452F TOWED SIDESCAN SYSTEM

Outstanding Performance

The StarFish 452F brings even higher definition imagery to your PC. With half the horizontal beam angle (for twice the resolution) of our popular 450F design, and our advanced digital CHIRP acoustic technology developed from the professional underwater survey industry, StarFish 452F produces crisper and cleaner imagery at ranges of up to 100 metres on each channel (200m total swathe coverage). It competes with many larger commercial systems producing spectacular images of the seabed, and includes intuitive software with a variety of data export options.

Portable System

Measuring less than 15 inches long the StarFish 452F sonar is small enough to be transported in your rucksack. Lightweight and quick to deploy by hand, the 452F towed system is independent of the boat requiring no fixed installation which makes it easy to transport and operate from any vessel. The StarFish Peli Case provides a rugged and watertight method for transporting and storing your StarFish system.

Advanced Design

The compact hydrodynamic full body three-fin design improves stability of the sonar while it's being towed which in-turn helps improve the quality of images it produces. The sonar also incorporates an inline connector to allow the cable to be swapped or replaced on site. Additional cable lengths are also available to help you choose the best towing solution for your needs.
Designed to be 'Plug and Play', connecting to your Windows PC or laptop via a USB connection, the StarFish 452F comes with software to allow the capture and recording real-time images from the seafloor below, making seabed imaging easy for everyone.

StarFish 452F
Towed Sonar Head

StarFish 450 Series Electronics Top Box
(compatible with 450F sonar heads)

- **The smallest towed side scan sonar available.**
- **0.8° horizontal beam width with up to 100m acoustic range per channel.**
- **Easily transportable - fits in your rucksack.**
- **Easily powered from almost any source.**
- **Plug & play USB interface to any PC, with simple & intuitive software.**
- **High visibility yellow colour to aid location & tracking..**

P/N: BP00211.1

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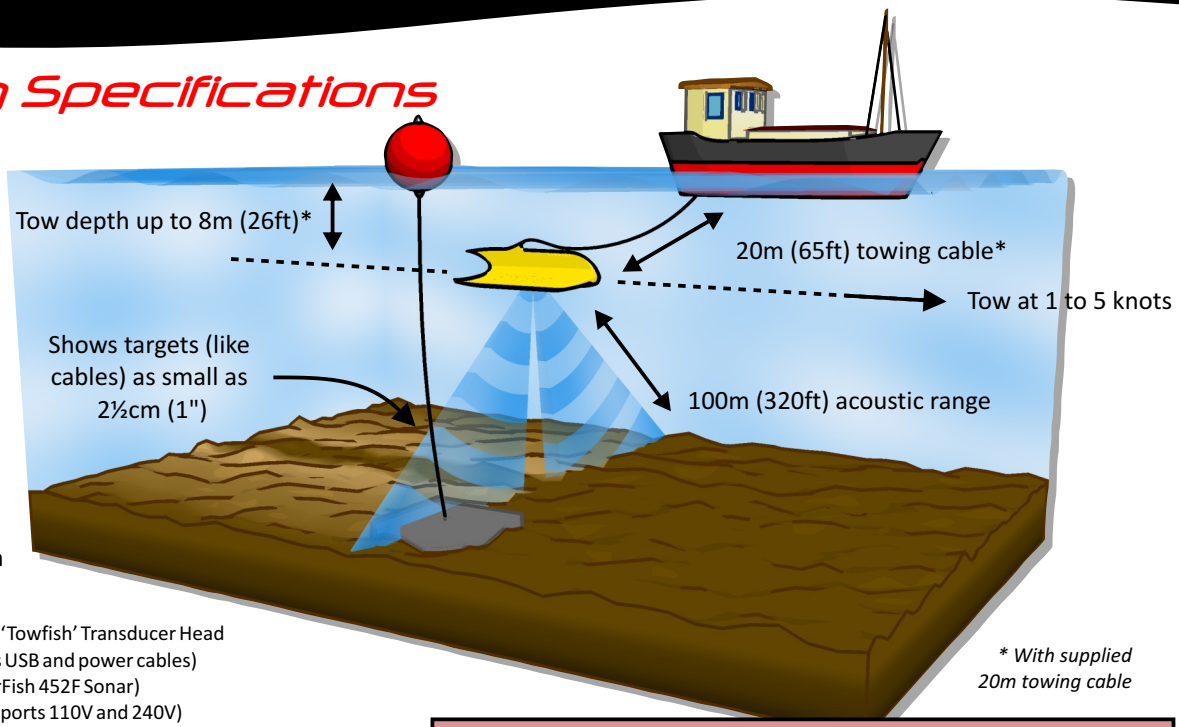
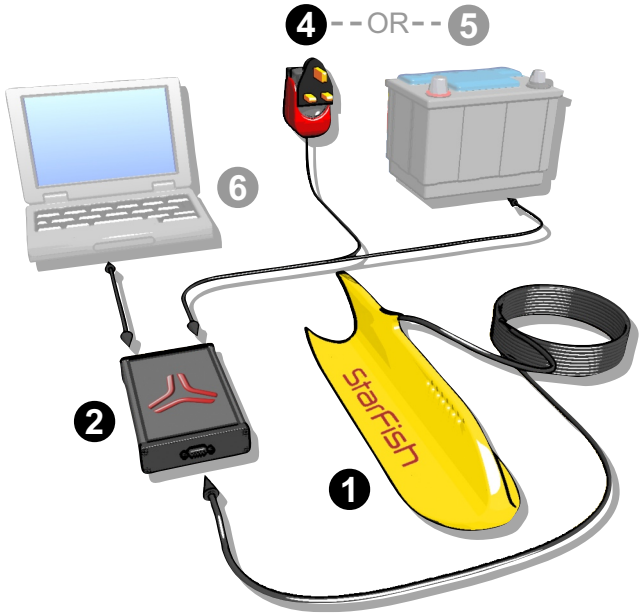
Operating Specifications



