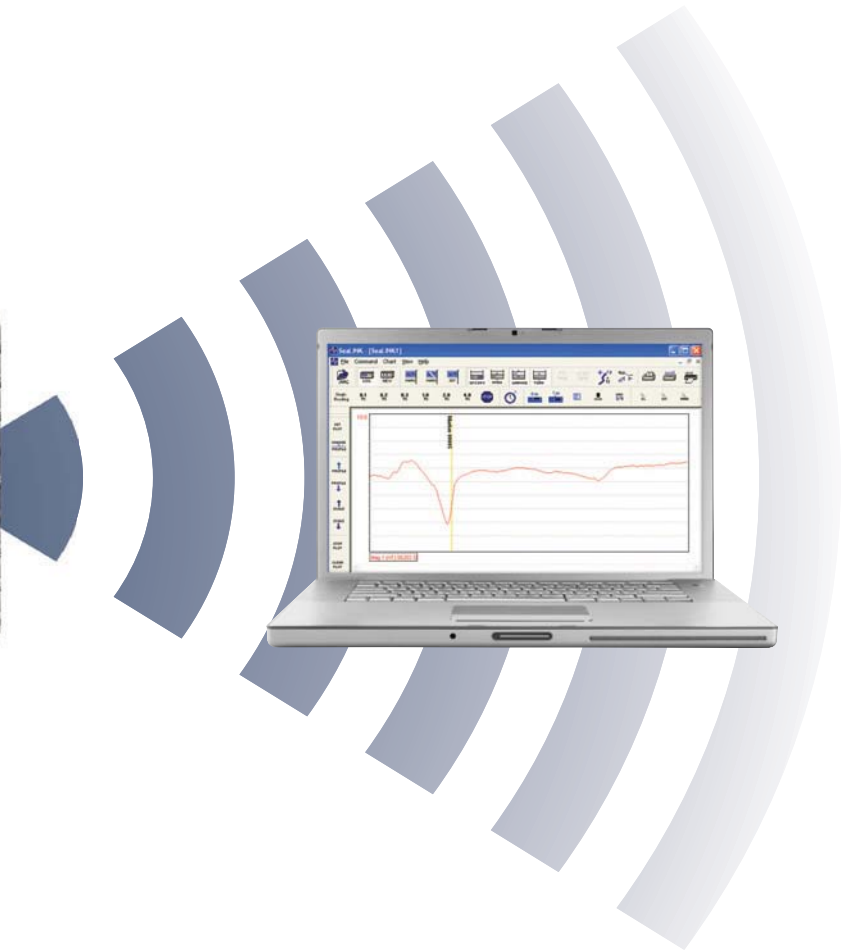
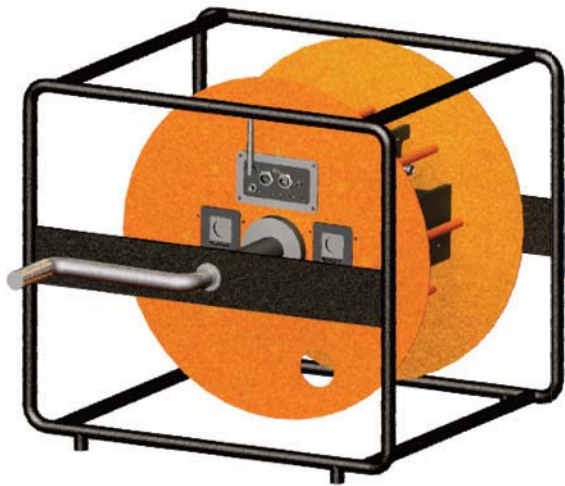


FreeWheel

Wireless Cable Spool



Cable-free data acquisition and power supply

FreeWheel packs Wi-Fi data transfer, wireless GPS and high-performance batteries all into a rugged, portable cable spool. Essentially rig-free, FreeWheel puts power and communications on auto helm and lets you focus on data acquisition.

Say good-bye to messy power and data cables!

The FreeWheel seamlessly integrates into your existing Wi-Fi network or connects directly to any PC with Wi-Fi capability. With built-in GPS, transceiver and power, this virtually eliminates cables and power connections, saving sensor setup times and freeing up precious space on the deck and in the cabin.

The FreeWheel replaces:

- The cabin interface transceiver unit.
- The connector from the interface unit to the computer.
- External power needs (eliminating two power cables).
- External GPS unit and GPS-to-PC COM port connector.

Wi-Fi bypass connectivity provided

The system also comes equipped with direct Ethernet and COM port connections.

