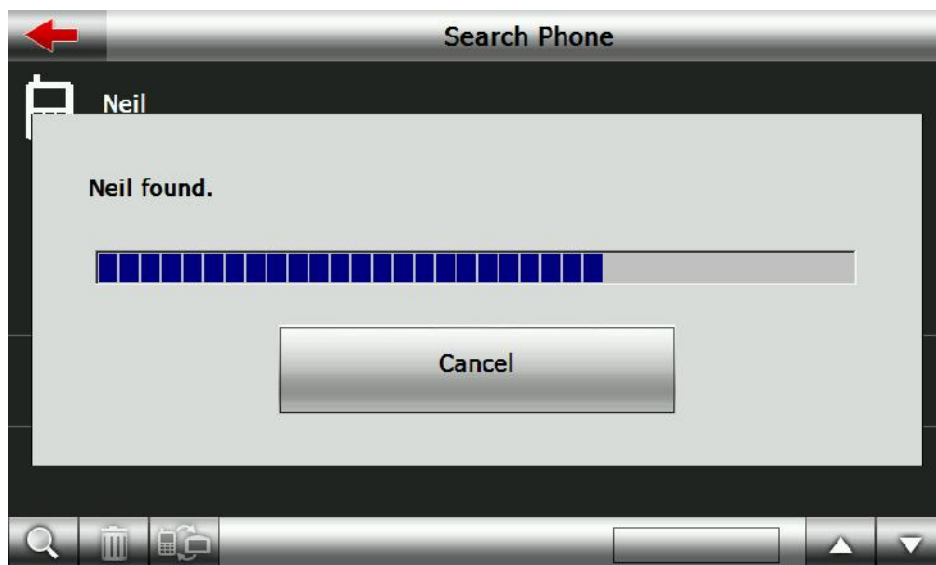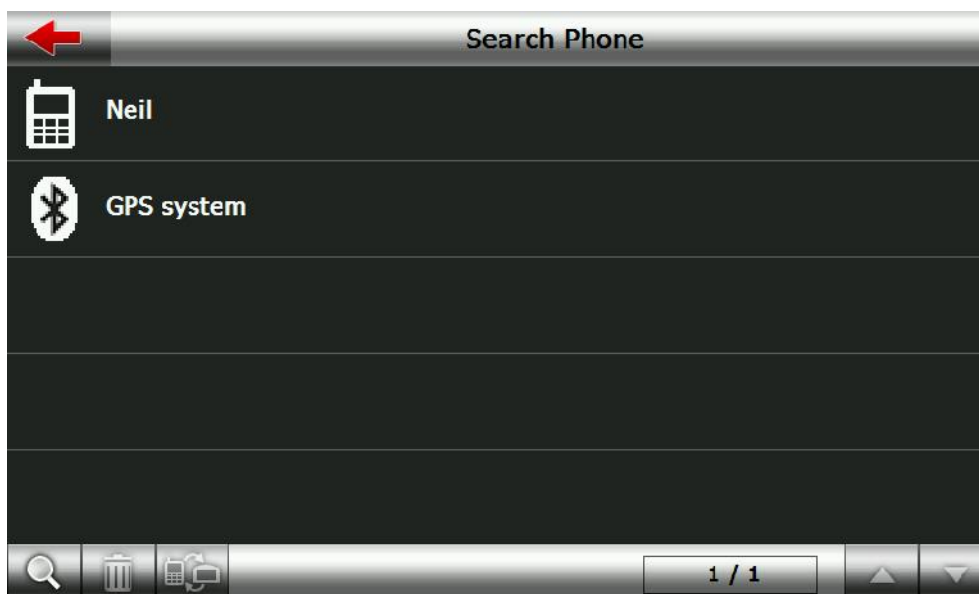
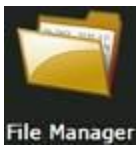Single click the device you want to connect and click to pair as the following pictures:
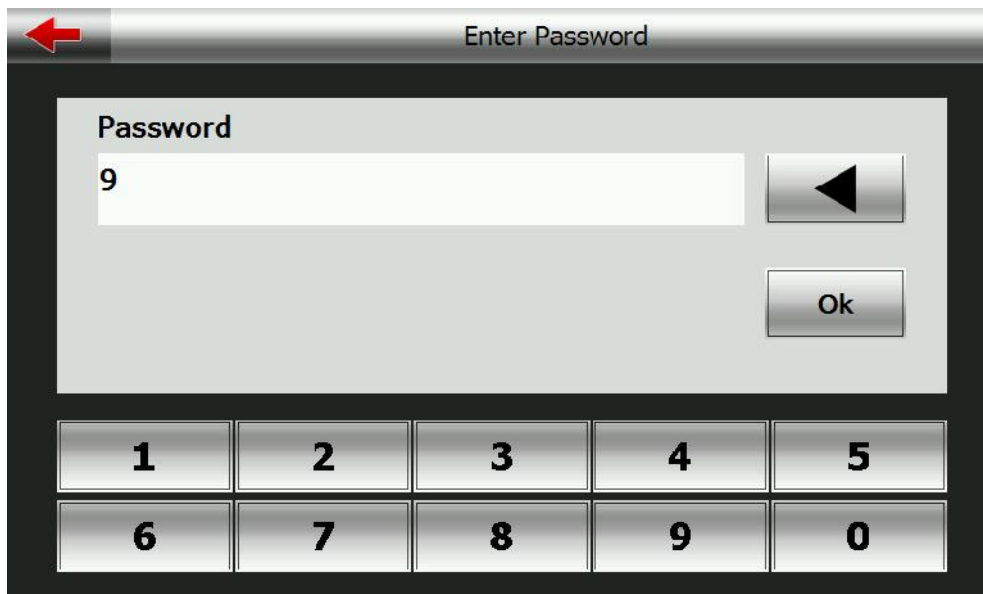
4-40
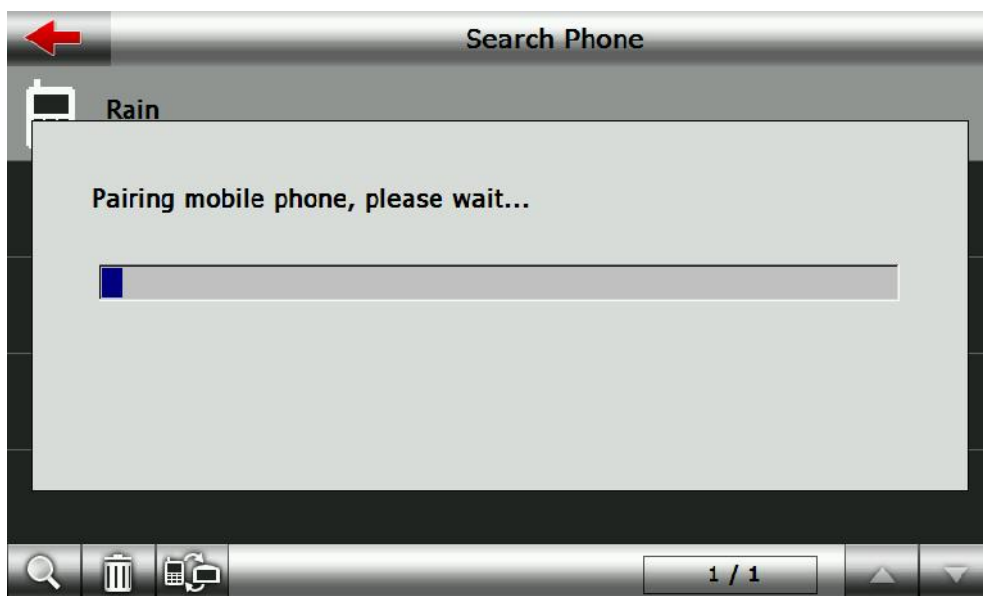
4-41

