SeaStar

Application Software
Quick–Start Guide

For technical support you can reach us through email or phone.

E-mail: **support@star-oddi.com**
Phone: **+354 533 6060.**

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This quick-start guide describes main steps for getting started working with a recorder. A more detailed user manual is accessible in **SeaStar** under the **Help** menu.

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1 Downloading and Installing SeaStar

SeaStar runs under **Windows** operating systems. Download SeaStar at: www.star-oddi.com/support/software

During installation you need to enter the product key found on the inside of the front cover. Please keep the product key in a safe location as you may need it for re-installing on new computers.

All updates are free. It is recommended to **always do a software update when prompted to do so.**

Where to find the User Manual

In SeaStar select your logger type and find the appropriate user manual.

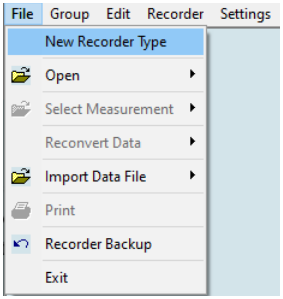

Figure 1.1 Select New Recorder Type under the File menu.

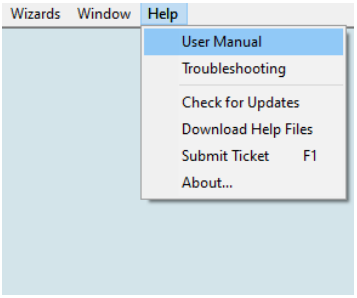

Figure 1.2 Open the User Manual under the Help menu.

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2 Computer Connection

2.1 Communication Box

If using a Starmon recorder: skip and go to section 2.2.
The Communication Box is a USB compatible PC interface, specially designed to communicate with DST recorders wirelessly via RF (radio frequency). Connect the cable between the computer and Com Box. The USB driver should automatically install on the computer, given that the PC is connected to the internet.

The Communication Box has three lights:

1. **Red** – shows that power is fed to the Com Box.
2. **Yellow** – shows that SeaStar has identified the COM port which the box is connected to.
3. **Green** – shows that the DST is ready for connection and only illuminates when the DST sits in the box.

To get the yellow light use either the **Connection Wizard** or **ComBox Connection** under the **Wizards** menu in **SeaStar**. Please refer to the **Troubleshooter** under the **Help** menu if no yellow light appears.

With the yellow and red light on, the green light appears when the DST is inserted as shown in the figure below. Make sure DST is wiped dry before insertion.

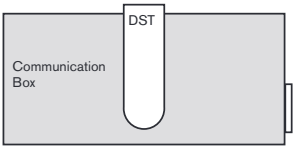

Figure 2.1 Inserting recorder into the Communication Box

For troubleshooting go to File -> New Recorder Type, and choose your logger type from the drop-down menu. Then go to Help -> Troubleshooting.

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2.2 Starmon Communication Cable

If using DST: skip and go to section 3.1.
The communication/USB cable is for use with Starmon recorders. The cable will feed power to the recorder while communicating with the computer.
The USB driver should automatically install on the computer once the cable is plugged into a COM port, given that the PC is connected to the internet.

2.3 Removing end cap for cable connecting

Unscrew the end cap on the Starmon and the socket becomes accessible. If the end cap is firmly tight on, a screwdriver or a steel pin fitting through the hole is useful. Connect the communication/USB cable between the computer and the socket inside the recorder. The end cap has double o-rings that need lubrication from time to time.

Figure 2.2 USB port and cable.

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3 Interval Setup and Data Retrieval

3.1 Connection Wizard

The **Connection Wizard** is used for starting recordings and data retrieval. This wizard can be set to launch every time SeaStar is opened, but can also be accessed through the **Wizards** menu.

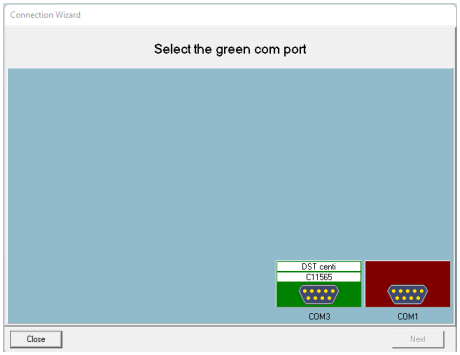

Figure 3.1 Connection wizard

For the COM port to appear green-lit, the DST must sit in the Com Box with all three lights on the box. If using a Starmon recorder it must be connected to a PC computer with the supplied cable.

The recorder takes reference to the PC clock. Therefore make sure the PC clock is correct before the connection.

In the **Connection Wizard** select the green-lit port and select **NEXT** or double-click on the port.

