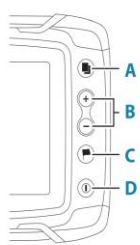


Installation

- We recommend following the Lowrance™ HDS and Elite Ti² unit installation instructions that accompany the unit. Failing to install the transducer correctly may interfere with the sonar signal and prevent the gathering of accurate data.
- Please ensure your unit has the latest firmware – see <https://downloads.lowrance.com/>
- **Always ensure a clear signal (both Sonar and GPS) prior and during logging.** Periodic disruptions due to various causes are ok; sustained disruptions of signal will result in inaccurate or no data. Always monitor the 200 kHz page.

Elite Ti² Controls

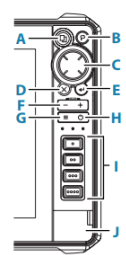
Keys



A Pages	<ul style="list-style-type: none"> • Press to activate the home page • Press to zoom the image
B Zoom in/out	<ul style="list-style-type: none"> • Simultaneous press both keys to save a Man Overboard (MOB) waypoint at the current vessel position
C Waypoint	<ul style="list-style-type: none"> • Press to open the new waypoint dialog • Press twice to save a waypoint • Press and hold to access the find dialog
D Power	<ul style="list-style-type: none"> • Press to turn the unit ON • Press and hold to turn the unit OFF • When ON press once to display the system controls dialog <ul style="list-style-type: none"> - repeat short presses to cycle the backlight brightness

HDS LIVE Controls

Keys



A Pages	<ul style="list-style-type: none"> • Press to activate the home page • Repeat short presses to cycle the favorite buttons
B Waypoint	<ul style="list-style-type: none"> • Press to open the new waypoint dialog • Press twice to save a waypoint • Press and hold to access the find dialog
C Arrows	<ul style="list-style-type: none"> • Press to position the cursor on the image • Press to pan the image in any direction • Press to navigate menus
D Exit	<ul style="list-style-type: none"> • Press to clear the cursor or restore the cursor on the chart panel In menus and dialogs: <ul style="list-style-type: none"> • press to return to previous menu level and to exit a dialog
E Enter	In menus and dialogs: <ul style="list-style-type: none"> • press to confirm a selection
F Zoom in/out	<ul style="list-style-type: none"> • Press to zoom the image • Simultaneous press both keys to save a Man Overboard (MOB) waypoint at the current vessel position
G Menu	<ul style="list-style-type: none"> • Press to display the menu • Press twice to access the settings menu • Press and hold to hide the panel menu
H Power	<ul style="list-style-type: none"> • Press to turn the unit ON • Press and hold to turn the unit OFF • When ON press once to display the system controls dialog <ul style="list-style-type: none"> - Repeat short presses to cycle the backlight brightness
I Quick access*	<ul style="list-style-type: none"> • Use the configurable keys option in the system settings dialog to configure the keys
J Card reader door	

*Not available for 7" and 9" units

Lowrance™ HDS and Elite Ti² Unit Settings (Recommended)*

- Transducer "Installation"
 - o Press Pages button, select SETTINGS, select SONAR; Select INSTALLATION; Select Transducer (check the silver tag on your transducer cable for the model)
- Fishing Mode = Shallow Water (for vegetation detection or depths < 60ft, if deeper, use Fresh Water setting)
 - o Press Pages button, select SETTINGS, select SONAR
- Sonar Range = Auto (Default); critical for optimal bottom and vegetation detection in lakes deeper than 15 ft (4.6 m). Fixing the range to twice the max bottom depth might aid bottom tracking in very shallow ponds.
 - o Press Pages button, select SONAR
- Frequency of Broadband Sonar = 200KHz Mandatory for all three layers – other frequencies will create depth maps only
 - o Press Pages button, select SONAR



Quick Reference – Standard Operating Procedure (Updated 01/16/2019)

- WAAS Differential Correction Enabled on GPS
 - o Press the Pages button, select SETTINGS, select SYSTEM, select SATELLITES, select CONFIGURE, enable WAAS
- Recommended Speed = ≤ 5.5 mph. Faster is ok for slowly changing bottom; go slower during rapid depth changes or through vegetation.
- **Monitor your SONAR page; if signal becomes interrupted at faster speeds, slow down.**
- Maximum Speed = 20 mph (Bathymetry), 10 mph (Vegetation), 10 mph (Bottom Composition).
- Bytes per sounding = Default 3200

Recording Sonar

- We recommend carrying two 8-32 (not 64) GB microSD cards. We recommend logging no longer than one hour per file. **Ensure SD card compatibility/function prior to recording sonar by ensuring the card is recognized in the Log Sonar menu dialog.**
- Logging sonar:
 - o Press the Pages button, select SONAR, select ADVANCED, select LOG SONAR.
 - o Additionally, you may quickly press the POWER button and select LOG SONAR
- File Format = .slg (Sonar only, smallest file, min. needed for EcoSound maps), .sl2 (Sonar + Structure med. sized file - RECOMMENDED), .or .sl3 (Sonar + 3D Structure largest file). Review/select other logging options. Select RECORD.
- Stop recording:
 - o Select LOG SONAR, select STOP LOGGING
 - o Additionally, you may quickly press the POWER button and select STOP LOGGING
 - o **DO NOT select STOP/START SONAR during recording** – this will only stop/start pinging, not recording and may corrupt your file resulting in lost data
- Do not split both 83 & 200 kHz frequencies or adjust SONAR file/frequency/logging settings. If adjustments need to be made, stop the file, make the adjustment, and then resume logging a new file. Changing displays and zoom levels is ok.

Transects

- Transects can be any spacing and depends on the user coverage needs. Users can adjust the buffer in BioBase. 40-m spacing is enough for most needs.
- Use a design (perpendicular to shore, parallel, concentric) that results in the most efficient coverage of water and maps features to your acceptable level of detail.
- Monitor your Lowrance Chart and record a trail to monitor coverage. For pre-planning purposes, transects can be created in GIS, saved to a .gpx file, and then imported into your HDS or Elite Ti² unit.

Data Upload

- Once recorded, files can be saved to the user's local computer or uploaded directly from the SD card using the BioBase upload client or web upload tool available at <http://www.BioBaseMaps.com/> under "Upload Tools" on the right-hand side of the page.
- Time required to upload and process the files will depend on several factors including the size of the file, size of the area surveyed, and internet connection speed. An e-mail will be sent to you once processing is complete.
- Prior to merging trips, we recommend users review and verify individual trips with the sonar log. Sonar logs are not generated with merged trips.

**Refer to the Lowrance™ HDS and Elite Ti² manuals or full EcoSound Operator's Guide for additional details on depth finder options. © Navico Inc.*