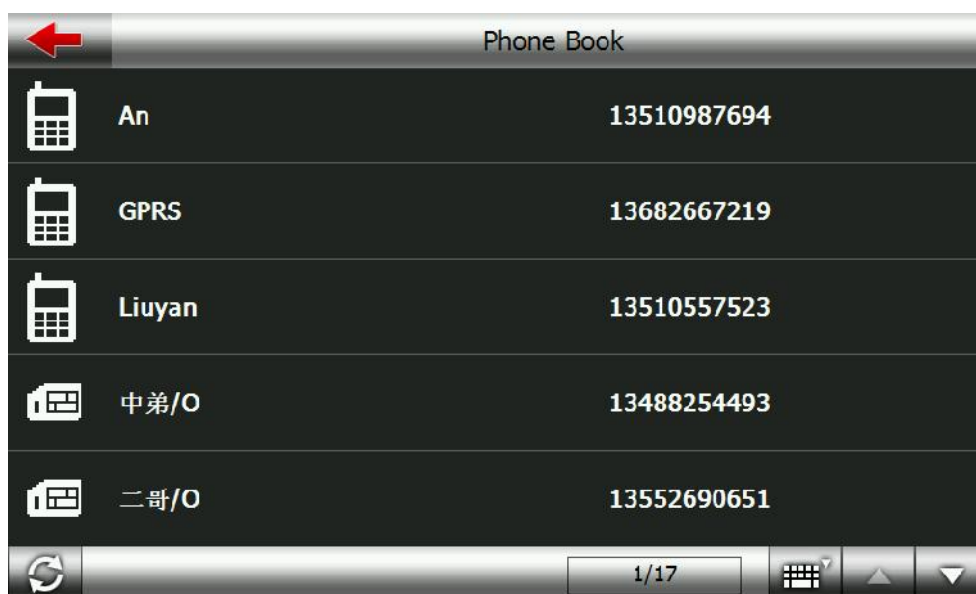After successful pairing and connecting, it will show the following picture:

4-42

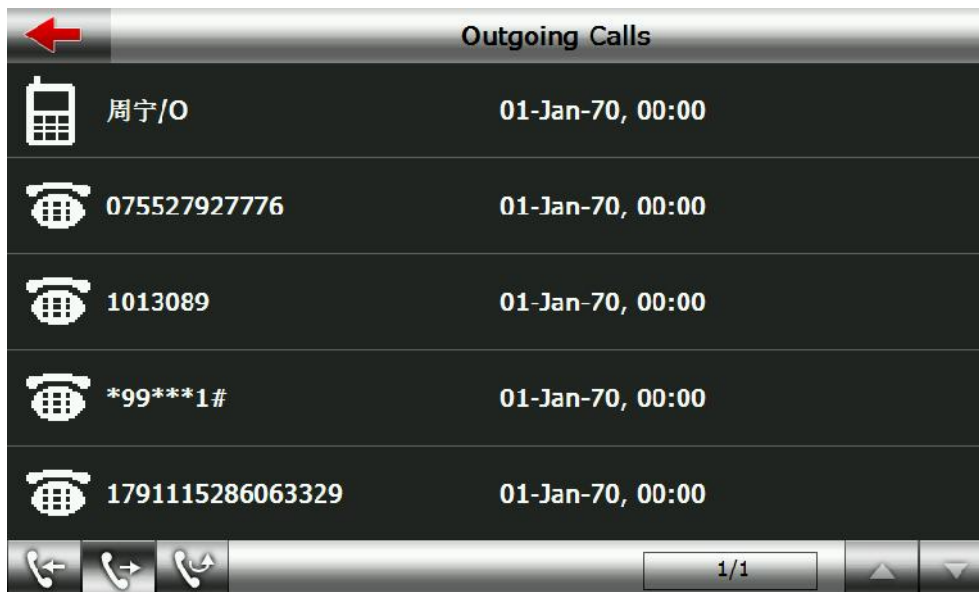|	Close	Single click to close current interface
	Phone book	Display contact list of paired cell phone
	Call history	Display call history
	Dial pad	Dial phone number
	Message	Download SMS of paired phone
	File manager	Download files of paired phone
	Setting	Cell phone searching, profile management, Bluetooth switched on and disconnect

