GPSMAP 196

Quick Start Guide

Packing List

Garmin GPSMAP 196 (Front View)

Garmin GPSMAP 196 (Back View)

Thank you for purchasing the Garmin GPSMAP 196! Please take a moment to read this manual in order to become quickly familiar with both the unit and some of its basic features. For more in-depth information, please refer to the Pilot's Guide and Reference manual included in this package.

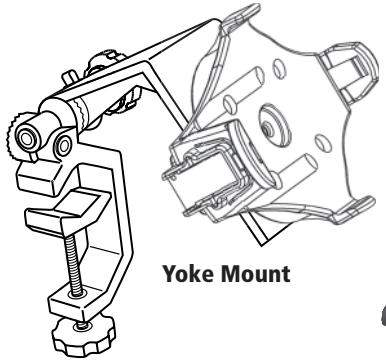
Packing List

The GPSMAP 196 package should include the following items:

- GPSMAP 196 unit
- Detachable antenna (comes attached to the unit)
- GA26C remote antenna with suction cup mount
- Yoke mount (includes a short clamp adjustment knob and an Allen wrench)
- Dash mount (includes a mounting bracket, a mounting base and mounting adhesives)
- PC interface cable
- Cigarette lighter adapter
- 4 AA batteries
- Certificate for a free Jeppesen update
- Pilot's Guide and Reference manual
- Quick Start Guide

Please contact your Garmin dealer, should anything be missing from the GPSMAP 196 package. Illustrations of the items that should be included in the GPSMAP 196 package (with the exception of the batteries, the certificate for a free Jeppesen update, the Pilot's Guide and Reference manual and the Quick Start Guide) are provided for your convenience on pages 2 and 3 of this manual. Please note that these illustrations are not to scale.

Packing List



Yoke Mount

Short Clamp Adjustment Knob

Allen Wrench

GA26C Remote Antenna

Remote Antenna Suction Cup Mount

Dash Mount Mounting Bracket (Back View)

Dash Mount Mounting Bracket (Front View)

Dash Mount Mounting Base

Dash Mount Adhesives

PC Interface Cable

Cigarette Lighter Adapter

Unit Overview

To install the remote GPS antenna*: after detaching the removable GPS antenna from the unit (as described in the instructions below), plug in the remote GPS antenna BNC connector by pushing it down onto the antenna connector and rotating it clockwise to lock it in place.*

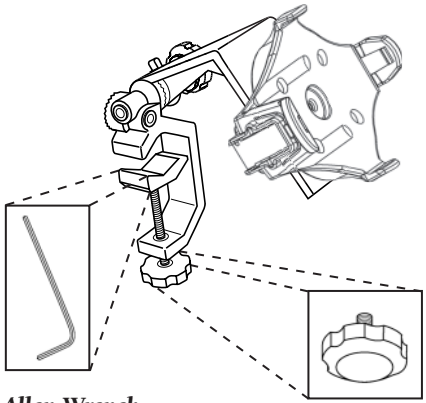
The GPSMAP 196 uses 4 AA batteries (Alkaline, rechargeable, Lithium or Ni-Cad). Immediately after installing new batteries, turn the unit on and the check battery level indicator at the bottom of the Position page (see page 8). Replace all batteries at the same time. Do NOT mix new and used batteries. Do NOT mix Alkaline batteries with Lithium or Ni-Cad rechargeable batteries.

Battery Installation

WARNING: *It is very important to install ALL batteries with the proper polarity, positive (+) or negative (-) orientation, as indicated in the battery compartment of the unit. Batteries can leak and cause personal injury and property damage if not installed correctly.*

NOTE: *The GPSMAP 196 saves routes, user-created waypoints and your other settings in non-volatile memory and will not lose data when the batteries are changed or if stored without batteries.*

Yoke Mount Installation Instructions



Allen Wrench
(to replace the standard long clamp adjustment knob)

Short Clamp Adjustment Knob
(long knob shown installed on assembly)

Fully Assembled Yoke Mount

Yoke Mount Installation Instructions

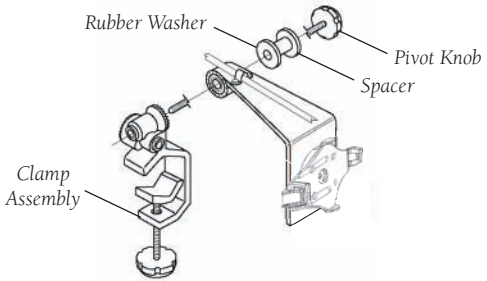
The universal yoke mount package includes a pre-assembled yoke mount (assembled with the long clamp adjustment knob), a short clamp adjustment knob (provided as an alternative to the long clamp adjustment knob) and an Allen wrench. Please verify that all items are included and contact your Garmin dealer, should anything be missing.

The short clamp adjustment knob and the Allen wrench allow you to replace the standard long clamp adjustment knob, which is meant for use on larger yoke control shafts or center column arms. See page 7 for instructions.

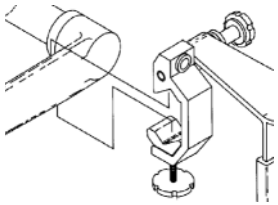
The universal yoke mount is designed to fit the majority of conventional aircraft yokes, as well as center column controls on Bonanzas, Barons and other Beech aircraft. Please, note that the yoke mount package is configured for conventional aircraft yokes. If you have a center column control (Beech models), you should remove the clamp assembly from the yoke mount, rotate it 90° so that the open end of the clamp faces forward and reattach it to the yoke mount.

To reconfigure the yoke mount for use on various center column aircraft:

1. Loosen and remove the pivot knob, spacer and rubber washer.
2. Rotate the clamp assembly 90° so that the clamp opening faces forward.
3. Secure the clamp assembly to the yoke mount using the pivot knob, spacer and rubber washer (adjust the clamp to the desired angle BEFORE fully tightening the pivot knob).



Yoke Mount in Conventional Configuration



Yoke Mount in Forward-facing (Beech) Configuration

On larger yoke control shafts and center column arms, the standard clamp adjustment knob may protrude too far down when fully tightened onto the shaft/arm and create an obstruction or a hazard. Thus, you may wish to replace the standard clamp adjustment knob with the provided short clamp adjustment knob, which has a much shorter shaft.

