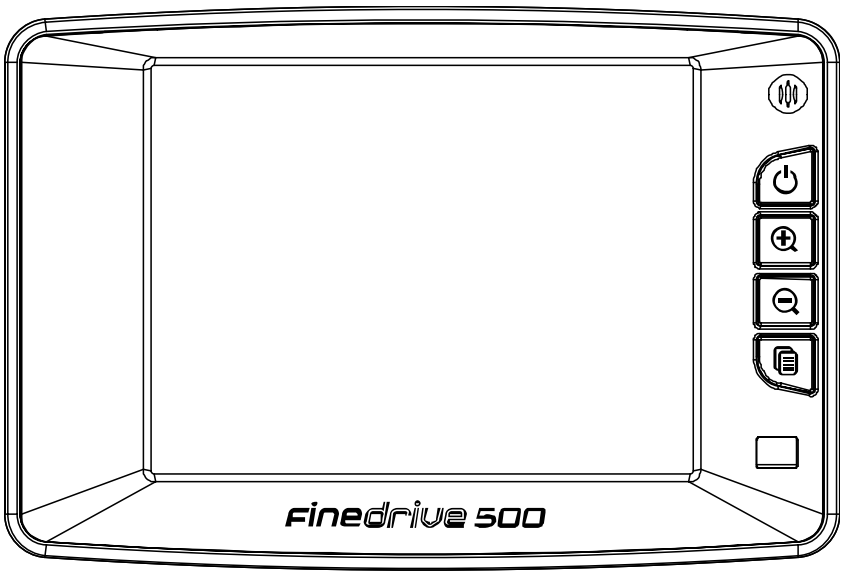
User's Manual

Finedrive 500™



2005

© 2005 Fine Digital USA, Inc. or its subsidiaries.

Contents

1. INTRODUCTION 3

1.1. WHAT IS IN THE BOX? 3

1.2. SYSTEM REQUIREMENTS 3

1.3. DOWNLOADING MAP 4

1.3.1. Downloading Map via SD card reader 4

1.4. INSTALLATION PRECAUTION 6

1.5. NAVIGATION HARDWARE INSTALLATION 7

2. CHECKING GPS 9

3. GETTING ACQUAINTED WITH YOUR NAVIGATION SYSTEM 9

3.1. MOVING AROUND THE MAP 10

3.2. USING THE MENUS 11

3.2.1. Main Menu 11

3.3. SETTING OPTIONS 11

3.3.1. Map View 12

3.3.2. Map View Modes 12

3.3.3. Setting Route Options 13

4. USING THE NAVIGATION SYSTEM 13

4.1. ENTERING A START LOCATION 14

4.2. ENTERING A DESTINATION 14

4.2.1. Setting a Destination by Address 15

4.2.2. Setting a Destination by Intersection 16

4.2.3. Setting a Destination by Point of Interest 18

4.2.4. Selecting a POI Alphabetically 19

4.2.5. Selecting a POI By Distance 19

4.2.6. Selecting a POI By City 20

4.2.7. Setting a Destination from the Favorites Location List 21

4.2.8. Setting a Destination from the Recent Destinations List 22

4.2.9. Managing the Destination and Route 23

4.2.10. Entering a Detour 23

4.2.11. Entering Stopovers 24

4.2.12. Clearing a Selected Destination 25

4.3. NAVIGATING THE VEHICLE 25

4.3.1. Using Day vs. Night Display 26

4.3.2. Viewing the Route List *27*

5. TECHNICAL SUPPORT **27**

6. APPENDIX **28**

6.1. FCC COMPLIANCE 28

6.2. SYSTEM SPECIFICATIONS 29

1. Introduction

1.1. What is in the Box?

The Navigation System box includes the following items:

1. Finedrive 500 Navigation Unit
2. GPS Receiver
3. DC12V In-car Cigarette Lighter Adapter
4. Vehicle Suction Mount
5. SD Card with NAVTEQ Map Data
6. SD Card Reader
7. CD including:
   - Navigation application(Desktop application)
   - User's Manual
   - U.S. and Canada map data.

1.2. System Requirements

Desktop or Laptop PC system requirements:

Windows 2000 or XP operating system. Windows 98 in not recommended.

266 MHZ Intel Pentium® II microprocessor with MMX™ or equivalent.

64 MB RAM.

80 MB available hard drive space.

CD ROM drive.

1.3. Downloading Map

1.3.1. Downloading Map via SD card reader

**** When downloading map data for the first time to a blank SD card using the SD card reader.***

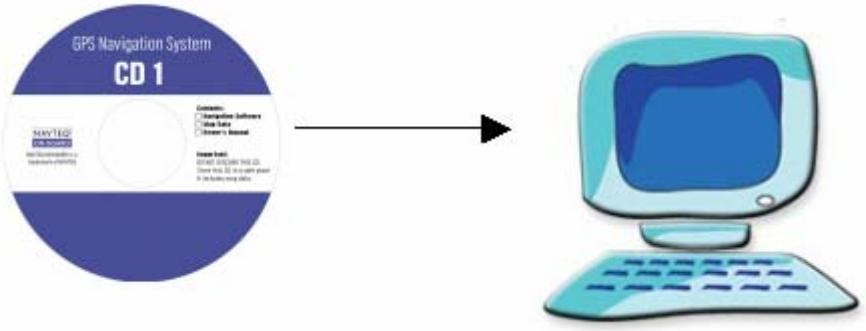
SD CARD INSTALLATION CHECK LIST:

* Installation Requirements:

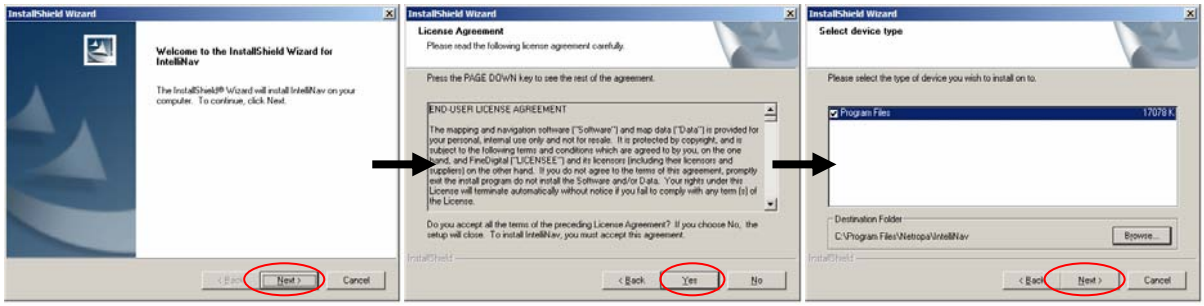
NAVIGATION unit	SD Card Reader
Installation & Map CDs	SD Card

*NOTE: if you are using a full map version navigation system, you do not have to install the software in your PC.

