Sea Scan® HDS Quick-Start Manual

June 2011
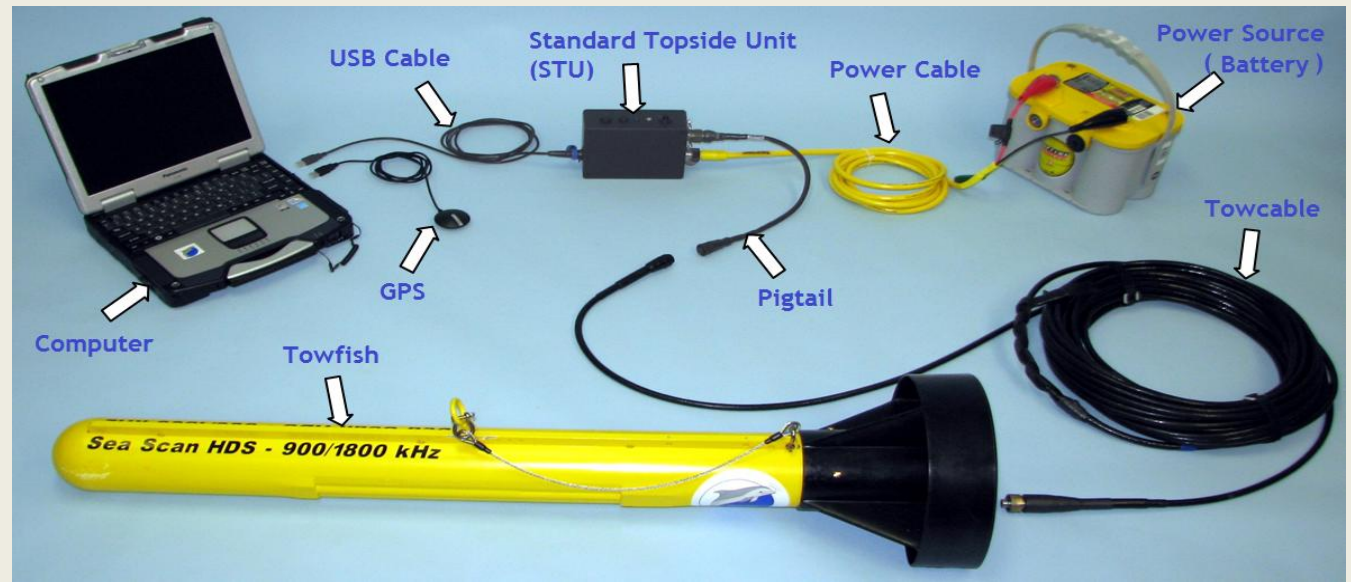
Before You Start

⚠️ **Verify that you have all of the following system components:**

- ☑ Computer
- ☑ Global Positioning System (GPS)
- ☑ USB Cable (connects the computer to the STU)
- ☑ Standard Topside Unit (STU)
- ☑ Pigtail
- ☑ Power Cable
- ☑ Power Source (9- to 24-VDC)
- ☑ Tow Cable
- ☑ Towfish

Labels: USB Cable · Standard Topside Unit (STU) · Power Cable · Power Source (Battery) · GPS · Pigtail · Towcable · Computer · Towfish · Sea Scan HDS - 900/1800 kHz

(1) Software and Drivers (First Time Configuration)

- Insert the "Sea Scan Survey" installation disk into your computer.
- The installation program should begin automatically. If it doesn't, double click the "Install Sea Scan Survey Basic.exe" icon in the root directory of the installation disk.
- You will be asked where to install the software; the default folders should be fine for most users.
- You will be asked to install Drivers and Charts. Select "Yes" and install them accordingly.

⚠️ *Important:* **Do not connect any devices before installing the software, as they will considerably slow the installation process.**

(2) Towfish Setup

⚠️ **WARNING: DO NOT PLUG OR UNPLUG THE TOW CABLE OR PIGTAIL IF THE STU POWER IS ON!**

- Verify that the STU power is off!
- Verify that the O-Ring is clean and properly seated in the towfish connector and tow cable connectors and that it is clear of debris.

