

User's Guide

Finedrive 400™

Portable In-Car Navigation System



2005

FINE DIGITAL

CONTENTS

1. INTRODUCTION ▶ 4

1.1. WHAT IS IN THE BOX? ▶ 4

1.2. INSTALLATION PRECAUTION ▶ 4

1.3. HARDWARE INSTALLATION ▶ 4

2. HOME SCREEN MENU ▶ 8

2.1. USING THE HOME SCREEN MENU ▶ 8

2.1.1. How to use Home screen ▶ 9

2.1.2. How to use Navigation, MP3 Player ▶ 9

2.2. NAVIGATION ▶ 10

2.2.1. Checking GPS ▶ 10

2.2.2. Operating Navigation ▶ 11

2.2.3. Moving Around the Map ▶ 12

2.2.4. The Main Menu ▶ 13

2.2.5. Map Display View ▶ 13

2.2.6. Map View Modes ▶ 14

2.2.7. Route Options ▶ 15

2.2.8. Using The Navigation System ▶ 16

2.2.9. Entering a Start Location ▶ 16

2.2.10. Destinations Management ▶ 16

2.3. MP3 PLAYER ▶ 34

2.3.1. Preparing MP3 Files for Your Device ▶ 351

2.3.2. MP3 Playback Control ▶ 37

2.3.3. Switching between Navigation/MP3 Player ▶ 37

2.4. SETUP ▶ 40

2.4.1. Adjusting Volume/Backlight ▶ 40

2.4.2. Setting FM Transmitter ▶ 41

2.4.3. Resetting the GPS ▶ 42

2.4.4. Setting Touchpad Calibration ▶ 43

2.4.5. Setting Language Option ▶ 44

2.5. SHUT DOWN ▶ 45

2.5.1. Shutting down the device ▶ 45

3. TECHNICAL SUPPORT ▶ 46

4. APPENDIX ▶ 47

4.1. FCC COMPLIANCE ▶ 47

4.2. SYSTEM SPECIFICATIONS ▶ 48

4.3. MANUFACTURE WARNING ON FMT DEVICE ▶ 49



1. Introduction

1.1. What is in the Box?

The Navigation System box includes the following items:

- ▶ Finedrive 400 Navigation Unit
- ▶ SD Card w/NAVTEQ Mapping Software
- ▶ GPS Receiver
- ▶ DC12V In-car Cigarette Lighter Adapter
- ▶ Vehicle Suction Mount
- ▶ Stylus Pen
- ▶ User Guide

1.2. Installation Precaution

Choose a mounting location in your vehicle where this unit will not distract or otherwise interfere with the driver's ability to control the vehicle.

Do not install components in areas which are susceptible to rain, moisture, direct sunlight, extreme heat or cold, excessive dust, dirt or humidity.

Use only installation parts and hardware provided with the unit to ensure proper installation. Using other parts can cause malfunction and possible damage to your navigation system.

1.3. Hardware Installation

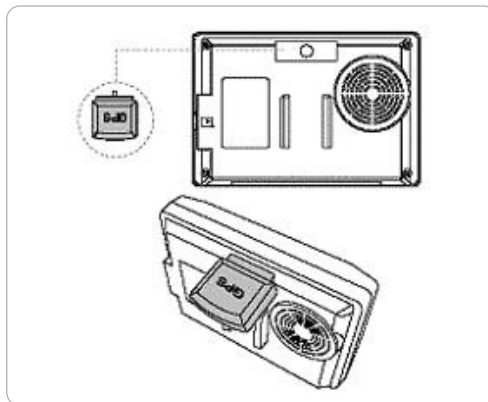
1. Mount the Finedrive 400 in your vehicle

- ▶ *Although the Finedrive 400 can be installed on any glass surface in your vehicle, we recommend that you install the unit below the-center of the windshield, between the*

driver and passenger seats. Make sure the windshield is clean and dry to ensure a tight grip.