To replace the standard clamp adjustment knob with the supplied short clamp adjustment knob:

1. Remove the rubber padding by carefully peeling it away from the lower clamp. Beneath the rubber padding is the Allen head screw which secures the lower clamp to the standard clamp adjustment knob.
2. Use the supplied Allen wrench to remove both the Allen head screw and the washer. Remove the lower clamp from the standard clamp adjustment knob.
3. Remove the standard clamp adjustment knob by turning it counterclockwise.
4. Install the short clamp adjustment knob by turning it clockwise until it protrudes through the clamp frame.
5. Insert the washer and Allen head screw into the lower clamp. Place the lower clamp onto the end of the short clamp adjustment knob and tighten.
6. Replace the rubber padding.

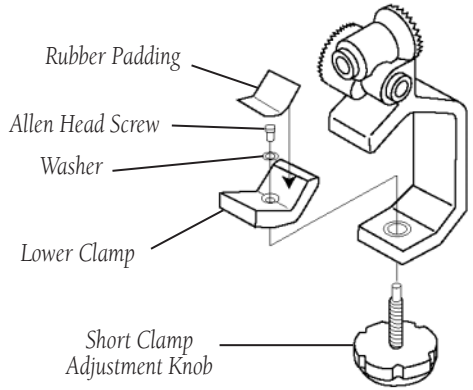
Verify that the flat, smooth end of the lower clamp points outward toward the clamp opening and that the pointed end faces the clamp frame.

If you intend to use the GPSMAP 196 primarily in an aircraft, Garmin recommends that the cigarette lighter cable (or any optional power/data cable) be secured with the cable clamp located along the top of the yoke mount. The clamp prevents the cable from dangling and becoming a nuisance - or even a potential hazard - in the cockpit.

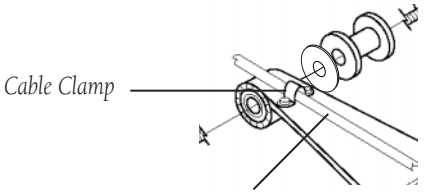
To secure a cable along the top of the yoke mount:

1. Remove the two cable clamp screws and lift the clamp up and away from the yoke mount.
2. Place the cable along the top of the yoke mount, place the cable clamp over the cable and secure it on the yoke mount using the two cable clamp screws.

Yoke Mount Installation Instructions

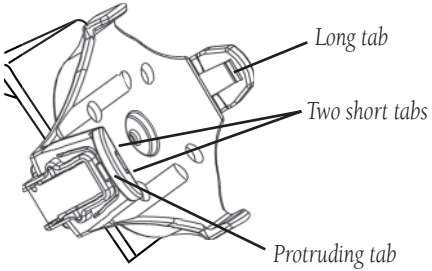


Yoke Mount Assembly (Short Clamp Adjustment Knob)

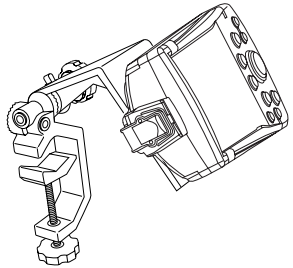


Securing a Cable on the Yoke Mount

Yoke Mount Installation Instructions



Yoke Mount Snap-in Bracket



Unit Installed on Yoke Mount

Once the yoke mount is configured to your application, attach the yoke mount to the aircraft controls and place the GPSMAP 196 into the mount.

To attach the yoke mount to the aircraft yoke shaft or control arm:

1. Open the clamp by turning the clamp adjustment knob counterclockwise. Open the clamp until it can easily be slipped over the yoke shaft or control arm at the desired location.
2. Place the open clamp over the yoke shaft or control arm and turn the clamp adjustment knob clockwise to tighten the clamp (if the standard clamp adjustment knob is too long, see page 7 for instructions on replacing it with the short clamp adjustment knob).
3. Loosen the pivot knob and adjust the viewing angle, as desired (in some instances, the pivot knob may need to be loosened prior to step #2 so as to allow the mount to set down over the yoke).
4. Tighten the pivot knob and verify that the clamp adjustment knob is also securely tightened.

To place the GPSMAP 196 in the yoke mount:

1. Locate the three locking tabs molded into the snap-in bracket and the corresponding grooves on the GPSMAP 196 unit (see illustration at left).
2. Align the long tab located on the right-hand side of the snap-in bracket with the corresponding groove on the unit.
3. Gently push the unit into the bracket until the two short tabs located on the left-hand side of the bracket snap into their corresponding grooves on the unit.

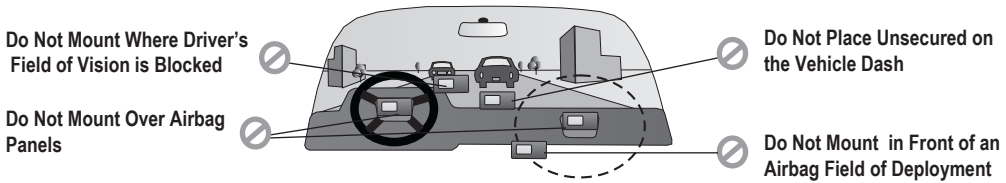
To remove the GPSMAP 196 from the yoke mount:

1. While holding the unit, lift and pull the protruding tab on the left-hand side of the bracket out and away from the unit so as to dislodge the two short tabs from their corresponding grooves on the bracket.
2. Pull the unit out and away from the bracket.

Vehicle Dash Mount Instructions

The Garmin vehicle dash mount kit is designed to provide convenient and secure mounting for the Garmin GPSMAP 196. However, installation of the mount should be performed with consideration for the following safety warnings.

WARNING: For use in vehicles, it is the sole responsibility of the owner/operator of the GPSMAP 196 to place and secure the GPS receiver unit so that it will not: interfere with the vehicle operating controls and safety devices, obstruct the driver's view of driving conditions, or cause damage or personal injury in the event of an accident. Do not mount the GPSMAP 196 over airbag panels or in the field of airbag deployment. Airbags expand with a rapid force that can propel objects in their path towards the vehicle driver or passengers, causing possible injury. Refer to airbag safety precautions contained in the vehicle owner's manual. Do not mount the GPSMAP 196 in a place where the driver or passengers are likely to impact it in an accident or a collision. The mounting hardware provided by Garmin is not warranted against collision damage or the consequences thereof.