4.15.4 Click the button ![Phone Book icon] to open the phone book interface as 4-43

Phone Book
←

4-43

Single click ![refresh icon] and enter phone book as 4-44

Phone Book	
An	13510987694
GPRS	13682667219
Liuyan	13510557523
中弟/O	13488254493
二哥/O	13552690651
1/17	

4-44

4.15.5 Single click the button ![Call History icon] to open call history as 4-45

4-45

4.15.6 Single click the button to open dial pad as 4-46

4-46

	Close	Single click to close the current interface
1013089	Number display	Display current number input
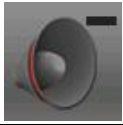
	key	It made up of 10 numbers from 0 to 9 and "*""#".
	Backspace	Single click will delete the last number
	"+"	input"+"
	Phone book	Single click to select phone number from phone book
	Phone record	Single click to select phone number from call history
	Dial phone	Single click to make call

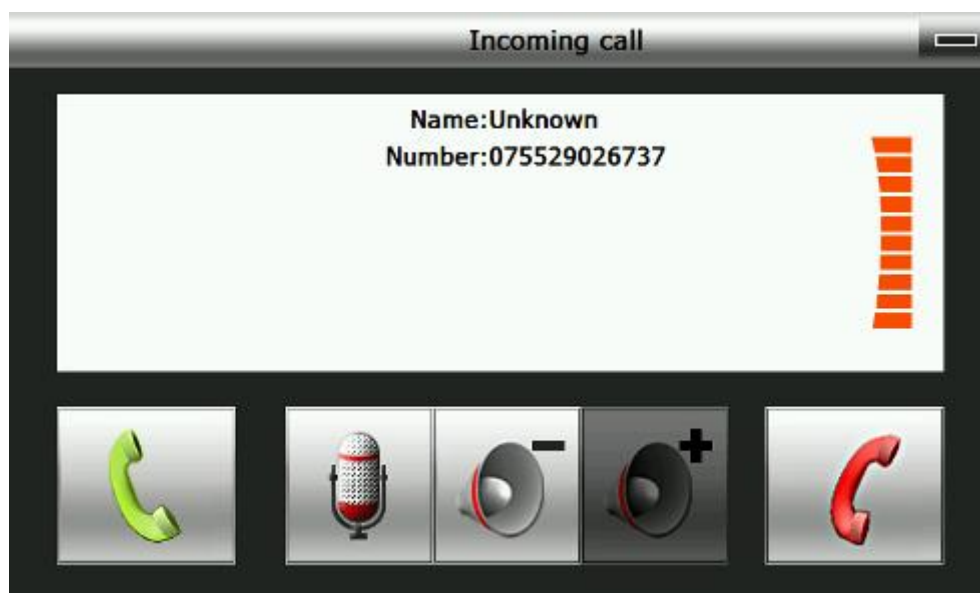**4.15.7** Single click the button and then it will be in dialing as 4-47
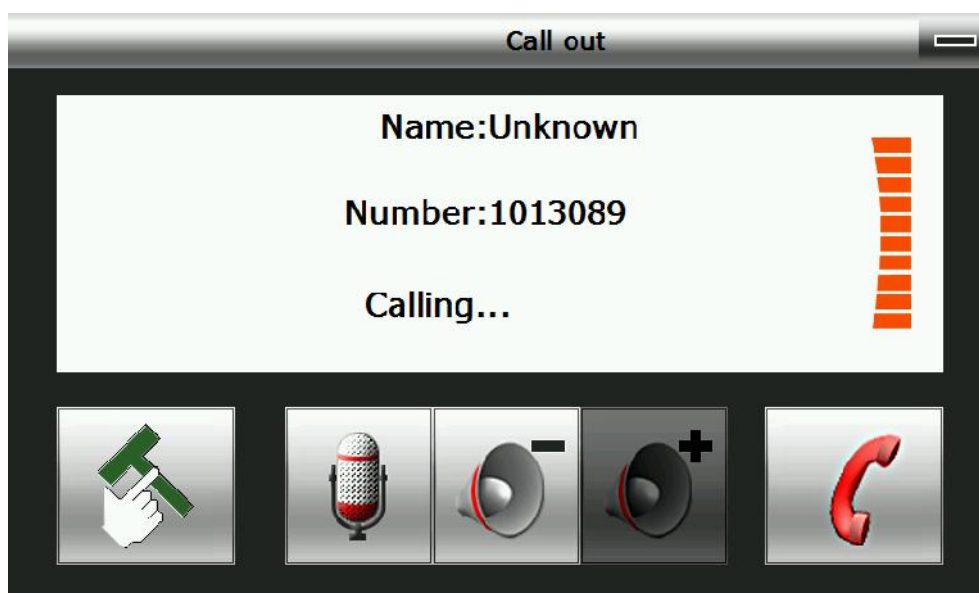
4-47

