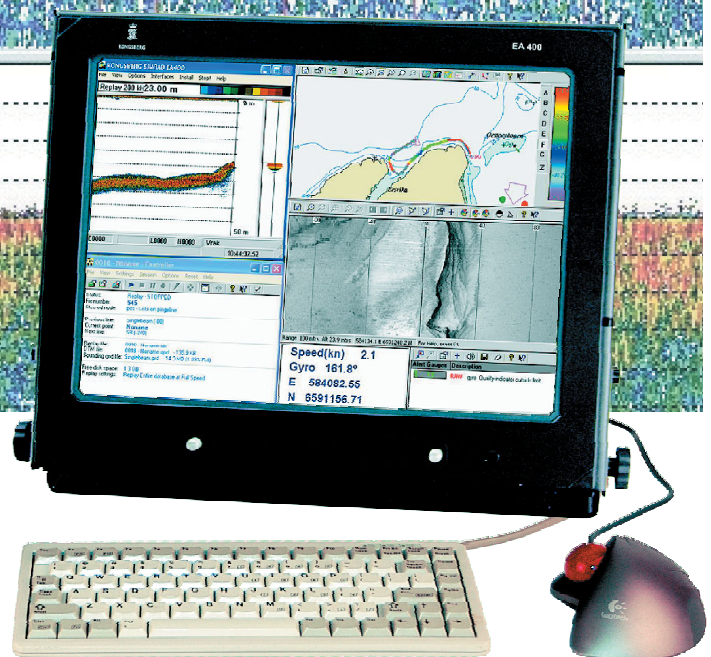
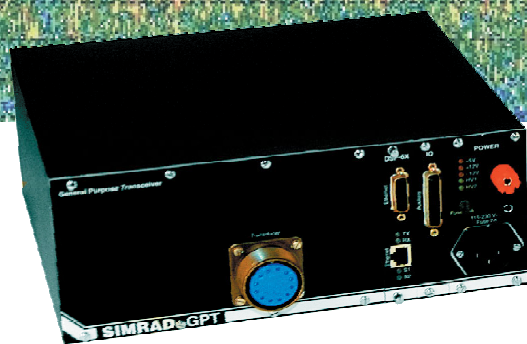
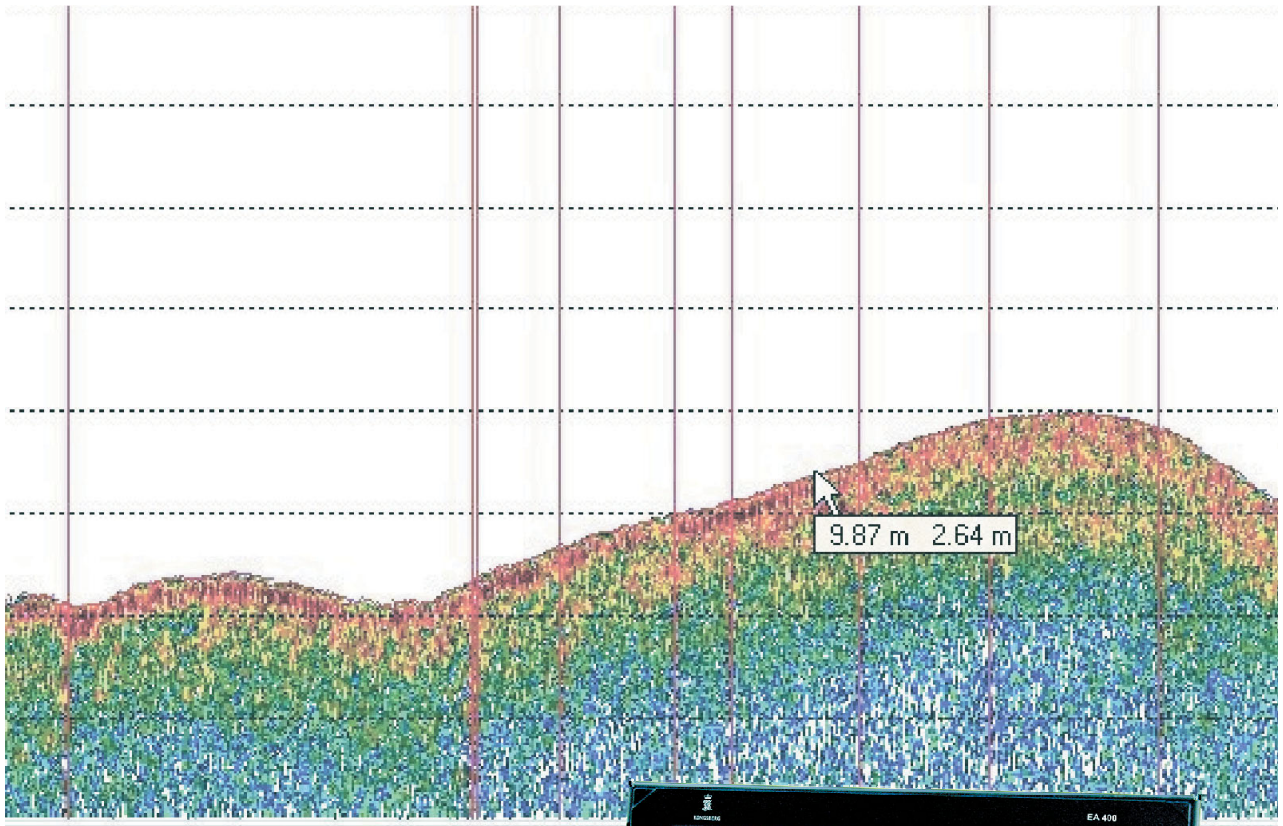