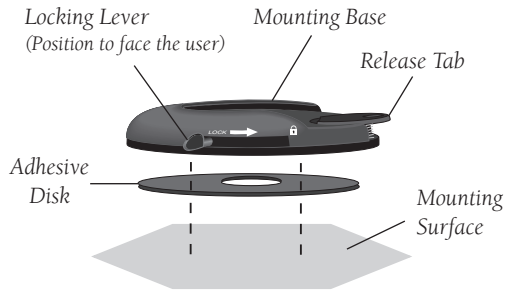
To install the mounting base:

1. Select a suitable location for installation that allows routing of an external power cord to the GPS unit. If you plan to acquire satellites through the vehicle windshield, select a location where the unit antenna can get a relatively unobstructed view of the sky.
2. To secure the mounting base to the dash of the vehicle, you may choose either the permanent or repositionable adhesive options. Using an alcohol-dampened cloth, carefully clean the area where the base is to be placed. Dry the area with a clean, dry cloth. Remove one side of the protective liner from the adhesive (permanent=donut; repositionable =disk) and place the uncovered part of the adhesive on the bottom of the base. Remove the remaining liner from the adhesive and position the base on the cleaned area. Ensure that the locking lever on the base faces the user for easy access.

Vehicle Dash Mount Instructions

Mounting Base:
Provides secure mount to any flat surface.

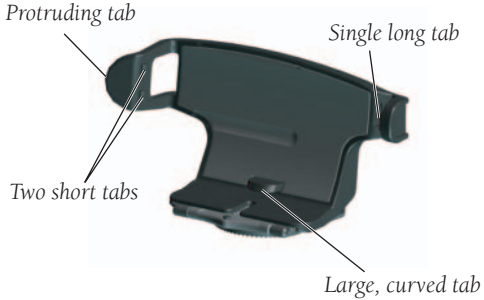
Mounting Adhesives:
Both permanent and repositionable adhesive disks.
Replacement P/Ns.
(P) Permanent: P/N: 249-00059-00
(R) Repositionable:P/N: 291-00037-00



Installing the Mounting Base

Vehicle Dash Mount Instructions

The mounting bracket allows attachment of the GPSMAP 196 to the mounting base.



Tab Locations on the Mounting Bracket

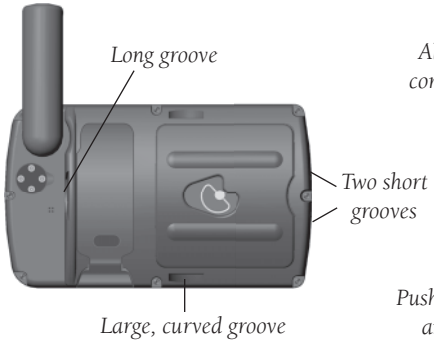
Allow the permanent type adhesive 24 hours to form an effective bond before using the dash mount. Use of permanent adhesive may cause residual adhesive to remain on the vehicle dash when the base is removed. To remove adhesive, use rubbing alcohol.

Repositionable adhesive performs best if the area of the dash where it is placed is fully cleaned of dust and dash protectant prior to each placement. This adhesive also provides maximum support if spread to conform to the footprint of the mounting base.

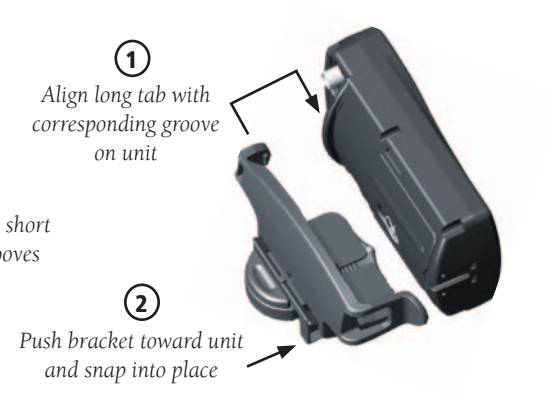
Replacement adhesive disks of both types are available from any Garmin dealer.

To install the mounting bracket on the GPSMAP 196:

1. Align the single long tab located on the right-hand side of the bracket (front view) with the matching groove located on the right-hand side of the unit (i.e., front view, antenna side), at the back (see illustrations below).
2. Push the bracket toward the unit so that both the large, curved tab at the bottom center of the bracket and the two short tabs located on left-hand side of the bracket (front view) snap into the grooves located at the back and bottom of the unit and on the left-hand side of the unit (front view), respectively (see illustrations below).



Groove Locations on the GPSMAP 196



Installing the Mounting Bracket

To attach the GPSMAP 196 to the mounting base:

1. Ensure that the locking lever is in the unlocked position and depress the release tab.
2. Slide the disk located at the bottom of the mounting bracket into the base until it clicks into place. Swivel the unit to the right or left until the desired angle is achieved. Slide the locking lever to the locked position to secure the unit to the base.

Attaching the unit to the mounting base

To remove the GPSMAP 196 from the mounting base:

1. Slide the locking lever to the unlocked position and depress the release tab.
2. Slide the unit over the release tab and out of the base.

Removing the unit from the mounting base

To remove the mounting bracket from the GPSMAP 196:

1. Holding the unit in place, lift and pull the protruding tab on the left-hand side of the bracket (front view) away from the unit so as to dislodge the two short tabs from their grooves, and pull the bracket out and away from the unit.

Vehicle Dash Mount Instructions

Lift and pull the protruding tab in order to dislodge the two short tabs from their corresponding grooves.

Removing the Mounting Bracket

Keypad Usage

The **IN** key — adjusts the map scale to show a smaller area with more detail (zooms in).

The **OUT** key — adjusts the map scale to show a larger area with less detail (zooms out).

The **PAGE** key — cycles the unit through the main display pages in sequence and returns the display from a submenu page. Press and hold to select between Aviation, Land and Water modes.

The **QUIT** key — cycles the unit through the main display pages in a reverse sequence, restores the previous value in a data entry field, or cancels an unintended function.

The **ENTER/MARK** key — selects a highlighted menu option. When entering data, this key allows you to initiate entry and, then, accept the selected value(s). Press and hold to mark the current location as a user-created waypoint.