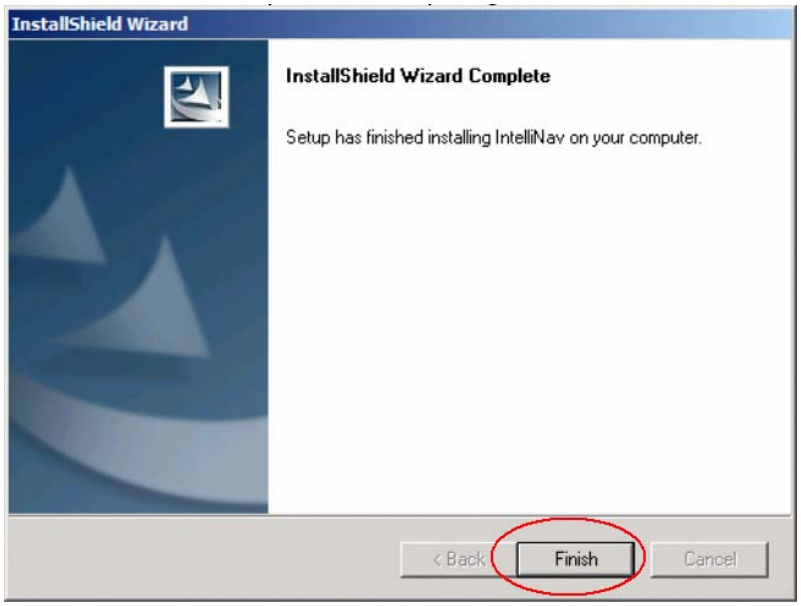
1. Insert Installation CD (CD 1) into your PC.



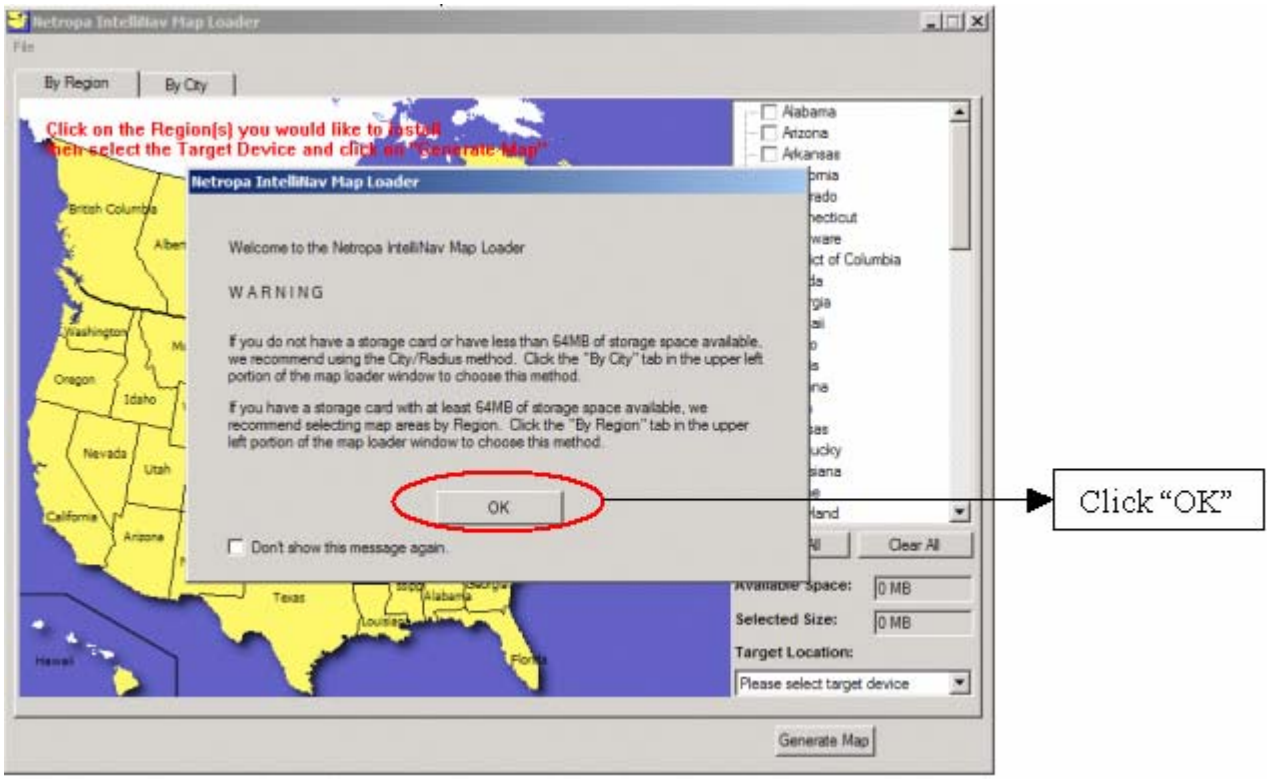
2. Map Loader setup program will start automatically. Follow the instructions.



