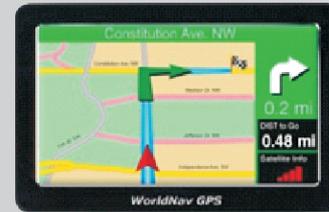


Hardware User Guide

WorldNav 5100 Series



Disclaimer

Use the WorldNav at your own risk. To reduce the risk of unsafe operation, please carefully review and understand all documentation related to this product. It is the user's responsibility to use this product prudently. This product is intended to be used only as a navigational aid and must not be used for any purpose requiring precise measurement of direction, distance, location, or topography. Statistics provided such as trip time are best estimates and may not accurately reflect true conditions. The Global Positioning System (GPS) is operated by the United States Government, which is solely responsible for its accuracy and maintenance. The system is subject to changes which could affect the accuracy and performance of all GPS equipment.

For use in vehicles, it is the sole responsibility of the owner/operator of the TeleType GPS WorldNav to place and secure the GPS unit so that it will not interfere with the vehicle operating controls and safety devices, obstruct the driver's view of driving conditions, or cause damage or personal injury in the event of an accident. Do not mount the TeleType GPS WorldNav in a place where the driver or passengers are likely to impact it in an accident or collision. The mounting hardware supplied by TeleType Co. is not warranted against collision damage or the consequences thereof.

When used in vehicles, it is the sole responsibility of the driver of the vehicle to operate the vehicle in a safe manner, to maintain full surveillance of all driving conditions at all times, and not become distracted by the GPS system to the exclusion of safe driving practices. It is unsafe to operate the controls of the GPS system while you are driving. Failure by the driver of a vehicle equipped with a TeleType GPS system to pay full attention to operation of the vehicle and road conditions while the vehicle is in motion could result in an accident or collision with property damage and personal injury.

TeleType provides mapping information and programming with the understanding that it is not guaranteed to be accurate, correct or complete and conclusions drawn from such information are the responsibility of the user. While every effort has been made to ensure the accuracy, correctness and timeliness of materials presented, the maps cannot be relied on as the sole source of information for a driver. TeleType assumes no responsibility for errors or omissions.

IN NO EVENT SHALL TELETYPE CO BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE, OR INABILITY TO USE THIS PRODUCT OR FROM DEFECTS IN THE PRODUCT. SOME STATES DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

Table of Contents

1. Notice	01
1.1 Information Instruction	01
1.2 Safety Information	01
1.3 Safety Caution	02
1.4 Special Tips	03
2. Brief Introduction	05
2.1 Function Introduction	05
2.2 What's in the Box	05
2.3 Illustration	06
3. Basic Operation	07
3.1 Battery and Charger	07
3.1.1 Power Supply	07
3.1.2 AC Adaptor	07
3.1.3 Vehicle charger	07
3.2 Basic Use	08
3.2.1 Power Key	08
3.2.2 Reset Key/Power-saving Key	08
3.2.3 Vehicle Mount	08
3.2.4 SD/MMC Memory Card	08
3.3 Connection with Computer	09
4. Function operation	09
4.1 Navigation	09
4.1.1 Features	09
4.1.2 Use of Navigation	10
4.2 Music	10
4.3 Video	11
4.4 E-book	12
4.5 Photo	13
4.6 System Settings	14
4.6.1 Volume Adjustment	14
4.6.2 Power Settings	14
4.6.3 Backlight Settings	15
4.6.4 Date/Time Settings	15
4.6.5 Language Settings	15
4.6.6 System Information	15
5. Technical Specification	16
6. Troubleshooting	17

1. Notice

1.1 Information

The navigation system uses the most advanced satellite navigation technology and a detailed street map so it can direct you to the destination easily. For best results, read these instructions before operating.

Illustration



Warning

Warning

Users shall comply with the information provided in case of any threat to personal safety.



Caution

Caution

Users shall comply with the information provided in case of any damage to this device.



Tips

Tips

Additional information provided for user reference.

