

# FURUNO®

## COLOR SECTOR SCANNING SONAR

Model CH-37

*Full-circle and  
vertical-fan scanning  
with 3D bottom imaging on  
15" daylight-viewing  
high-definition CRT  
Available in 60, 113 or 162 kHz*



The future today with FURUNO's electronics technology.

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Catalogue No. E-377a

TRADE MARK REGISTERED  
MARCA REGISTRADA

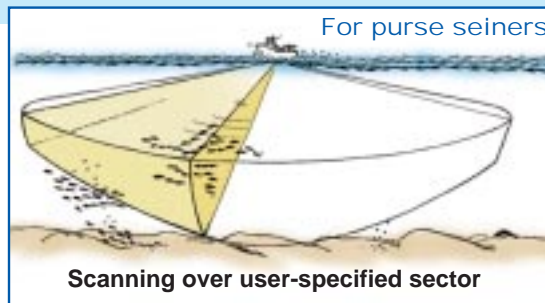
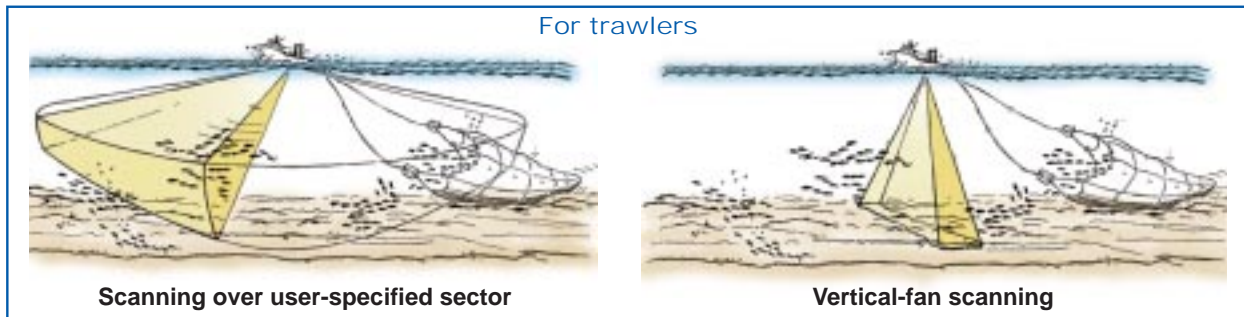


- 15-inch clear-cut daylight viewing color display
- Full-circle, sector or vertical-fan scanning display modes
- Historical seabed image using unique 3D graphics processor
- Choice of 60, 113 or 162 kHz
- Normal or fast scanning
- 8- or 16-color presentation
- One-touch selection of optimum sonar settings with user-programmable "custom" function keys
- Displays vessel's position, heading, intended course line, and water currents when interfaced with appropriate sensors
- The optional MS-100 motion sensor electronically stabilizes the sounding beam for up to 20° roll/pitch for a steady picture presentation.
- Video output for external monitor with optional interface board.