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3.2 Recorder Wizard

The wizard makes connection with the recorder and the **Recorder Wizard** opens:

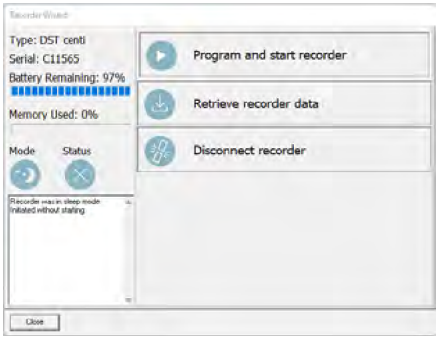

Figure 3.2 Recorder Wizard

The wizard guides the user through the proceedings of starting the recorder or retrieving data. The recorder type and serial no. are displayed and estimated battery life reported. It also reports the recorder's mode, if it was in sleep mode or measurement mode.

Note: If the recorder was in measurement mode it will stop taking measurements when connected to SeaStar

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3.3 Program and start recorder

For defining the interval setup and start date & time then click on **Program and start recorder** in the **Recorder Wizard**. Alternatively (if not using the Recorder Wizard) choose the **Edit** menu and **New Measurement Sequence Definition**.

Either choose to program with **Single recording interval** or **Multiple recording intervals**. The multiple intervals option enables the user to switch between different intervals within a measurement sequence. If choosing single interval, the following window appears:

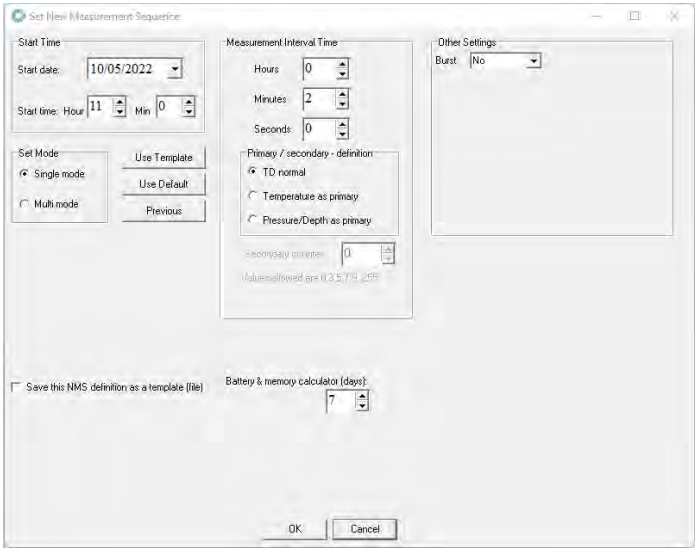

Figure 3.3 Measurement sequence definition

Set the start date & time of recordings and the sampling interval. Interval needs to be set minimum 3 minutes future time.

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The interval setup window has different options for certain recorders, depending on the sensor type.

For more information on options with **Multiple Intervals**, **Primary/ Secondary**, **Burst** and **Multi Mode**, then please refer to the **User Manual** under the **Help** menu.

The **Battery & memory calculator (days)** gives information on the energy and memory consumption based on the defined interval setup. Define the number of days which the calculations should be based on (normally the study length). The software also shows when the memory fills if measuring non-stop.

The recordings are always continuous until connection is made with the recorder.

After the settings have been selected, press **OK**.

If using the **Recorder Wizard**, the software will automatically start the new measurement sequence. If not using the Recorder Wizard, choose the **Recorder** menu and **Start New Measurement Sequence** command.

A window appears on the screen in order to verify the settings (interval and start date & time) to be downloaded into the recorder.

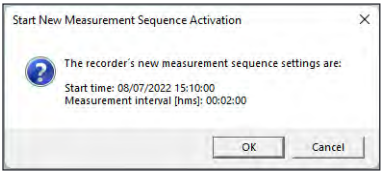

Figure 3.4 Start new measurement sequence

Press **OK** and the settings will be downloaded into the recorder.
A window pops up confirming that it is in measurement mode.

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3.4 Energy and memory calculations file

After acknowledging the interval setup window, a **New Measurement Sequence (NMS)** text file automatically opens showing calculations on when the recorder's memory fills up and battery consumption estimation. It also shows calculations based on the study length defined in the interval setup window.

