

# FURUNO®

## 10.4" COLOR LCD DISPLAY SEARCHLIGHT SONAR Model CH-270

- High definition 10.4" color LCD display
- Instant selection of eight modes for effective fishing and navigation
- User-friendly customizable menu
- Motion Sensor ensures clear images in rough seas (optional)
- BlackBox configuration available
- Multi language menu; English, Spanish, Danish, Portuguese, French, Norwegian, Italian, Swedish and Thai
- Low-profile hull unit for space saving installation (select from 250 or 350 mm travel)
- Small 147 mm ID hull tube used
- Cross Section Scan for instant observation in the vertical plane
- Target Lock function automatically tracks targeted fish school
- Audible target detection frees operator from continuous watch (optional loudspeaker required)
- Intuitive depth and range readouts with two-axis index line



The future today with FURUNO's electronics technology.

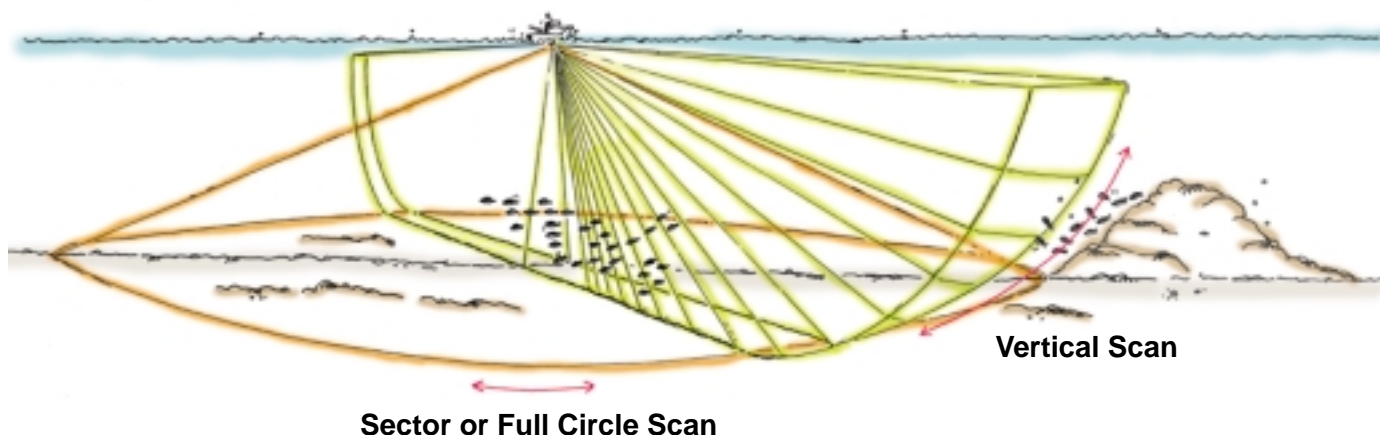
**FURUNO ELECTRIC CO., LTD.**

9-52 Ashihara-cho, Nishinomiya City, Japan Telephone: +81 (0)798 65-2111  
Telefax: +81 (0)798 65-4200, 66-4622 URL: www.furuno.co.jp

Catalogue No. E-397

TRADE MARK REGISTERED  
MARCA REGISTRADA

# A remarkable Compact hull unit that reliably scans all around the vessel in a specified sector, bearing and tilt angle



The CH-270 is a new sophisticated searchlight sonar designed for small fishing vessels or pleasure craft. Individual fish, fish schools and underwater objects are displayed on a 10.4" color LCD. The echograms are displayed in 8 or 16 colors according to received echo strength; the strongest echoes are red, the weakest are blue. One echo can be displayed in white so that a specific echo level is highlighted. The background color is also selectable for optimum viewing day or night.

There are eight display modes: full circle scan, zoom, vertical scan, vertical sounder, the combination of full or half circle with vertical scan, full circle with history, full circle with strata and full circle with VideoPlotter. In the vertical scan mode, you can view the vertical plane in any direction around the vessel. The CH-270 features a unique "Cross Section Scan" to view the vertical plane. When you find a specific echo in the full circle scan mode, just push the appropriate "CUSTOM MODE BUTTON" and then the cross section scan window appears.