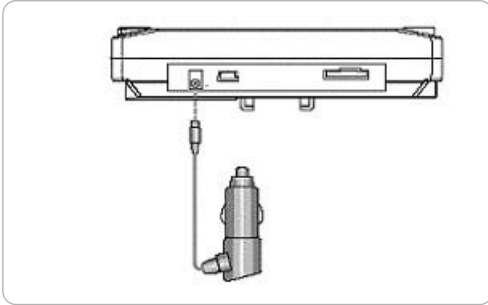
- ▶ *(1) When the suction on the vehicle mount is placed into position, (2) press and hold the center button while you firmly flip the latch down. This will lock the holder in place.*

2. Connect the GPS Receiver



Locate the input/output area on the backside of the navigation unit, then insert the GPS Receiver, "GPS" letter side up.

3. Plug the Cigarette Lighter Adapter



Plug in the connector on the cigarette lighter power adapter into the power input jack.

4. Slide the navigation unit into the holder

5. Turning the navigation unit on and off

Press OK, then wait for a couple of seconds and a CAUTION screen will appear as follows:



- ▶ When the CAUTION sign has appeared, please read

the message and proceed by tapping the "OK" button.

- ▶ Finedrive 400 will power itself on and off each time your car is turned on and off. If the power plug in your car is always on, like in some recent SUV models, we recommend turning the navigation device off manually so that it doesn't discharge your car battery.
- ▶ Each time the Finedrive 400 is turned off, it remembers the information from the last routing session. If the device is turned off while you were using GPS modules, it will display the GPS module again once the unit is turned back on.

2. Home Screen Menu

2.1. Using the Home Screen Menu

The Caution window appears each time the power is turned on.



Clicking OK on the Caution Screen will take you to the following Home Screen Menu. The Home Screen menu will also appear whenever you press the Home button.




Home Screen displays the four main features of the Finedrive 400. It will help you to access any available feature with a single click.

- ▶ Navigation: Activates mapping applications and routing functions.
- ▶ MP3 Player: Activates the MP3 player and FM Transmitter functions.
- ▶ Setup: Configure the system settings of the device (brightness, volume, etc.)
- ▶ Shut Down: Turn device off manually.

Note : If your Finedrive 400 is turned off while in use, the device will automatically remember the last status. Once you turn on the device again, and after clicking OK button in the Caution window, the unit displays the last status of the previous function (either navigation or MP3 player).

2.1.1. How to use Home screen

Press the Home button () to go to the Home screen from other features.



2.1.2. How to use Navigation, MP3 Player

Each time you turn on the device, the following screen appears.

You can choose any function by tapping the icon.

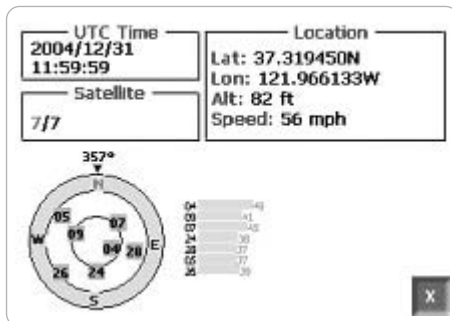


- ▶ Refer to **2.2. Navigation** for details on Navigation.
- ▶ Refer to the **2.3. MP3 Player** for details on MP3 Player.

2.2. Navigation

2.2.1. Checking GPS

Allow five to fifteen minutes for your GPS navigation to receive a satellite signal for the first time. Thereafter, it will take 90 seconds or less to receive the signals.



2.2.2. Operating Navigation

When you start the navigation system, a map will be displayed as shown below. If your GPS device receives a satellite signal, it will provide an expanded view of your current location.



If you are not receiving a signal, the default map is shown. The varying colors of the vehicle icon indicate the number of satellite signals available. In this case, the vehicle icon is shown at the bottom of the map.

To see the detailed vehicle location:

- ▶ Tap on the locator bar at the bottom of the map.
- ▶ Tap on the map location and select Info from the Pop Up menu.



2.2.3. Moving Around the Map

Tap the pointer on the map and drag it in the direction you want it to move: up, down, right, or left. Once you remove the stylus pointer from the screen, the map re-centers on the selected location.