It can be helpful to do calculations on different intervals in the interval setup window, to help deciding on what interval to use. After pressing **OK** in the interval setup window, the NMS text file opens:

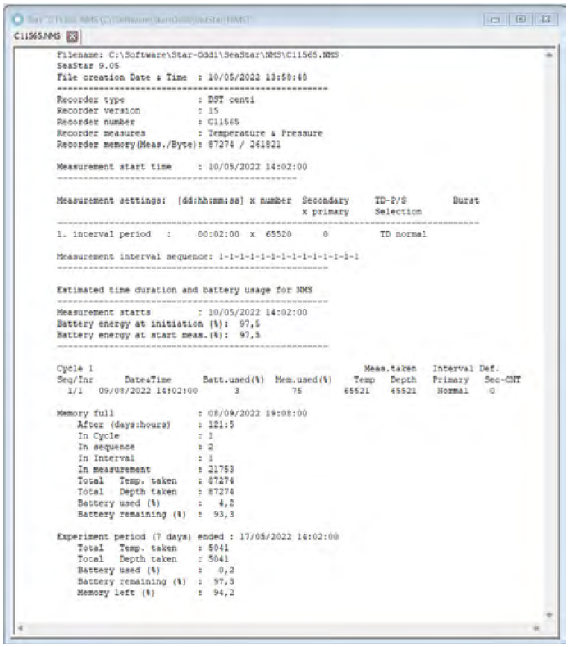

Figure 3.5 Results from NMS calculation

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3.5 Retrieve recorder data

It is recommended to use the **Recorder Wizard** (fig. 3.2) for the data retrieval. Upon connection with a recorder that was measuring data, the software reports that it was in measurement mode.

Click on **Retrieve recorder data** in the **Recorder Wizard** shown in figure 3.2.

If not using the wizard choose the **Recorder** menu and the **Retrieve Data** command. Data is automatically stored in the SeaStar directory on the computer.

Each time data is retrieved, a new file will automatically be created. The name of the data file consists of the measurement sequence number and the serial number of the recorder.

The recorder cannot be programmed with new settings if it contains data that have not been retrieved. New recordings overwrite previous recordings from the memory that have already been retrieved.

After data retrieval the next step is to start a new measurement sequence or disconnect to put the recorder into sleep mode.

3.6 Disconnect recorder for sleep mode

If recorder is not set in measurement mode, it can be put to sleep mode by either:

a) Disconnecting recorder through the **Recorder Wizard** or the **Recorder** menu.
b) Removing the DST from the Com Box, automatically putting it into sleep mode.

The same goes for a Starmon recorder when the PC cable is unplugged.

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4 View Data

4.1 Data graph and table

When data is retrieved from the recorder, a new file is automatically created and opened in graphical and tabular form. To open existing data files on the computer, choose the **File** menu, and **Open** > **Browse for Recorder Information Files.**

The computer mouse can be used to zoom in and out from the data. Double-clicking on the axis enables definition of scaling ranges. The **Save** button allows the user to save changes to the graph as a new file. The original data files are never overwritten.

4.2 Reconvert data

After data retrieval it is possible to modify the data file format and the unit values under the **Settings** menu. After re-defining these options select **File > Reconvert Data** and the changes will take effect in the graph and table.

4.3 Export data

In the graphical window there is a button called **Export as Workbook.** By clicking this icon the data can be saved as an Excel file. The time-series data text file (*.DAT) can also be imported to other programs for further analysis. The DAT file amongst other files created are stored in the SeaStar folder on the PC. By choosing **Directories** under the **Settings** menu the data path can be seen.

Figure 4.1 Export data as xlsx or CSV file

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5 Help Menu

5.1 User manual and Troubleshooting

In SeaStar select your logger type and find the appropriate User Manual and Troubleshooter, see Figures 5.1 and 5.2.

Select **User Manual** under the **Help** menu to open the user manual. The user manual explains in more details the possibilities the software has to offer; multiple intervals programming, description of buttons, conversion of data, chart editing and saving and more.

Select **Troubleshooting** to open the Troubleshooter.
Problem description can also be sent to support@star-oddi.com and Star-Oddi will respond with technical assistance via email or phone.

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5.2 Check for updates

Each time SeaStar is started it will automatically check for an update at the Star-Oddi website. We recommend to always approve the software update, user manual and troubleshooter. It is also possible to check for updates manually by choosing **Help** > **Check for Updates**.

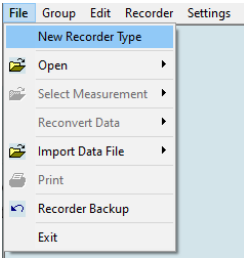

Figure 5.1 Select New Recorder Type under the File menu.

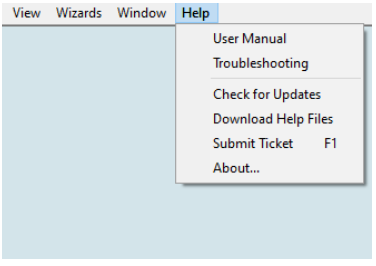

Figure 5.2 Open the User Manual and Troubleshooting, and check for software updates under the Help menu.

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