

## Vision Locator Instructions

9.42 Version Rev C.

### 1). Marking Objects

#### a) Turning System on

- 1) Press Green **“Power”** Button;
- 2) Main menu screen will appear in a few seconds;
- 3) When **“Receiver Position Obtained”** is displayed in the second line at the top of the Vision Locator, proceed to step b);
- 4) If GPS lock is not acquired within a few minutes the locator screen will advance to the **“Status Screen”**.
- 5) Once you have GPS lock (could take as long as five minutes) **“Receiver Position Obtained”** will be displayed. Press **“Exit”** and then press **“Menu”**. If the GPS lock is not acquired refer to the Trouble Shooting Page.
- 6) Adjust the contrast and brightness of the display by using the two rocker button on the right side of the Vision Locator if needed.

#### b) Making a Geo Reference File

**NOTE: This should be done only once.**

- 1) At the main menu press **“GEO.REF”** and make a mental note of the file number. It should say LDL00100
- 2) Press **“Make File”**
- 3) The display should return to the main menu if not refer to the Trouble Shooting Page.
- 4) If you are resuming back to the project make sure you are resuming back to your **“GEO.REF”** number **“LDL00100”**.

#### c) Marking Points

- 1) At the main menu press **“Mark”**.
- 2) Press **“Point”** Displayed on the left side are the parameters the software will load. If all of the parameters are correct press **“Next”**. If they are not then follow the steps below;
- 3) The **“X offset”** will be highlighted at this time. To change the values of the **“X offset”** press the bottom rocker button down to set to the right or up to set it to the left.

**Note: To mark a point with an “X Offset” you must be moving so the system will know which way is right or left.**

- 4) Press the top rocker down once to highlight the **“Y offset”**. To change the value of the **“Y offset”** press the bottom rocker button down to set the **“aft”**(behind) or up to set the **“fwd”** (forward).
- 5) Press the top rocker button down once to highlight the **“Geo Ref”**. You should see Geo Ref = LDL00100. If it does not, then use the bottom rocker button to highlight it. Then push down the top rocker button to cross it over.
- 6) Press the top rocker down once to highlight the Mission Line. If it displays **“Markfile=LDL00101** on the line below press **“Next”**. If it does not press the top rocker button up once to highlight the

mission line. It should say **“New or Resume”** on the right side of the screen. By using the bottom rocker button press down once to highlight **“resume”**. Press the top rocker button to cross it over to the left side to read **Mission = Resume**. Now your MarkFile = LDL00101.

- 7) Press **“Next”**.
- 8) Drive or walk to your first object. To select the attribute for a specific Object, press **“Object”**.
- 9) Scroll down using the top rocker button to the desired objects press **“Select”**.
- 10) An **“X”** should appear beside the objects you selected press **“Mark”**.
- 11) Proceed to the next point to be marked and repeat steps nine through eleven as needed to complete the project.
- 12) Press **“Stop”** when you are finished marking

**Note: It is always good idea to press stop about every hour. To start back marking repeat steps C 1 through 12**

## 2) Marking Lines and Points

### a) Turning System On

- 1) Press Green **“Power”** Button.
- 2) Main menu screen will appear in a few seconds.
- 3) When **“Receiver Position Obtained”** is displayed in the second line at the top of the Vision Locator proceed to step “b”.

**Note: To mark a point with an X Offset you must be moving so the system will know which way is right or left.**

- 4) If GPS lock is not acquired within minutes the locator screen will advance to the **“Status Screen”**.
- 5) Once you have GPS lock (could take as long as five minutes) **“Receiver Position Obtained”** will be displayed. Press **“Exit”** and then press **Menu”**. If the GPS lock is not acquired refer to the Trouble Shooting Page.
- 6) Adjust the contrast and brightness of the display by using the two rocker buttons on the right side of the Vision Locator if needed

### b) Making a Geo Reference File

**Note: If you already made a Geo Reference File proceed to “C”.**

- 1) At the main menu press **“GEO.REF”** and make mental note of the file number. It should say LDL00100.
- 2) Press **“Make File”**.
- 3) The display should return back to main menu if not refer to the Trouble Shooting Page.