The **MENU** key — displays a menu of available options for the current page. Pressing the **MENU** key twice will display the Main menu.

The **NRST/FIND** key — displays the nearest airports, navaids, points of communication and airspace boundaries in Aviation mode. In other modes (or when pressed multiple times in Aviation mode), displays the Find menu to select Points of Interest, Addresses, user-created waypoints, Cities and more for review or as a destination. Points of Interest and Address information are provided from optional MapSource City Select or MetroGuide CDs.

The ⊣D► (Direct To) key — allows you to retrieve airports, navaids, recently used waypoints, or user-created waypoints as a 'Goto' destination. Press and hold to display additional information for the current destination (such as communication frequency and runway data).

The **POWER** key — is used to turn the unit on and off, to activate the backlight and to adjust screen contrast.

The **ARROW KEYPAD** — controls movement of the on-screen cursor (highlight), pans the Map page, selects options and allows you to enter data (such as airport identifiers).

Turning the Unit On/Off

To turn the GPSMAP 196 on, press and hold the red POWER key.

A Welcome page appears while the unit conducts a self-test. Once testing is complete, the Welcome page is replaced by a Database page. The Database page shows the effective dates for the Jeppesen database and a warning that the GPSMAP 196 is for VFR use only.

Press ENTER to acknowledge the Database page.

The GPS Status page appears as the GPSMAP 196 looks for available satellites. The GPSMAP 196 continuously collects and stores almanac data when it receives satellites. Almanac data tells the GPS receiver where to look for each GPS satellite in the constellation. Each time the GPSMAP 196 is turned on, it uses this almanac data — along with the last known position, date and time — to determine which satellites should be in view.

A minimum of three satellites is required for a two-dimensional position fix (2D Navigation), whereas at least four satellites are necessary for a three-dimensional position (3D Navigation). A three-dimensional position includes latitude, longitude and altitude. Additional satellites are occasionally needed to triangulate your position and, even if not needed to determine a position, additional satellites will also improve position accuracy.

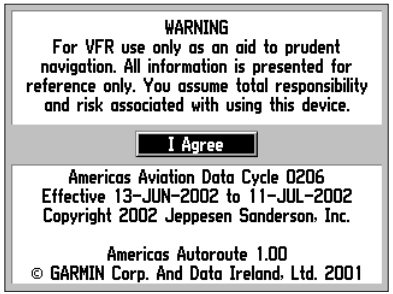
During normal use, expect a position fix in 30-45 seconds. Once a sufficient number of satellites are received, the GPSMAP 196 automatically transitions from the GPS Status page to the Map page. Your position appears on the map and, once you select a destination, the GPSMAP 196 is ready to help you navigate.

If you press any key while the unit is acquiring satellites, the automatic sequencing from the GPS Status page to the Map page will not occur.

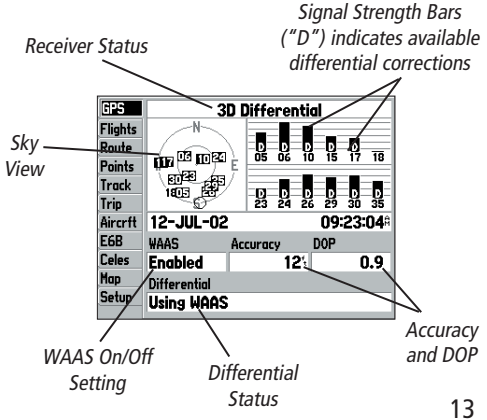
At the end of the day, when you are finished using the GPSMAP 196, the same red **POWER** key that you use to turn the unit on also turns the unit off.

To turn the GPSMAP 196 off, press and hold the red POWER key.

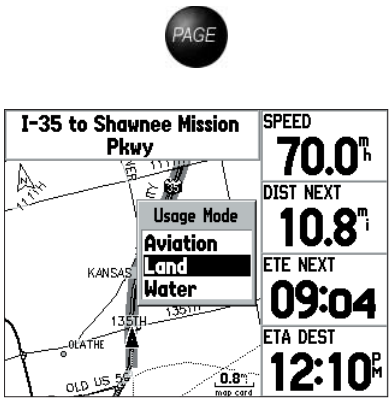
Turning the Unit On/Off



After the initial Welcome page, the Database page appears indicating the database coverage area and effective dates.



Operating Modes



*To quickly switch between operating modes, press and hold the **PAGE** key. Use the **ARROW KEYPAD** to select the desired mode and press **ENTER**.*

Operating Modes

The GPSMAP 196 is designed to be flexible. The unit provides 'Aviation', 'Land' and 'Water' mode settings, allowing the customization of many features, specifically for airborne, automotive, or marine applications.

The alert messages which are aviation-specific are disabled in the 'Land' and 'Water' modes. In addition, many settings on the GPSMAP 196 can be customized. For example, speed can be displayed in knots, miles per hour, or kilometers per hour. The GPSMAP 196 provides the flexibility to have separate settings for each mode and saves these settings in memory so they do not have to be re-entered every time the mode is switched.

The following list describes the differences that can be observed when switching modes.

VEHICLE SYMBOL — An airplane symbol is used in the 'Aviation' mode to indicate your current position on the map, whereas a pointer symbol is used in the 'Land' and 'Water' modes for position indication.

MAP SETTINGS — All map settings, such as the level of detail, North reference (North Up, Track Up, etc.), Auto Zoom min/max limits and text size will be saved by mode. When modes are switched, the preference settings for each mode are retained and used for the map display.

GOTO NAVIGATION — When a 'Goto' is initiated, both the course line and course guidance are fixed at the point where the 'Goto' was started.

UNITS OF MEASURE — The preferred settings for speed, altitude, distance and temperature are retained for each mode. This makes it easy, for example, to switch the 'Distance and Speed' setting between statute miles/miles per hour in 'Land' Mode and nautical miles/knots in 'Aviation' and 'Water' modes.

PAGE LAYOUT — The main pages can be customized by changing the page layouts. Depending on both the mode and your preferences, some page layouts may prove more optimal than other ones. The GPSMAP 196 saves the page layout settings for each mode so they do not have to be re-configured each time the mode is switched.

APPROACH/ARRIVAL ALARMS — Each mode can be configured differently depending on the application. In each of these modes, for example, you will likely be operating at significantly different speeds. For this reason, you may find it useful to have different alarm time or alarm distance settings for each mode.

