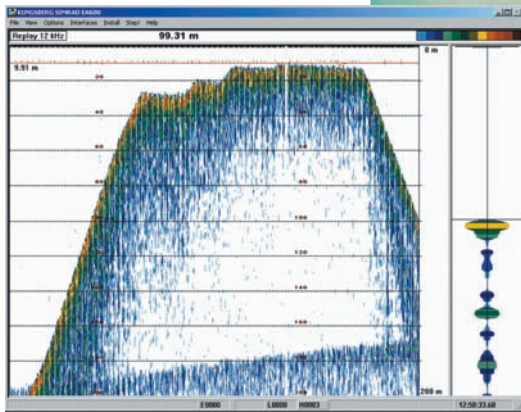# EA 600

New generation precision hydrographic echo sounder

(CD6559A)

Easy to operate

For maximum flexibility and ease of operation, the EA 600 Series hydrographic single beam echo sounders use Windows XP® based software. You can operate the complete echo sounder using the ergonomically designed trackball supplied.

Individual screen presentation

You can set up the display picture to suit your special needs. You can choose different windows on the screen for echogram, bottom expansion, A-scope and digital depth. You can even control all the functions in the EA 600 with just a click on the screen. These functions include comprehensive context sensitive on-line help. Save your favourite settings and call them back when you need them.

Need multiple channels?

Up to four high-power transceivers can operate simultaneously from the EA 600. For improved performance, they are installed close to the transducers and linked to the combined display and processor with a single data cable. Available frequencies span from 12 to 710 kHz. A variety of highly efficient transducers is available to suit all your operational needs from extreme shallow to 10,000 m water depths.

Replay and storage

Internal storage of all sample data, including all input signals for replay use or exporting. The replay file can be divided into "n" new files by using the replay dialogbox.
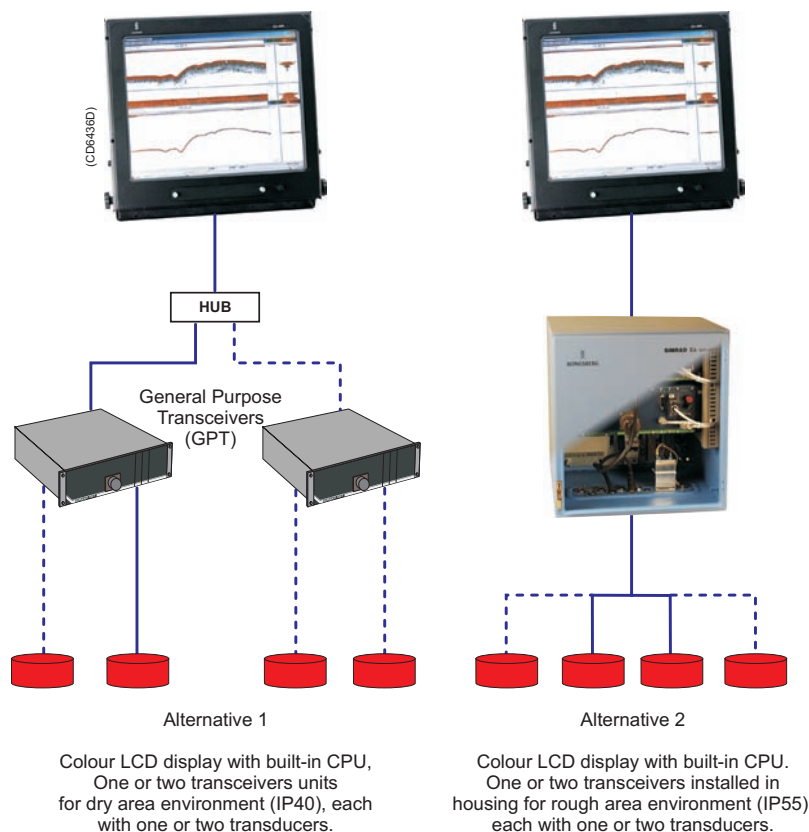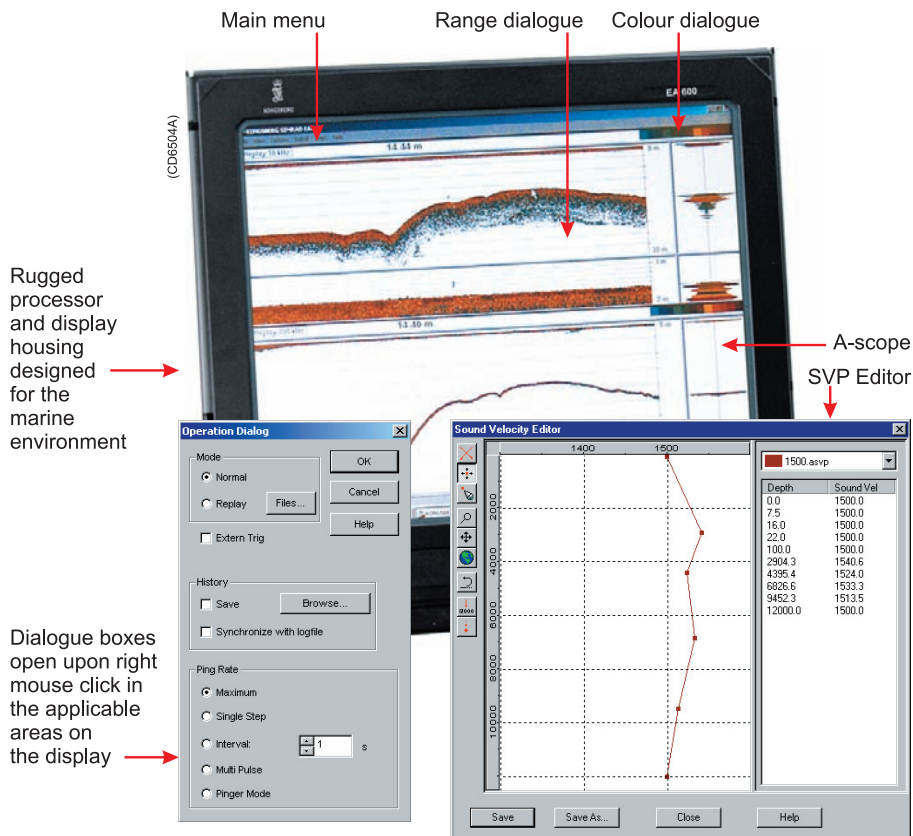
Easy to install