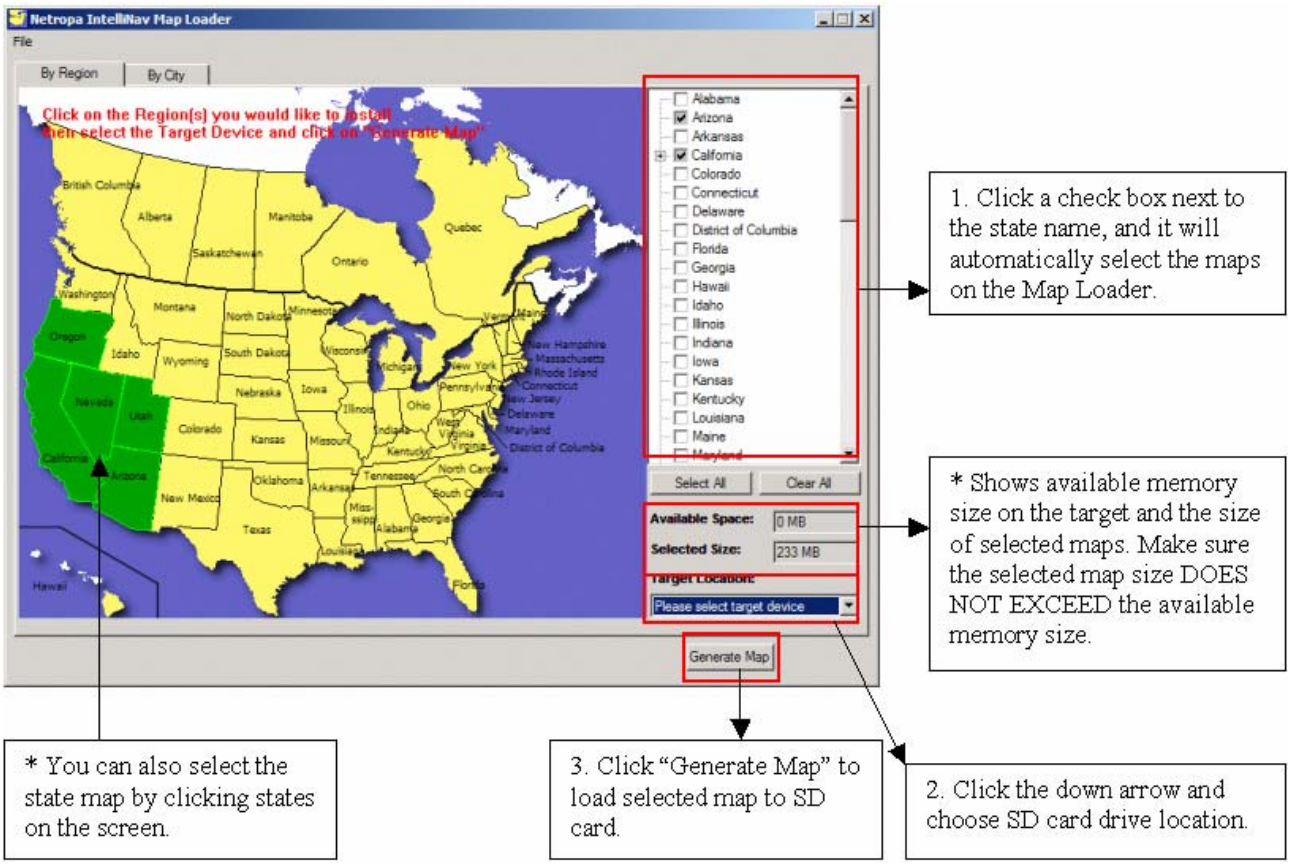
3. When the Map Loader program installation has completed, click "Finish"



4. Map Loader program will launch automatically. You can also execute the software later by double clicking on the Map Loader icon ( ) located on the Desktop.



5. Insert a SD card into the SD card reader. Select and download maps to SD card.



6. Insert the SD card into your navigation unit. Enjoy your drive. (Refer to "HARDWARE INSTALLATION GUIDE")

1.4. Installation Precaution

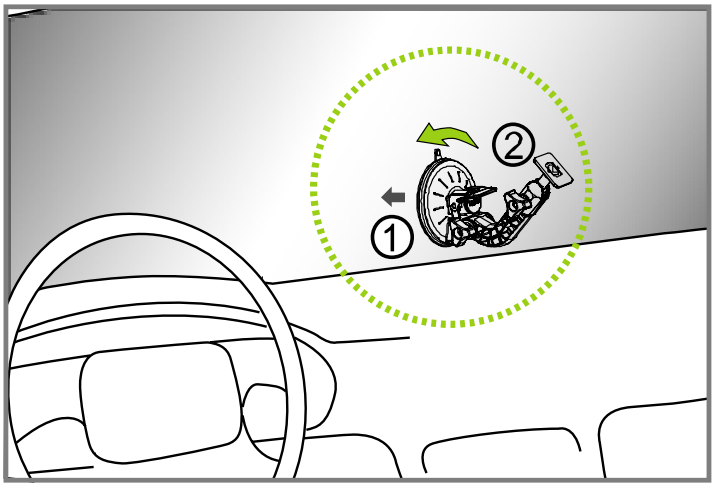
- Choose a mounting location in your vehicle where this unit will not distract or otherwise interfere with the driver's ability to control the vehicle.
- Do not install components in areas which are susceptible to rain, moisture, direct sunlight, extreme heat or cold, excessive dust, dirt or humidity.
- 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.

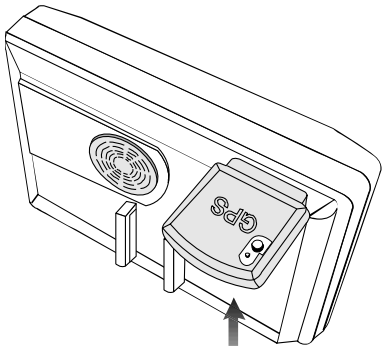
1.5. Navigation hardware installation

1. Installing navigation in the Car

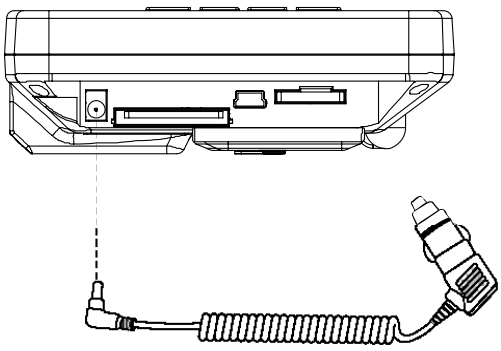
- Although the Finedrive 400 can be installed on any glass surface in your vehicle, we recommend that you install the unit below the-center of the windshield, between the driver and passenger seats. Make sure the windshield is clean and dry to ensure a tight grip.
- (1) When the suction on the vehicle 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.



