®

User's Guide
hp iPAQ Navigation System

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WARNING: Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.

Caution: Text set off in this manner indicates that failure to follow directions could damage to equipment or loss of information.

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Getting Started

HP iPAQ Navigation System is a full featured software using the latest in satellite technology and detailed street maps from Navigation Technologies. This software guides you through the most complex streets with ease.

> The HP iPAQ Navigation System is referred to as Navigation System in this User's Guide.

The Navigation System is designed for the HP iPAQ PocketPC. Since the map of the United States and Canada is very large, it does not fit on the HP iPAQ PocketPC. You can transfer map data by city or state, but not both at the same time. To transfer the portion of the map you want to your iPAQ PocketPC, use the companion map loading software on your desktop (or laptop). The time needed to download a map varies based on system capabilities.

When you travel to a different area of the country, the map loader lets you easily change the maps on your iPAQ PocketPC, as needed.

⚠ **CAUTION!** You should limit the size of the map data downloaded to your iPAQ PocketPC to <100 MB. If you download too much data, Navigation System may not run. You *must* then perform a soft reset and remove the maps from the SD or CF card.

In the following sections, you learn about:

- What's in the Navigation System Box.
- System Requirements.
- Installing the Navigation System Software.

What is in the Box?

The Navigation System box includes the following items:

1	iPAQ Bluetooth^{TM} GPS Receiver.
2	12 V DC Adapter for charging in the car.
3	CD ROM 1 including: ■ Navigation application (Desktop and Pocket PC application). ■ Western U.S. and Canada map data. ■ User's Guide.
4	■ CD ROM 2 including Eastern U.S. and Canada map data.

If you are missing any items, contact your dealer.

System Requirements

The Navigation System is designed to run on any HP iPAQ Bluetooth enabled pocket PC, including:

- HP iPAQ 1940/45
- HP iPAQ 2210/15
- HP iPAQ 5450/55
- HP iPAQ 5450/55
- HP iPAQ 3870/75
- HP iPAQ 3970/75
- h4100
- h4300

Desktop or Laptop PC system requirements include:

- Microsoft® Windows 98, ME, 2000 Professional, or XP operating system.
- 266 MHZ Intel Pentium® II microprocessor with MMX™ or equivalent.
- 64 MB RAM.
- 80 MB available hard drive space.
- CD ROM drive.

Handheld PC system requirements include:

- Microsoft® Windows Pocket PC 2002 or Microsoft Windows Mobile 2003 Operating System.
- 64 MB RAM.
- 64 MB storage space on SD card, CF card, or main memory.

Loading the Navigation System Software

To install the Navigation System Software on your Desktop:

1. Synchronize the iPAQ PocketPC with your computer using ActiveSync.

   For information on synchronizing your PC, refer to the *iPAQ User's Guide*.

2. Connect the iPAQ PocketPC to your computer using the iPAQ cradle or synchronization cable.
3. Close all other applications running on the Desktop and Pocket PC.
4. Obtain the two Navigation System installation discs.
5. Insert Disk 1 in the CD drive.

   The Installer should start immediately. If the setup program does not automatically start, click on the **Start** tab and select the **Run** option. Type the following in the dialog box: D:\setup.exe and click on the **OK** button. Follow the directions in the dialog boxes.

6. Click on the **Nex**t button on the Welcome to Install Shield Wizard window.

   Read through the End User License Agreement.

7. Click on the **Yes** button if you accept the License Agreement terms.

   Setup installs the Navigation System files onto your computer.

8. Click on the **Finish** button.

Selecting and Downloading a Map by Region

The Navigation System allows you to install maps by region/state, or by city. You *can not* store multiple cities, or cities and states in the same location.

On the Map Loader window,

1.   Click on each state to download to your iPAQ PocketPC, or click on the check box next to each state name.
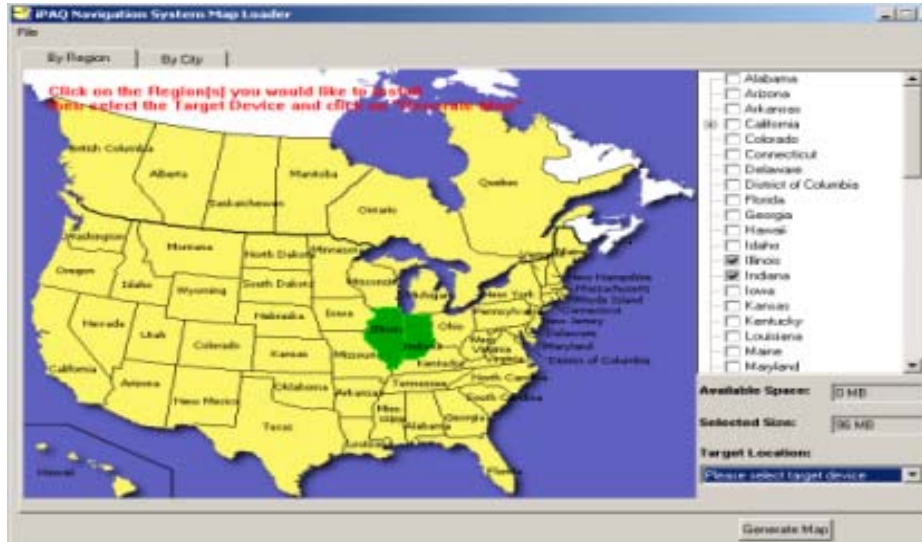
A region consists of one or more states. Each selected state is highlighted on the map. A check mark is entered next to each state name on the right side of the window. You deselect a state by tapping on it on the map, or by tapping on the box to remove the checkmark. The size of the selected region appears in the **Selected Size** box.

2.   Select **Pocket PC Main Memory** from the Target Location pop up box.

The default target location for maps is the Pocket PC main memory. If there is an SD or CF card installed in your Pocket PC, you can select this as the target location for maps.

3.   Click on the **Generate Map** button.
4.   Insert the appropriate disk in the CD drive, when prompted.
5.   Click on the **OK** button after the map is downloaded onto your iPAQ PocketPC.
6.   Remove the disk from the CD drive.

Selecting and Downloading a Map By City

Selecting a map by radius around a city is preferred since it lets you create a customized map using a small amount of memory. This is helpful if you do not have additional removable storage cards.

On the Map Loader window,

1. Click on the **By City** tab for the options to create a map around a city.
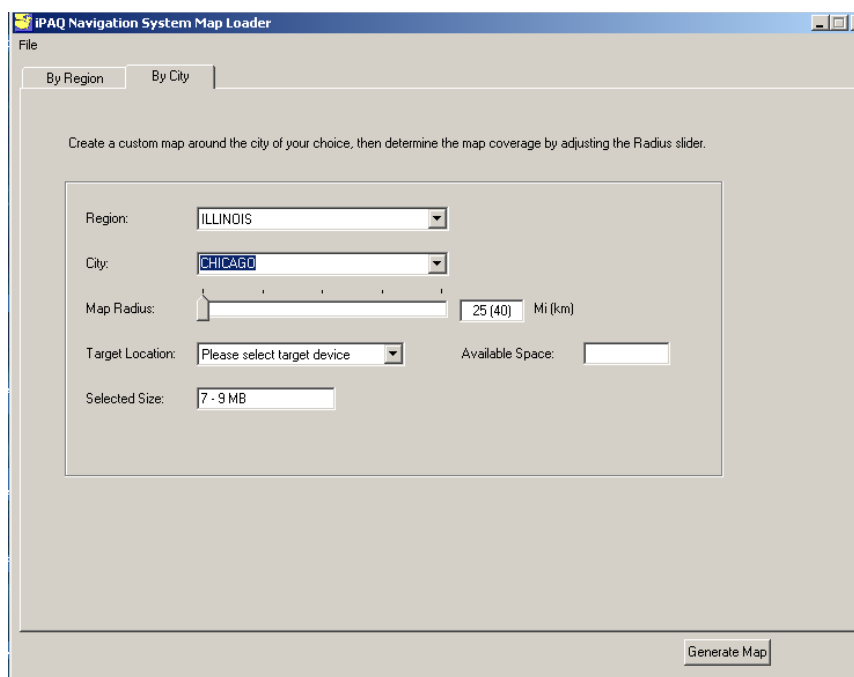
2. Enter a state in the **Region** box. Click on the down arrow next to the box to display a list of states.
3. Enter a city in the **City** box. Click on the down arrow next to the box to display a list of cities.
4. Click on the bar in the **Map Radius** box to enter a radius for the selected city.

You can increase the radius from 25 miles to 125 miles by moving the indicator to the right. A message displays if the selected map size exceeds the iPAQ available memory.

5. Select **Pocket PC Main Memory** from the Target Location pop up box.
6. Click on the **Generate Map** button.
7. Insert the appropriate disk when prompted.
8. Click on the **OK** button after the map is downloaded onto your iPAQ PocketPC.
9. Remove the disk from the CD drive.

Downloading Additional Maps

The Navigation System easily lets you change map information stored on your iPAQ PocketPC or removable storage cards.

△ **CAUTION:** If you install additional maps, Navigation System warns that any existing map information *is erased* from the storage location. This is to prevent the maps from occupying a considerable amount of storage space.

If you need to store a number of maps, you can use different removable SD or CF cards.

To access the map installer after Navigation System is installed on your Desktop and iPAQ PocketPC, do the following:

1. Connect the iPAQ PocketPC to your Desktop.

△ **CAUTION:** Verify the Navigation System is closed before installing additional maps. For more information refer to the *Closing the Navigation Syst*em section.

2. Double click the Navigation system icon on your Desktop screen.
   The Map Loader screen is displayed.
3. Select a download method, as follows:
   - By State - Click on each state to download, or click the check box next to each state name For more information, refer to the *Downloading a Map by Region* section.
   - By City - Enter the State, City, and radius around the selected city. For more information, refer to the *Downloading a Map by City* section.