### c) Marking Line and Points

- 1) Press **“Mark”**.
- 2) Press **“Lines & pts”** button. Displayed on the left side of the screen are the parameters the software will load and run with. If the parameters are correct just press **“Next”**. If some of the parameters need to be changed follow the steps below.
- 3) The **“X offset”** will be highlighted at this time. To change the value of the **“X”** press the bottom rocker button down to set it to the right and up to set it to the left.
- 4) Then press the top rocker button down to select the Y Offset. To change the value of the Y Offset press the bottom rocker down to set the **“aft”**(behind) or up to set the **“fwd”**(forward)
- 5) If the value for the **“Y”** needs to be changed repeat steps three and four.
- 6) The next line on the screen should read **“Geo.Ref = LDL00100”**.
- 7) The next line on the screen should read **“Mission = New”**. On the right side of the screen you should see **“New”** at the top and **“Resume”** just below it. To create new file, proceed to the next line. If want to use a previous file press the bottom rocker button down once to highlight **“Resume”**. Next press the top rocker button down once to cross the previous file over to the left side of the screen.

- 8) Press the top rocker button down to highlight **“Smooth”**.
- 9) **“Smooth”** and **“Tolerance”** are the parameters the Vision Locator uses to draw a line.

**Note: To understand it you must consider both; If the tolerance is set to two (2) feet and the smooth is set to “Line”, the Vision Locator will draw the line to the next point when the next point is greater than or equal to two (2) feet from the center line.**

- 10) Press **“Next”**. At this point the locator goes to the attribute list to select the line to be drawn.
- 11) Select the attribute and press **“Save”**.

**Note: You are ready to start marking. When marking lines you must be moving before you actually start marking. This lets the antenna know what direction the line is going.**

- 12) Start moving and press **“Start”**.

**Note: You are able to enter objects along the line as you are marking it.**

- 13) As you are marking the line and come to an object press **“Object”**. Scroll down to the desired objects and press **“Select”**. Then press **“Mark”**. Now proceed to the next object.

**Note: There is also a “Pause” and “Resum” Buttons. These are used in the case you need you need to pause a line (crossing a ditch or an obstacle is in the way). They also can be used if the line is straight.**

- 14) After you have started the line you can press **“Pause”** then proceed to your next object, around an obstacle, or across the ditch press **“Resum”** once you have located back on the line. The Vision Locator will connect the line.

### 3) Locating back to an object or a line

- a) Once the Vision Locator unit is powered up press the **“Locat”** button.
- b) Press the bottom rocker button down to highlight the **“Geo.Ref”**. It should say LDL00100.
- c) Press the top rocker button down to select the desired file number and it will be displayed on the left side of the screen and also highlight **“Mark”**.
- d) Press the bottom rocker button down to select the desired number file (LDL00101 or LDL00102) if needed.
- e) Press the top rocker button to cross it over to the left side of the screen and also highlight **“Use One Point = No”**.
- f) Press **“Next”**.
- g) The display will be divided into two different views:
  - 1) The left side will display all of the points, lines, or points and lines depending on what you are locating back to.
  - 2) The right side is scaleable and the scale value is in the top right corner of the display. The scale represents the distance from the center of the screen to each edge of the screen ( If it says 40ft. It will be 40 ft from the center to the top, center to the bottom, center to the left, and center to the right side of the right display. The scale can be changed to increase or decrease the distance of scale by pushing the top rocker button up or down depending on what you need.

**Note: only the points, lines, or both that are within the distance in displayed the top right hand corner will be on the right side.**

- h) A small **“+”** shows the current location of the GPS antenna. All the points are displayed as a large **“X”**. The attributes of a particular point are displayed in the left corner of the display. The attributes displayed are those attributes for the point the **“Asterisk(\*)”** is on. Pressing the bottom rocker button up or down will move the asterisk to a different point and thus display the attribute for the points.
- i) When the **“Locate”** function is accessed the asterisk will be on the last point marked. To get to another point push the bottom rocker button up or down.

