

Getting Started with the rapidCAST

Step 1

Verify all parts are present

The rapidCAST includes:

- Winch and case
- Davit and case
- Control Module and case
- Sound velocity probe (optional)
- Software and Documentation download instructions
- Check packing slip for additional options



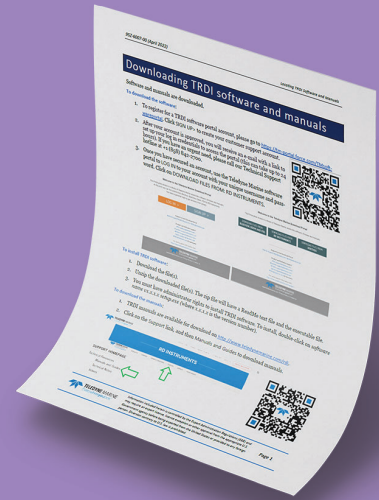
Step 2

Download the Software

Software Portal: <https://tm-portal.force.com/TMsoftwareportal/s/>

rapidCAST software includes:

- Install USB RS-485 Driver
- Install rapidCAST Interface software



Step 3

Installation and Setup

See the RapidCAST Guide for details.

Use the QR code to open the RapidCAST guide or the TRDI support page
<https://www.teledynemarine.com/support/RDI/technical-manuals>



Step 4

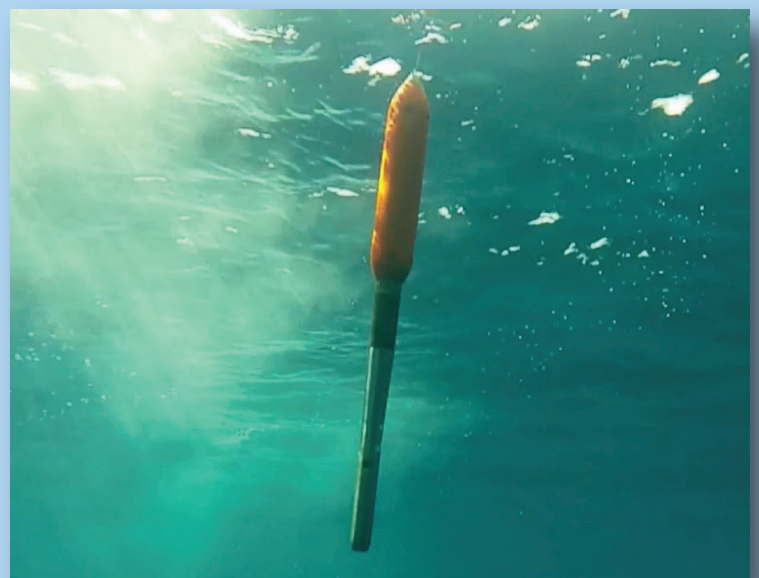
Read the Deployment Guide

Use the QR code to open the Deployment guide or the TRDI support page
<https://www.teledynemarine.com/support/RDI/technical-manuals>



PRODUCT FEATURES:

- Rapid underway sound velocity profiles at up to 12kts
- Automated profiler deployment and recovery
- Wireless bluetooth data transfer
- Lightweight and portable with fast mobilization on a variety of vessels
- Over 500m profiling depth capability at 5kts
- Patented line payout tension control for consistent drop rate
- Deep (5m/s) or shallow (2.5 m/s) profiling modes
- Deploys to target depth automatically—prevents hitting the bottom
- Recovers to designated hold position behind the ship while data are auto-uploaded wirelessly
- Short turnaround time between casts
- 5% depth accuracy at towing speeds up to 12 knots
- 1200m cast depth at stationary or low tow speeds





rapidCAST Checklists

Pre-Deployment Checklist



Follow the instructions in the rapidCAST User's Guide, Initial Setup chapter.