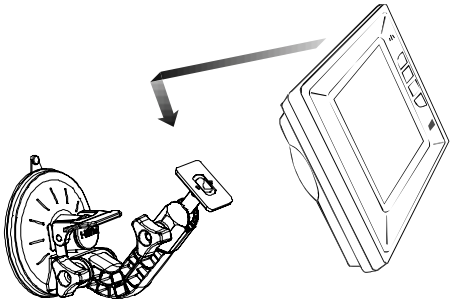
2. Flip the GPS Antenna up.



3. Plug in the Cigarette Jack Connector

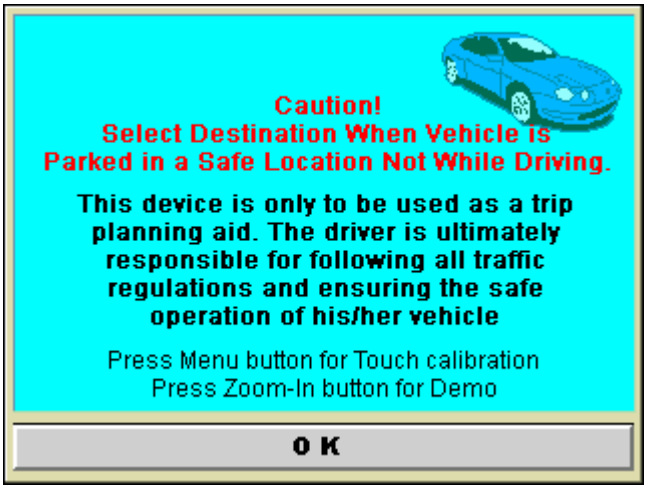


4. Slide the navigation into the holder



5. Turning power on/off

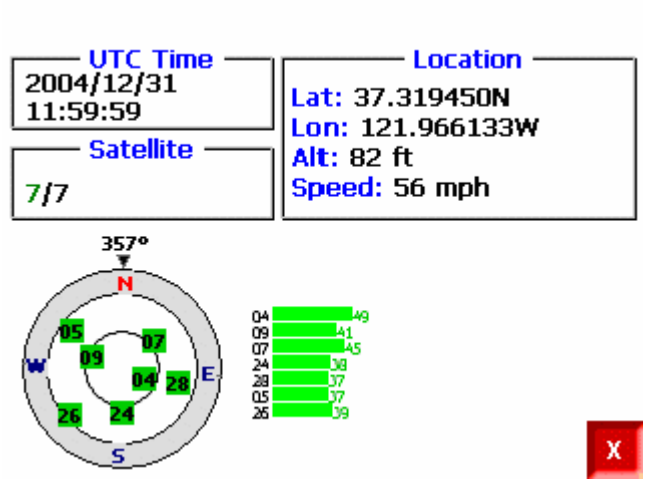
- Once the power is turned on, wait for a couple of seconds and then the WARNING sign will appear as follows:



- When the warning sign has appeared, read the message and proceed by tapping the "OK" button.

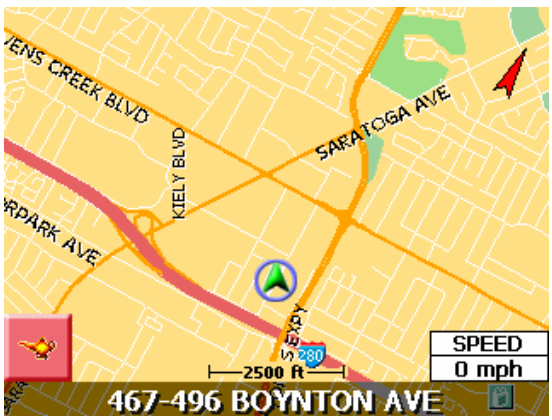
2. Checking GPS

When you first use navigation unit, it can take from five to fifteen minutes to receive a satellite signal. Thereafter, it should take approximately 90 seconds to receive signals.



3. Getting Acquainted with your Navigation System

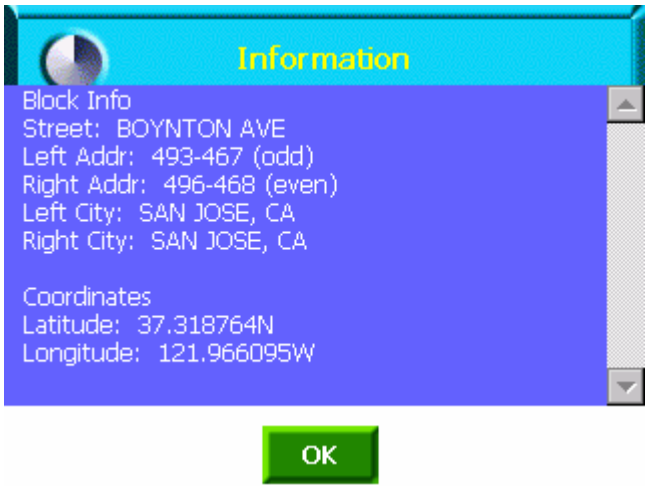
When you start navigation System, the downloaded map displays in Map View. This provides an expanded view of the map area around the vehicle location. If you are receiving a GPS signal, the map defaults to the current location.



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 view detailed vehicle location information:

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

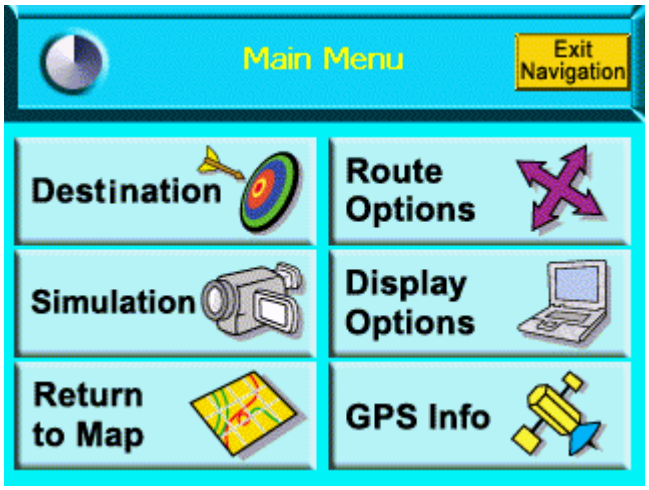


3.1. Moving Around the Map

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.