   The selected state or city size displays in the **Selected Size** box on the Map Loader screen.
4. Select the storage location (i.e., iPAQ Pocket PC Main Memory or SD Card) from the Target Location pop up box on the Map loader screen.
5. Click on the **Generate Map** button.
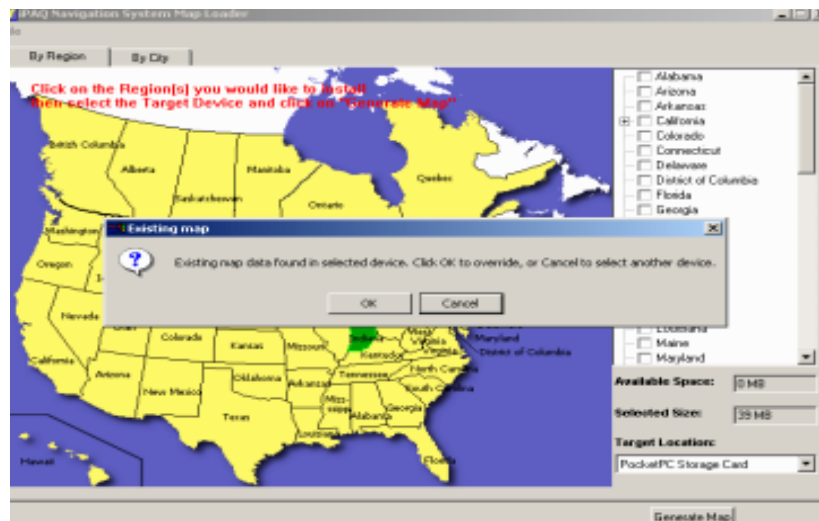
If you accept the removal of existing maps, the new selected map(s) are downloaded to your iPAQ PocketPC.

Closing the Navigation System

When you open Navigation System, it runs in the background of your iPAQ PocketPC. To stop it from running in the background, you should manually close it.

If you do not manually close Navigation System, your iPAQ PocketPC may freeze when it is switched off. You must perform a soft reset before you can switch the iPAQ PocketPC on, again. This procedure does not harm any data or settings.

To manually close Navigation System:

1. Tap the blue **x** in the upper right corner of the map.
2. Tap **Start** >**Settings**.
3. Tap the **System** tab at the bottom of the screen.
4. Tap the **Memory** icon on the System screen.
    The Memory screen displays.
5. Tap the **Running Programs** tab at the bottom of the Memory screen.
    The Running Programs list displays.

6. Tap **iPAQ Navigation System** in the list.
7. Tap the **Stop** button.
8. Close your iPAQ PocketPC.

Using the HP iPAQ GPS Bluetooth Receiver

The HP iPAQ Navigation System Bluetooth GPS receiver gets GPS signals from satellites orbiting the earth. It identifies your position to an accuracy of less than 10 meters.

The HP iPAQ Navigation System Bluetooth GPS receiver is referred to as the Bluetooth GPS receiver in this User's Guide.

Learning About Bluetooth GPS Features

An illustration of the Bluetooth GPS receiver with features follows.

Feature	Description
Power Switch	Power is On or Off.
Power Jack	The Power Jack connects a DC car power charger (included) or AC power charger to recharge the internal battery.
Bluetooth Status LED (Blue)	Blinking Slowly - There is not a Bluetooth connection. Blinking Quickly - There is a connection to another Bluetooth receiver.
GPS Status LED (Green)	Blinking - The GPS position is fixed. Steady Light - The GPS position is not fixed.
Battery Status LED (Red/Yellow)	Red - Battery power is extremely low. Charge immediately. Yellow - Battery is currently charging. LED Off - Battery is partially or fully charged.
External Antenna	Connects an external antenna. This is usually not required since the GPS has an internal antenna.

Setting Up the Bluetooth GPS Receiver

The Navigation System requires set up with the Bluetooth GPS receiver in order to operate. For the initial set up, do the following:

1. Charge the Bluetooth GPS receiver using the DC adapter (included) or the AC adapter for the HP iPAQ PocketPC.

   The first time you charge the Bluetooth GPS receiver, it can take up to three hours.

2. Turn on the Bluetooth GPS receiver using the **Power** switch on the left side of the receiver.

   The blue LED flashes when the receiver is turned on.

3. Partner the Bluetooth GPS receiver with the iPAQ PocketPC, as follows:
   n   Tap **Start** at the top of the Today screen of the iPAQ PocketPC.

   n   Tap **Programs** on the Start menu.

4. Tap the **iPAQ Navigation System** icon on the Programs screen.

   This is a one time procedure. After this, you just tap the **Navigation System** icon at the top of the Start menu.

The following warning displays:
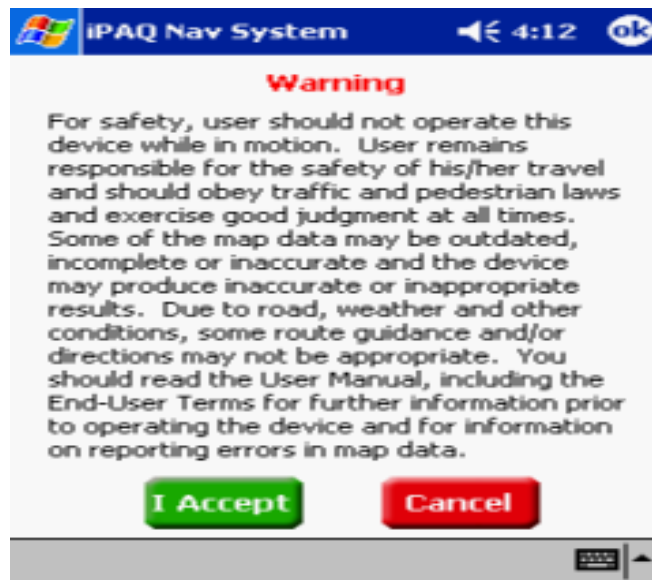
5. Tap on the **I Accept** button.

Partnering between the Bluetooth GPS receiver and the iPAQ PocketPC automatically occurs.

Some devices require you manually partner the Bluetooth GPS receiver and the iPAQ PocketPC. This includes devices using Microsoft® Windows Pocket PC 2002 operating system. For more information, refer to the *Manually Partnering the Bluetooth GPS Receiver and the iPAQ PocketPC* section.

Manually Partnering for Windows® Mobile 2002 Operating System

To partner the Bluetooth GPS receiver with the iPAQ PocketPC requires:

- Navigation System software installed on your iPAQ PocketPC.
- Bluetooth GPS receiver is charged.
- iPAQ PocketPC is turned on.
- Bluetooth GPS receiver is turned on.
- Bluetooth GPS receiver and iPAQ PocketPC are between 5-10 meters apart.

Establishing a Connection

1. Tap **Start** at the top of the Today screen on the iPAQ PocketPC.
2. Tap **Bluetooth Manager** from the pop up menu.
   The Bluetooth Manager screen displays.

3. Tap the **Yes** tab to search for devices.

iPAQ searches for and displays a list of Bluetooth devices.

4. Tap the check box to the left of the **BT-GPS-xxxxxx** device in the list.
5. Tap the **OK** button on the upper right side of the screen.

A Bluetooth GPS icon displays on the Bluetooth Manager screen.
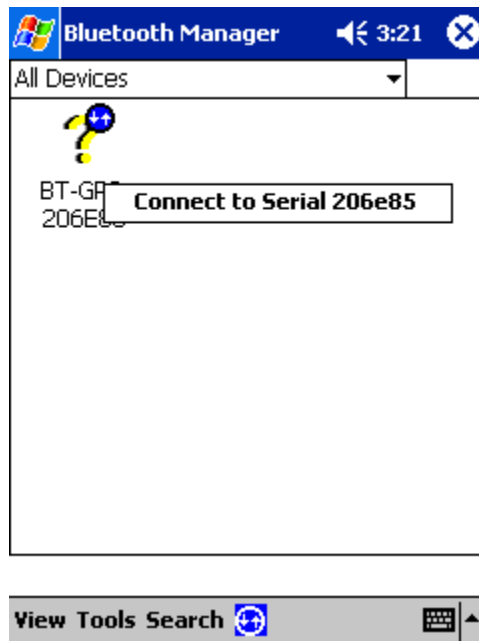
6. Tap and hold the pointer on the **BT-GPSxxxxxx** icon.
7. Tap on **Connect to Serial xxxxxx** to establish a connection with the Bluetooth GPS receiver.
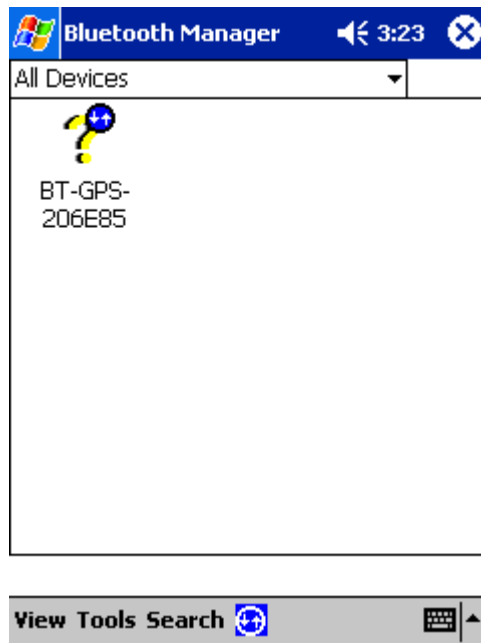
Two blue arrows display on the GPS Bluetooth receiver icon to indicate a connection.

Partnering between the Bluetooth GPS receiver and the iPAQ PocketPC immediately occurs.