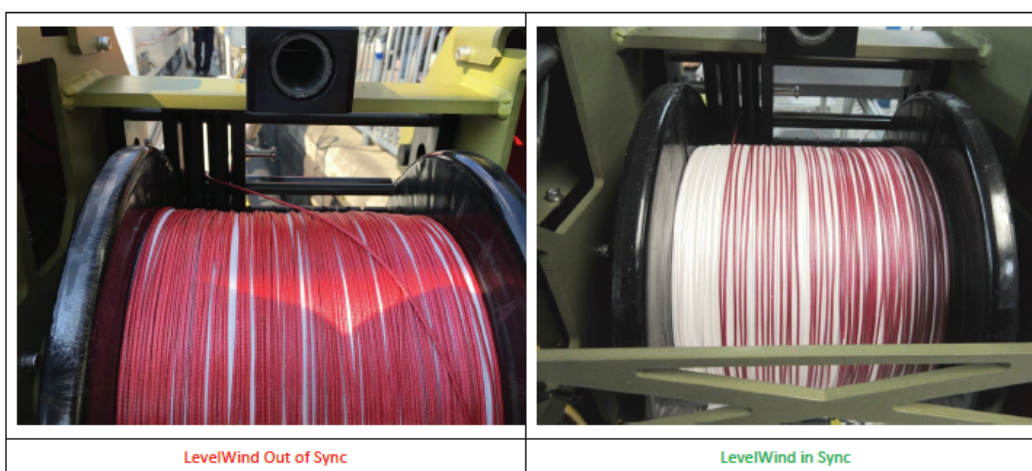
Check	Description
<input type="checkbox"/> 1.	<ul style="list-style-type: none"> ✔ Connect the Winch to a PC <ul style="list-style-type: none"> ○ Lower numbered Comm port for Telemetry ○ Higher numbered Comm port for Control
<input type="checkbox"/> 2.	✔ Turn on Telemetry logging
<input type="checkbox"/> 3.	✔ Check the tension arm settings prior to operation 
<input type="checkbox"/> 4.	✔ Verify Basic Motion Functionality <div style="border: 1px solid black; padding: 5px; margin-top: 10px;">  <p>When the joystick is not actively being used, the toggle switch should be set to PC Control to properly engage the brake. Note that the rapidCAST may creep (slowly moving cable in/out) in the Local Control position.</p> <p>If the winch is run from the joystick (Local Control) for casts, the closed loop control fail safes are overridden and the user could damage the winch. Always perform casts with the winch in PC Control.</p> </div>
<input type="checkbox"/> 5.	✔ Set the Home Position
<input type="checkbox"/> 6.	✔ Define the Dock, Comm, Launch, and Recovery Positions
<input type="checkbox"/> 7.	✔ Save and Load the Workspace

Pre-Cast Checklist



Follow the instructions in the rapidCAST User's Guide, Initial Setup chapter.

Check	Description
<input type="checkbox"/> 1.	✔ Line is routed correctly through LevelWind, tension arm, and pulley block.
<input type="checkbox"/> 2.	✔ Line is tight on the spool and not tangled or buried below the surface layer of the spool.
<input type="checkbox"/> 3.	✔ LevelWind is in sync with line.
<input type="checkbox"/> 4.	✔ Line is not damaged, and the loop splice is in good condition.
<input type="checkbox"/> 5.	✔ Tension arm moves smoothly when tension is applied to line.
<input type="checkbox"/> 6.	✔ Tension arm settings (see Pre-deployment checklist).
<input type="checkbox"/> 7.	✔ Tailspool shackle is free from defects, scratches, or anything that may damage the line.



During Operation Checklist



Follow the instructions in the rapidCAST User's Guide, Performing Your First Cast chapter.

Check	Description
<input type="checkbox"/> 1.	✔ During intensive surveys, the probe loop splice should be replaced daily
<input type="checkbox"/> 2.	✔ The entire line section should be replaced after 1000 casts as a preventative measure.
<input type="checkbox"/> 3.	✔ Keep the line under tension when rotating the spool to guard against fouling.
<input type="checkbox"/> 4.	✔ Monitor Telemetry log file size and available disk space.
<input type="checkbox"/> 5.	✔ Every 10 to 50 casts, rinse the LevelWind assembly and Davit Block with fresh water to prevent salt build-up.

After Operation Checklist



Follow the instructions in the rapidCAST User's Guide, Performing Your First Cast chapter.

Check	Description
<input type="checkbox"/> 1.	✔ Rinse the LevelWind assembly and Davit Block with fresh water to prevent salt build-up.
<input type="checkbox"/> 2.	✔ Coat the LevelWind bearings with DC111 or AquaShield to prevent cosmetic rust.
<input type="checkbox"/> 3.	✔ Stow the system in the cases when it is not in use for long periods.
<input type="checkbox"/> 4.	✔ Cover the system with a tarp when not used for short periods.