Global Positioning System is launched and maintained by USA. This system can receive the satellite signals from Global Orientation System. Using these signals and vehicle inductor, the system can indicate current location and help you find required destinations. This navigation system can select an economical route, which isn't always the shortest routes or jam-free. Generally speaking, the driver can reach the required destination faster with his local knowledge or shortcut rather than this system.

This navigation system can provide visual map and voice instruction. When you are at the crossing or near the turnoff, the device will remind you of the driving distance and direction.

1.2 Safety Information

1. Obey all traffic rules and be able to operate the vehicle safely.

2. Do not operate the system while driving. The system distracts the drivers' attention, and should only be used when the vehicle is stopped.
3. Do not depend only on the voice navigation, which is only for reference. Roads, traffic signs and service information constantly change; therefore drivers should refer to current road signs when navigating. Roads change often; drivers should take care to update maps as they become available.
4. You must notice traffic patterns before following the system information.
5. This navigation system is intended to assist drivers in making judgments about suitable routes. Please read the Disclaimer at the beginning of this guide.

1.3 Safety Caution

In order to prevent injury or property loss, please read and follow the following precautions:

1. Read all instructions.
2. Keep these instructions in an appropriate location for later reference.
3. Follow all operation instructions.
4. Accessories

Do not use accessories from another manufacturer; this may equipment malfunction.

5. Power

Only use the stated power. You must turn off the power and disconnect the power plug on rainy days or when you won't use the unit for a long time.

6. Protect the power cord.

Make sure the power cord is out the path of foot traffic.

7. Installation and Wiring

In order to ensure safety, hire professionals to do the installation and wiring.

8. Keep away from heat.

Do not expose the device to sunshine or high temperatures. Keep it away from heaters, generators or any other heat-producing objects.

9. Keep away from water, rain, and damp places.

10. Cleaning

To clean, wipe the device with dry and soft cloth after power-off. Do not clean with volatile chemicals like gas or a diluting agent.

11. In the event of any of the following conditions, immediately turn off power and contact a technician: Power cord or jack damaged;

Liquid or particle enters into the device;
The device is damaged due to falling from a high place or incorrect operation.

13. LCD

Protect the LCD from dropping. If the LCD does fall and shatter, do not touch the liquid flowing out of the device. Do not heat or scratch the LCD.

1.4 Special Tips

1. How does weather affect the instrument?

Severe weather like rain, thunderstorms or lightning will cause weak signals, which will result in unstable operation of the instrument.

2. What factors may affect the GPS signal?

Close proximity to military bases. For security reasons, the signal precision for civilian use is lower than that of the army. Therefore, precision of positioning may be reduced. Weather factors (inclement weather may reduce the intensity of signals and result in unstable orientation).

Positioning of the GPS unit within the vehicle:

- Other devices may emit electric, electromagnetic, or wireless waves or have a strong magnetic field.
- Placing the device close to the windshield will help maximize the signal by minimizing interference from tall buildings, cars, heat insulation covers, metal objects and trees.

3. Why does the device not receive signal inside buildings?

The GPS can't be used in buildings because the signals are easily obstructed by buildings and metals, and they can't penetrate through the walls of buildings.

4. Does the windshield affect the GPS signals?

If the windshield contains metal, it will have some effect on the GPS.

5. How long does the GPS take to position after being switched on?

On average, the device will take approximately 1 minute to calculate your current position in an open space where interference is minimal. In general, it takes about 5 minutes or less, as in accordance with standard GB/T 19392-2003-5.3.

6. What is the maximum battery time?

The device will run smoothly for a maximum of 3-4 hours with the screen brightness set to 50%.

7. What is the maximum charging time?

The device will be fully charged in 3-3 ½ hours under standby mode. The device can also be charged when in use, although charging time is longer. It is normal for the unit to heat up while charging.

8. Normally, how many satellites can the GPS receiver capture?

Normally, GPS receivers capture 8-12 satellites; you need 3 satellites to navigate.