Manually Partnering for Windows® Mobile 2003 Operating System

To partner the Bluetooth receiver with the iPAQ PocketPC requires:

■ Navigation System Software installed on your iPAQ PocketPC.

■ Bluetooth GPS Receiver is charged.

■ iPAQ PocketPC is turned on.

■ Bluetooth GPS Receiver is turned on.

■ Bluetooth GPS receiver and iPAQ PocketPC are between 5-10 meters of each other.

Establishing a Connection

1. Tap **Start** at the top of the Today screen on the iPAQ PocketPC.
2. Tap the **Settings** option on the pop up menu.
3. Tap the **System** tab at the bottom of the Settings menu.
4. Tap the **Bluetooth** icon on the System menu.
   The Bluetooth General screen displays.
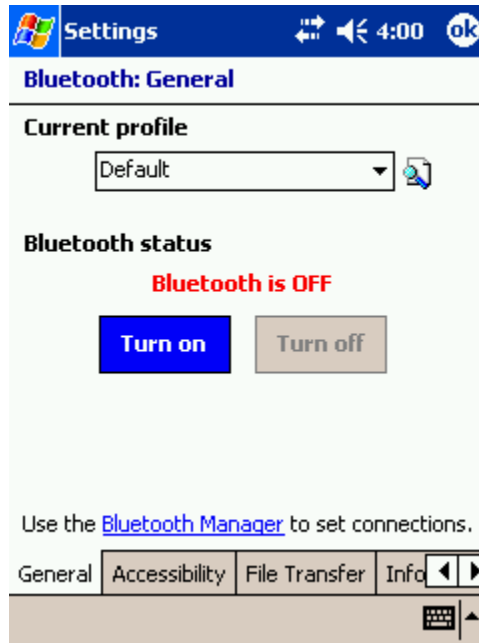
5. Tap the **Turn On** tab below the Bluetooth status.

The message "Bluetooth is On" displays.

6. Tap **Bluetooth Manager** to set the connections.
   The Bluetooth screen displays.

7. Tap the **New** tab at the bottom of the Bluetooth screen.
8. Tap **Connect!** to display the Connection Wizard.
9. Tap **Explore a Bluetooth Device** from the Connection Wizard options.
10. Tap the **Next** tab at the bottom of the Connection Wizard screen

11. Tap inside the Device box to display a list of available Bluetooth Devices.

> The Bluetooth GPS receiver displays a list of available devices. This creates a shortcut for the GPS receiver

12. Tap the icon labeled **BT-GPS-XXXXXX**.
13. Tap **Serial XXXXXX** on the Service Selection screen to highlight it.
14. Tap the **Next** tab at the bottom of the Service Selection screen.
15. Tap the **Finish** tab at the bottom of the Connection Wizard screen.

> A box with the connections displays.

16. Tap the **BT-GPS-XXXXXX** icon, twice, to establish a connection between the iPAQ Pock-etPC and the Bluetooth GPS receiver.
    Green arrows on the icon indicate an active connection.

Checking the GPS Connection Status

1. To check the status for the Bluetooth GPS receiver and the iPAQ PocketPC, tap the Bluetooth icon on the Today screen.

   The Bluetooth icon is located on the lower right side of the screen.

2. Tap **Bluetooth Manager**.

   The Bluetooth Manager screen displays.
3. Tap the **Active Connections** tab at the bottom of the screen.

If a connection is established, an icon with the label "BT-GPS-XXXXXX" displays. The green line next to the icon indicates an active connection.
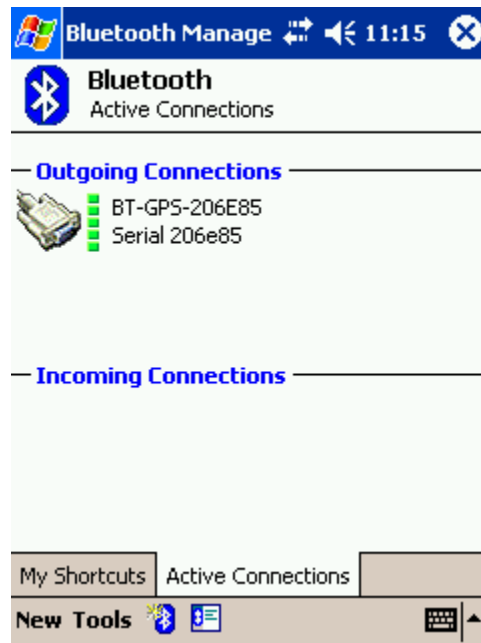
If the connection is not active, manually partner the Bluetooth GPS receiver with the iPAQ Pock-etPC. For more information, refer to *Manually Partnering the Bluetooth GPS Receiver with the iPaQ PocketPC* section.

Receiving Satellite Signals

The Bluetooth GPS Receiver gets satellite signals *only* when there is a clear view of the sky. Trees and tall buildings can block the view. Generally, you do not receive signals inside a building.

> The Bluetooth GPS Receiver should be placed on the front or back dashboard of the vehicle.
>
> A wireless connection between the Bluetooth GPS Receiver and iPAQ Pock-etPC is established through the receiver radio. The Bluetooth GPS receiver and the iPAQ PocketPC should be no further than 5-10 meters apart.

Once a connection is established between the Bluetooth GPS Receiver and iPAQ PocketPC, satel-lite signals are received. When you first use the Bluetooth GPS Receiver, it can take from five to fifteen minutes to receive a satellite signal. Thereafter, it should take approximately 90 seconds to receive signals.

> Some days, you receive a GPS signal quicker than on other days. Although GPS signals orbit the earth in set patterns, they are not always over the same position on earth. There is more extensive coverage over lower latitudes and less near the poles.

Based on satellite position, geographic location, and heading, you can experience the following:

- Satellite signals are received quicker at specific times of the day. For example, at 10 A.M., you can receive signals under a minute since there are more satellites visible in the sky. At 3 P.M., you may not receive signals because only two satellites are visible in the sky.
- Buildings can block satellite signals. Setting up the GPS receiver in a vertical window blocks at least 50% of the sky. Trees also can block satellite signals.
- A window with a Southern view, rather than Northern view, should be used to receive signals.
- The Bluetooth GPS Receiver needs at least three satellite connections. Using Navigation System, check the GPS Receiver status as follows:
- Tap the **View** tab > **GPS Info**.
- Tap the **Menu** button > **GPS** icon.

The GPS Info screen displays.

> The Bluetooth GPS receiver performs at its best when the battery is fully charged. If you are at a location receiving weak signals, verify the Bluetooth GPS receiver is connected to the DC power charger.

The strongest GPS connection has 4 or more satellites available and the vehicle position displays in green on the map. If there are 3 satellites available, the vehicle displays in yellow on the map. If less than three satellites, the vehicle displays in red on the map.

If the iPAQ PocketPC loses connection with a GPS device, tap **Tools** > **GPS Options** > **Auto Detect** > **OK** for Navigation System to search for GPS Devices.

Getting Acquainted with 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.

> **Map View** is the default selection. You can also select **Guidance View** to center in on the map location. For more information, refer to *Selecting the Map Display View*.

If you have a GPS signal, the map defaults to the current location.
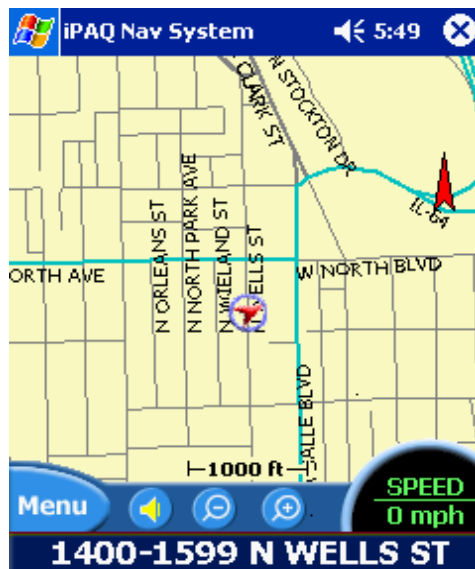
If you do not have a GPS signal, the map defaults to the last location.

The vehicle icon displays as a green, yellow, or red arrow on the map. The color indicates the number of available satellites. At the bottom of the map is the vehicle location.

To see detailed information, for the vehicle location, do one of the following:

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

Moving Around the Map

You can easily move around the map by:

■ Panning the map in the direction you want it to move.

■ Zooming in and out of the map display.

Panning the Map

You can tap the pointer on the map and drag it in the direction you want it to move: up down, right or left. When you remove the pointer from the map, it centers in on the selected location. This lets you have considerable control over your viewing area
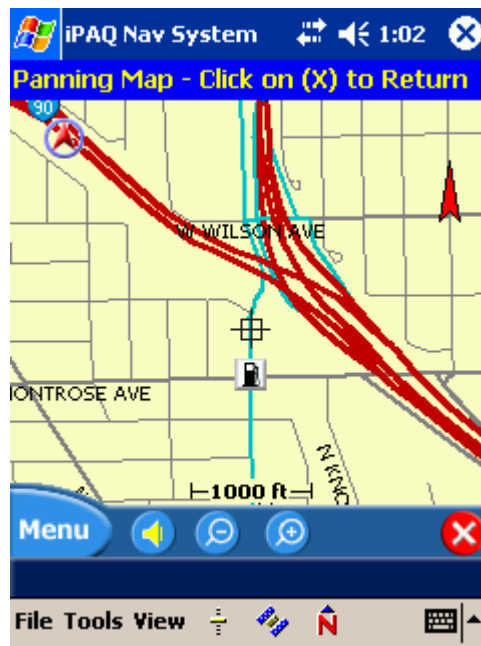
The Map View changes to Map Panning mode. To return to the default map view, tap the red **x** on the bottom right side of the Map Panning screen.