RECENT LIST — A separate list of recently used destinations is kept for each operating mode.

Features and Data Entry

The following screen features and terms are referred to both in this Quick Start Guide and throughout the Pilot's Guide.

CURSOR — A highlighted area on the screen (white text on black background) which can be moved up/down/left/right with the **ARROW KEYPAD** in order to select individual fields on the display. Moving the cursor to a given location allows you to begin data entry or scroll through a list.

FIELD — The location on a page (such as the "waypoint name field" shown at right) where a group of characters or an option is entered and displayed. The cursor is placed on a field (using the **ARROW KEYPAD**) either to begin data entry or to select options.

To enter data in a data field:

1. Use the **ARROW KEYPAD** to highlight the desired data field and press **ENTER** to begin data entry.
2. Use the **ARROW KEYPAD** to enter the desired data. The UP/DOWN arrows select the desired character; the RIGHT arrow moves to the next character field; the LEFT arrow moves back to the previous character field or, when pressed at the left-most character field, clears the entire data field.
3. When the desired data has been entered, press **ENTER** to confirm.

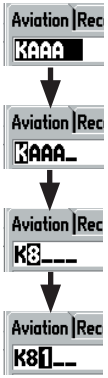
ON-SCREEN BUTTON — Similar to "Field". Place the cursor on a button and press **ENTER** to select the action corresponding to that button. An example of an on-screen button is the 'Goto' button that appears at the bottom of the waypoint information pages.

SCROLL BAR — When viewing a list of items that is too long to display on a single page, a scroll bar appears along the right-hand side of the list. The position of the scroll bar shows which portion of the list is being displayed. The height of the scroll bar gives a feel for the number of items in the list (i.e., the shorter the bar, the longer the list and vice versa).

To scroll through a list of items, use the UP/DOWN portion of the ARROW KEYPAD.

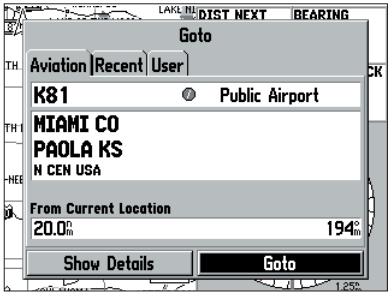
DEFAULT — A system-selected format, built into either the operating software or the unit's memory, that will be followed unless the user chooses a different setting. For example, the default setting for speed readings (in 'Aviation' mode) is 'knots', but this setting can be changed to 'miles per hour' or 'kilometers per hour'. Once a setting is changed, the new setting is retained until another change is made or until the 'Restore Defaults' menu option is selected.

Features and Data Entry



Example of on-screen cursor and data entry.

1. *Use the **ARROW KEYPAD** to place the cursor on the waypoint name field.*
2. *Press **ENTER**.*
3. *Press RIGHT on the **ARROW KEYPAD** to move to the second character. Then UP/DOWN on the **ARROW KEYPAD** to select the desired character.*
4. *Press RIGHT on the **ARROW KEYPAD** to move to the third character. Then UP/DOWN to select the desired character.*
5. *Press **ENTER** to complete data entry.*



*Example of cursor and on-screen button. The cursor is highlighting the on-screen 'Goto' button. Press **ENTER** to select.*

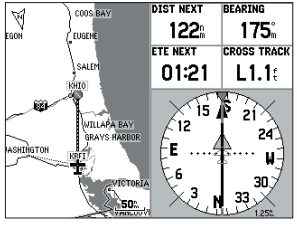
Main Page Sequence

The GPSMAP 196 features four main pages, which are linked together in series. You can quickly cycle through these pages — in either direction — using the **PAGE** and **QUIT** keys. Each one of these pages is described in greater detail in the Pilot's Guide.

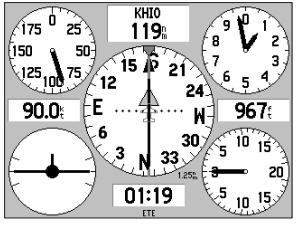
To display the next page in the sequence, press PAGE.

To display the previous page in the sequence, press QUIT.

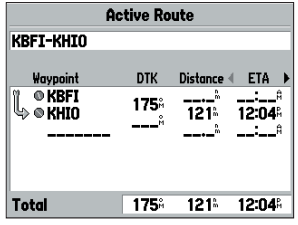
Page sequence in 'Aviation' mode



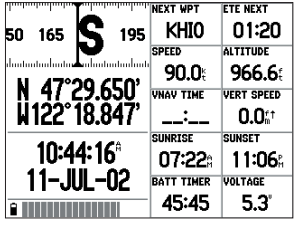
Map Page



Panel Page



Active Route Page



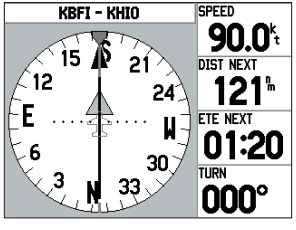
Position Page

PAGE

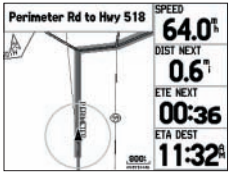
QUIT

The above sequence illustrates the pages for the 'Aviation' mode. As you become more familiar with the GPSMAP 196, you will find that using both the **PAGE** and **QUIT** keys allows you to quickly select the desired page. For example, to quickly jump from the Map page to the Panel page, press the **PAGE** key; to return from the Panel page to the Map page, press the **QUIT** key.