2.2.4. The Main Menu



Options	Description
Destination	<i>Sets the destination by address, intersection, points of interest, favorite locations, or recent locations.</i>
Route Options	<i>Manages your route preferences.</i>
Simulation	<i>Starts/stops the current routing simulation.</i>
Display Options	<i>Sets the map orientation, screen color, automatic or manual guidance, and display of POI (Point of Interest) icons.</i>
Return to Map	<i>Displays an expanded view of the map area around the vehicle location.</i>
GPS Info	<i>Displays GPS status information.</i>

2.2.5. The Main Menu

1. To display a map in the Map View, tap the Menu button > Return to Map icon. The Map View

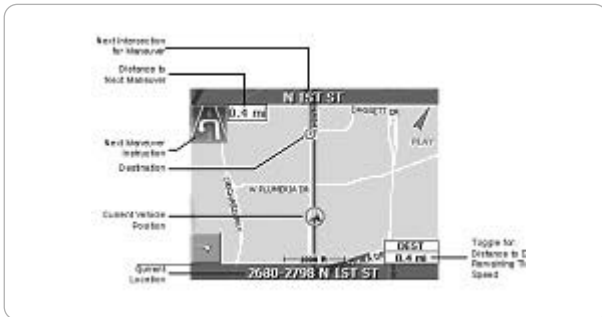
screen displays:



2. The orientation of a map is set in the Display Options screen:

- ▶ *Heading Up* to rotate the map automatically in accordance with the direction of the vehicle
- ▶ *North Up* to maintain the map in North/South position.

2.2.6. Map View Modes



To select your Map View preference, from the Main Menu select Display Options and make your choice.

2.2.7. Route Options



Also accessible from the Main Menu, the Route Option enables you to use the navigation system in a number of different ways for determining your optimal route.

“Method” allows you to choose how your route is determined:

- ▶ **Quickest Route** calculates a route with minimum travel time
- ▶ **Shortest Route** calculates a route with minimum travel distance
- ▶ **Major** determines the route that includes major roads, such as highways
- ▶ **Local** determines the best route that excludes major roads, such as highways

The other route preferences allow you to include or exclude Ferries, Toll Roads or Carpool lanes in the route the navigation system selects for you.

2.2.8. Using the Navigation System

The calculated route is indicated by a blue line on the map. If you miss a turn during the route, the navigation system recalculates the route automatically and displays “Recalculating Route” on the map display.

2.2.9. Entering a Start Location

The navigation system uses the current location as the starting point of route calculation. You can enter a new start location when your navigation system; (1) is not connected to a GPS receiver, (2) not receiving a GPS signal, or (3) when you want to select a different point of origin.

To enter a start location, do one of the following:

- ▶ Tap and hold the pointer on the map location. A pop up menu with the selected address displays. Tap the Set Start Location option on the pop up menu.
- ▶ Press the Menu button > Destinations icon. Enter the destination information. For more information, refer to the Entering a Destination section.

2.2.10. Destinations Management

To enter a destination, do one of the following:

- ▶ Tap the Menu button > Destinations icon.
- ▶ Tap and hold the pointer on the map location. When

a dialog box with the location address displays, tap the Set Destination option.

The **Set Destination** screen is shown:



2.2.10.1. Entering an Address

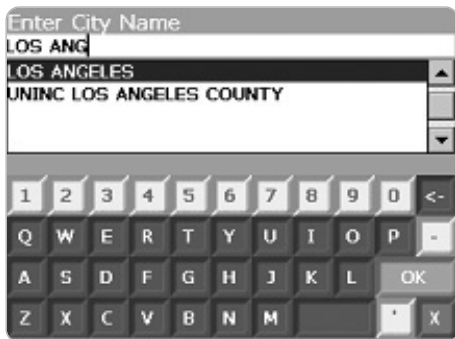
1. Tap **Address** on the Set Destination screen. The Input Method screen will appear.



2. Select an Input Method as follows:

- ▶ Tap **Address First** to enter a street address, including the house number.
- ▶ Tap **City First** to enter the city name and street address, including the house number.

An example of a dialog box is shown below:



Valid entries will be shown at the top of the screen (cities, streets, or house numbers). No need to enter the type of street or directions, such as Ave, St, N, or SW.

3. Select an entry:

- ▶ Scroll through the list by using the scroll keys at the right of the list.
- ▶ Tap characters using the keypad at the bottom of the screen.