KONGSBERG

EA 400 Survey

A complete, integrated survey system



General

EA 400 Survey is a system which includes both the EA 400 Echo sounder as well as survey software in one system. By just connecting a GPS receiver, you are ready to go.

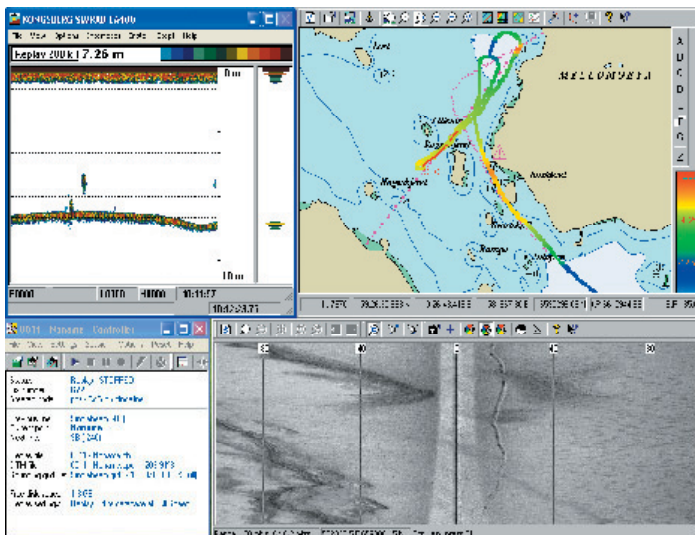
Features

The systems functionality comprises:

- Datum and projection definition
- Planning of survey lines
- Monitoring of survey progress in a navigation display, on which an electronic background map can be imported, as CM-93 and/or DXF files.
- Echo sounder operation
- Online checking of data streams, line oriented data storage
- Real time grid and interpolation between lines to produce a complete terrain model
- Replay function by which data can be checked and cleaned
- Tide compensation – real time or post survey
- Comparing with reference model-volume calculations

Basic system

The system has in its basic version support for displaying and archiving hull mounted side scan sonar imagery. More functionality is available as software options.