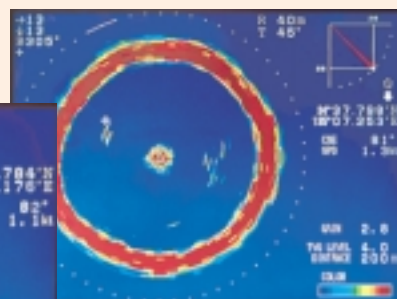
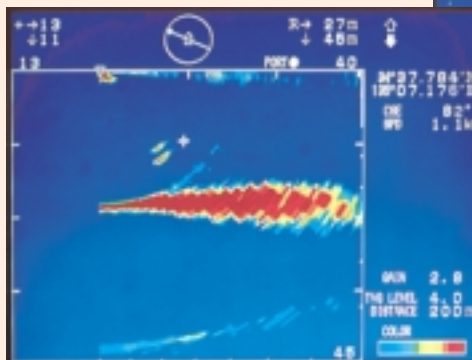
The CH-270 provides two modes to track a targeted echo: target lock mode and L/L mode. The target lock mode permits automatic tracking of targeted fish schools within a predetermined search zone after it has been manually acquired. In the L/L mode, the beam is locked to the position (such as a fish shelter or reef) chosen with the target marker. This mode can be enhanced with more accurate position input such as DGPS or WAAS.

The CH-270 consists of a 10.4" LCD display unit, transceiver unit and low-profile hull unit. This 3-unit configuration provides a space-saving installation. A BlackBox configuration (without monitor) is also available. The hull unit will fit any boat where a 147 mm (6") hull tube is available. Also, previously installed CH-18 or 28's can be upgraded to a CH-270 without drydocking since the hull unit is the same.

**NEW**

## CROSS SECTION SCAN

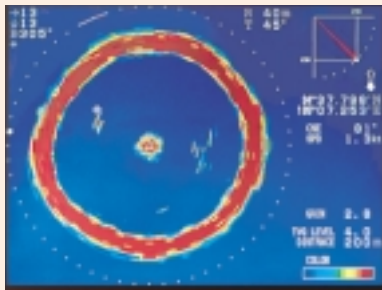
The CH-270 has a new unique "Cross Section Scan" mode. You can instantly view the vertical plane in a specified direction by pressing the "CUSTOM MODE BUTTON". It is useful for evaluating the concentration and location of the targeted fish school or navigation purposes.



Press the  
"CUSTOM MODE BUTTON"

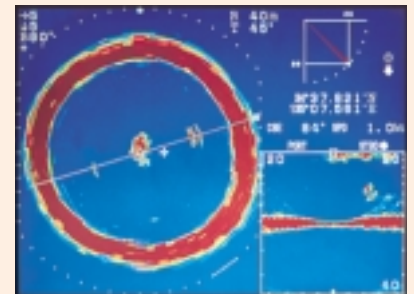


## FULL CIRCLE SCAN

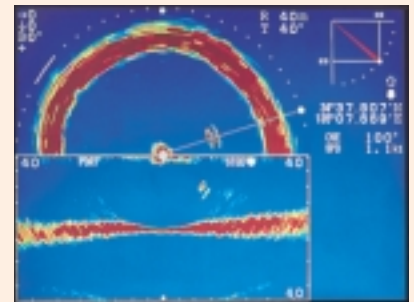


The full circle scan helps to detect fish schools at any bearing, all around the vessel.

## Combination of FULL/HALF CIRCLE with VERTICAL SCAN



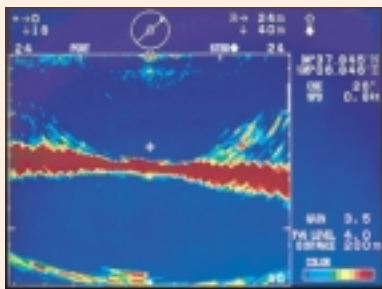
Combination of FULL CIRCLE with VERTICAL SCAN



Combination of HALF CIRCLE with VERTICAL SCAN

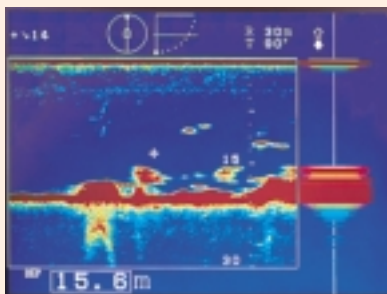
A unique feature of this sonar is the mode integrating the two images shown to the left. This sonar image also can be switched to a Half Circle with Vertical scan.

## VERTICAL SCAN



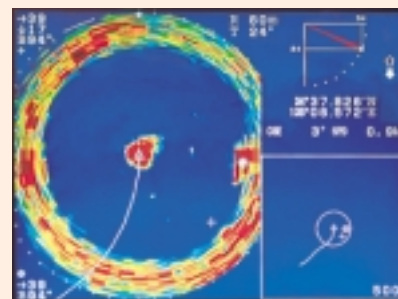
The vertical scan paints the bottom profile within a user-specified vertical plane. The cursor indicator reads slant range and soundome tilt.