4. Tap OK after each entry.

5. To select an entry, tap the Select Address List.



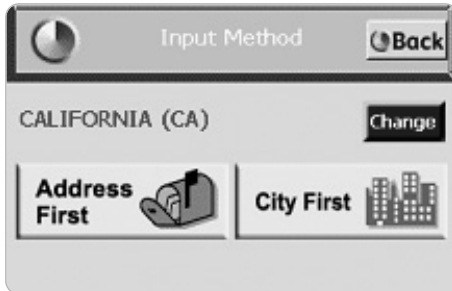
6. Tap one of the following buttons at the bottom of the screen to proceed:



- ▶ **Nav** to calculate the route and center in on the map location.
- ▶ **Fav** to add this location to your list of favorite locations.
- ▶ **Map** to set this location as the starting route point for your trip.

2.2.10.2. Entering a Destination by an Intersection

1. Tap Intersection on the Set Destination screen.
The Select Input Method screen displays.



2. Select an Input Method as follows:
 - ▶ Tap **Street First** to enter the names of two intersecting streets.
 - ▶ Tap **City First** to enter the city name and two intersecting streets.

Do not enter the types of street or directions, such as Ave, St, N, or SW.



Two address dialog boxes should be filled for Destination by an intersection

3. To select an entry, do one of the followings:
 - ▶ Scroll through the list using the scroll keys at the right of the list.
 - ▶ Tap characters using the keypad at the bottom of the screen.
4. Tap OK after each entry

As you tap in characters, the system updates and displays the Select Address List.

5. Select your destination address from the list
6. Tap one of the following buttons at the bottom of the screen:
 - ▶ **Nav** to calculate the route and center in on the map location
 - ▶ **Fav** to add this location to your list of favorite locations
 - ▶ **Map** to set this location as the starting route point for your trip

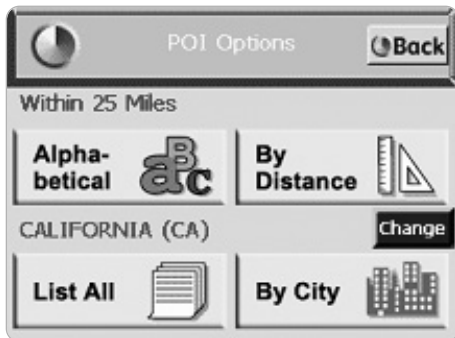
2.2.10.3. Setting a Destination by Point of Interest

The map database contains over two million points of interest (POIs) within the U.S. and Canada. POIs are divided into

categories and represented by icons on the map.

To select a POI:

1. Tap POI options from the Set Destination screen. The Select Input Method screen displays.



2. Tap POI

3. Select one of the following:

- ▶ Alphabetical POI option includes any POI within 25 miles. For more information, refer to the Selecting a POI Alphabetically section
- ▶ POI by distance within 25 miles. For more information refer to the Selecting a POI By Distance section or,
- ▶ POI By City. For more information, refer to the Selecting a POI By City section

2.2.10.4. Selecting an Alphabetical POI

1. Tap Alphabetical POI options on the screen. The Enter POI Name screen displays.



2. Select an entry, as follows:

- ▶ Scroll through the list by using the scroll keys at the right of the list.
- ▶ Tap in characters using the keypad on the screen.

3. Tap OK. The POI Select screen displays.

4. Tap one of the following buttons at the bottom of the screen:

- ▶ **Nav** to calculate the route and center in on the map location
- ▶ **Fav** to add this location to your list of favorite locations
- ▶ **Map** to set this location as the starting route point for your trip

2.2.10.5. Selecting a POI By Distance

1. Tap **By Distance** on the Points of Interest Options screen. A POI List with the points of interest within a 25 mile radius displays.

Select an entry by scrolling through the list and tapping it.