9. Why don't some of the WMA files play?

Software is used to decode WMA files. Music that was not obtained legally may not be supported by this software. Make sure that the music is obtained legally. WMA files are copyright protected.

10. How can I keep the device from blowing a fuse when turning on the vehicle?

Turn the ignition on before powering up your GPS.

2. Brief Introduction

2.1 Function Introduction

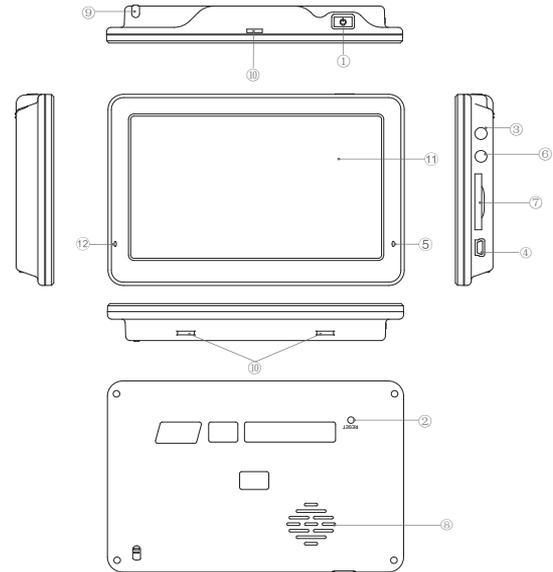
- >GPS Navigation
- >Video format: supports ASF, AVI, WMV, MP4, 3GP
- >Audio format: support WMA, MP3 and WAV
- >Support LRC and Synchronized Lyric Information Display
- >Photo format: support JPEG, BMP, PNG
- >E-book format: support TXT
- >Integrated speaker
- >Support SD/MMC card
- >Connect with PC directly to transmit the data.

2.2 What's in the Box

Before using the device, make sure you have all the accessories listed below. If any of the accessories are missing or damaged, please contact the local dealer or agent as soon as possible.

- >GPS Device with customized SD card installed
- >AC Adaptor
- >Vehicle Charger
- >USB Cable
- >Vehicle Mount
- >User Manual

2.3 Illustration



1. Power Key = Power on/off/sleep	5. Power Indicator = The light is red during charging, it will turn green when the battery is fully charged.	9. Touch-pen
2. Reset = If the unit crashes or works abnormally, press this key to reset the system.	6. Earphone Jack	10. Bracket Block Slot
3. TMC Port / AVIN = Connect TMC for receiving module / Connect with outside AVIN wireless receiver	7. SD Card Slot	11. Display Screen
4. MINI USB Port = Exchange the data with PC by MINI USB cable.	8. Speaker	12. Microphone

3. Basic Operation

3.1 Battery and Charge

3.1.1 Power Supply

In addition to the built-in lithium battery, you may power the device using the cigarette adapter cord or the AC power adapter. When the device is not connected to the adapter, it is powered by the lithium battery. icon  at the top right corner on the device's main menu indicates the current remaining power. When the device is connected to the adapter, it is powered by the external power source.



Tips

【Tips】 Under normal conditions, the battery can last about 2~3 hours when the battery is fully charged. The actual time of power supply depends on how the device is used. Some functions, like audio/video playing and high backlight, use more battery energy.

3.1.2 AC Adaptor

Use the AC adapter to charge the device before the first use.

1. Connect DC end of adapter to the power jack of device.
2. Connect the other end of adapter to the AC power jack.



Tips

【Tips】 When charging, the indicator is red, and the power icon at the top right corner on the main menu is the charge icon. After the device is fully charged, the indicator turns green, and the power icon at the top right corner on the main menu will be full.

3.1.3 Vehicle Charger

1. Connect one end of the Vehicle charger to the power input jack of the device;
2. Connect the other end with the Vehicle cigarette lighter adapter in order to supply power and charge up at the same time.



Caution

【Caution】
Turn the vehicle on first, then power up the GPS.