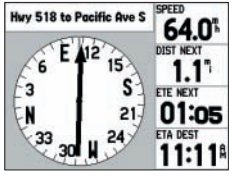
In 'Land' mode, the page sequence is slightly different, as illustrated below:



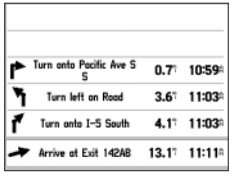
*When on the Panel page (default setting in the Aviation mode), you can select the HSI (Horizontal Situation Indicator) page to appear in the main page sequence in place of the Panel page by pressing on the **MENU** key, selecting 'Setup Page Layout', then selecting 'Panel'.*



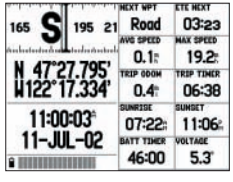
Map Page



RMI (Radio Magnetic Indicator) Page



Current Route Page



Position Page

'Goto' Destination ('Aviation' Mode)

To select an airport or a navaid as a 'Goto' destination:

1. Press the **DIRECT TO** key to display the 'Goto' page.
2. Use the UP/DOWN portion of the **ARROW KEYPAD** to select the identifier, facility name, or city/state/country name field (in that order; identifier only for intersections) and press **ENTER**.
3. Use the **ARROW KEYPAD** to enter the identifier, facility name or city — As you scroll through the characters, the GPSMAP 196 displays any database entries which match the characters that have already been keyed in (if more than one entry exists in the database for the characters entered, a duplicate waypoint window will appear, listing the country/region for each entry. Use the **ENTER** key and **ARROW KEYPAD** to select the desired waypoint from the duplicate list). When the desired waypoint is displayed, press **ENTER**.
4. With the on-screen 'Goto' button highlighted, press **ENTER**. A course is plotted from your present position to the selected destination waypoint.

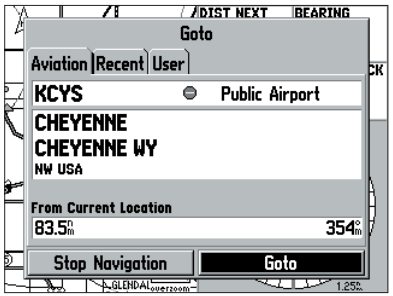
The **DIRECT TO** key can also be used to retrieve detailed information for your destination waypoint (or for the next waypoint in a route). This feature is handy for retrieving navaid frequencies or airport information, such as communication frequencies, runway information, field elevation, available fuels and approach information.

To view the Jeppesen database information for a destination airport or navaid when navigating a route:

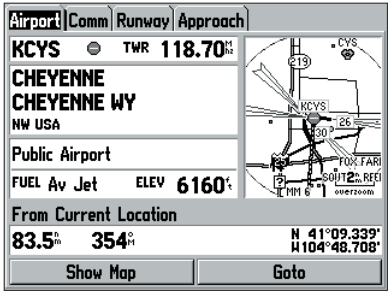
1. Press and hold **DIRECT TO** to display the waypoint information pages.
2. Use the **ARROW KEYPAD** to select the desired file tab at the top of the page.
3. Use the UP/DOWN portion of the **ARROW KEYPAD** to scroll through available frequencies on the 'Comm' file tab.
4. When viewing information for the 'Runway' or 'Approach' file tabs, use the **ARROW KEYPAD** to highlight the runway designation or approach name and press **ENTER**. Then use the UP/DOWN portion of the **ARROW KEYPAD** to scroll through available runways/approaches. Choose the runway or approach you wish to see additional information for, and press **ENTER** to remove the list window.

*To display the Jeppesen database information page when navigation is stopped, press the **DIRECT TO** button, select the desired identifier, then select the 'Show Details' button.*

Selecting a 'Goto' Destination (Aviation Mode)

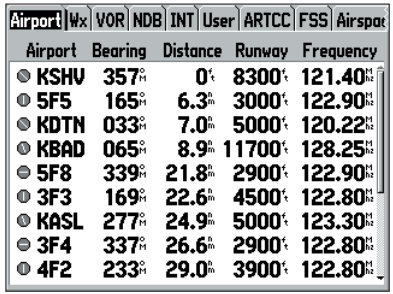


*Press the **DIRECT TO** key to display the Goto page.*



*Press and hold the **DIRECT TO** key to display the detailed waypoint information pages for your destination waypoint, then, use the **ARROW KEYPAD** to select the tabs at the top of the page.*

Viewing Nearest Airports and Navaids



*In an emergency, a list of nearest airports can readily be displayed by pressing the **NRST/FIND** key.*

*Use the **ARROW KEYPAD** to highlight an airport on the nearest list, then, press **ENTER** to view additional airport information.*

Nearest Airports and Navaids

To view the nearest airports and navaids ('Aviation' mode):

1. Press the **NRST/FIND** key and use the **ARROW KEYPAD** to select the desired file tab along the top of the page.

*The nearest airports are displayed by selecting the 'Airport' tab at the top of the page. When an airspace alert is provided, pressing **NRST** will automatically display the nearest airspace information. Press **NRST** a second time to quickly display the nearest airport list. Press **NRST** a third time to display the Find menu.*

Additional information for airports, navaids and user-created waypoints is available from the waypoint information pages.

To view additional information for a nearby airport, navaid, or user waypoint:

1. Press the **NRST/FIND** key and select the desired file tab, as described above.
2. Use the **ARROW KEYPAD** to highlight the desired waypoint on the list and press **ENTER**. The corresponding waypoint information page will appear, showing additional waypoint information.
3. For airports, use the **ARROW KEYPAD** to select the file tabs across the top of the waypoint information pages and display the desired airport data.
4. Highlight the on-screen 'OK' button and press **ENTER** to return to the Nearest pages.

In an emergency, a few simple keystrokes can be used to guide you to the closest point to land, as described below.

To select a nearby waypoint as your destination:

1. Press the **NRST/FIND** key and select the desired file tab, as described above.
2. Use the **ARROW KEYPAD** to highlight the desired waypoint, press **DIRECT TO**, then, press **ENTER**.

*In order to stop navigation, press the **DIRECT TO** key, highlight the 'Stop Navigation' button (using the **ARROW KEYPAD**) and press **ENTER**. Selecting/activating another 'Goto' destination will override, and thus also stop, the current navigation.*

'Goto' Destination ('Land' and 'Water' Modes)

In the 'Land' and 'Water' modes, use the **NRST/FIND** key to search for user-created waypoints, cities, highway exits, or tide stations. In addition, if you are using optional MapSource City Select or MetroGuide data, you can search for points of interest, street addresses, street intersections (crossroads) and more. User-created waypoints, cities, points of interest and geographic points can be viewed in the following two formats: 'By Name' or 'Nearest'. The 'Nearest' lists update continuously.