3.2. Using the Menus

3.2.1. Main Menu



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

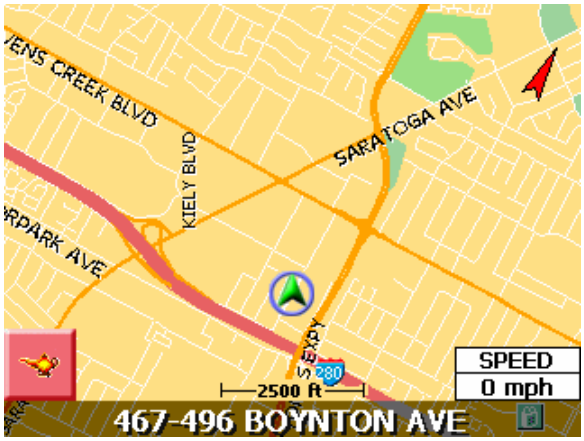
3.3. Setting Options

Through navigation System, you can set the following preferences:

- Map Display View.
- Routing Options.

3.3.1. Map View

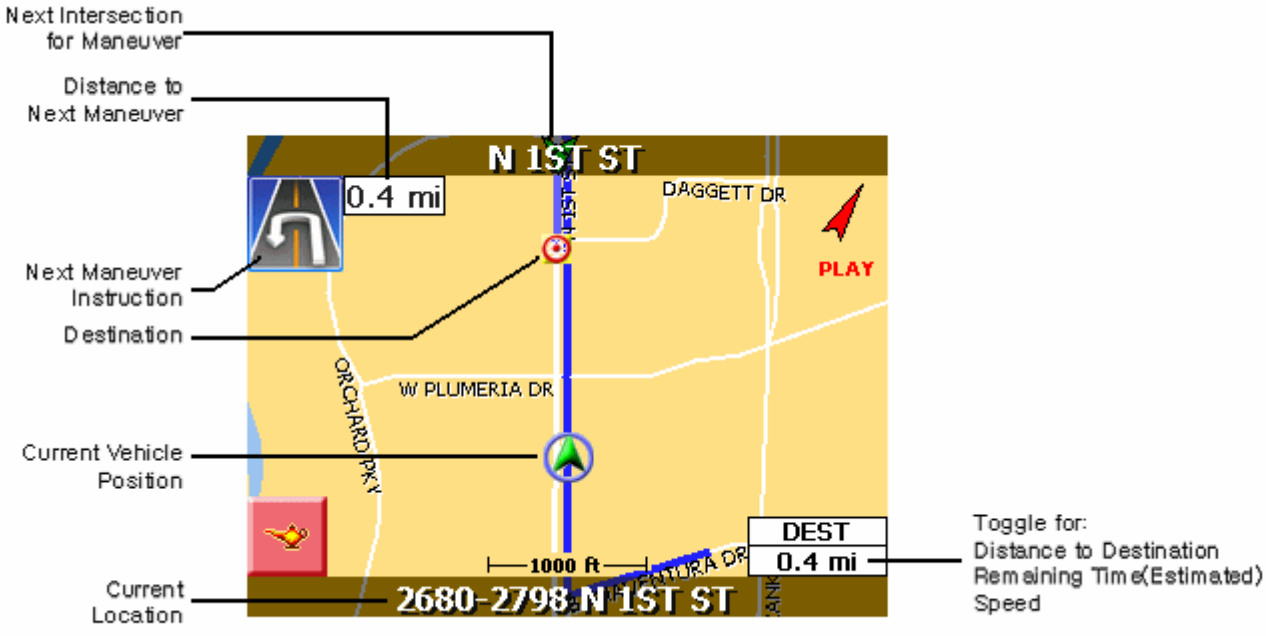
1. To display the map in Map View, tap the Menu button > Return to Map icon. The Map View screen displays.



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

- Heading Up to automatically orient the map in the direction of vehicle travel.
- North Up to maintain the map in a North/South position.

3.3.2. Map View Modes



3.3.3. Setting Route Options

Route Option enables you to use the navigation system in a number of different ways for determining your optimal route:

- **Quickest Route** to calculate a route with minimum travel time.
- **Shortest Route** to calculate a route with minimum travel distance.
- **Major** to include major roads, such as highways.
- **Local** for local streets only.

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.

4. Using The Navigation System

The calculated route for a destination displays in blue on the map. If you miss a turn in the route, navigation system recalculates the route and briefly displays “Recalculating Route” on the map display.

4.1. Entering a Start Location

The navigation system defaults to the current location as the starting point for route calculation, as specified by the GPS signal. You can enter a start location if you are not connected to a GPS receiver, do not have a GPS signal, or want another 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.
- Tap the Menu button > Destinations icon. Enter the destination information. For more information, refer to the Entering a Destination section.

4.2. Entering a Destination

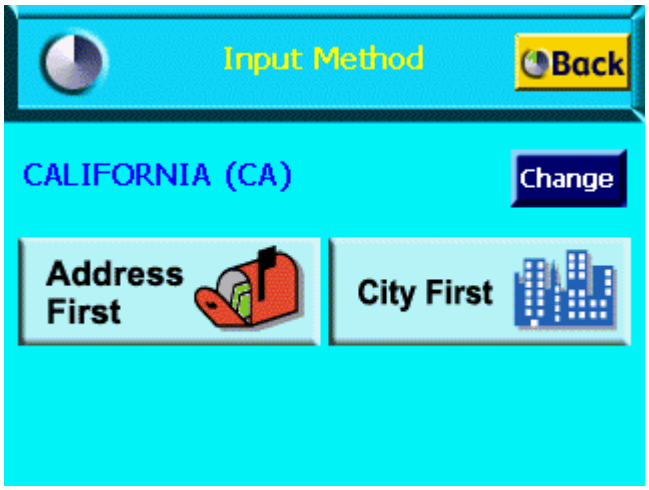
To enter a destination, do one of the following:

- 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 with options displays.