3.2 Basic Use

3.2.1 Power Key

1. Power on:
When the GPS power is full or after connecting the device with outer power supply, press the power key for few seconds to start up.
2. Sleep mode:
When the device turns on, press the power key for several seconds to enter into sleep mode, the GPS will automatically display the last state when next start-up.

3.2.2 Reset Key/Power-saving Key

When the system has no response, press reset key on the back of device to re-start the system, the performances are as below:

1. There are delay and stagnation during switch interface;
2. There is no response when click the icons.
3. Power key is unavailable.



Caution

【Caution】

Please backup the data before resetting the system.

3.2.3 Vehicle Mount

The Vehicle mount consists of salver and bracket. While using the device in the Vehicle, make sure it is securely stowed in its mount on the windshield.



Caution

【Caution】

Please choose the proper position to place the car mount. Do not block the driver's view and place the device arbitrarily without fixing; do not fix the device in the area that the

3.2.4 SD/MMC Memory Card

Correctly insert SD/MMC card into the slot, and do not remove the SD/MMC card during operation.

3.3 Connection with Computer

Connect the device with computer by the USB cable. One end connects with PC and the other end connects with the device.

1. Data transmission: There are two new "mobile disk" icons in "my computer" after the device is successfully connected with computer, the first icon stands for the built-in flash memory of the device, the second stands for the SD card storage of the device.

(If the SD card is not inserted, the second icon of the disk is unavailable). Then, you can use them as normal USB flash disk.

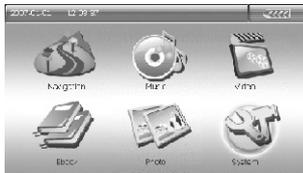


【Caution】 1. Please do not delete and revise the data in the built-in flash memory of the device, in case some functions of the device are out of work. 2. Based on Windows 98 operation system, please install the driver before operating the device. The operation of communication between GPS and computer are example based on the Windows 98 operation system or above version. 3. When GPS is connecting with computer by USB line, it can not operate the current functions.

2. Safely Remove: Please remove the USB line after finishing the data transmission (just operate it as the USB flash disk).

4. Function operation

The device supports navigation, audio/video playing, E-book, Photo browsing, and Bluetooth for hands-free and system setting functions. The main interface is as follows:



4.1 Navigation

4.1.1 Features

The device adopts an intelligent navigation system, which uses a GPS satellite signal receiver to position the mobile vehicle precisely and display the mobile vehicle's location on the E-map. The system will automatically calculate the best route when users set the destination, it will help the users reach their destinations safely and quickly. The system also can provide the functions of visual maps, instant cartoon, voice and instruction and so on.

4.1.2 Use of Navigation

Please carefully read the instruction of navigation software.



【Caution】
TMC function needs the support of the local information desk to achieve the relevant functions.

4.2 Music

1. Click MUSIC icon on the main menu to enter into the audio folder. Then you will find a menu that shows "SD"/"MMC" or "Flash" folder. Double-click the folder to play the related file.

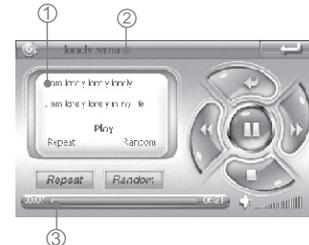
The function of each icon is as follows:

- Return = Return to the player interface
- Previous = Display the previous file
- Next = Display the next file
- Upward = Return to previous folder



2. Click CMF icon to open the Music player.

The function of each icon is as follows:



-  Return = Return to the Main interface
-  Play = Play songs
-  Pause = Pause songs
-  Stop = Stop playing
-  Repeat = Repeat all songs
-  Random = Shuffle all songs
-  Previous = Play previous song
-  Next = Play next song
-  Volume = Adjust the volume by dragging sliding block
-  Play Schedule = Adjust play schedule
-  Folder = Return to the previous folder
- ① Area of Lyric Display = Display the information of current LRC lyric/play state of current song
- ② Area of Song's Name Display = Display the name of the current song
- ③ Time = Current Time/Total Time



Tips

【Tips】 Audio player contains the function of lyric synchronization. Please copy both the music and lyric files (LRC format) to the same folder in the SD card, and make sure their names are the same.