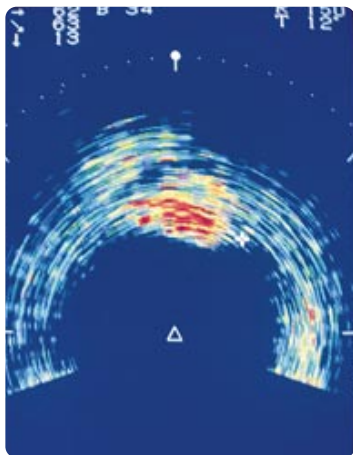


Typical Full Circle bottom and fish target picture

# High-speed multi-sector scanning

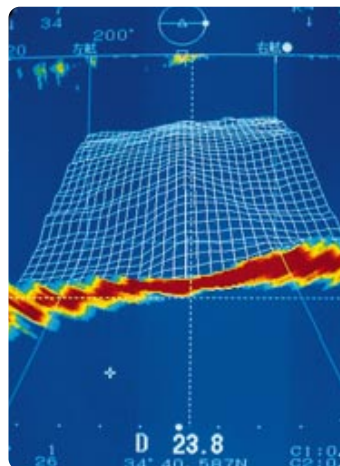


Horizontal scan useful for purse seiners

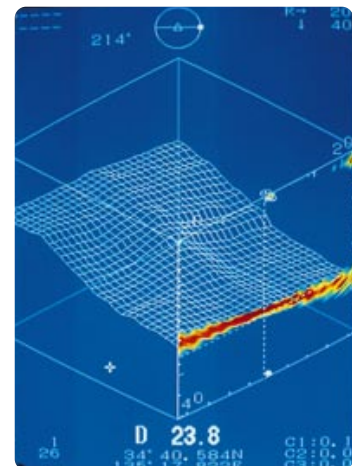


Enlarged forward view in zoom

Vertical-fan scan with 3D graphics overlay useful for trawlers



Fore-aft perspective



Oblique perspective

(Sounding beam directed from starboard to port.)

The Model CH-37 is a new high-performance color sonar suited for bottom trawlers, tuna seiners and other fishing vessels. Based on FURUNO's exclusive multi-sector beam-forming technology, it provides the combined advantages of searchlight and omni-directional sonars at a reduced cost.

The CH-37 shows vivid and clear underwater images in four display modes—Full-circle, Vertical-fan, 1.5X Zoom and 3D graphics—on a new 15-inch color screen.

**Full-circle scanning** (with the capability of scanning a user-specified sector area in a reduced time) presents a picture like a scanning sonar with adjustable tilt for rapid location and tracking of fish targets. The **Zoom mode** shows close-up target echoes.

**Vertical-fan scanning** uses a fan-shaped sounding beam directed downward with up to 180°

vertical sector coverage presenting an echosounder-like cross section of the underwater situation. The Vertical-fan mode greatly supports your fish-finding operation. It is also useful for monitoring the net shape and for bottom fish detection.

The **3D graphics mode** shows a frontal or oblique perspective of the seabed, viewed aft from the vessel. The vertical fan beam fixed in the athwartship direction is used to provide the 3D bottom image. The 3D image is overlaid with real-time fish and bottom echoes. This mode is particularly useful for bottom trawlers.

When interfaced with an external echosounder, the CH-37 displays a vertical sounding picture on the lower part of the screen.

# SPECIFICATIONS OF CH-37

- 1. Display Presentation** 15" color CRT,  
640(V) x 480(H) pixels (VGA)
- 2. Display Colors** 8 or 16 colors
- 3. Display Modes** Full-circle, Vertical-fan, 1.5x Zoom,  
3D graphics
- 4. Range Scales**  
Full-circle mode  
 12 ranges from 30 to 1600 m (100 to 6000 ft, 20 to 1000 fa)  
Vertical-fan mode  
 12 ranges from 10 to 1000 m (30 to 3000 ft, 10 to 500 fa)
- 5. Frequency** 60, 113 or 162 kHz  
(Specify when ordering.)
- 6. Output Power (Nominal)**  
 60 kHz: 0.8 kW    113 kHz: 1.3 kW  
 162 kHz: 1.5 kW
- 7. Pulselength**  
0.2 to 10.6 ms interlocked with range in use
- 8. Transducer Control**  
Full-circle mode  
 Training: 45° or 6° steps through 360° automatically  
 (Scanning sector 45°, 90°, 135°, 180° or 225°. Sector center can be set in any direction in 15° steps.)  
 Tilt angle: +5° to -90° in 1° steps manually  
Vertical-fan mode  
 Vertical scan: 6° or 3° steps automatically (Scanning sector selectable from 36°, 60°, 96°, 120°, 156° and 180°. Sector center can be set between 0° and 180° in 6° steps.)  
 Training: 6° steps manually or 15° steps automatically

**9. Ship Speed for Hull Unit**

15 knots max.