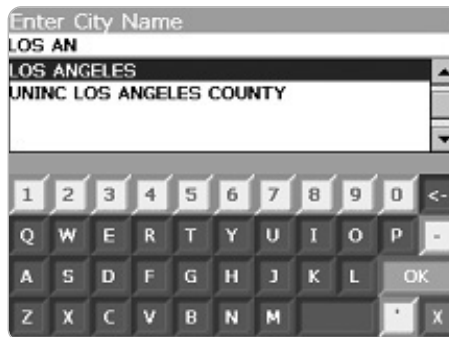
2. Tap one of the following buttons at the bottom of the screen:

- ▶ **Nav** to calculate the route and center in on the map location
- ▶ **Fav** to add this location to your list of favorite locations
- ▶ **Map** to set this location as the starting route point for your trip



2.2.10.6. Selecting a POI By City

1. Tap **By City** on the Points of Interest Options screen. The Enter City Name screen displays.



2. Select a city, as follows:

- ▶ Scroll through the list using the scroll keys at the right of the list.
- ▶ Tap in characters using the keypad at the bottom of the screen.

3. Tap OK. The Enter POI Name screen displays.

4. Select a POI as follows:

- ▶ Scroll through the list by using the scroll keys at the right of the list.
- ▶ Tap in characters using the keypad at the bottom of the screen.

5. Tap the OK button. The POI Select screen displays.

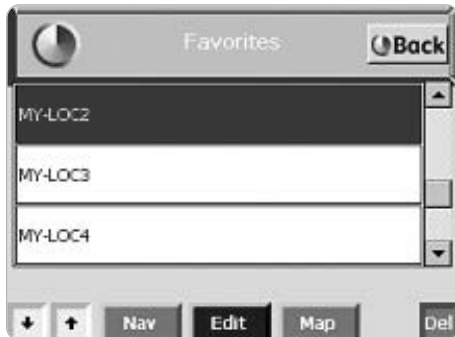
6. Tap one of the following buttons at the bottom of the screen:

- ▶ **Nav** to calculate the route and center in on the map location.

- ▶ **Fav** to add this location to your list of favorite locations.
- ▶ **Map** to set this location as the starting route point for your trip.

2.2.10.7. Destination Management From a Favorites Location List

1. Tap **Favorites** on the Set Destination screen. The Favorite Destinations screen will appear.



This screen lists all the locations that you have saved as a favorite. You can use the up and down arrows at the bottom of the screen to scroll through the list.

You can also tap on the map location and tap Save This Location from the pop up menu.

2. Tap one of the following buttons at the bottom of the screen:

- ▶ **Nav** to calculate the route and center in on the

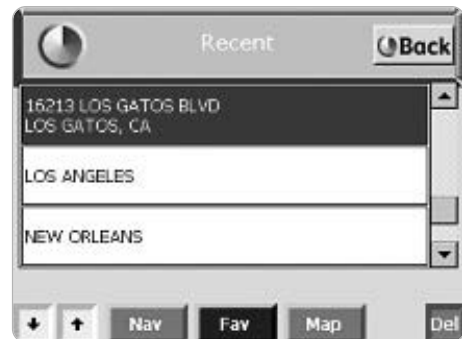
map location.

- ▶ **Map** to set this location as the starting route point for your destination.

To change information for a favorite location, tap the Edit button. Or, tap the Del button to remove a location from your Favorite Destinations list.

2.2.10.8. Setting a Destination from the Recent Destinations List

1. Tap **Recent** on the Set destinations screen. The Recent Destinations screen displays.



This screen lists all of your recent destinations. You can use the up and down arrows at the bottom of the screen to move through the list.

2. Tap one of the following buttons at the bottom of the screen:

- ▶ **Nav** to calculate the route and center in on the map location.
- ▶ **Map** to set this location as the starting route point for your destination.

*To change information for a recent location, tap the Edit button.
Tap the Del button to remove a location from your Recent Destinations list.*

2.2.10.9. Managing the Destination and Route

The navigation system calculates the route after a destination is entered. To manage your destination and route, do one of the following:

- ▶ Tap the Menu button > Destinations icon.
- ▶ Tap File > Destinations. The Destination Options screen displays.



Tap on one of the following buttons:

- ▶ **Detour** to enter any road to avoid along the route.

For more information, please refer to the Entering Detours section.