With the EA 600, you only need a standard data cable between the transceiver unit(s) and the combined display and processor. The transceiver(s) can either be located close to the transducers, or in the vincinity of the display. The powerful processing tasks required does not take up any physical space any longer, as the former Processor Unit has been fully integrated with the LCD unit.

System software

The EA600 has a USB port in front where a read/write CD-ROM or DVD can be connected. Systen software is supplied on a CD ready for installation, as are subsequent software releases. Data storage may also be performed via this interface.
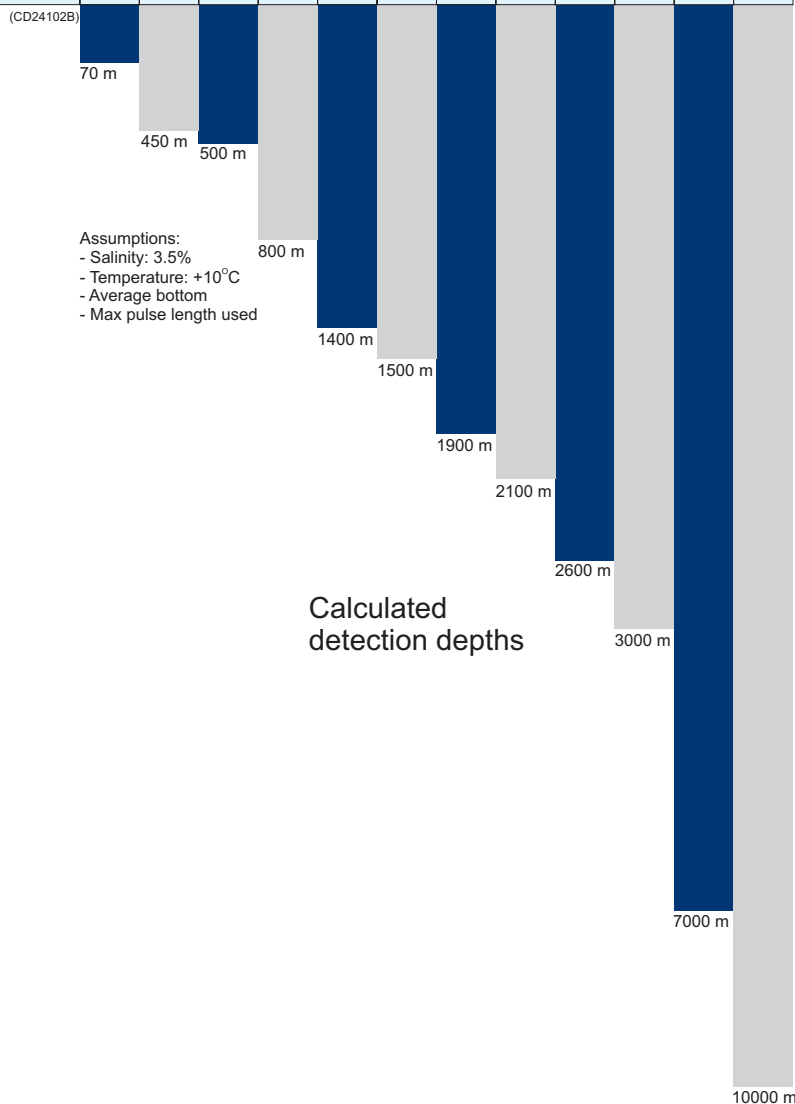
(CD6436D)

HUB

General Purpose
Transceivers
(GPT)

Alternative 1

Colour LCD display with built-in CPU,
One or two transceivers units
for dry area environment (IP40), each
with one or two transducers.

