SBES User Interface
Singlebeam Echosounders - Quick Start Guide

TELEDYNE ODOM HYDROGRAPHIC

Everywhereyoulook™

Get Started

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Echosounder
- ☑ Get Started
- ☑ Connect to Echosounder
- ☐ Connect to Transducer

Operation
- ☐ Open Operation menu
- ☐ Select the Operation mode
- ☐ Survey

SBES User Interface

The SBES User Interface is designed to operate with minimal operator input while maintaining complete flexibility for a wide range of conditions and applications.

This Quick Start Guide provides you with the recommended settings for the most basic sonar control parameters.

The SBES UI will guide you through the necessary steps to get ready for operation.

As environmental conditions vary, it is not possible to cover every scenario. The settings here apply to typical operations.

Echosounder Setup

- Click the Echosounder tab.

- Select the IP address with the serial no. of your E20 system in the Connect echosounder drop-down menu. (The serial no. is on the front of the E20.)

- Select the correct transducer type from either the Channel A or Channel B drop-down menu. For the current single channel operation, the selection for the other channel should always be None.

- Enter a sound velocity applicable for the survey area.

- Enter the transducer draft from the vessel waterline. The draft is added to the depth measured by the E20.

- Select your preferred unit choice of Meter or Feet. The unit setting is universally applied within the SBES UI.

Setup

Connect echosounder
10.11.10.1 : e20-3318004 ⌄

Echosounder IP Address
10.11.10.1

Connect Transducer

Channel A	Channel B
None ⌄	Reson-TC2122-33kHz ⌄

Sound Velocity
1480 m/s

Draft

Channel A	Channel B
0 m	0 m

Units

Meter	Feet

Sensor Setup

- Click the Sensor tab.

- For each sensor, select the format of your data via the Format drop-down menu.

- Click the Serial port button to configure the port to match the settings of the sensor output.

- Toggle the Position and/or Motion input on/off. You will see the data updating in the preview window for each sensor.

  Note: When Motion input is on, only the Heave field is used by the E20 to correct measured depths.

Sensor

Position — Connect — Format
⬤ On — Serial port — NMEA GGA ⌄
Long: 013.28706 Lat: 058.29444

Motion — Connect — Format
⬤ On — Serial port — EM3000 ⌄
H: 01.00 R: 00.18 P: -01.60

Output — Connect — Format
◯ Off — Serial port — ⌄

Operation Setup

- Select your desired operation mode.

  Automatic is the recommended mode for most operators. Manual is for the experienced operator.

  The Semi auto and Manual modes gives you partial or full control of the system.

Automatic	Full automated controls
Semi auto	Automated controls with available offsets for small adjustments
Manual	Set fixed values for the controls, adjust controls to your preference

Basics for Manual Mode

- Depending on water depth and bottom type, set the Power to mid-range.

- To start with, leave Gain at its halfway setting. Adjust the setting later based on a review of the echogram data.

- Set a Pulse length appropriate for the working water depth. In general, a short pulse performs best in shallow water and a longer pulse performs best in deeper water.

- Set Range to just beyond the anticipated maximum water depth.

- Set Max ping rate. The unit's achievable ping rate is affected by the sonar settings and transducer characteristics, but most directly by the range setting. As the range increases, so does the two-way travel time for the sent signal. Therefore, the current ping rate is displayed in the information box.

- Adjust Power and Gain to get a clear strong record.
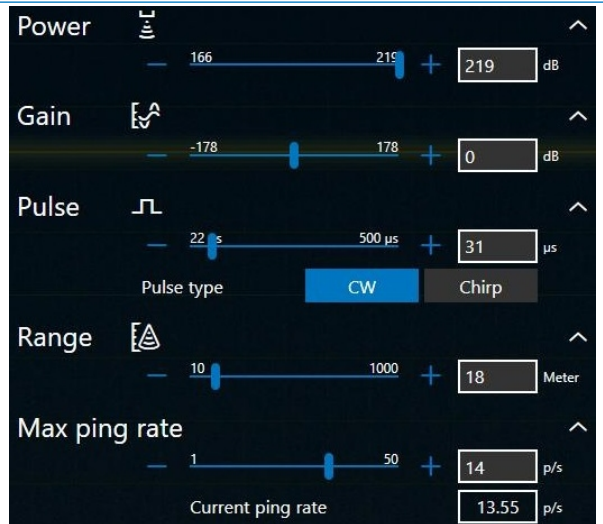
Note: Help visualize and quality assure the echosounder performance by changing the echogram color palette, brightness, and contrast.

Echogram Settings

- Click the Echogram tab.

- Make your choice in the Color palette drop-down menu and/or click the Invert color button to fit your display preferences.

- Adjust brightness and contrast manually – or click the Automatic button to let the system control the settings.

- Range mode echogram display options:

  - Automatic –includes the option of toggling Center on Digitized Depth on/off

  - Fixed range – includes a field for entering a value

  - Follow range

- Select either the Marking or Spike style for visualizing the depth line, when the E20 measures an invalid depth.

Settings

- Click the Settings tab.

- Toggle Night view on/off.

- Recording location (s7k, snapshot & video):

  - Define a storage folder.

  - Define a file prefix for snapshots and videos.

- Revert to default SBES UI settings by clicking the Restore button.