⚠️ **Note: Consult the Towfish User's Manual on the Installation disk for proper placement of the O-ring.**

- Plug the tow cable connector into the connector on the towfish; be sure to align its key properly. Then tighten the connector using the provided spanner wrench.

(3) Standard Topside Unit (STU)

- Plug the STU into the computer using the provided USB cable.
- Plug the pigtail into the STU.
- Plug the tow cable into the pigtail.
- Connect the power cable to the power source.

⚠ **WARNING: DO NOT PLUG OR UNPLUG THE TOW CABLE OR PIGTAIL IF THE STU POWER IS ON!**

- Plug the power cable into the STU.
- Open "Sea Scan Survey," turn on the STU, and follow steps a-d below to verify that it shows in the software's SONAR Interface Manager:
  a. Right click in the waterfall (the black area in the middle of the computer screen).
  b. Click "Sonar Interface" on the pop-up menu.
  c. Select "Standard Topside Unit." If the button on the right says "Stop," the STU is already selected. If it says "Start," click it.
  d. At the bottom right, the SONAR Status should change from **red** to **yellow**, then **green** and read "SONAR Connected."

If the SONAR status remains **red**, please refer to the Quick Trouble-shooting Reference at the end of this manual or to the "Sea Scan Survey" software manual on the Installation disk before you proceed!

(4) The Global Positioning System (GPS)

- Plug the GPS into the computer.
- In "Sea Scan Survey," right click on the waterfall and select "NMEA Data Input" from the list that appears in the pop-up menu.
- Under Available Ports, click the port to which your GPS is connected.
- Click the "Add" button; then click OK.
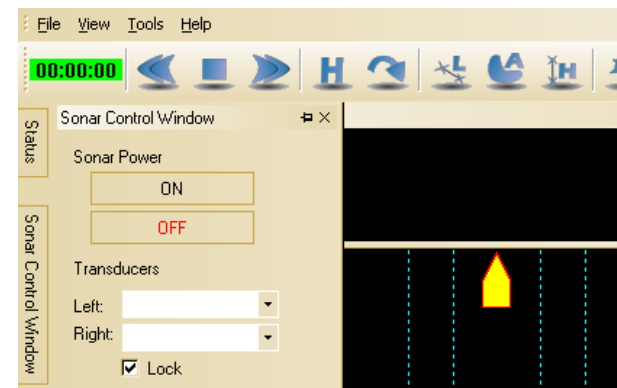
(5) Your First Survey

- Click on *File* at the top-left of "Sea Scan Survey."
- Select *New* from the dropdown menu.
- In the box "Enter Name for," type the name of the survey.

⚠ **Tip: Make the name meaningful so that it can be easily found later.**

- Add a description of the survey.
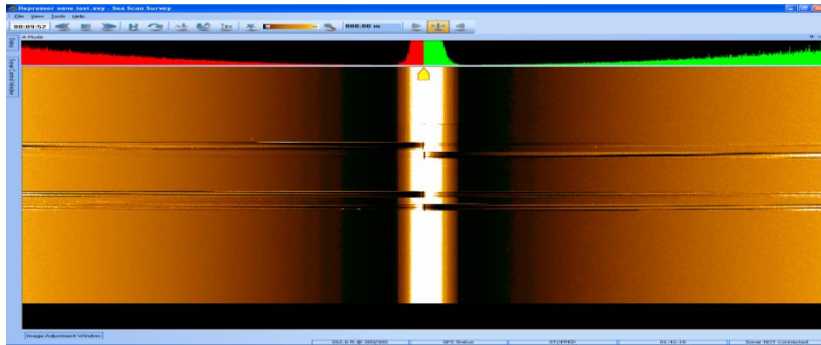- Click the "OK" button at the top-left of the *Begin a New Survey* window.

⚠ **Note: The survey is created now, but you must turn the SONAR on by performing the following steps:**

- Move the mouse cursor over the "Sonar Control Window" tab on the left side of the "Sea Scan Survey" software.
- If using a dual-frequency SONAR, verify that the correct frequency is selected. Keep in mind, however, that higher frequencies are used for more detailed images at shorter ranges.
- Under SONAR, click the "On" button to begin collecting data.