**10. Ambient Temperature (IEC60945 test method)**

-15°C to +55°C (Display unit)

**11. Input/Output Data**

Input: NMEA0183 \$--GLL, \$--DBT, \$--RMB, \$--RMC  
 Output: RGB video in VGA format (optional interface required)

**12. Power Supply**

24 VDC: 13.0 A  
 32 VDC: 10.5 A  
 (340 W when lowering or raising transducer)  
 115/230 VAC, 50-60 Hz with 2 x Rectifier RU-1746B-2

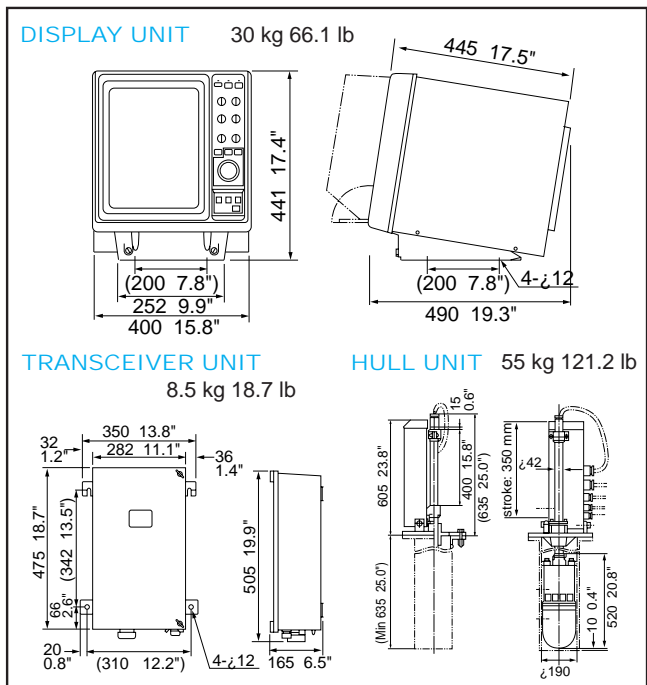
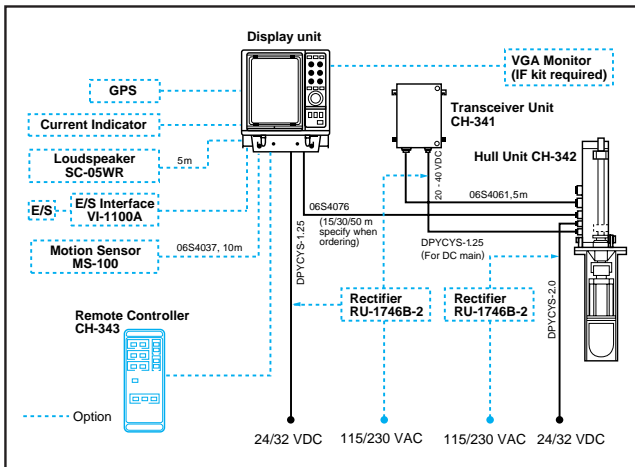
**EQUIPMENT LIST**

**Standard**

- |  |        |
|--|--------|
| 1. Display unit CH-370   | 1 unit |
| 2. Transceiver unit CH-341<br>(Specify 60, 113 or 162 kHz.)              | 1 unit |
| 3. Hull unit CH-342<br>(Specify shaft length: 1.17, 2.2 or 3.8 m.)       | 1 unit |
| 4. Interconnection cable (display-hull unit)<br>(Specify 15, 30 or 50 m) |        |
| 5. Installation materials and standard spare parts                       | 1 set  |

**Option**

1. Motion sensor MS-100
2. Remote controller CH-343
3. Rectifier RU-1746B-2 for 115/230 VAC mains (2 units required)
4. E/S interface VI-1100A
5. E/S buffer board (built-in type) OP06-13
6. Remote display interface OP06-14
7. Handgrips for display unit OP03-70
8. Loudspeaker SC-05WR
9. Steel or FRP transducer tank (Specify 1, 1.8 or 3.5 m)
10. Interface kit for connection of VGA monitor



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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