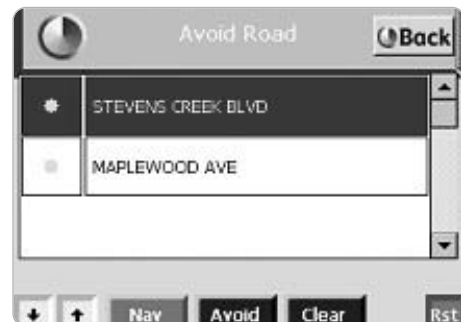
- ▶ **Stopover** to enter places to stop along the route. For more information, please refer to the Entering Stopovers section.
- ▶ **Clear** to clear the current destination and enter a new destination. For more information, please refer to the Clearing a Destination section.
- ▶ **New** to clear the current destination and enter a new destination. For more information, please refer to the Entering a Destination section.
- ▶ **Back** to display the Map View.

2.2.10.10. Entering a list of Roads to Avoid

After your route is calculated, you can enter a section to avoid on the route. Navigation system recalculates the route to exclude the detour area.

A warning will be displayed if there is no detour for the current route.

1. Tap the **Detour** button at the bottom of the screen. The Avoid Road list displays.



2. Tap the road to avoid.

3. Tap the **Avoid** button.

A red x displays in the column to the left of the selected road.

4. Repeat steps from 1 to 3 for each road to avoid.

5. Tap the **Nav** button to recalculate the route.

*To cancel a selection, select a road and tap the Clear button.
To cancel all selections, tap the Rst button.*

2.2.10.11. Entering Stopovers

You may use stopover to setup different destinations. This feature allows you to have several destinations along a route.

To enter a stopover:

1. Tap the Stopover Button on the Destination Option screen. The Stopover screen displays.



2. Tap on a Stopover Category.

3. Enter the Stopover information.

Refer to the Entering a Destination section for the steps to enter information for each specific category.

2.2.10.12. Clearing a Selected Destination

To cancel a selected destination, do one of the following:

1. Tap on the Menu button > Destinations option.

2. Tap on the **Clear** button on the Destination Options screen.

The screen displays in Map View mode.

2.2.10.13. Navigating the Vehicle

The navigation system quickly calculates a route based on your preferences and guides you to your destination. The guidance includes:

- ▶ A map that automatically scrolls as the vehicle moves.
- ▶ Voice instructions for each maneuver.
- ▶ A list of route instructions.

Map View is the default for guidance. Depending on the preferences you select, the view automatically changes to Guidance View as you approach a maneuver.

2.2.10.14. Using Day / Night Display

The navigation system can display the Map View in one of the following modes:

- ▶ Day Mode to set the screen color for daylight driving conditions.



- ▶ Night Mode to set the screen color for nighttime driving conditions.



If you receive a GPS signal, the navigation system will automatically switch between views at the appropriate time of day.

You can set the Color Scheme option through the Display Options menu.

2.2.10.15. Viewing the Route List

You can view the route instructions for your destination at anytime. To see route instructions, tap any street name on top of the screen while routing. The Route List displays:



You can return to the Map View by tapping on the red x button at the bottom right of the screen. You can also center on a specific section of the map by scrolling through the list, tapping on the location, and then tapping on the map. The map will display in map panning mode.

2.3. MP3 Player

The MP3 Player program turns your device into an MP3 player. It features:

- ▶ Playback of MP3 and wma files
- ▶ Basic playback controls such as play, pause, stop, next and previous
- ▶ Playback includes single selection playback, repeat and single repeat

Note :The MP3 Player can only be used when not using the navigation functions.

2.3.1. Preparing MP3 Files for Your Device

1. Copy MP3 files from your computer to a SD card.



Note : We recommend first creating a mp3 folder on the SD Card, then copying all of the MP3 files into that folder. (Optional)

2. Inset the SD card into your device.
3. Power up the unit, then select MP3 Player mode.
4. The program will search for MP3 files in all folders of the SD card. When MP3 files are detected, they will be shown on your play list.