(6) Performing a Rub Check

Perform a *Rub Check* by rubbing your hand over the left and right transducers on the towfish to verify that "Sea Scan Survey" shows a narrow stripe across the left and right sides of the waterfall display, as shown in the following picture.
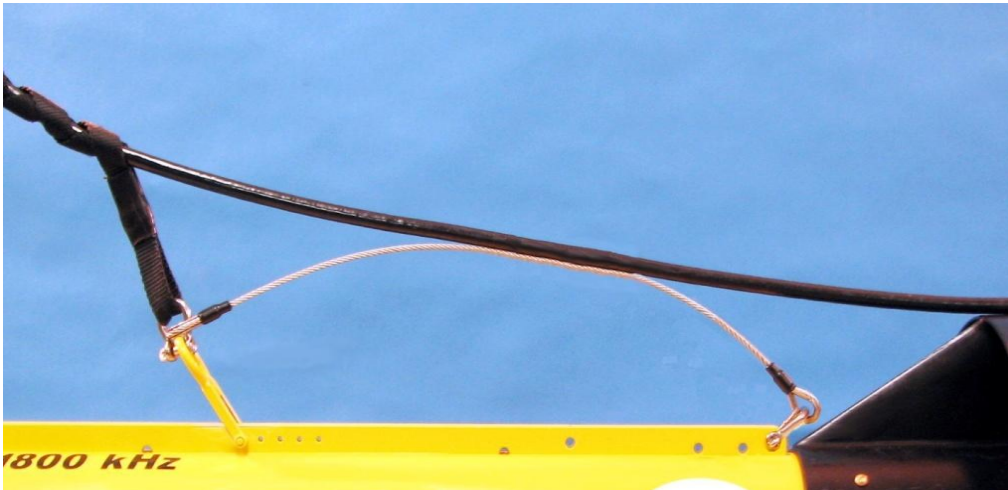

⚠ **Tip: Use dry fingers, a crumpled piece of paper, or (preferred method) a burst of compressed air for more effective rub checks.**

⚠ **Note: If you have a dual-frequency towfish, the rub check must be done separately for each frequency by changing the frequency in "Sea Scan Survey" and repeating the same steps.**

(7) Preparing for Deployment

Assemble the cables as shown in the following picture.

(8) Packing Up

Software

- In "Sea Scan Survey," open the SONAR Control Window and turn the power "Off."
- Click *File* on the menu at the top of the software and select *Close*. This will close the survey, which will be stored on your computer's hard drive in the My Sonar Data folder.

Hardware

⚠ **WARNING: TURN OFF THE STU BEFORE UNPLUGGING THE TOWFISH! FAILURE TO DO SO CAN RESULT IN A DAMAGED TOWFISH OR STU!**

- Disconnect the power cable from the power source and then from the STU.
- Disconnect the tow cable from the pigtail and the towfish.