Zooming the Map

Navigation System lets you zoom in and out of the map within a 100 feet- 25 mile range. To zoom the map, do one of the following:

■ Tap the + (zoom in) or - (zoom out) buttons at the bottom of the screen.

■ Tap **View**> **Zoom+** or **Zoom -** to move in or out of the map display.

The map zooms in or out by one unit.

Using Menus

Navigation System is based on a menu structure, including:

- Main Menu
- File Menu
- Tools Menu
- View Menu
- Pop UP Menu

The File, Tools, View and Pop Up menus provide short cuts to features on the Main Menu.

Main Menu

The Main Menu contains all of the options necessary to create and monitor your destination and route. To access this menu, tap the **Menu** button on the lower left side of the screen.

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Options	Description
Destinations	Sets the destination by address, intersection, points of interest, contacts, favorite locations, or recent locations.
Map View	Displays an expanded view of the map area around the vehicle location.
Display Opts	Sets the map orientation, screen color on the iPAQ Pock-etPC, automatic or manual guidance, and the display of POI icons.
Record	Records GPS information and street maneuvers.
GPS Info	Displays GPS status information.
Volume	Sets the guidance volume on or off and sets the volume level.
Speed Alert	Sets an automatic or fixed speed alert.
Route Options	Manages your route calculation preferences.

File Menu

The File menu helps you to manage your destination and route. To access the File menu, tap on the **File** tab at the bottom of the screen.

Enter Destination

Save Current Location
Cancel Route

Record Track
Play Track

About iPAQ Navigation System...
Help
Exit

Option	Description
Enter Destination	Displays the Set Destination screen to select a destination option.
Save Current Location	Enters the current location on the Favorites List.
Cancel Route	Deletes a route.
Record Track/Stop Recording	Records and stops recording GPS and street maneuvers for your destination. This is a toggle feature.
Play Track/ Stop Playback/	Replays and stops the playback of guidance information for the recorded route.This is a toggle feature.
About iPAQ Navigation System	Displays release version and copyright information for the software.
Help	Displays help for Navigation System features.
Exit	Exits Navigation System.

Tools Menu

The Tools menu helps you to set destination options. To access the Tools menu, tap on the **Tools** tab at the bottom of the screen.

```
Safety Features    ▶
Distance Units     ▶

Route Options
Display Options

Input Options      ▶
GPS Options        ▶

Guidance Volume
```
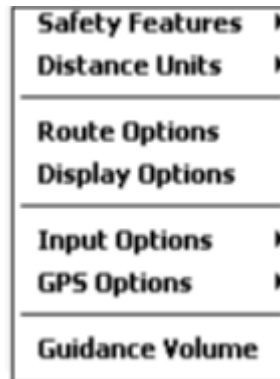
If an option has an arrow to the right of it, there are additional options.

Option	Description
Safety Features	Warns if vehicle is exceeding the speed limit, and provides safety warnings during foggy weather conditions.
Distance Units	Displays distances in: • Miles and Feet (English) • Miles and Yards (English) • Kilometers (Metric)
Route Options	Manages the route calculation preferences.
Display Options	Sets the map orientation, screen color on the iPAQ PocketPC, automatic or manual guidance, and the display of POI icons.
Input Options	Sets the Pocket PC Keyboard or the iPAQ Navigation System Keyboard as the input method.
GPS Options	Automatically or manually sets the COM Port and Baud Rate.
Guidance Volume	Sets the guidance volume on or off and sets the volume level.

View Menu

The View menu lets you display specific information about your destination route. To access the View menu, tap on the **View** tab at the bottom of the screen.

```
Map
Guidance
Route List
─────────────
GPS Info
Almanac
─────────────
Zoom +
Zoom -
```
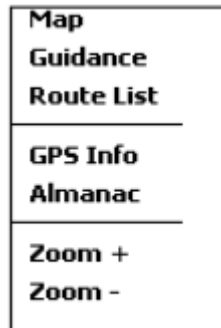
Option	Description
Map	Displays an expanded view of the map area around the vehicle position.
Guidance	Centers in on the vehicle position and displays a smaller view of the map area.
Route List	Displays the maneuvers in a route, beginning with the start location and ending with the destination.
GPS Info	Displays GPS status information and local time.
Almanac	Displays sunrise and sunset times, and phases of the moon for the vehicle location.
Zoom +	Zooms the map in.
Zoom -	Zooms the map out.

You can *only* zoom in or out in **Map View**. Zoom varies from 100 feet to a 25 mile radius around the vehicle.

Pop Up Menu

The Pop Up Menu provides easy access to options for a specific location. To display the pop up menu, tap on the screen.

```
┌─────────────────────────────┐
│  54 E WASHINGTON ST         │
│  ─────────────────────────  │
│                             │
│  Set Start Location         │
│  Set Destination            │
│  ─────────────────────────  │
│  Save This Location         │
│  Info                       │
│  ─────────────────────────  │
│  Cancel                     │
│                             │
└─────────────────────────────┘
```
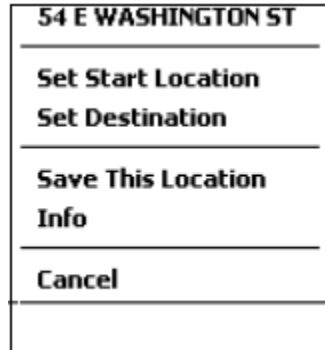
Option	Description
Location	Displays the street, address, intersection, or location type.
Set Start Location	Sets this location as the vehicle start position.
Set Stopover	Sets this location as a stopover on the route.
Set Destination	Sets this location as the destination.
Save This Location	Adds this location to your list of favorite locations.
Info	Displays detailed information for this location.
Cancel	Closes the Pop up menu.

Setting Options

Through Navigation System, you can set the following preferences:

- Map Display View.
- Voice Guidance
- Routing Options.
- Safety Options

Selecting the Map Display View

Navigation System provides two views for map display: **Map View** and **Guidance View**. **Map View** is designed to give a broader view around the current location of the vehicle. **Guidance View** displays a smaller distance around the vehicle and also displays the distance to the next maneuver.

You can select the view you want for your route, or switch between the two views.

Map View

1. To display the map in **Map View**, do one of the following:
   - Tap the **Menu** button > **Map View** icon.
   - Tap the **View** menu > **Map** option.

   The Map View screen displays.
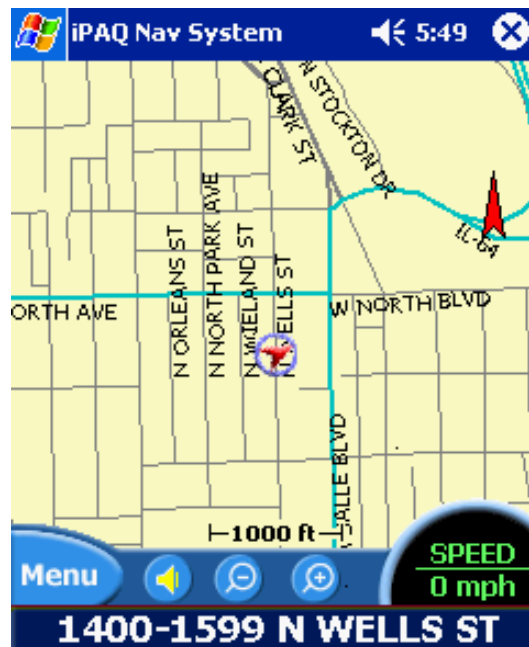
Map View displays an expanded view of the map area around the vehicle position. You can easily select an address by tapping on the screen with the pointer.

2. Do one of the following:
   - Tap the **Menu** button > **Display Options** icon.
   - Tap the **Tools** menu > **Display Options**.

3. From the Display Options screen select a map orientation, as follows:

■ Heading Up to automatically orient the map in the direction of vehicle travel.

■ North Up to maintain the map in a North/South position.

The red arrow in the upper right corner of the menu indicates a North direction.

Map View Modes

Map View has three view modes as follows:

Connected to a GPS Receiver - Routing

Next Intersection for Maneuver

Distance to Next Maneuver

Next Maneuver Instruction

Destination

Current Vehicle Position

Toggle for:
Distance to Destination
Remaining Time (Estimated)
Estimated Time of Arrival
Speed

Current Location

No Destination Selected

Current Vehicle Position

Currrent Location

Panning Mode -Manually Scrolling the Map

Exit Panning Mode
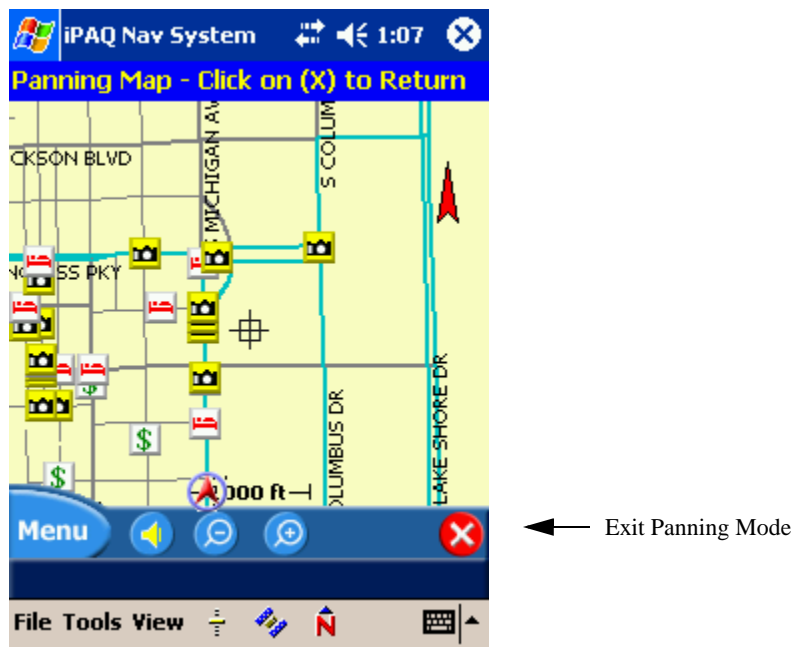
Guidance View

To display the map in **Guidance View**, tap the **View** menu > **Guidance** option.