5. To start the playback, tap



6. To close the program, tap **Exit** at the top of the screen. You will be returned to the Warning screen.

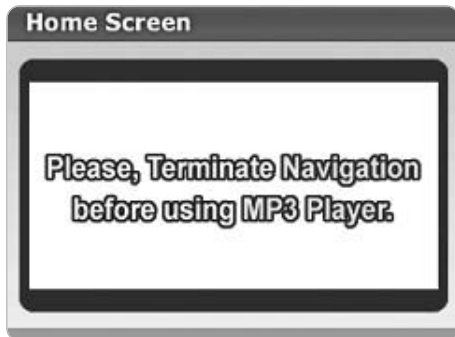
2.3.2. MP3 Playback Control

Control Button	Name	Description
	Play/Pause	Play or pause the playback
	Stop	Stop the playback
	Previous/ Next	Move to the previous or next file
	Volume	Increase or decrease the volume.
	Playback Mode	Cycle through the following modes:
	Close MP3 Player	Close MP3 Player program

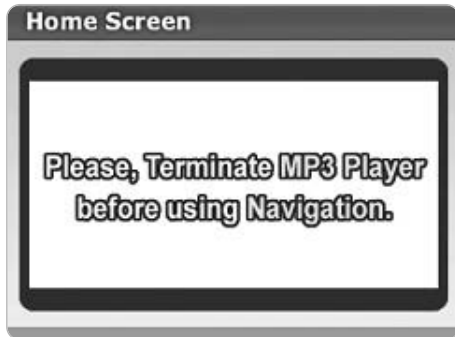
When you restart the MP3 Player, Play mode will return to its default settings.

2.3.3. Switching between Navigation and MP3 Player

For your safety, the MP3 player functions and navigation functions cannot be operated simultaneously. If you choose to change the function either from navigation to MP3 player or vice-versa, the unit will display the following warning message. Please park your vehicle at a safe location, and follow the procedures below to operate the device properly.



When the MP3 icon is selected while using Navigation



When the Navigation icon is selected while using MP3 player function

2.3.3.1. How to use MP3 Player during the Navigation

- ▶ Park your vehicle at a safe place.
- ▶ Tap the Menu icon at the upper right corner of the device.

- ▶ Tap the Exit Navigation icon at the right upper corner of the device.
- ▶ Insert a SD card that contains MP3 files into the SD card slot.
- ▶ Tap the OK icon on the Caution screen.
- ▶ Tap the MP3 Player icon on the Home screen.
- ▶ The Play list is displayed on the screen as soon as the MP3 Player reads files.
- ▶ Select MP3 to be played

2.3.3.2. How to use Navigation during playing MP3

- ▶ Park your vehicle at a safe place.
- ▶ Tap the Exit icon on the MP3 player screen.
- ▶ Insert the SD card containing map files into SD card slot of the device.
- ▶ Tap the OK icon on the Caution screen.
- ▶ Tap the Navigation icon on the Home Screen

2.4. Setup

The five functions are displayed when the Set up icon is selected from the Home Screen.



- ▶ Volume/Backlight: Adjust the volume and brightness of the device and select preferences for FM transmitter. (Please refer to 2.4.1. Adjusting Volume/Backlight)
- ▶ GPS Reset: Default GPS set up.
- ▶ Touch Calibration: Control the sensitivity of the touch pad.
- ▶ Language: Select the main spoken language of the device.
- ▶ Exit: Finish the Setup screen.

2.4.1. Adjusting Volume/Backlight



- ▶ Park your vehicle at a safe place
- ▶ Select the Setting icon on the Home Screen
- ▶ Select the Volume & Backlight
- ▶ Adjust volume and brightness of the device as preference
- ▶ Tap the OK icon to store the adjusted values

Note : Terminate the Navigation before modifying the volume and backlight to avoid an error message.

2.4.2. Setting FM Transmitter





- ▶ Park your vehicle at a safe place
- ▶ Select the Setting icon on the Home Screen
- ▶ Select the Volume & Backlight
- ▶ Select the FM Transmitter in the Audio out menu
- ▶ Set the desired FM frequency and tap the OK icon
- ▶ Tune your vehicle FM radio to the frequency set on the Finedrive 400 and check the audio quality
- ▶ Repeat changing the Finedrive 400 frequency until the audio quality is satisfactory

2.4.3. Resetting the GPS

The GPS reset function is helpful when the device doesn't recognize your current location properly. If the device doesn't recognize the current location for a while, please try the following procedure before returning it to the retailer.



- ▶ Park your vehicle at a safe place free of obstructions
- ▶ Select the Setting on the Home Screen.
- ▶ Select the GPS Reset icon.
- ▶ Tap the GPS Reset icon.
- ▶ Allow up to 5 minutes for the Finedrive 400 to locate a GPS signal
- ▶ Contact Technical Support if your current position is repeatedly not detectable

Note : If the GPS resetting is done while driving, it will take much longer to receive a signal.