4.2.1. Setting a Destination by Address

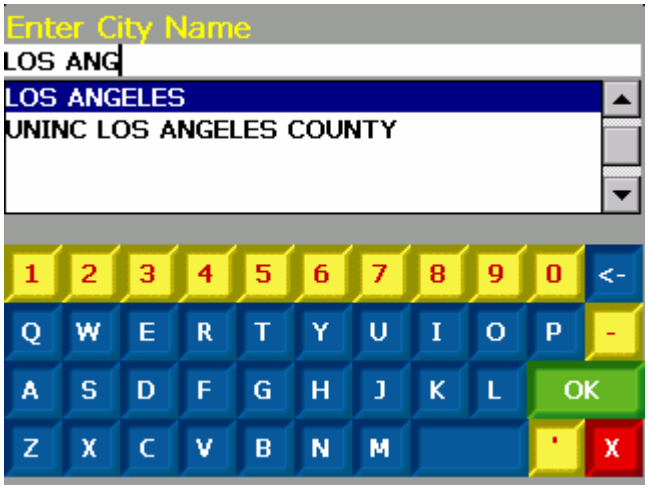
1. Tap **Address** on the Set Destination screen. The Select Input Method screen displays.



2. Select an Input Method as follows:

- Tap **Street 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.

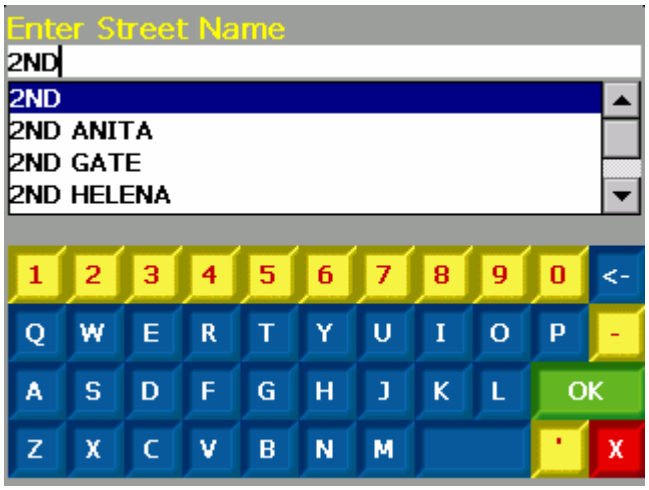
3. Select an entry, as follows:

- Scroll through the list by using the scroll keys at the right of the list.

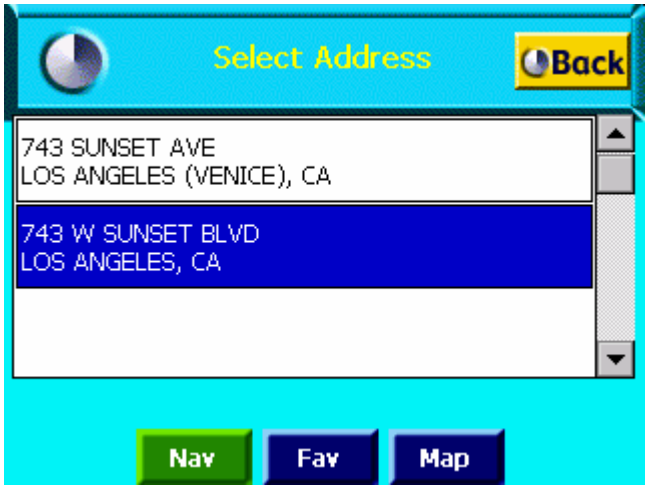
- Tap in characters using the keypad at the bottom of the screen.

4. Tap on the OK button after each entry.

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



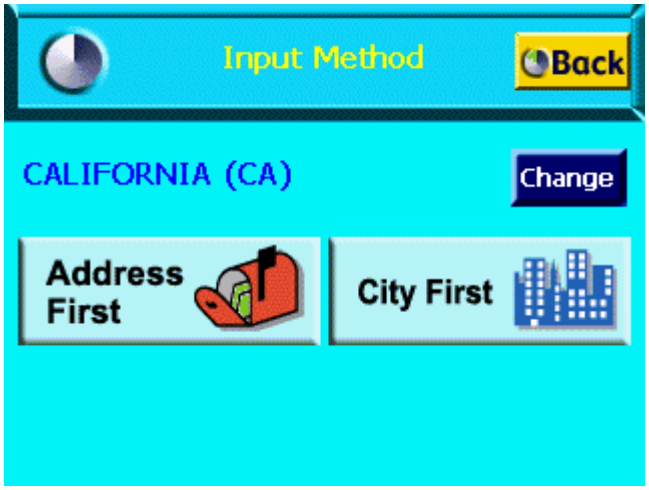
6. Tap on one of the following buttons at the bottom of the screen:



- **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.

4.2.2. Setting a Destination by Intersection

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

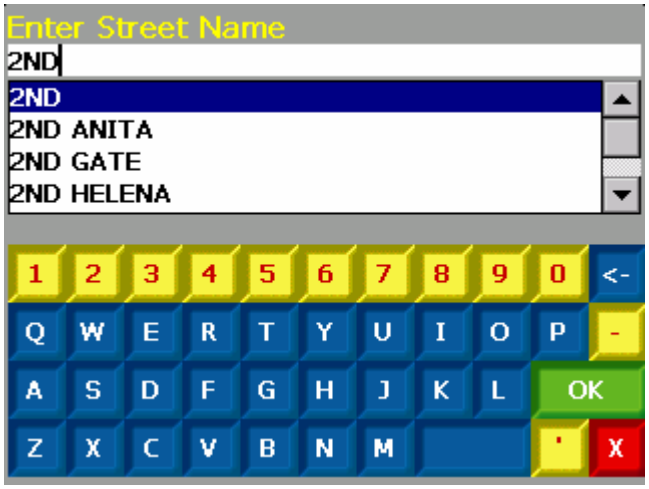


2. Select an Input Method as follows:

- Tap **Street First** to enter the names of two intersecting streets.
- Tap **City First** to enter the city name and two intersecting streets.

When entering an address, do not enter the street type or direction, such as Ave, St, N, or SW.

When you enter a street or city, dialog boxes similar to the following display:



For an intersection, there are two address dialog boxes for the two intersecting streets.