4.3 Video

Click the "video" icon on the main interface to enter the video folder interface. Then you will find an interface that shows "SD/MMC" or "Flash" folder; double click the related folder to play the related files. The function of each icon is as follows:

The function of each icon is as follows:

-  Esc = Return to the main Menu
-  Play = Play the video file
-  Pause = Pause the video
-  Stop = Stop the video
-  Upward = Return to previous folder
-  Speed Up = Fast forward



- ① Volume = Drag to adjust the volume
- ② Progress Bar = Drag the bar to adjust progress
- ③ Time = Current Time/Total Time
- ④ Name = Display the name of the current file



Tips

【Tips】 On the playing interface, it will display the full screen when Double click the playing area; then double click again, it will display as normal.

4.4 E-book

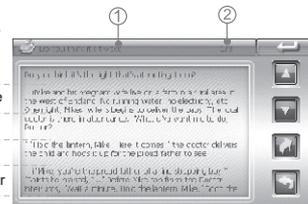
1. Click the E-Book on the main menu to enter into E-Book folder interface. The next screen will show the two folders "SD/MMC" or "Flash". Double click the related folder to view the contact.

-  Esc = Return to the main Menu
-  Previous = Display the previous page
-  Next = Display the next page
-  Return = Return to the main Menu



2. Click E-Book folder to open reader

-  Esc = Return to the main Menu
-  Previous = Display the previous page
-  Next = Display the next page
-  Page
-  Upward = Return to the previous folder



- ① File Name = Display the current file name
- ② Page Number = Current page number/total pages

3. Click on the E-Book

-  Number Bar = Display the page number
-  Backspace = Delete the last character
-  Number Clear = Clear all fields
-  Jump = Jump to the page number shown



4.5 Photo

1. Click the "photo" icon on the main menu to enter the photo folder. The menu shows "SD/MMC" or "Flash" folder. Double-click the folder to play the related file.



-  Esc = Return to the Main Menu
-  Previous = Display the previous page
-  Next = Display the next page
-  Up = Return to the upper grade folder
-  Forward = Play the selected photo or next one

2. Click Photo folder icon to open the photo browser. The function of each icon is as below :

-  Esc = Return to the main interface
-  Zoom Out = Zoom Out the current photo
-  Zoom In = Zoom In the current photo
-  Rotate = Rotate the photo 90° clockwise
-  Automatic Play = Play the photos from the current file in slide mode
-  Previous = Display the previous photo
-  Next = Display the next photo
-  Upwards = Return to the upper level folder



Tips

【Tips】

1. Under the full screen, double click the photo to return to normal mode.
2. Zooming out the photo, click the touch screen with touch pen to play the next photo.

4.6 System Settings

4.6.1 Volume and FM Transmitter

Click the "volume" icon to enter the related interface

Users click  and  on the screen to adjust the volume, by clicking and on the screen which is in front of "pronounce by clicking the screen" to decide whether the screen makes a sound or not.

4.6.2 Power Settings

Click "power" icon to enter the power setting interface. The user can check the status bar to know the power, at the same time, you can also click  or  to set the time for automatically power off.

4.6.3 Backlight Settings

Click "Backlight" to enter Backlight setting interface. The user can adjust the light clicking  and  or can click  or  to set the time for automatically screen power off.

4.6.4 Date Time Settings

Click "Date Time" to enter Date Time setting interface. Status bar will show the current separately time, date and time zone. Separately click "time", "date", "time zone" to set up the time, date and time zone. Through the GPS signals, the time setting refreshes the current time automatically, it means that the time will temporarily return to the factory setting time after the system reset. As soon as the GPS begins to navigate, the time will renew to the standard time. Please note that the time setting should be compatible with the local time.