	Return	Keep call state and return to main interface
Name	Name	Show the name you're dialing

	Number display	Show the number you're dialing
Number		
Calling…	Calling	Show current call state
	Dial	Including extension, sound shift, call shift, conference call and so on.
	Mute	Mute the microphone while keeping the call
	Volume -	Single click to decrease the volume gradually;
	Volume +	Single click to increase the volume gradually;
	Hang up	Single click and hang up

4.15.8 If there is an incoming call, it will show the caller ID and its number as 4-48

4-48

	Return	Keep call state and return to main interface
Name	Caller ID	Show caller ID

Number	Number display	Show the incoming call number
	Answer call	Single click to answer the call
	Mute	Mute the microphone while keeping the call
	Volume -	Single click to decrease the volume gradually;
	Volume +	Single click to increase the volume gradually;
	Reject	Single click to reject the call

4.15.9 Single click and it will display connected. You can talk with each other as 4-49
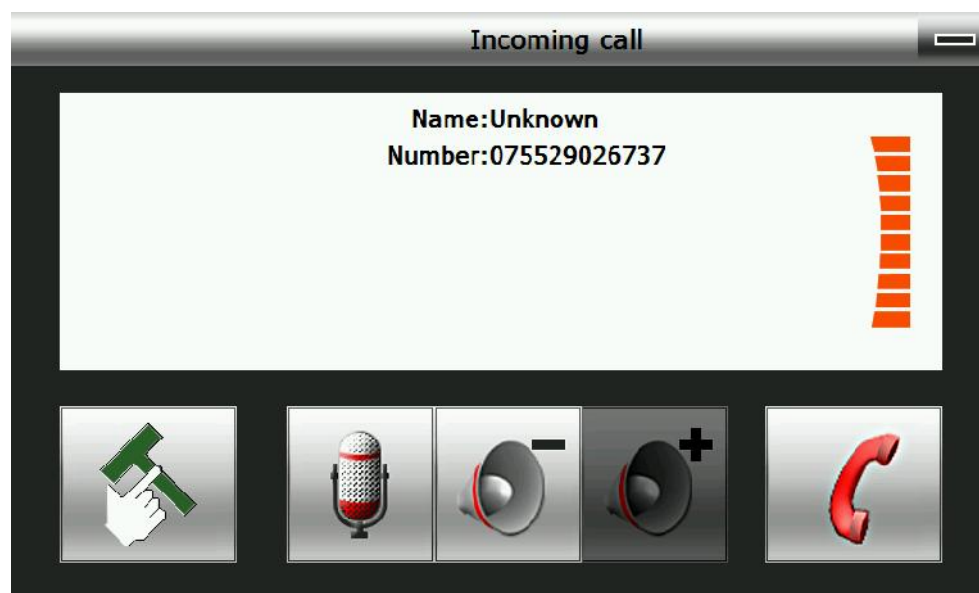
4-49

4.15.10 Single click the button as 4-50

4-50

Extension	Dial extension number
Sound Switch	Single click to shift the voice to cell phone
Call Switch	Not available currently
Meeting Call	Not available currently