3. To select an entry, do one of the following:

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

4. Tap on the OK button after each entry .

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

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

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

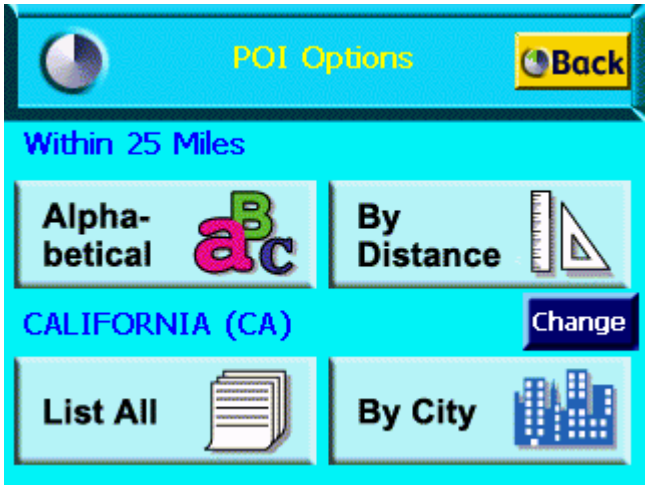
- **Nav** to calculate the route and center in on the map location.
- **Fav** to add this location to your list of favorite locations.
- **Map** to set this location as the starting route point for your trip.

4.2.3. 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 Points of Interest on the Set Destination screen. The Select Input Method screen displays.



2. Tap on a Points of Interest category.

3. Do one of the following:

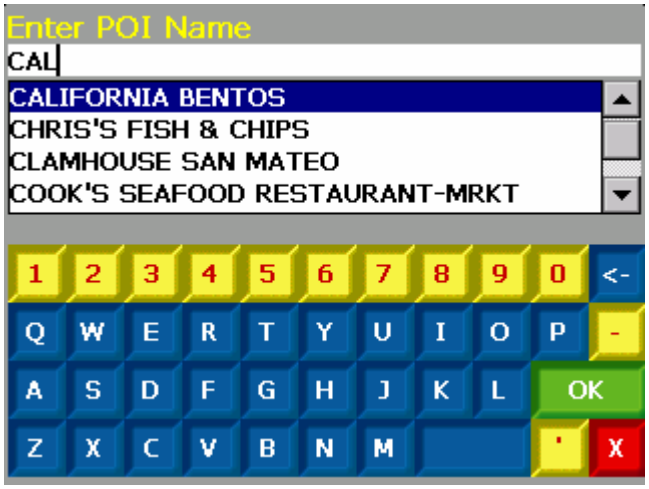
- Select a POI alphabetically, within a 25 mile radius. For more information, refer to the Selecting a POI Alphabetically section.
- Select a POI by distance, within a 25 mile radius. For more information refer to the

Selecting a POI By Distance section.

- Select a POI By City. For more information, refer to the Selecting a POI By City section.

4.2.4. Selecting a POI Alphabetically

1. Tap Alphabetical on the Points of Interest Options 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 on the OK button. The POI Select screen displays.

4. Tap on 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.

4.2.5. 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.

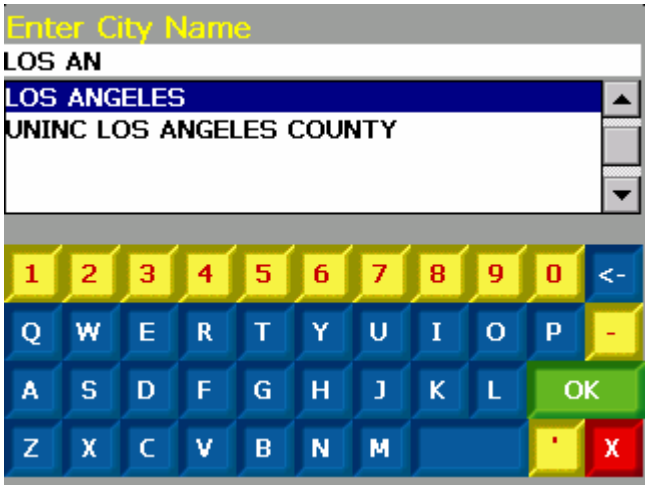
Select an entry by scrolling through the list and tapping on it.

2. Tap on 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.

4.2.6. 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 on the OK button. 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.

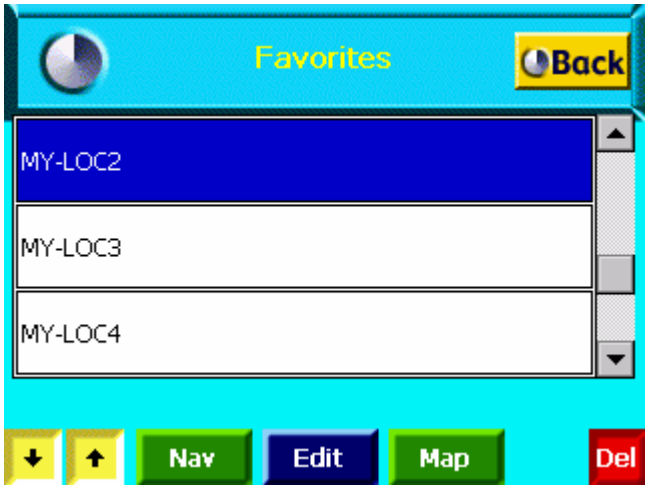
5. Tap on the OK button. The POI Select screen displays.

6. Tap on 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.

4.2.7. Setting a Destination from the Favorites Location List

1. Tap Favorites on the Set Destination screen. The Favorite Destination screen displays.



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

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

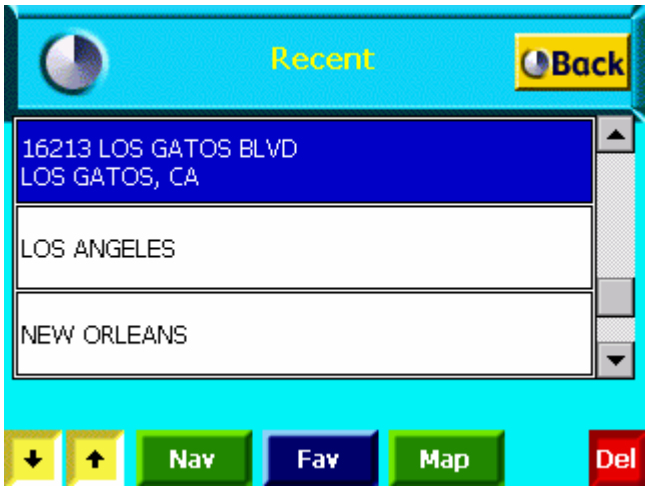
2. Tap on one of the following buttons at the bottom of the screen:

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

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.