EA 400 Survey user interface

Software options

Survey software options include:

- Support for helmsman's display
- Side scan sonar processing

EA 400 Survey scope of supply

Basic configuration:

- EA 400 38/200 kHz GTP
- EA 400 Operator station, 15" LCD display
- 38/200 Combi transducer
- EA Survey software

Available options:

A.) EA Side scan sonar:

- 120 kHz Side scan kit, one side
- 120 kHz Side scan kit, both sides
- 200 kHz Side scan kit, one side
- 200 kHz Side scan kit, both sides

B.) Portable mounting kit:

- Over the side mounting kit for 38/200 Combi transducer and Side scan sonar transducer

C.) EA survey software options:

- Extended side scan sonar processing and mosaicing
- Offline mapping package

D.) Other options:

- Seapath 20 GPS receiver and compass
- IALA beacon receiver for RTCM 104 dGPS messages
- Sensor for measuring sound velocity profile
- HP Deskjet® colour printer (A4)
- Seatex MRU heave compensator recommended

GPS compass

Accurate heading information is required for side scan survey sonars. The Seapath 20 GPS compass provides true heading output with position, velocity and rate-of-turn information. In case of short GPS outages, the internal sensor automatically takes over as the prime source for heading determination until the GPS comes back on line. Working together seamlessly, the inertial and GPS elements of the Seapath 20 product insure accurate, continuous and robust heading information.

Seapath 20



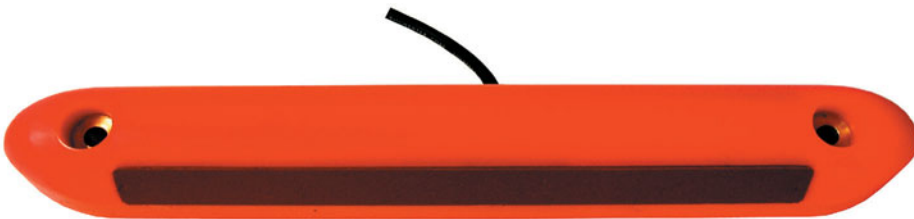
Precision heading is derived from a fixed-distance dual GPS antenna.

Combi 38/200 D

Two transducers and a temperature sensor combined in one housing. May be over the side or hull mounted.



120 KhZ Sidescan



Sidescan transducer with narrow longitudinal and wide transverse beam may be over the side or hull mounted.

200 KhZ Sidescan

Sidescan transducer with narrow longitudinal and wide transverse beam may be over the side or hull mounted.



Transducer 120 kHz Side Scan

Sidescan transducer with narrow longitudinal and wide transverse beam. May be over the side or hull mounted:

Longitudinal beam width	1.9°
Transverse beam width	55.0°
Measuring slant range (approx.)	0 to 350 m
Weight	5.5 kg

Transducer 200 kHz Side Scan

Sidescan transducer with narrow longitudinal and wide transverse beam. May be over the side or hull mounted:

Longitudinal beam width	0.5°
Transverse beam width	49.0°
Measuring slant range (approx.)	0 to 250 m
Weight	8.0 kg

Transducer Combi 38/200 D

Two transducers and a temperature sensor combined in one housing. May be over the side or hull mounted:

Longitudinal beam width 38 kHz	13°
Transverse beam width 38 kHz.....	21°
Longitudinal beam width 200 kHz	7°
Transverse beam width 200 kHz.....	7°
Weight	8.0 kg

Seatex Seapath 20

Precision heading is derived from a fixed-distance dual GPS antenna:

Static heading accuracy of	0.2° RMS
Dynamic heading accuracy of.....	0.3° RMS
Heading resolution of.....	0.01° RMS
Position accuracy	4m (95% CEP) with dGPS
Weight control unit	1.3 kg
Weight display unit	0.5 kg
Weight sensor unit.....	8.0 kg

Due to the continuous development of its products, Kongsberg Maritime reserves the right to alter the specifications show above without notice. Please contact a sales representative for further information.

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