4.15.11 Single message button to download SMS of paired phone as 451
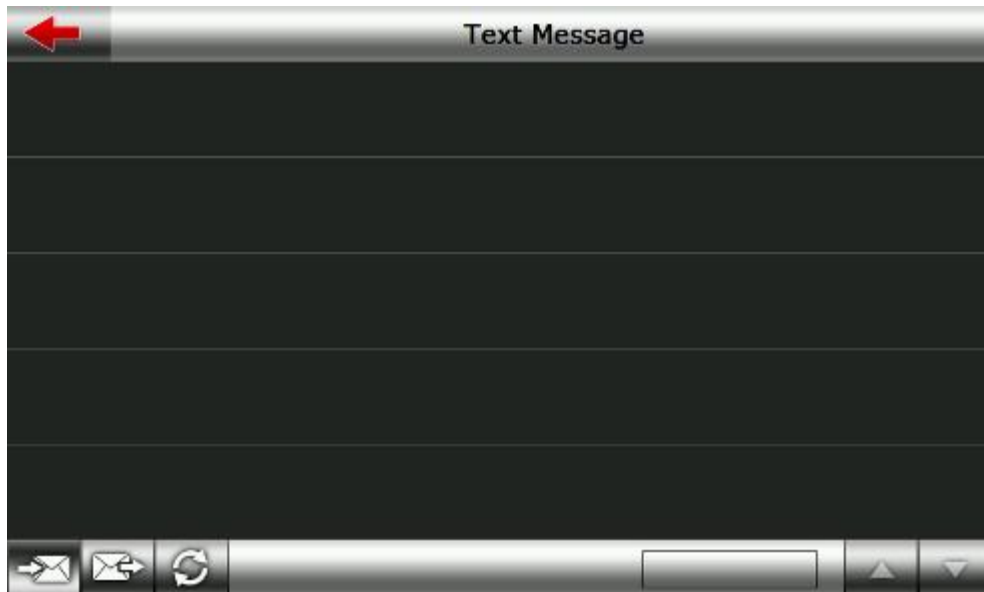
4-51

Single click the button to enter the following interface as 4-52

4-52

4.22.12 Single click "File Manager" on the main Bluetooth interface to download files from paired cell phone as 4-53
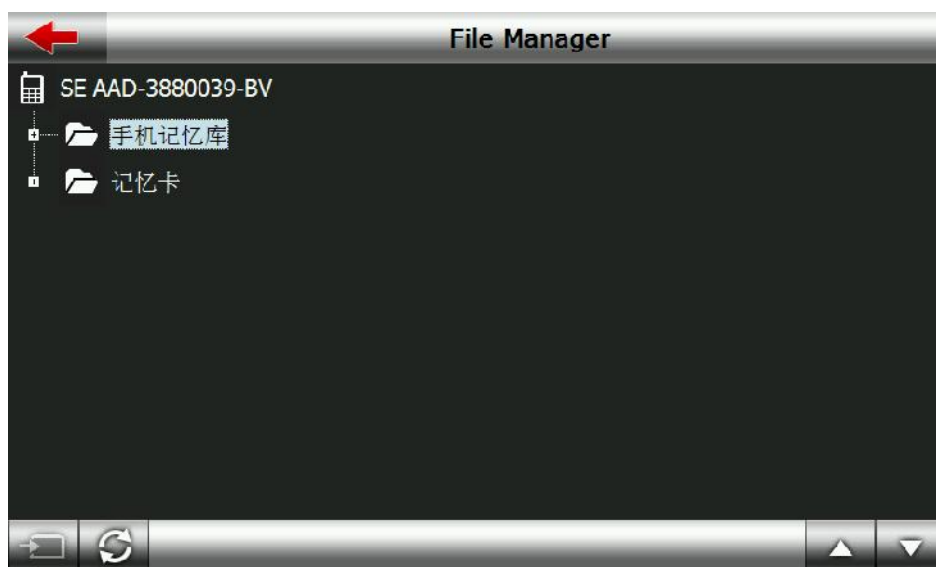
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Chapter Five   Simple Troubleshooting and maintenance

IF your Falcon Navigator is not working normally, please check it as follows. If you cannot solve the problem, please contact your dealer.