Built-in GPS

Supports 4 modes:

- **High-accuracy RTK mode** with connection to a land base-station.
- **L-Band mode** with a subscription to a correction service.
- **DGPS**
- **Uncorrected**

The GPS is a small standalone unit that connects to Freewheel wirelessly via Bluetooth. It is designed to clamp to the Freewheel frame or can be placed anywhere up to 30m away

'Round the clock power

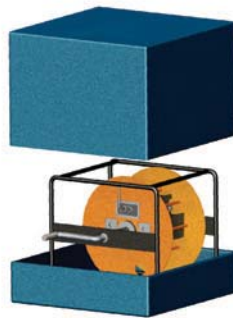
Indefinite continuous operation powered by two built-in, energy-dense Lithium-polymer rechargeable battery packs.

Full-power features:

- Independent, hot-swappable battery packs can be changed at any time without interrupting power. A single battery pack can power a typical SeaSPY system for 14 hours.
- When one pack is drained, the system seamlessly and automatically switches to the second.
- On-board LEDs indicate usage and charge capacity.
- Recharge any time with on-board connectors without interrupting operation.
- Fuseless overcurrent protection in each battery pack means complete protection from cable shorts or other wiring faults.

Portable & Rugged

The FreeWheel comes with a custom-designed, tough, waterproof, plastic roto-molded case for easy transportation. The spool comes attached to the bottom of its shipping case; simply remove the lid and you're good to go. Built to be seaworthy on all fronts, FreeWheel's sealed and splash-proof electronics and batteries have been engineered for marine use.



Specifications

Dimensions

Dimensions(packed in case)	74×69×63 cm (29.25×27.25×24.75 in)
Weight (spool only)	18 kg (40 lb)
(spool in case)	38 kg (84 lb)
(in case with 200m cable)	66 kg (146 lb)
Cable capacity	200 m
Drive	Hand-crank
Brake	Integrated locking pin

Removable Battery type

Marine Magnetics designed Lithium-polymer pack with integrated charging and balancing electronics, over-current protection, and overdischarge protection.

Battery slots per spool Capacity (one pack)

2
114Wh

Connectivity

WiFi 802.11g, Ethernet
10Base-T, RS232 9600bps

External Power

24VDC, 5A max when
charging

AC Power Supply

Accepts 100-240V

GPS

Receiver type

L1/L2 C/A code with
SBAS tracking

Accuracy

< 0.02m RTK
< 0.28m L-Dif
< 0.6m DGPS
< 2.5m uncorrected

Sampling

up to 20Hz

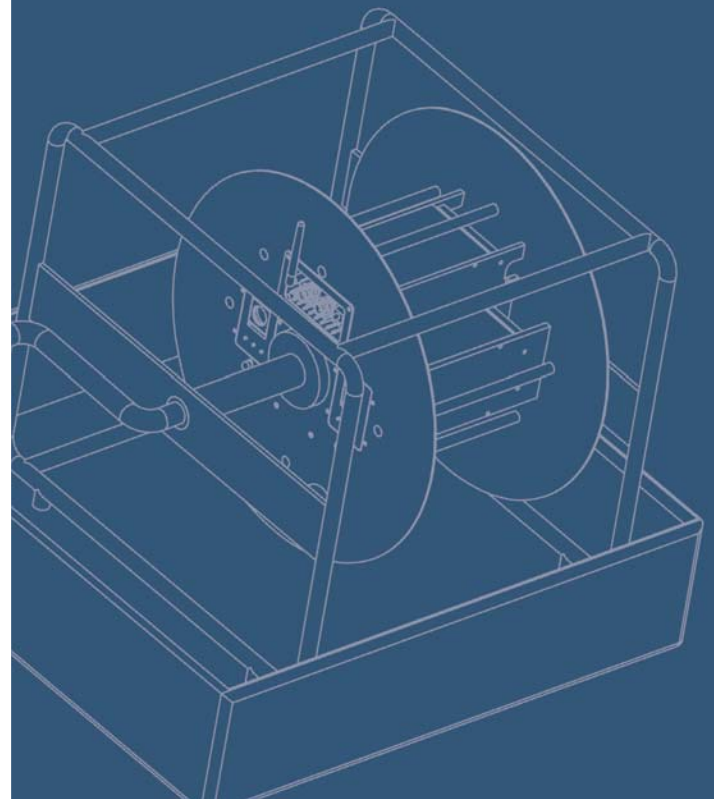
Startup

< 60s

Reacquisition

< 1s

The wireless cable spool supports Explorer, SeaSPY and SeaQuest tow bodies.



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