The Guidance screen displays.

..

Intersection for Next
Maneuver

Next Maneuver

Distance to Maneuver Box
(Changes as Turn Approaches)

Current Location

Guidance View centers in on the vehicle location, displaying a narrower view of the map.You can not pan or zoom the map in **Guidance View**.

4. Do one of the following:
   - Tap the **Menu** button > **Display Options** icon.
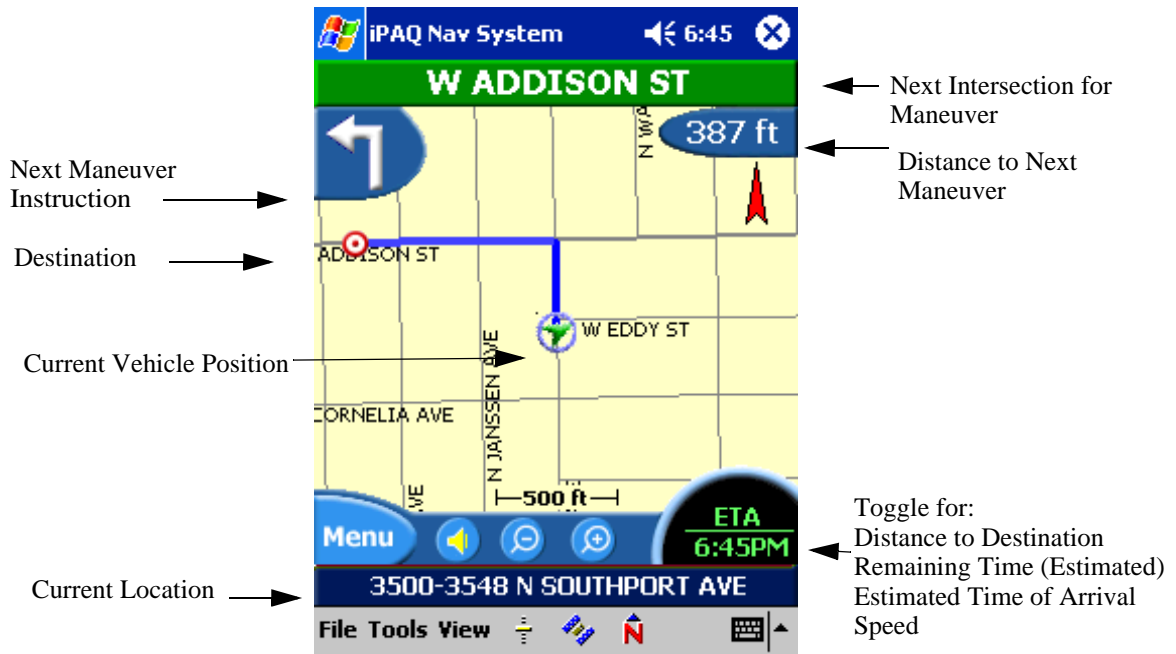   - Tap the **Tools** menu > **Display Options**.
5. From the Display Options screen, select a Guidance Screen option, as follows:
   - Auto for the map to automatically switch between **Map** and **Guidance View** when approaching a turn maneuver.
   - Manual to switch from map to guidance view *only* when selected.

Setting Voice Guidance

Voice Guidance provides verbal instructions for each maneuver in your route. A **Speaker** icon appears on the menu bar at the bottom of the map to indicate voice guidance is turned on.

⚠️ **WARNING:** For safety purposes, Voice Guidance should be on when operating the vehicle.

1. To Set the Voice Guidance Level, do one of the following:
   - Tap on the **Menu** button > **Volume** icon.
   - Tap the **Tools** menu > **Guidance Volume**.

   The Guidance Volume screen displays.

.
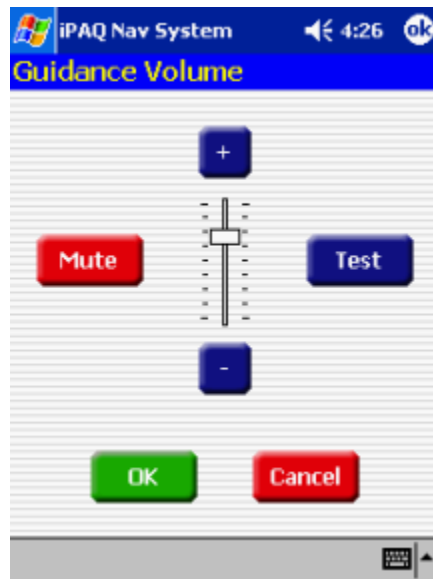
A volume level bar displays in the middle of the screen.

2. Do one of the following:
   - Tap the + button on the volume bar to increase the volume level.
   - Tap the - button on the volume bar to decrease the volume level.
3. Tap the **Test** button to listen to the volume level.
4. Tap on the OK button.

You can turn off Voice Guidance by tapping on the **Speaker** icon at the bottom of the map. A red **x** appears on the Speaker icon. Or, you can tap the **Mute** button on the Guidance Volume screen. To turn Voice Guidance back on, tap the **Speaker** icon or **Mute** button, again.

Setting Route Options

Routing options let you set up preferences for route calculation.

1. To set up route preferences, do one of the following:
   - Tap the **Menu Button**> **Route Opts** icon.
   - Tap the **Tools** menu > **Route Options**.

   The Route Options screen displays.

2. Tap on one of the following route methods:
   - Quickest Route to calculate a route with minimum travel time.
   - Shortest Route to calculate a route with minimum travel distance.
3. For the type of roads to include in the route, tap on one of the following:
   - Major to include major roads, such as highways.
   - Local for local streets.
4. For reduced turns, tap on one of the following:
   - Enable to calculate routes that reduce the number of required turns.
   - Disable to turn off this feature.
5. For toll roads, tap on one of the following:
   - Include to include toll roads in the route.
   - Exclude to omit toll roads from the route.
6. For carpool lanes, tap on one of the following:
   - Include to include carpool lanes in the route.
   - Exclude to omit carpool lanes from the route.
7. Click on the **OK** button.

Setting Safety Options

Safety Options notify you of:

■ Approaching dangerous intersections (useful with foggy weather conditions).

■ Exceeding Speed Limits.

For foggy weather conditions,

Tap **File** menu > **Safety Features** > **Fog Driving**.

This alerts you to traffic signals and incoming traffic, which is helpful at intersections.

> When you select the **Fog Driving** option, a check mark displays to the left of it. You can cancel this option, by tapping on it, again.

For exceeding speed limits,

1. Do one of the following:
   ■ Tap **Menu** button > **Speed Alert** icon.
   ■ Tap **File** menu > **Safety Features** > **Speed Alert**.

   The Speed Alert screen displays.

△ **CAUTION**: The Map database includes the speed limits posted on all roads. At times, speed limits can change. HP and its licensors do not guarantee that the speed alert function always provides accurate warning.

You should obey local driving laws and use good judgment for safe driving at all times.
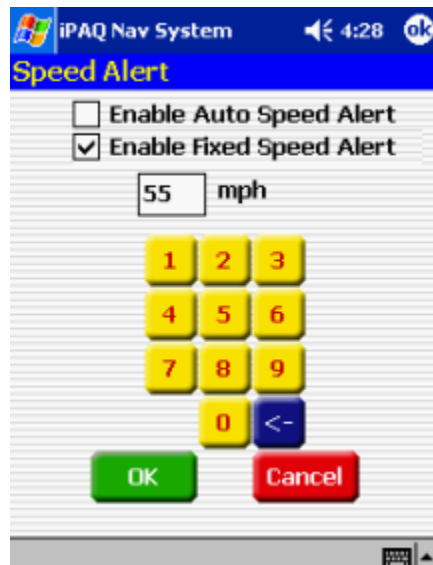
2. Do one of the following:

- Tap the **Enable Auto Speed Alert** box for a warning when you exceed the road speed limit.

- Tap the **Enable Fixed Speed Alert** box for a warning when you exceed the fixed speed limit entered in the **mph** box.

You enter the **Fixed Speed Limit** using the key pad on the Speed Alert screen.

3. Tap the **OK** button.

Recording a Route

You can record voice guidance instructions for any route.

1. Before you begin your destination, do one of the following:
    - Tap the **Menu** button > **Record** icon.
    - Tap **File** menu > **Record Track**.

    The Save As screen displays.

2. Enter the following information:

Field Name	Description
Name	The route name.
Folder	The name of the folder for storing the route instructions.
Type	The type of file to save (GPS Log Files).
Location	The folder location.

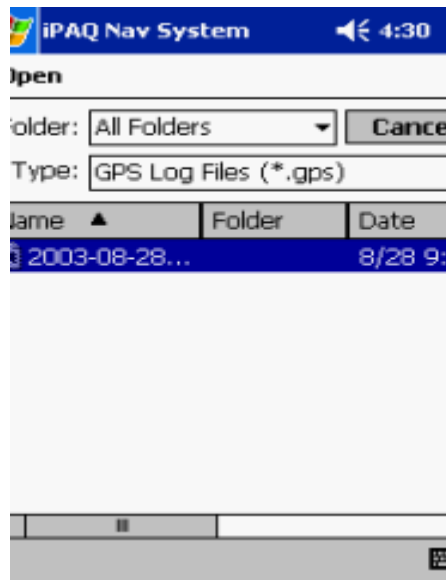A down arrow appears to the left of some fields. Tap on the down arrow to display a list of selections.