4.2.8. 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 on 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. Or, tap the **Del** button to remove a location from your Recent Destinations list.

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

Tap on one of the following buttons:

- **Detour** to enter roads to avoid along the route. For more information, refer to the Entering Detours section.
- **Stopover** to enter places to stop along the route. For more information, refer to the Entering Stopovers section.
- **Clear** to clear the current destination and enter a new destination. For more information, refer to the Clearing a Destination section.
- **New** to clear the current destination and enter a new destination. For more information, refer to the Entering a Destination section.
- **Back** to display the map view.

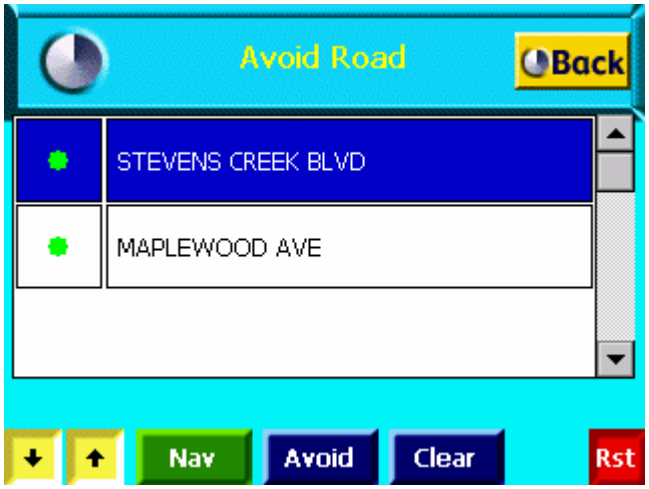
4.2.10. Entering a Detour

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 displays if there is no detour for the current route.

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



2. Tap the road to avoid.

3. Tap on the **Avoid** button.

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

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

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

To cancel a selection, tap on it and tap the **Clear** button. To cancel all selections, tap the **Rst** button.

4.2.11. Entering Stopovers

A stopover is an intermediate location on your route. This feature guides you to the intermediate

location and then continues to the destination.

To enter a stopover:

1. Tap the Stopover Button on the Destination Options screen. The Set 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 a specific category.

4.2.12. 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.

4.3. Navigating the Vehicle

After you have entered a destination and selected the Nav option, 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.

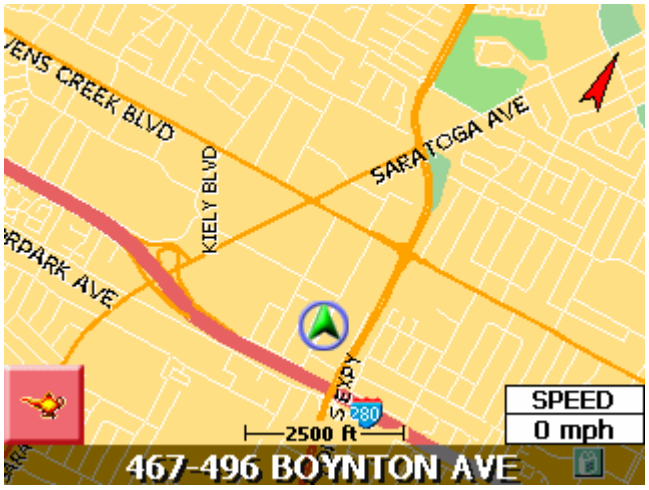
- A list of route instructions.

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.

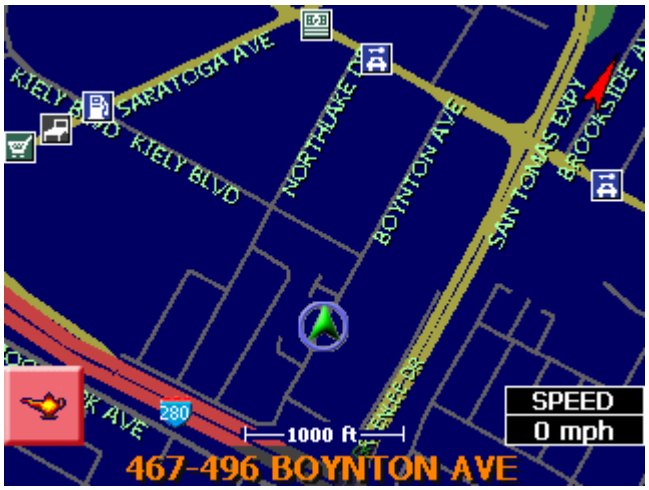
4.3.1. Using Day vs. Night Display

The navigation system can display the map or guidance 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 have a GPS signal, navigation system automatically switches between views at the appropriate time of day.

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

4.3.2. Viewing the Route List

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

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

5. Technical Support

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

Fine Digital, Inc.

http://www.finedigitalusa.com

- 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.

6. Appendix

6.1. 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" requirement.

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.

6.2. System Specifications

OS : Microsoft® Windows CE.NET 4.2.

CPU : Samsung ARM9-200MHz

Main Memory : 64 MB

NAND Flash : 128MB(available 80 MB for MAP DB in 128MB MAND Flash)

SD card for external storage.

GPS : Frequency L1, 1575.42 MHz

8 Channels

Sensitivity : 3D holding sensitivity –153 dBm

3D re-acquisition sensitivity –146 dBm

Acquisition Rate

- Hot start 8 sec., typical (with ephemeris and almanac valid)
- Warm start 38 sec., typical (with almanac but not ephemeris)
- Cold start 60 sec., typical (neither almanac nor ephemeris)
- Reacquisition 3 sec., typical (interruption recovery time)

Input : Touch Screen

Display : 5.1" Color STN LCD / 320X240 / 256 Colors

Sound : 44KSPS/16bit Codec, 2W(4Ohm) Speaker

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

Power : DC12V/500mA (Working DC voltage range : 10~16V)

Physical Characteristics

- With antenna: 6.40" (W) x 1.34" (D) x 4.32" (H)

Temperature

- Operating -23° ~ 122°F
- Storage -4° ~ 158°F
- Humidity Up to 90% non-condensing