** With supplied 20m towing cable*

The Sonar connects to the Top Box. The Top Box then connects to the power source and any Windows based PC or Laptop via a USB connection to display, record and playback digital sonar images using StarFish Scanline software.

1. Starfish 452F Side Scan Sonar 'Towfish' Transducer Head
2. Starfish 450 Top Box (includes USB and power cables)
3. 20m cable (included with StarFish 452F Sonar)
4. AC Mains power adapter (supports 110V and 240V)
5. Customer supplied DC power supply 9V-28V (i.e. battery)
6. Customer supplied PC or Laptop (with at least 1 free USB port and Windows XP, Windows Vista or Windows 7)



TOP BOX SPECIFICATIONS

Dimensions	Length	166mm (6.54").
	Width	106mm (4.17").
	Height	34mm (1.34").
Weight	In Air	Approx 0.4kg (0.88lb).
Power	Supply Voltage	90-264V AC, 47-63Hz with Mains adaptor. 9-28V DC supply.
	Consumption	2.4W (200mA @ 12V) approx when idle. 6W (500mA @ 12V) approx when scanning.
Interfaces	Power	2.1mm DC jack socket.
	Data	USB B-Type connector.
	Acoustic	9-Way Female D-Type socket.
Environmental	Temperature Range	-5°C to +40°C (23°F to 104°F).
	IP Rating	IP50 (Protected against ingress of dust, no protection against ingress of liquids).

SONAR HEAD SPECIFICATIONS

Dimensions	Length	378mm (14.88").
	Width	110mm (4.33").
	Height	97mm (3.81").
Weight	In Air	Approx 2.0kg (4.4lb).
	In Fresh Water	Approx 1.0kg (2.2lb).
Body	Costruction	Reinforced yellow polyurethane rubber.
	Depth Rating	50m (164ft).
Towing Cable	Length	20m (65.6 ft) supplied - 50m (164ft) available.
	Breaking Strain	>150kg (330.7lb).
	Construction	Black polyurethane jacketed with internal Kevlar reinforcing (strain) member.
	Min Bend Radius	30mm (1.2").
Transducer	Arrangement	Dual fin mounted transducers, with 30° down angle from the horizontal.
	Vertical Beam	60° nominal width (@ -3dB signal level).
	Horizontal Beam	0.8° nominal width (@ -3dB signal level).
Acoustic	Frequency	450kHz nominal.
	Range	1m up to 100m (3ft to 320ft) on each channel providing max 200m (640ft) total coverage.
	Mode	CHIRP pulse compression.
	Pulse Length	400µs typical.
	Transmit Source Power Level	<210dB re 1Pa @ 1m.

SYSTEM SPECIFICATIONS

System Parts	Sonar	StarFish 452F Sonar Head (with 20m tow cable). StarFish 450 Top-Box (with USB interface cable).
	Power Supplies	Universal AC mains to DC power-supply (with international AC adaptors). 2m cigar-plug DC power lead. Crocodile-clip to cigar-socket DC adaptor.
	Software	StarFish Scanline interface software CD and drivers.
	Documentation	User manual, Scanline Manual, Quick start guide.
	Included Accessories	Rugged Peli™ Transport & Storage Case StarFish GPS (SiRF III) StarFish pole mounting bracket
Available Accessories		50m towing cable
Compliances	RoHS	Full compliance to the 2002/95/EC directives
	WEEE	Full EN50419 compliance

Please Note: All specifications are subject to change in line with Tritech's policy of continual product development.
For the latest news, details, mechanical drawings, applications information and evaluation software, visit www.starfishsonar.com

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