2.4.4. Setting Touchpad Calibration

In very rare cases, if the Finedrive 400 stops moving completely and you cannot activate any of the buttons, it could be a touchpad calibration issue. Use the touch calibration function when touch pad is not working at all. Try the following procedure before returning it to the retailer.

Carefully press on the center of the target.
Repeat as the target moves around the screen.



- ▶ Park the vehicle at a safe location
- ▶ Tap the Setting icon on the Home Screen.
- ▶ Select the Touch Calibration icon
- ▶ Follow the instructions on the screen
- ▶ Check the device after resetting the Touch calibration
- ▶ If your device still doesn't perform properly, please contact our Technical Support.

2.4.5. Setting Language Option

Select the main spoken language (Spoken language Only).



- ▶ Park the vehicle at any safe location
- ▶ Select the Setting icon on the Home Screen
- ▶ Tab the Language icon and select the language.

Note : This function is not provided for all models.

2.5. Shut Down

2.5.1. Shutting down the device

The shut down function turns the unit off. If your vehicle supplies power after the engine is turned off, be sure to turn the device off manually to prevent discharging the vehicle battery.



- ▶ Park the vehicle at any safe location
- ▶ Select the Shut Down icon on the Home Screen
- ▶ Select the Shut Down icon

Note : Fine Digital inc. is not responsible for any incident from not turning off the device properly, such as discharging of the battery.

3. Technical Support

Please visit our website at <http://www.finedigitalusa.com> for FAQ's, tips, troubleshooting and the latest updates.

Fine Digital, Inc.

Toll Free Phone:

(866) 346-3344

(866-FINEDIGITAL)

Email: help@finedigitalusa.com

Telephone technical support is available Monday through Friday between the hours of 9:00 AM to 5:00 PM Pacific Standard Time.

4. Appendix

4.1. FCC Compliance

The in-car GPS navigation complies with Part 15 of the FCC interference limits for Class B digital devices FOR HOME OR OFFICE USE. These limits are designed to provide more reasonable protection against harmful interference in a residential installation, and are more stringent than "outdoor" requirements.

Operation of this device is subject to the following 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.

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 of the following measures:

- ▶ Reorient or relocate the receiving antenna.
- ▶ Increase the separation between the equipment and the receiver.
- ▶ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or and experienced technician for help.

The navigation does not contain any user-serviceable parts. Repairs should only be made by an authorized Fine Digital service center. Unauthorized repairs or modifications could

result in permanent damage to the equipment, and void your warranty and your authority to operate this device under Part 15 regulations.

4.2. System Specifications

OS : Microsoft Windows CE.NET 4.2.

CPU : Samsung ARM9-200MHz

Main Memory : 64 MB

NAND Flash : 128MB(64 MB available for MAP DB)

SD card for external storage.

GPS : Frequency L1, 1575.42 MHz

12 Channels

Sensitivity -140 dBm

Acquisition Rate

- ▶ Hot start 8 sec., average (with ephemeris and almanac valid)
- ▶ Warm start 38 sec., average (with almanac but not ephemeris)
- ▶ Cold start 45 sec., average (neither almanac nor ephemeris)
- ▶ Reacquisition 0.1 sec., average (interruption recovery time)

Input : Touch Screen

Display : 4.0" Color TFT LCD / 320 × 240 / 65K True Color

Sound : 44KSPS/16bit Codec, 2W(40hm) Speaker

PC Interface : USB 1 Client (USB 1.1. Compatible)

Power : DC12V/300mA (Working DC voltage range : 10~16V)

Physical Characteristics

-
- ▶ Without antenna: 5.16" (W) × 1.05" (D) × 3.52" (H)
 - ▶ With antenna: 5.16" (W) × 2.69" (D) × 3.65" (H)

Temperature

- ▶ Operating 14° ~ 140°F
- ▶ Storage -4° ~ 158°F
- ▶ Humidity Up to 90% non-condensing

4.3. Manufacture Warning on FMT device

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER' S AUTHORITY TO OPERATE THE EQUIPMENT.