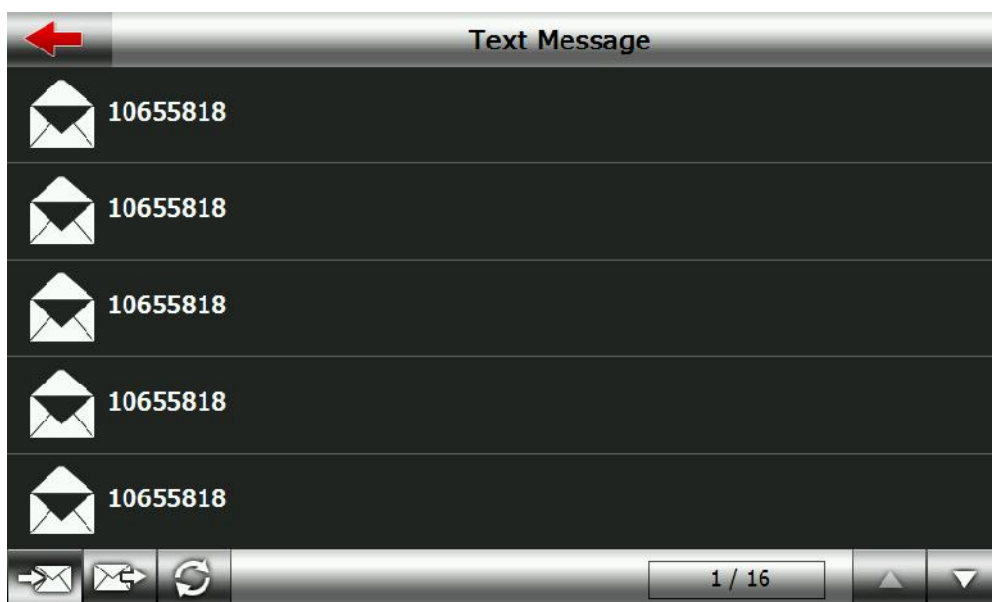| Reason	Reason	Solution
Can not turn on the navigator	Lack of power	Charge the battery
The device turns off suddenly	Low battery	Charge the battery
Cannot display clearly	The back light is not bright enough	Adjust the backlight
	The back light has been turned off	Click the LCD; the screen will turn bright again.
No response when selecting an icon	The touch-screen is not calibrated	Calibrate the touch-screen
No sound	The volume is very low	Increase the volume
Can not communicate with computer	The USB cable is not properly connected	Connect USB cable

No signal		The signal is weak, it need more than 3 minutes to receive the signal
The map data is lost		Contact your dealer

Maintenance of the Falcon Navigator

The Falcon Navigator will be a reliable navigation and entertainment companion if looked after. Please follow the instructions below to ensure your Falcon Navigator runs smoothly for a long time.

Protect the screen: Don't press the screen with strength or you will damage it. To clean the screen spray a little glass cleaner on a soft cloth, don't spray on the screen directly.

【Note】 Be sure to turn off the Falcon Navigator before cleaning.

Dropping or banging can cause damage to high-precision components.

【Note】Accidental damage is beyond our responsibilities.

Don't use it under such conditions: Temperature change abruptly (high temperature above 60°, low temperature under-10°), high voltage, dusty, electrostatic interference, avoid any corrosive liquid and dip into any liquid.

Avoid radiated interference: The radiated interference from other electronic products will affect the display and it will be normal after suppressing the interference source.

【Note】If you carry the unit by air, please put the GPS together with your luggage to pass the X-ray detection system. Avoid scanning by the magnetic head detector (at the passage used for passing) or the magnetic bar (held by the security checker), or it will reset the system date in the unit. We will take no responsibility for it.

✓ Avoid direct, intense light: Don't use the Falcon Navigator in high light and ultraviolet radiation in order to increase the using life.。