3. Click on the **OK** button.

REC displays in the upper right corner of the map to indicate the recording of information. You can stop recording information by tapping **File** menu> **Stop Recording** or tapping the **Menu** button > **Record** icon.

Replaying Route Instructions

To replay route instructions to a destination,

1. Tap **File** > **Play Track**.
2. The Open screen displays.

3. Enter the name of the folder storing the destination instructions in the **Folder** field.
4. Enter GPS Log Files in the **Type** field.

A down arrow appears to the left of each field. Tap on the down arrow to display a list of selections.

A list of the files in the selected folder displays.

5. Tap on a file.

Tap on the Up and Down arrows at the top of the column to move through the list.

Navigation System replays the details for the selected route.

You can stop the playback of route instructions by tapping on **File** >**Stop Playback** option.

Using The Navigation System

The Navigation System is designed to guide you to your destination in the most efficient manner. Easy-to-use- features let you:

Enter a Destination by address, intersection, point of interest, favorite location, or a recent location.

Set up Stopovers along the route.

Indicate areas to avoid along the route.

> 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.

Before Using the System:

✔	Clock and time settings are accurate by tapping **Start** >**Settings** >**System**>**Clock**.
✔	Bluetooth GPS Device is on by tapping the **Bluetooth** icon at the bottom of the Start screen.

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.

> You can pan the map to the location by moving the map with the pointer.

■ Tap the **Menu** button > **Destinations** icon. Enter the destination information. For more information, refer to the *Entering a Destination* section.

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.
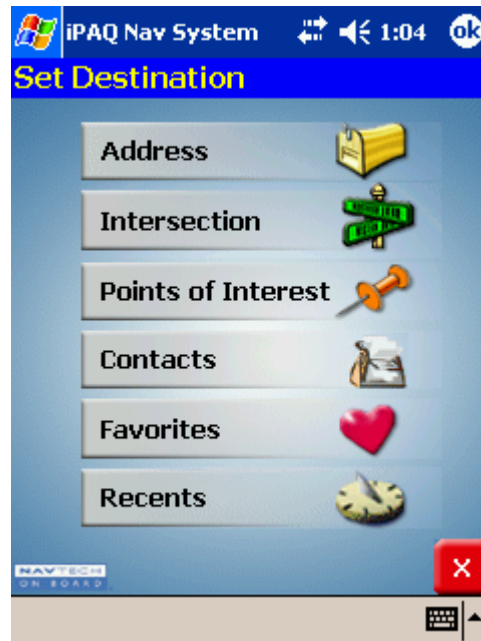
Setting a Destination by Address

1. Tap **Address** on the Set Destination screen.

   The Select Input Method screen displays.

In the left top corner of the screen is the map region or area. If this is not correct, click on the **Change** button to select the correct one.

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.

A search by **City First** is faster than a search by **Street First**.

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

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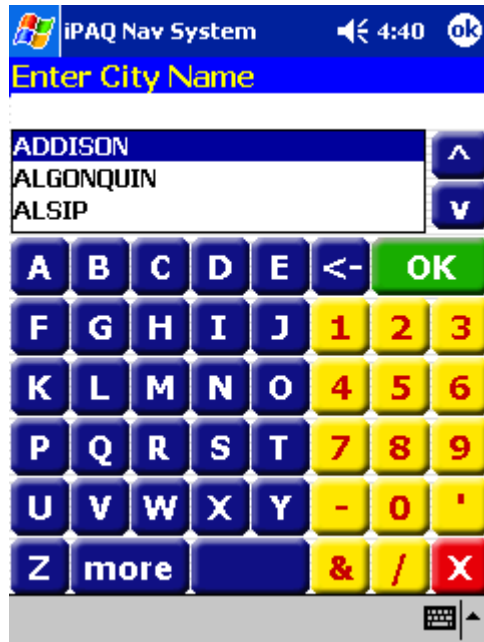
At the top of the screen is a list of valid entries (cities, streets, or house numbers). When you enter an address, do not enter the street type, such as Ave or St.

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.

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.
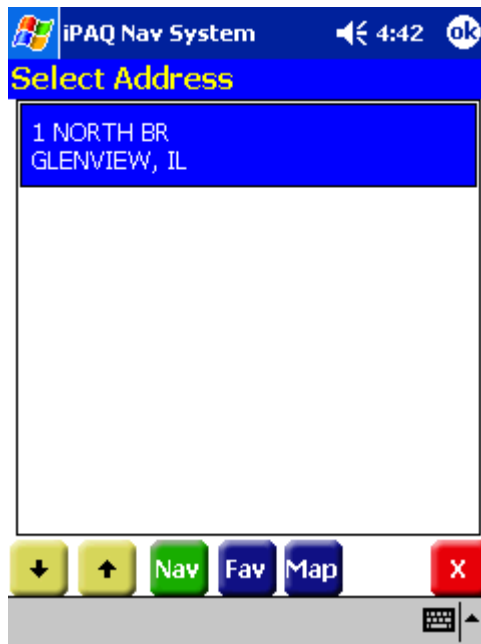
You can use the Up and Down arrows at the bottom of the screen to move through the list of addresses.

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 destination.

## *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, such as ave or st.

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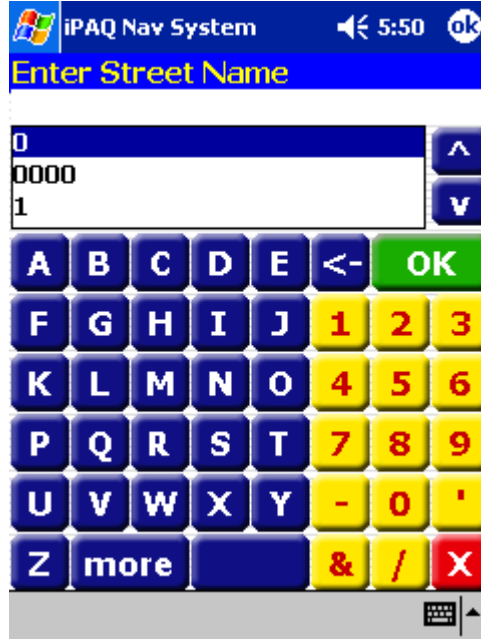

For an intersection, there are two address dialog boxes for the two intersecting streets.

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.
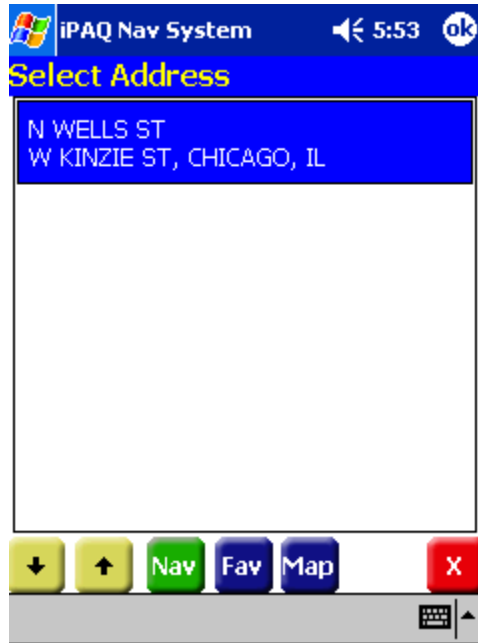
6. Tap on one of the following buttons at the bottom of the screen:
   - Nav to calculate the route and center in on the map location.
   - Fav to add this location to your list of favorite locations.
   - Map to set this location as the starting route point for your destination.
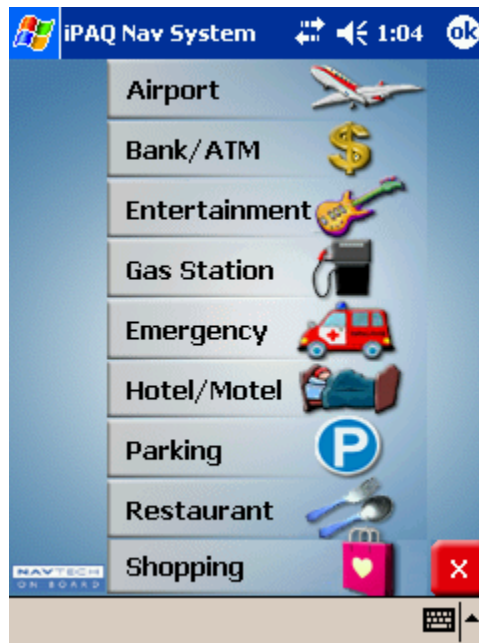
Setting a Destination by Point of Interest

The map database contains over one 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:

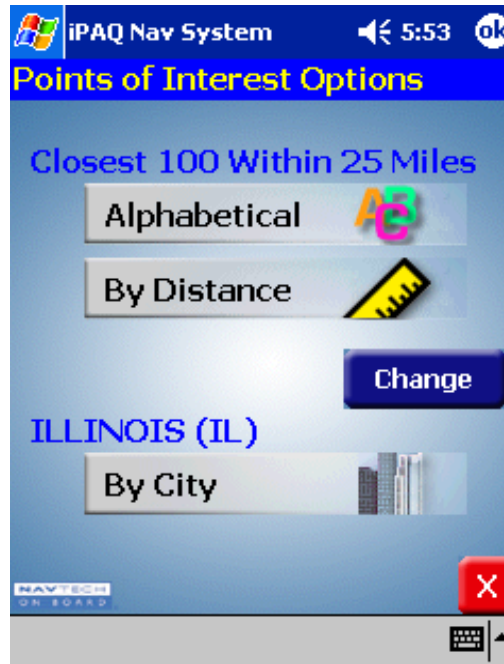1. Tap **Points of Interest** on the Set Destination screen.

    The Select Input Method screen displays.