To find user-created waypoints, points of interest, cities or geographic points:

1. Press the **NRST/FIND** key to display the Find menu, use the **ARROW KEYPAD** to scroll through the find categories, select the desired category and press **ENTER**.
2. For points of interest or geographic points, additional menus will appear which allow you to refine your search criteria. Use the **ARROW KEYPAD** to scroll through these menus and the **ENTER** key to select the desired menu.
3. A list of waypoints for the selected category/criteria is displayed with two file tabs labeled 'By Name' and 'Nearest' appearing at the top. Use the **ARROW KEYPAD** to select between these two tabs.

To find an item 'By Name':

1. Verify that the 'By Name' tab is selected for the desired waypoint category, as described in step 3 above. The first line under the 'By Name' file tab is an editable field to enter the name of the desired user waypoint, point of interest, city or geographic point. Use the **ARROW KEYPAD** to highlight this line and press **ENTER** to begin editing/entering the waypoint name.
2. Use the **ARROW KEYPAD** to spell out the desired waypoint name (as described on page 7, under "FIELD"), then press **ENTER**.

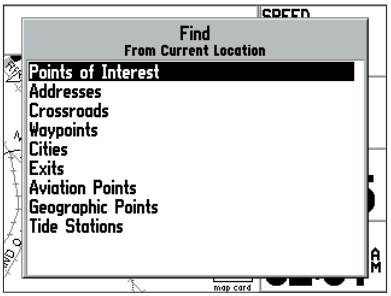
To view additional information:

1. Use the **ARROW KEYPAD** to scroll through the list of waypoints and highlight the desired waypoint.
2. Press **ENTER** to display additional information for the selected waypoint.

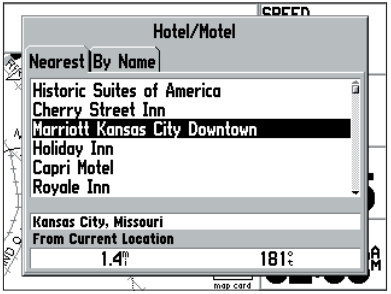
To 'Goto' a selected waypoint, point of interest, city, or geographic point:

1. Follow steps 1 and 2 above to view additional information for the desired waypoint.
2. Use the **ARROW KEYPAD** to highlight (if necessary) the 'Goto' button at the bottom left-hand corner and press **ENTER**. Then, if in 'Land' mode, use the **ARROW KEYPAD** to highlight the desired 'Route Preference' and press **ENTER** again.

Selecting a 'Goto' Destination (Land and Water Modes)



The Find menu allows you to search for restaurants, lodging, addresses, interstate highway exits, cities and more.



*Use the **ARROW KEYPAD** to select the desired nearby point, press **ENTER** for additional information and press **ENTER** again to go to this point.*

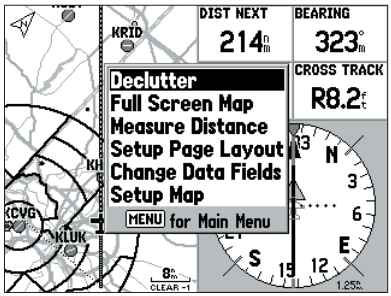
Map Page

Map scale info appearing at the bottom of the page:

Using Built-In Basemap

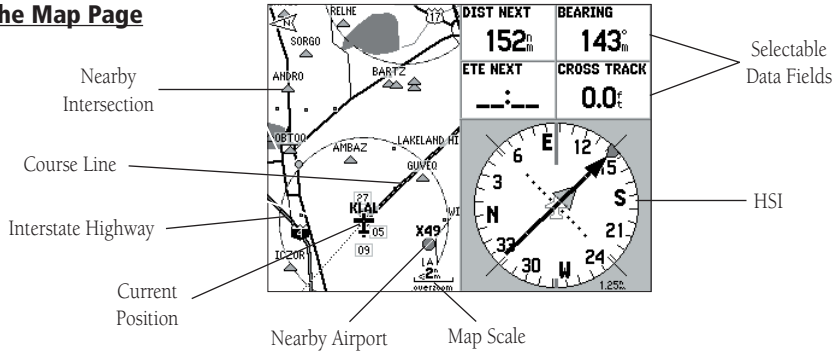
Using MapSource Data

Overzoom, no additional data



*With the Map page displayed, press **MENU** to display context-sensitive options for this page. Use the **ARROW KEYPAD** to select the desired option, then, press **ENTER**.*

The Map Page



The Map page graphically displays your position relative to nearby airports, navaids, airspace boundaries, lakes, rivers, coastlines, cities and highways. Your current position is indicated by an aircraft symbol in 'Aviation' mode and by a pointer symbol in 'Land' or 'Water' mode. Your planned route (course line) appears on the map as a bold line, and your track (which shows the path taken so far) appears as a series of small points.

There are 28 available scales on the map display that range from 20 ft to 800 miles (approximately, 5 m to 1200 km). The map scale is controlled by the **IN** and **OUT** keys, with the current scale being displayed at the bottom right of the map window.

The scale value represents the distance from one end of the scale bar to the other, not the distance across the entire screen.

By default, four user-selectable data fields appear on the right-hand side of the screen — along with an HSI (in 'Aviation' mode). The HSI works much like a mechanical HSI, indicating the desired course and the deviation left/right of this course. If the needle is pointing straight up and the course deviation needle is centered, you are heading directly to your destination. If the course deviation needle is to the left or right of the desired course, steer towards the needle to get back on course. Also, a TO/FROM flag appears at the center of the HSI to indicate waypoint passage.

Map Panning

The panning function allows you to move the pointer away from your present position on the map and scroll to other map areas around the world. As you pan past the edge of the current map display, the screen actively scrolls to provide continuous map coverage (the current position symbol moves with the scrolling map and thus may not be visible on the display screen).

To move the pointer over the map, press on the ARROW KEYPAD.

As you move the pointer, both the distance and bearing from your present position to the pointer are displayed in the data window along with the cursor position coordinates. In panning mode, zooming in or out (i.e., changing map scale) centers the pointer on the screen.

To eliminate the cursor (i.e., exit the panning mode) and re-center your position on the screen, press the QUIT key.

The map returns to your current position and the current position symbol is re-centered on the map.

The cursor may also be used to snap to on-screen waypoints and map items. When a waypoint name is highlighted, information about the waypoint appears and a 'Goto' can be executed directly from the Map page.