4.6.5 Language Settings

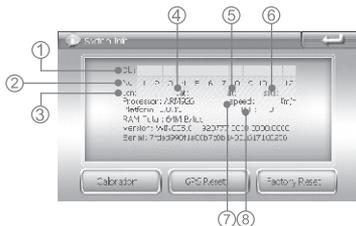
Click "Language" icon to set the language you need. There are 3 languages available: English , French ,and Spanish.

4.6.6 System Information

Click "System" icon to view the detailed system information.

1. Click "Screen Calibration" icon at the left corner of information box to adjust the touch screen. Move the cursor through middle, left, right, up, down steps. Repeat the process until the calibration is successful.
2. Click "Factory setting" icon at the right corner of information box, the system will automatically return to the factory setting.
3. Click "GPS Reset" icon in the middle of information box, the system will automatically clear up the Signal-to-Noise data received.

- ① Signal-to-Noise data
- ② Channel
- ③ Longitude
- ④ Latitude
- ⑤ Altitude
- ⑥ Satellite Info
- ⑦ Speed
- ⑧ Positioning time



5. Technology Specification

Dimension	134*88*17mm		
Net Weight	About 222.6g		
System	OS	Windows CE5.0	
	CPU Frequency	ARM9 application Processor@ 400MHz	
	SD RAM	64M	
	NAND Flash	64M-2G(slc)	
	External Memory	MAX 4G SD/MMC	
Media function	Video	ASF、AVI、MP4、3GP、WMV	
	Audio	MP3、WMA、WAV	
	Photo	JPEG、BMP、PNG	
	E-book	TXT	
Languages	Support multi-country languages	English , French ,and Spanish.	
Power	AC Adaptor	INPUT: AC 100-240V. OUTPUT: DC 5V / 2A	
	Car Charger	INPUT: DC 12-24V. OUTPUT: DC 5V /1.5A	
	Battery	3.7V /1400mAH (when supporting AVIN) 3.7V /1700mAH (when not support AVIN)	
	Continuous Operation Time	3-4 hours (voice and background light can be adjusted to 50% when supporting AVIN) , 4-5 hours (voice and background light can be adjusted to 50%,when not supporting AVIN)	
	Power Saving	Automatically standby mode,screen protection(black screen)	
Display	Specification	5" TFT-LCD, 5" 4-line-resistance touch screen	
	Pixel	480*272 (RGB)	
GPS Module	Frequency	1575.42MHz	
	Channels	20 channels	
	Sensitivity	-157dBm	
	Precision	Position: < 10 meters	
	Start-up time	Hot start:	≤3 sec, average
		Warm start:	≤38 sec, average
		Cold start:	≤43 sec, average
Refreshing rate	1/second		
TMC	External TMC function	Optional	
Bluetooth	Embed Bluetooth Module	Bluetooth 2.0 (optional)	
FM	Frequency Range	76-108MHz (optional)	
Wireless Backsight	Build-in or outside	Optional	
Version update	Map	Update the map data in SD card	
Temperature	Request	-20℃-70℃	
USB	USB 2.0 full speed		

6.Troubleshooting

Problem	Reason	Action
Can not power on	Low power	Charge the battery
Power off suddenly	Low power	Charge the battery
Touch screen deflected	Calibration is not precise.	Refer to 3.6.6 to calibrate your touch screen.
No sound	Too low volume	Turn on the volume
	Poor connection between the earphone and device	Insert the earphone properly
Cannot connect with PC	Poor USB cable connection	Refer to the 2.3 chapter, connect the USB cable well.
Failure to charge	AC adaptor is not securely attached	Check that the adapter is inserted securely, and indicator is red.
Power Key invalid, touch screen and display abnormal	The system crashes	Press the reset key with stylus pen from the back of the unit to reset the device.
Difficulty receiving GPS signal	Depending on environmental conditions, the intensity of the GPS signals will vary. It may take approximately 1-3 minutes to receive the signal.	
Unable to use navigation function	Contact Customer Service.	