You can turn on or off the display of POI icons on the map through the **Display** options on the Tools menu. You can navigate to a POI even if it is not displayed on the map.

2. Tap on a Points of Interest category.
3. Tap on the **OK** button.

The Points of Interest Options is displayed.

At the bottom of the screen is the map region or area. If this is not correct, click on the
Change button to select the correct one.

4. 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.

Selecting a POI Alphabetically

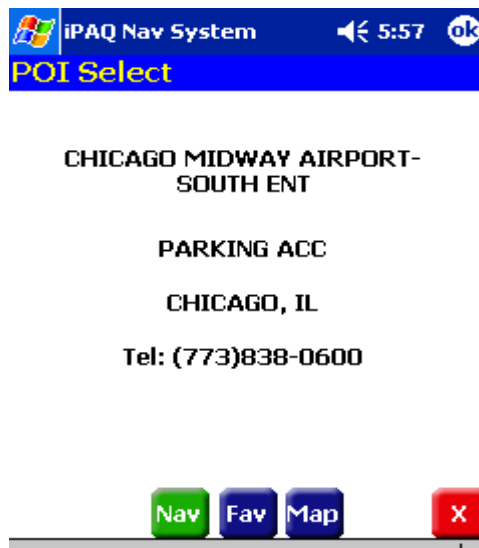1. Tap **Alphabetically** on the Points of Interest Options screen.
   The Enter POI Name screen displays.
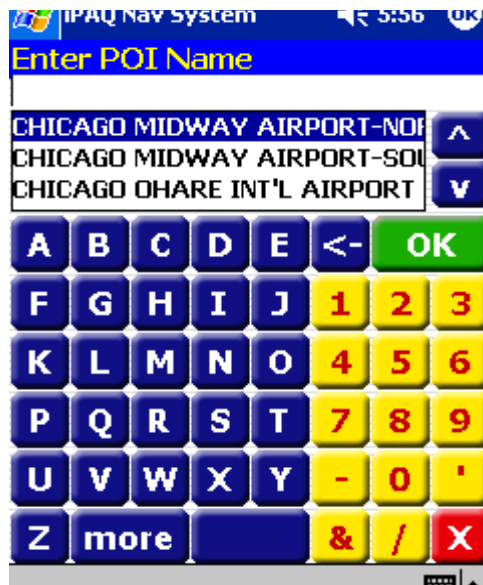
2. Select an entry, as follows:
   - Scroll through the list by using the scroll keys at the right of the list.
   - Tap in characters using the keypad on the screen.
3. Tap on the **OK** button.
   The POI Select screen displays.

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 destination.

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.

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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 destination.

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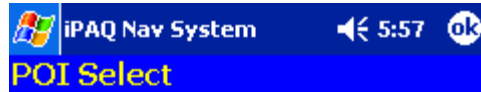
6. Tap on one of the following buttons at the bottom of the screen:
   - Nav to calculate the route and center in on the map location.
   - Fav to add this location to your list of favorite locations.
   - Map to set this location as the starting route point for your destination.

Setting a Destination From the Contacts List

1. Tap **Contacts** on the Set Destination screen.

   The Enter Contact Name screen displays.

The name must appear in the Contact List on your iPAQ PocketPC. The contact information must be accurate and in the correct format for Navigation System to make a match.

2. Select a contact name, as follows:
   - 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.

Since Navigation System enters the contact names alphabetically by last name, you should enter the last name, or first character of the last name when searching for a contact.

3. Tap on the **OK** button.

The Select Address screen displays.

This screen contains the contact's home address, business address and/or any additional address entered.

4. Tap the address.

Navigation System sets the selected contact location as the destination and calculates the route.

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.

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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 favorite location, tap the **Edit** button. Or, tap the **Del** button to remove a location from your Favorite Destinations list.

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.

Managing the Destination and Route

After you enter a destination, Navigation System calculates the route. 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.

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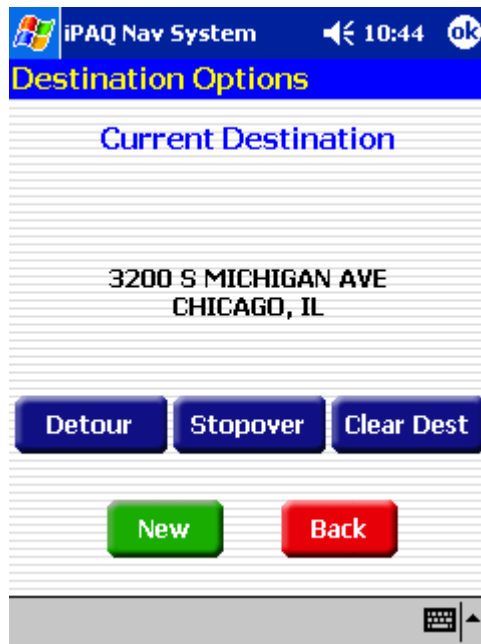
Tap on one of the following buttons:

■ 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 Dest 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.

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.
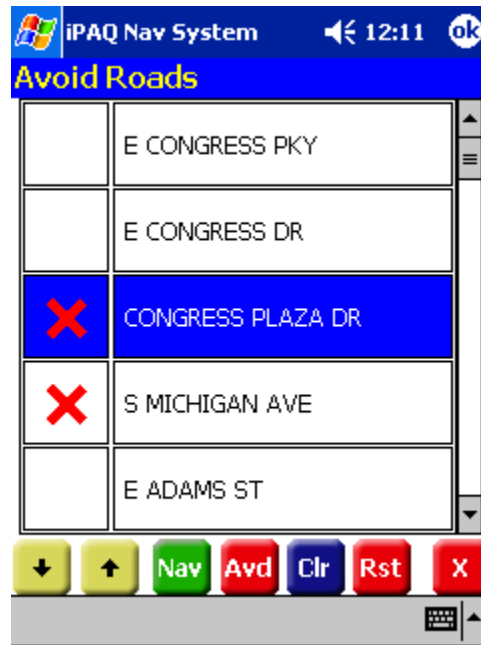
A warning displays if there is no detour for the current route.

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 **Avd** 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 **Clr** button. To cancel all selections, tap the **Rst** button.

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.
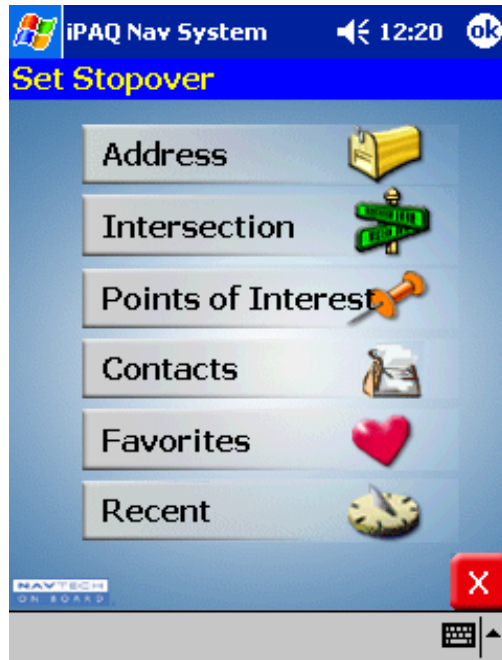
You can also tap on the map location and tap **Set Stopove**r from the pop up menu.

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.

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 Dest** button on the Destination Options screen.
   The screen displays in Map View mode.

Navigating the Vehicle

After you have entered a destination and selected the **Nav** option, 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.
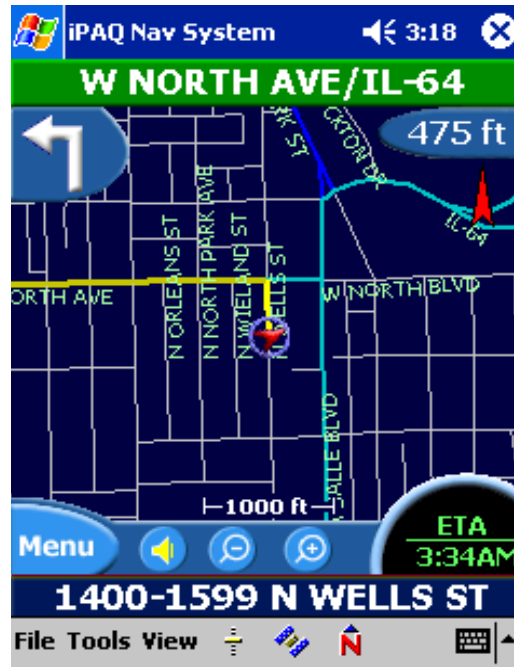
Using Day vs. Night Display

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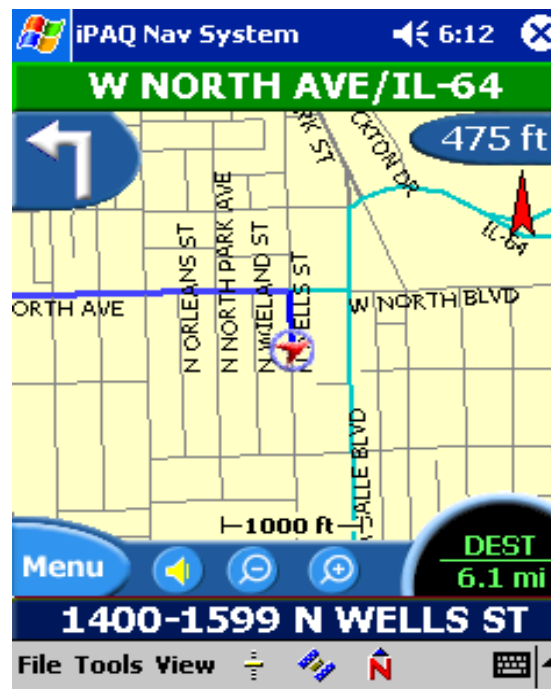
■ Night Mode to set the screen color for nighttime driving conditions.