**Note: If the “X” is not on the right side of the screen you may need to adjust the scale of the screen using the top rocker button to zoom in or out.**

**Note: The right side can be rotated to make orientation easier. The button labeled “N up” means the top of the screen is north. Press the button and it changes to “N rt” which means north is to the right. Continue pressing the button to rotate the more.**

- i) To edit the notes of a point scroll through the points till the asterisk is on the point you are trying to edit. Then press **“Notes”** and then press **“Edit”** and change the notes as needed. When changes are complete press **“Save”** and the Locator will save the changes and exit the edit mode.
- j) To exit the edit mode press **“Back”**.

- h) To exit the Locate mode press the right scroll (**→**) button and then press **“Done”**.

#### 4) Setting up the default buttons

Once the default buttons have been configured they can be pressed instead of the “**object**”, “**select**” and the “**mark**” buttons. When the default button is used it will mark the point with the attribute configured with the button. Thus instead of pushing several buttons to mark an object the default buttons require only one button to be pressed. The first ten characters of the attribute will be used to label the default button. The labels will appear once all default buttons have been selected and saved.

**Note: The default buttons only work when marking Points only. It does not work for marking Lines and Points.**

- a) At the main menu press “**Mark**”.
- b) Press “**Points**”.
- c) Press “**Object**”.
- d) Select the desired attribute. There can be more than one attribute for a particular button.
- e) After the attribute has been selected press the right scroll (→) button and the three default buttons will appear.
- f) Press the desired default button.
- g) Press “**Save**”.
- h) Repeat steps four through seven to set up the remaining default buttons you want to use.
- i) Press “**Done**”.

**Note: Any default can be changed at any time for any reason. Just start the process over.**

#### 5) One time offset mark(X/Y)

This feature is a one time offset mark. If there is an object has an offset in any direction the offset for this object can be set for a one time mark without having to go through the setup section. For example, the object could be thirty feet to the right in and fifty feet in front of you. You can do this before or after you edit the object. The only time you use this feature is when you are marking points only.

- a) Press the “**X/Y**” button.
- b) Determine your offset direction(X is right or left and Y is forward or aft which is behind).
- c) To set the value for “X” press the bottom rocker button up for the desired number to the right and down to the desired number to the left. Now press the top rocker button down to cross your desired number to the left side of the screen and highlight the “Y” offset.
- d) To set the value for “Y” press the bottom rocker button up to the desired number for forward and down to the desired number for aft(behind). Now press the top rocker button down to cross your desired number over to the left side of the screen.
- e) Press “Next”.
- f) Select the “object”.

**Note: Before pressing “Mark” you must be moving the Vision Locator. This allows the GPS to know which direction you want the point to be marked. Make a mental note of where you are standing and step back several steps and start walking towards the spot. When you reach the spot press “Mark” and CONTINUE walking.**

- g) The Vision Locator will return to the normal point marking mode.

## 6) Manually entering a waypoint

**Note: All waypoints must be entered in degrees and decimal minutes.**

- a) Press the “**Locat**” button.
- b) Press the top rocker button down to highlight “**Use one point = No**”.
- c) Press the bottom rocker button highlight “**Yes**”. Now press the top rocker button to cross it over to the left side of the screen and it will highlight “**Lat Deg =xx N**”.

**Note the numbers displayed for the latitude and longitude will be present location of the Vision Locator. This reduces the time it takes to enter the waypoint.**

- d) Press the bottom rocker button up or down to set the Degrees of the latitude.
- e) Press the top rocker button down to select the number and advance to the minutes. Use the bottom rocker button to set the minutes.
- f) Press the top rocker button down to select the number and to highlight “**Lon Deg xx W**”.
- g) Press the bottom rocker button up or down to select the degrees of the longitude.
- h) Press the top rocker button down to select the number and advance to the minutes. Use the bottom rocker button to set the minutes.
- i) Press the “**Next**” button.
- j) You will see a “+” and an “X” on the display. The present location of the Vision Locator is the “+”. The waypoint you have entered is the “X”. Proceed towards the “X” and when they overlap you have reached your waypoint.