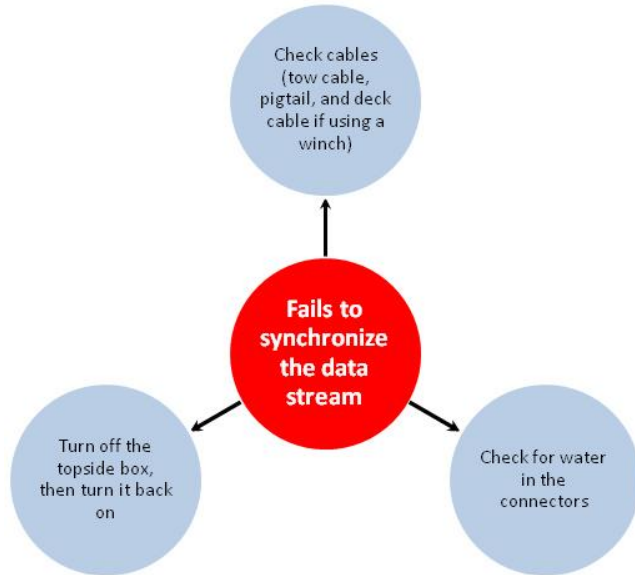⚠ Verify that the connector is free of water and that the O-Ring is seated properly. If water is inside the connector, a quick blow of air from either a can of compressed air or a spray of WD-40™ should be sufficient.
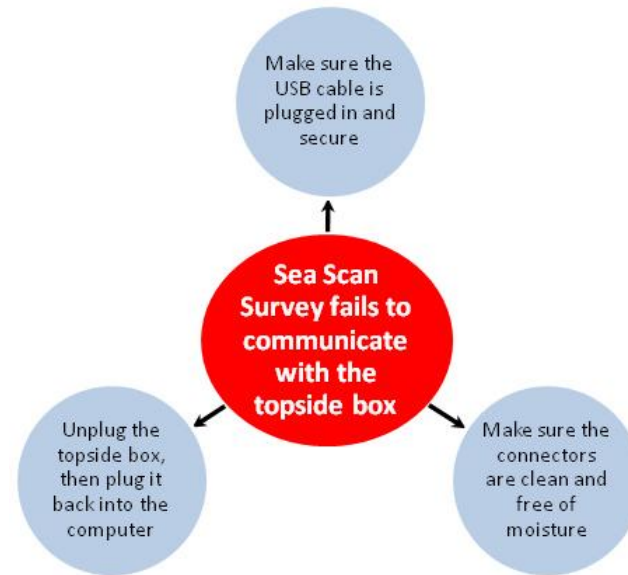
- Put the connector covers on the cable and on the towfish connectors.
- Disconnect the pigtail from the STU.
- Disconnect the USB cable from the STU and then from the computer.
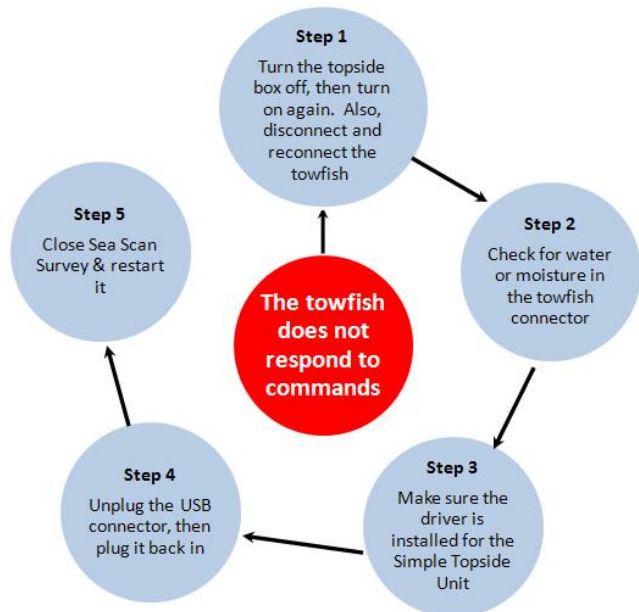
QUICK TROUBLESHOOTING REFERENCE

Software Manager Shows "Failed to Synchronize the Data Stream"

Software Manager Shows "Failed to Connect"

Check cables (tow cable, pigtail, and deck cable if using a winch)

Fails to synchronize the data stream

Turn off the topside box, then turn it back on

Check for water in the connectors

Make sure the USB cable is plugged in and secure

Sea Scan Survey fails to communicate with the topside box

Unplug the topside box, then plug it back into the computer

Make sure the connectors are clean and free of moisture

SONAR Not Connected

No GPS Data Is Being Received

Step 1
Turn the topside box off, then turn on again. Also, disconnect and reconnect the towfish

Step 5
Close Sea Scan Survey & restart it

Step 2
Check for water or moisture in the towfish connector

The towfish does not respond to commands

Step 4
Unplug the USB connector, then plug it back in

Step 3
Make sure the driver is installed for the Simple Topside Unit

STEP 1
Open the Device Manager

STEP 4
If it does not exist, then install the GPS drivers

No GPS data
(GPS status)

STEP 2
Expand the ports (COM & LPT)

STEP 3
Find "Prolific USB-to Serial Com Port"