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.

Viewing the Route List

You can view the route instructions for your destination at anytime. To view route instructions, do one of the following:

- Tap the **View** menu > **Route List**.
- Tap the maneuver location at the top of the map.

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.

Software Technical Support

General Definition

Software technical support may be available for the software provided with your iPAQ Navigation System. For more information, please review the warranty statement included on Disk 1 of the iPAQ Navigation System CD set.

Information may also be found online at www.hp.com/go/ipaqnavigation.

Obtaining Support

In the United States and Canada, call the HP iPAQ Navigation System Technical Phone Support Center at 1.866.4HP.NAV1 (1-866-447-6281). This number is available 8am-8pm Eastern Standard Time.

To obtain assistance outside these hours, please visit www.hp.com/go/ipaqnavigation.

Performing a Soft Reset

For many problems associated with the iPAQ Navigation System, the resolution will be to perform a **Soft Reset**. This is a standard procedure that will not harm the data or settings stored on your Navigation System or your iPAQ PocketPC.

Performing a soft reset will vary by device, and for full instructions please consult your relevant iPAQ User's Guide.

Troubleshooting

Problem	Solution
I cannot get a GPS signal	■ Ensure your GPS receiver is switched on and fully charged up. ■ Take your GPS receiver outside so you have a clear view of the sky. ■ Allow 5-10 minutes to receive a GPS signal. If GPS receiver has a valid signal, the green LED flashes.
I cannot connect my GPS receiver to my PocketPC	■ Check your GPS receiver and your iPAQ PocketPC are within 5-10 yards apart. ■ Check the Bluetooth Radio on your iPAQ PocketPC is switched on by tapping the Bluetooth icon at the bottom right side of the Start screen. ■ Check your GPS receiver is switched on and charged. ■ Switch on the power switch; if the GPS receiver is not charged up the power LED is red. ■ Switch on Navigation system. The GPS receiver should automatically connect with the iPAQ PocketPC. If this does not happen, follow the instructions in the User's Guide to connect the GPS receiver with the iPAQ PocketPC.
I cannot install the maps	■ Ensure your iPAQ PocketPC is connected via Microsoft Activesync with your Desktop. ■ Ensure Navigation System is installed on the iPAQ PocketPC. (There should be an icon in the **Start> Programs** menu). ■ Perform a soft reset on your iPAQ PocketPC before trying to install any maps. (Refer to your iPAQ PocketPC User's Guide for details. All data and settings are retained). ■ Ensure Navigation System is closed. From the **Start** menu select **Settings > System** > **Memory >Running Programs** > **iPAQ Nav System** > **Stop.** ■ Verify there is sufficient memory in your selected target location. ■ Verify the correct CD-Rom is inserted in your CD drive
My GPS receiver has asked me for a passkey to connect	The GPS receiver has a default passkey of 2003. The Bluetooth Manager may be set to require a passkey. ■ Tap on the **Bluetooth** icon > **Bluetooth Settings**. ■ Tap the right arrow key at the bottom of the screen to the **Serial Port** tab. ■ Ensure the **Authentication (Passkey) required** check box is unchecked.
I cannot find a location	■ Check the address is entered correctly. ■ Check the appropriate map for the address is loaded. Sometimes an address is not stored in the database. Navigation Technologies is always updating the map content. To provide feedback and add a new address complete a Feedback Form on www.hp.com/go/ipaqnavigation

Problem	Solution
I cannot hear the guidance instructions	■ Check the volume is not muted. From the map view click the **Speaker** icon in the menu bar at the bottom of the map. ■ From **Tools** select **Guidance Volume**. Increase the volume, as required.
My map is stuck in map panning mode	■ To exit Map Panning Mode tap on the red circle with a white x at the bottom right hand side of the screen.
I cannot load an additional map	■ Before installing additional maps, verify Navigation System is not running. From the **Start** menu, tap **Settings >System** > **Memory.** From the **Running Programs**, tap **iPAQ Nav System** > **Stop**. ■ Verify there is sufficient memory available on your PocketPC or selected storage card.
There is not enough memory to install my map	■ Remove programs from your PocketPC main memory to make space available ■ Select a smaller map to install. Install maps by **City** rather than by **Region** (state). ■ Install an additional SD or CF card in the expansion slot.
How do I know my GPS receiver is working	■ Verify the GPS receiver has a flashing blue light.(Bluetooth radio is switched on.) ■ Verify the GPS receiver has a green light. A solid light indicates there is no valid GPS signal; a flashing light indicates there is a valid GPS signal. ■ From the Navigation System **Main Menu** select **GPS info**. The number of satellites delivering a signal to the GPS receiver displays.
I cannot find the POI I am looking for on the map	■ Verify the POI icons are enabled. From the **Tools** menu select **Display options**. Turn on POI icons by tapping the appropriate box. POI icons *only* display when the map is zoomed in to the four closest zoom levels (1,000 ft or closer). Some POIs are hidden on the map by other POI icons. ■ To display POIs, tap the **Main** button > **Destinations > Points of Interest**. Tap on the **POI** > **Map** to center the map on the POI.
I cannot switch on my device	■ Verify the PocketPC is charged. Connect the PocketPC to a charger. A soft reset is often necessary for the device to switch on. (Refer to your iPAQ PocketPC User's Guide for details. All data and settings are retained).
The application has frozen my device	■ Perform a soft reset. See your iPAQ PocketPC User's Guide for instructions. (All data and settings are retained.)
The display mode on my device is incorrect for the time of day.	From the **Tools** menu select **Display Options**. Switch Color to the appropriate display mode (**Day** or **Night** mode). If the mode is set to **Auto**, verify the PocketPC clock is set correctly.

Appendix

Regulatory Notices

Federal Communications Commission

Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio or television technician for help

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hewlett-Packard Company may void the authority to operate the equipment.

Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods in order to maintain compliance with FCC Rules and Regulations.

Declaration of Conformity for products marked with the FCC logo - United States only

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For questions regarding your product, contact:

Hewlett-Packard Company

P. O. Box 692000, Mail Stop 530113

Houston, Texas 77269-2000

Or, call 1-800-652-6672

For questions regarding this FCC declaration, contact:

Hewlett-Packard Company

P. O. Box 692000, Mail Stop 510101

Houston, Texas 77269-2000

Or, call (281) 514-3333

To identify this product, refer to the Part, Series, or Model number found on the product.

Canadian Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Avis Canadien

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Battery Warning.

WARNING: This computer contains a lithium ion rechargeablebattery pack. To reduce the risk of fire or burns, do not disassemble, crush, puncture, short externalcontacts, or dispose of in fire or water.

Equipment Warning

WARNING: To reduce the risk of personal injury, electrical shock, fire or damage to the equipment:

- Plug the AC adapter into a grounded (earthed) electrical outlet that is easily accessible at all times.
- Disconnect power from the equipment by unplugging the AC adapter from the electrical outlet or unplugging the Synchronization cable from the host computer.
- Do not place anything on the AC adapter cord or any of the other cables. Arrange them so that no one may accidentally step on or trip over them.
- Do not pull on a cord or cable. When unplugging from the electrical outlet, grasp the cord by the plug or, in the case of theAC adapter, grasp the AC adapter and pull out from the electrical outlet.

Airline Travel Notice

Use of electronic equipment aboard commercial aircraft is at the discretion of the airline.

Wireless Notices

In some situations or environments, the use of wireless devices may be restricted. Such restrictions may apply aboard airplanes, in hospitals, near explosives, in hazardous locations, etc. If you are uncertain of the policy that applies to the use of this device, please ask for authorization to use it prior to turning it on.

U.S. Regulatory Wireless Notice

This products emits radio frequency energy, but the radiated output power of this device is far below the FCC radio frequency exposure limits. Nevertheless, the device should be used in such a manner that the potential for human contact with the antenna during normal operation is minimized.

Canadian Regulatory Wireless Notice

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.The term "IC" before the certification/registration numberonly signifies that the Industry Canada technical specifications were met.

Specifications

System Specifications

Electrical Characteristics (Receiver)	
Frequency	L1, 1575.42 MHz
C/A Code	1.023 MHz chip rate
Channels	12
Sensitivity	-170 dBW

Accuracy	
Position Horizontal	15m 2D RMS (SA off)
WAAS enabled	10m 2D RMS (SA off)
Time	1 micro-second synchronized to GPS time
Velocity	0.1m/sec 95% (SA off)

Datum	
Datum	WGS-84

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)

Protocol	
GPS Output Data	NMEA 0183 protocol, and supports command: GGA, GSA, GSV, RMC, VTG, GLL (VTG and GLL are optional.
GPS transfer rate	38400, N,8,1

Dynamic Condition	
Acceleration Limit	Less than 4g
Altitude Limit	18,000 meters (60,000 feet) max.
Velocity Limit	515 meters/sec. (1,000 knots) max.
Jerk Limit	20 m/sec**3

External antenna	
Power	3.3V
Connector	MMCX

Power	
Voltage	Built-in rechargeable battery (900 mAh) and 5V DC input charging circuit.
Operation Time	8 hr. After fully recharged, in continuous mode > 10 hr in trickle power mode

Physical Characteristics	
Dimension	85 mm x 47mm x 26mm
Weight	98g

Temperature	
Operating	-20° ~ 70°C
Storage	-30° ~ 80°C
Humidity	Up to 90% non-condensing

Bluetooth Specification

- Bluetooth V1.1 Compliant
- Supply Voltage: 2.8-3.3V
- Frequency Range: 2.402 2.480GHz
- Receiver Sensitivity: -80dBm
- transmit Power: Class 2
- Transmitting Range: 5~10m (typical)
- Power Consumption: 45 mA (typical)

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