Alternative 2

Colour LCD display with built-in CPU.
One or two transceivers installed in
housing for rough area environment (IP55),
each with one or two transducers.

Main menu   Range dialogue   Colour dialogue

(CD6504A)

Rugged processor and display housing designed for the marine environment

A-scope
SVP Editor

Dialogue boxes open upon right mouse click in the applicable areas on the display

Operation Dialog

Mode
- ○ Normal
- ○ Replay   Files...
- ☐ Extern Trig

OK
Cancel
Help

History
- ☐ Save   Browse...
- ☐ Synchronize with logfile

Ping Rate
- ○ Maximum
- ○ Single Step
- ○ Interval: [1] s
- ○ Multi Pulse
- ○ Pinger Mode

Sound Velocity Editor

Depth	Sound Vel
0.0	1500.0
7.5	1500.0
16.0	1500.0
22.0	1500.0
100.0	1500.0
2904.3	1540.6
4395.4	1524.0
6826.6	1533.3
9452.3	1513.5
12000.0	1500.0

1500.asvp

Save   Save As...   Close   Help

Frequency (kHz)	710	200	120	50			38			18	12
Transducer	710-36	CombiD 200-7	120-25	CombiD	50-18	50-7	CombiD	38-9	38-7	18-11	12-16 /60
Tx power (kW)	0.1	1	1	1	1	0.5	2	1	1.5	2	2	2

(CD24102B)

70 m

450 m
500 m

Assumptions:
- Salinity: 3.5%
- Temperature: +10°C
- Average bottom
- Max pulse length used

800 m

1400 m
1500 m

1900 m

2100 m

2600 m

Calculated detection depths

3000 m

7000 m

10000 m

System

Display/computer HOS 192 (integrated unit):
• Size: 19 inch LCD
• Resolution: 1280 x 1024 pixels
Operating system: Windows XP®
Storage capacity:
• Minimum hard disk size: 30 Gb
• CD / DVD: External (USB)
Language: English (Other lan guages on request)
Supply voltage: 115 / 230 Vac
Display range:
• Minimum: 5 m
• Maximum: 15,000 m
• Modes: Manual, Auto start, Auto range
Display phasing:
• Modes: Manual or Auto
• Maximum range: 10,000 m
Display bottom expansion:
• Minimum: 5 m
• Maximum: 5,000 m
A-scope: Screen or expanded area
Echogram recording: unlimited (disk space)
Colour printer: Optional
Variable sound velocity: 1,400 to 1,700 m/sec
Ping rate: Max 20 pr. second
Resolution: 1 cm
Accuracy (Assuming correct sound velocity, transducer depth and shortest pulse length):
• 710 kHz and 200 kHz: 1 cm
• 120 kHz: 2 cm
• 38 kHz: 5 cm
• 18 kHz: 10 cm
• 12 kHz: 20 cm

Interfaces

4xRS232 serial ports, baud rate 1200 - 115200
Data output (NMEA 0183) serial line or Ethernet:
• Simrad and Atlas
• $--DBS, $--DBT and $--DBT NMEA formats
• Atlas depth datagram
• Echogram datagram
Data input (NMEA 0183) serial line or Ethernet:
• GPS (DGPS - pos, date, time)
• Any format on serial line (ASCII)
• Motion sensor data (serial, network/analog)
• Sound velocity profile data
Annotations:
• Event marker
• Text annotation (internal/external)

Connection

• 2xNetwork connection for exporting of data and connection to EA GPT
• Printer connection
• USB connection(4x)

Data storage

• Raw data
• History data
• Output data
• Echogram data
• xyz data
• Text file

General Purpose Transceiver (GPT)

Operating frequencies: 1 or 2
Single beam frequencies: 12, 18, 33, 38, 50, 70, 120, 200, 210 or 710 kHz
Power output:
• 12 to 50 kHz Variable up to 2 kW
• 70, 120, 200 and 210 kHz: Variable up to 1 kW
• 710 kHz: 100 W
Supply voltage: 95 to 265 Vac, or 12 Vdc, 50 to 100 W

Physical dimensions

General Purpose Transceiver:
• Height: 112 mm
• Depth: 246 mm
• Width: 284 mm
• Weight (approximately): 5 kg
HOS 192 unit:
• Height: 410 mm
• Depth: 134 mm
• Width: 450 mm
• Weight (approximately): 12 kg
IP55 cabinet:
• Weight with 1 GPT (approximately): 25 kg
• Weight with 2 GPTs (approximately): 30 kg