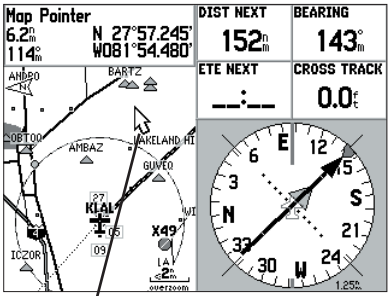
To select an on-screen airport, navaid, or map item with the cursor:

1. Use the **ARROW KEYPAD** to move the cursor to the desired waypoint or map item (if several waypoints are grouped closely together, zoom in closer for a better view).
2. When a waypoint or map item is selected, it becomes highlighted and its name and position are displayed at the top of the screen.
3. To view additional details, press **ENTER**. If the item is an airport, file tabs appear across the top of the page. This allows you to quickly review field elevation, runway layout, communication frequencies and available approaches (multiple file tabs also appear if more than one object appears on the map, at the pointer location).

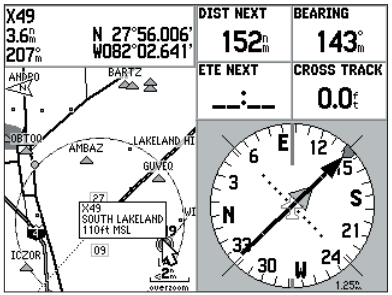
To 'Goto' an on-screen airport, navaid, or map item:

1. Follow steps 1 through 3 above to display additional details for the on-screen item.
2. Use the **ARROW KEYPAD** to highlight the 'Goto' button and press **ENTER**.

Map Panning

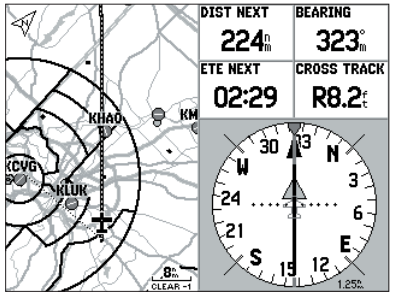


*Use the **ARROW KEYPAD** to pan the map. When panning, a pointer appears on the map.*

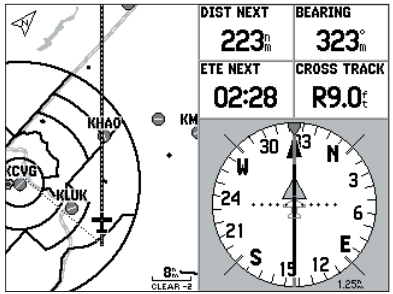


*Place the pointer on a map feature to display additional information. For waypoints, airports and navaids, press **ENTER** to display the related information page.*

Map Decluttering



First declutter level with grayed background/basemap detail. Note the 'Clear-1' declutter indication below the map scale.



Second declutter level with background detail Off. Note the 'Clear-2' declutter indication below the map scale.

Map Decluttering

In congested areas, some map detail can be removed without permanently affecting the current map settings. There are four declutter settings which will respectively display everything (albeit with a de-emphasized background), remove the background detail (lakes/rivers/highways), remove airspace boundaries, and — at the highest declutter level — remove all map detail, except for those waypoints which are part of the selected route. Map decluttering is selected with the **ENTER** key, and is not available while panning (as described on page 13).

To quickly declutter the Map page ('Aviation' mode only):

1. Press **ENTER** once: the background detail (including highways, cities, rivers and smaller lakes) becomes gray (de-emphasized) on the map to make the aviation data easier to read. This declutter setting is identified by a 'CLEAR-1' indication below the map scale.
2. Press **ENTER** again: the above background map detail is removed from the map display; 'CLEAR-2' appears below the map scale.
3. Press **ENTER** again: airspace boundary detail is removed from the map display; 'CLEAR-3' appears below the map scale.
4. Press **ENTER** again: only the waypoints and navaids which are part of the current 'Goto' or route appear on the map display; 'CLEAR-4' appears below the map scale.
5. Press **ENTER** again to return ALL detail to the map display.

*The Map page can also be decluttered by using the **MENU** key, selecting the 'Declutter' option and pressing the **ENTER** key.*

Marking Current Position

In addition to its use for data entry, the **ENTER** key can also be used to capture your present position and save it as a user-created waypoint. In order to use this feature, the GPSMAP 196 must be receiving a sufficient number of satellites so as to display an accurate position fix.

To mark your present position and save it as a user-created waypoint:

1. Press and hold the **ENTER** key for approximately two seconds. A 'New Waypoint' page appears with a pre-assigned name, a symbol, and position and elevation data for the new waypoint.
2. The three-digit, pre-assigned name may be changed to any name of up to ten characters in length: highlight the identifier field, press **ENTER** and use the **ARROW KEYPAD** to enter the desired waypoint name. Once all characters for the waypoint name have been entered, press **ENTER** to validate the name.
3. To change the waypoint symbol that will appear on the map, highlight the symbol field and press **ENTER**. A list of available symbols appears. Use the **ARROW KEYPAD** to select the desired symbol and press **ENTER**.
4. To save the new waypoint, highlight the on-screen 'OK' button and press **ENTER**.

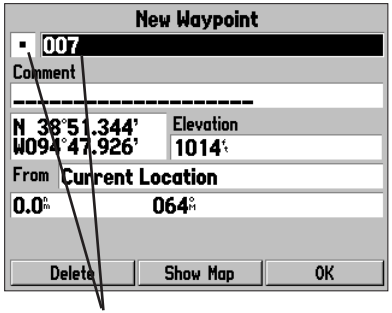
Additional Reading

More information about the subjects covered in this manual can be found in the Pilot's Guide. Some suggested additional reading topics include:

- Creating and using routes (flight plans).
- Using saved flight plans for trip planning.
- Using optional MapSource software products to display additional map detail, support address lookup capability, provide automatic road routing, or show nearby points of interest.
- Customizing the user-selectable data fields on the Map, HSI or Position pages.
- Changing the page layouts, units of measure, time zone and other unit settings.

Refer to the index located in the Pilot's Guide for these and other topics.

Marking Current Position



*Highlight the name (or symbol) field and use the **ARROW KEYPAD** to enter the desired waypoint name (or symbol).*

*From the 'New Waypoint' page, press **MENU** to display the 'New Waypoint' options. You can either select the 'Average Location' feature to improve accuracy of the marked fix, or add the new waypoint to the current route or to a saved route.*

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