**Note: Changing your scale value will allow you to locate the waypoint more accurately.**

## 7) Maintenance

This menu enables various settings to be changed or view various statistics. This menu can be accessed in all modes by pressing the “**Maint**” button. The scroll arrow button on some of the pages of the display may have to be pressed to display the “**Maint**” button. To select a particular item highlight the item with the top rocker button and then press the desired button at the bottom of the screen.

- a) “**Display = Go**” This is a visual that the CPU is working properly.
- b) “**DGPS/Time = Go**” Allows the user to change various functions on the Vision Locator. Selections and changes are made using the rocker buttons.
  - 1) “**Time Zone**” Set the time zone to your location.
  - 2) “**Averaging Time**” Set the Vision Locator to average waypoints before marking the point. If the value is set to “0” the Vision Locator will not average. Any value can be set between 1 to 6 seconds.
  - 3) “**Mark with GPS warning**” Changing this allows you continue working when various safe guards have been exceeded. This may decrease the accuracy. To change this setting, please contact, WAG Corporation.
  - 4) “**Number of defaults**” Sets the number of defaults available. The range is three to eighteen. To increase the number from three to up to eighteen please contact, WAG Corporation.
- c) “**Data Card = Go**” This is a visual that the flash card is working properly. Various folders can be selected here.
- d) “**GPS Statistics**” Displays information on the satellites the Vision Locator is tracking. The “**ID**” is the satellite number. the “**Azth**” is the azimuth of the satellite is the compass direction. The SNR is signal to noise ratio. The SNR will fluctuate a little which is normal. If the value is changing in more than five there is a problem with a particular satellite. The two main causes are the view of the antenna to the particular satellite may be obstructed or the satellite transmission may be flawed.
- e) “**Adjust Display**” Using the top rocker button press up or down to adjust brightness. Use the bottom rocker button to adjust the contrast.
- f) “**Set HDOP/PDOP**” Press the “**Setup** button”. If HDOP is not selected use the bottom rocker button to highlight “**HDOP**”. To change the value of the HDOP setting press the top rocker button down to highlight the “**Threshold =**” Use the bottom rocker button up or down to make the number to read 1.6. Press the save button. Then press the top rocker button to move the number to the left side of the screen.

## 8) Trouble shooting

### a) No Power

- 1) Check battery connection.
- 2) Check Vision Locator connection.
- 3) Battery not charged or it's bad. The battery must have at least 11 volts.

### b) Active line

**Note: The second line on the display is the active line that is updated every second and illustrates various conditions of the system while you are working. The following are the messages and explanations. When messages are displayed on the active line the Vision Locator will also emit a beep.**

- 1) Receiver Searching For Sats
  - a) The Vision Locator is trying to obtain satellites. This could take a few minutes to obtain. This also means the Vision Locator is communicating with the GPS.
  - b) If it takes a long time check your surroundings. Are you next to buildings or under heavy foliage?
  - c) You may have to change your location.
- 2) Check Receiver Connection
  - a) This means the Vision Locator is not communicating with the GPS.
  - b) Check all Connections (antenna and Vision Locator).
  - c) Check the cable for any breaks.
  - d) Turn the Vision Locator off and remove power from the system. Reconnect the power and turn the Vision Locator back on. This will cause the GPS to reboot.
- 3) Old correction Data
  - a) The time since the last differential correction data was received has been too long. The accuracy of the system may be degrading.
  - b) Be sure to hold the antenna upright and still if in heavy foliage or in between tall buildings.
- 4) Check Differential Source
  - a) The Vision Locator cannot lock on to the differential Satellite. It should clear after a few seconds.
  - b) Be sure to hold the antenna upright and still when in heavy foliage or in between tall buildings.
- 5) Receiver Position Obtained
  - a) Everything is working correctly.
  - b) Proceed to the next step.
- 6) HDOP Threshold Exceeded
  - a) The Vision Locator is not locked on to enough satellites.
  - b) Same as number three (3) a and b.
- 7) Will not make a Geo Ref File
  - a) This is due to a preset parameters that have been exceeded.
  - b) Make sure the antenna is not obstructed by foliage or buildings.