## VERTICAL SOUNDER



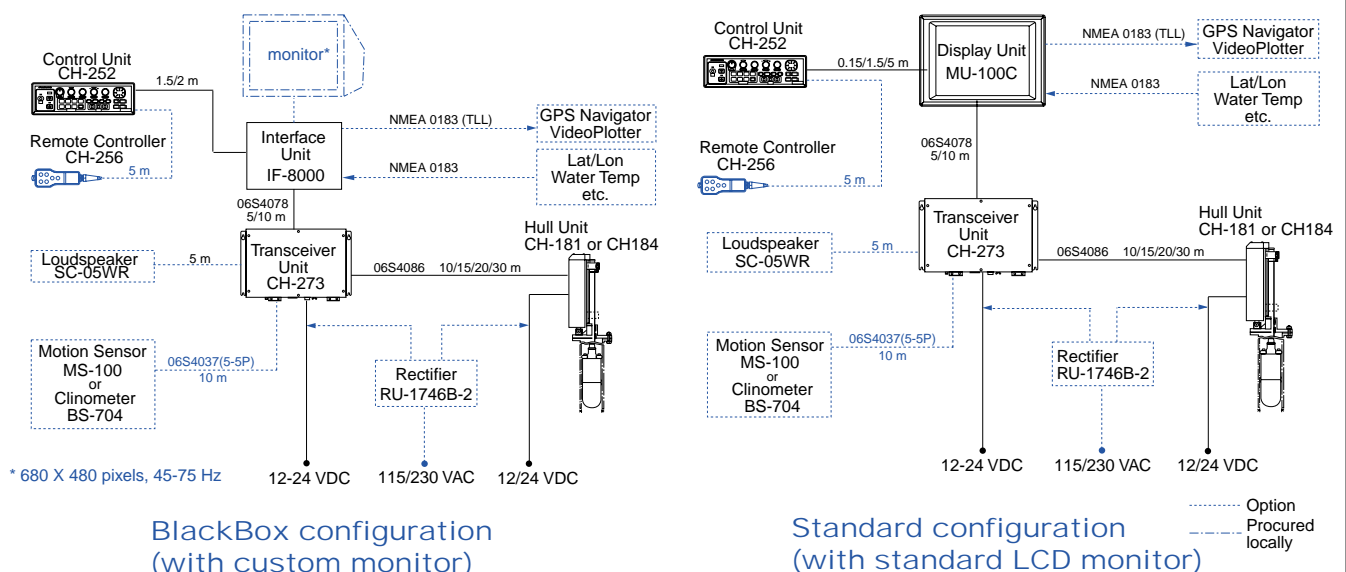
When fully retracted, the transducer tilted to 90 degrees can sound fish schools and seabed straight down at high speeds.

## FULL CIRCLE with VideoPlotter



Own ship track is monitored with respect to the sonar sounding area. An Unrivaled feature for purse seining or bottom trawling.

## Interconnection Diagram



# SPECIFICATIONS OF CH-270

## 1. Range scales and Time to train (the default setting at full circle scan mode)

Range	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Meters	10	20	40	60	80	100	120	160	200	250	300	400	500	600	800
Feet	40	80	120	200	300	400	500	600	700	800	1000	1200	1500	2000	2500
Fathoms	10	20	30	40	60	80	100	120	140	160	200	250	300	400	500
P/B	10	20	30	40	60	80	100	120	140	160	200	250	300	400	600
Time to train full circle (s)															
(Fast scan/Normal scan)	11	11	11	11	11	11	11	13/14	14/17	16/21	18/25	22/33	26/41	30/49	38/65

Maximum scale depends on the display modes. 1600 m (full circle scan), 600 m (vertical scan).

2. **Display Unit** 10.4" TFT color LCD (VGA: 640 x 480 pixels)
3. **Color** 8 or 16 colors
4. **Display Mode**
  - (1) Full Circle scan (2) Zoom(x 1.5) (3) Vertical scan
  - (4) Vertical Sounder (5) Full/Half Circle and Vertical scan
  - (6) Full Circle and History (7) Full Circle and Strata
  - (8) Full Circle and VideoPlotter
5. **Audio monitor** 1000 Hz
6. **TX Output Power** 0.8 kW
7. **Frequency** 180 kHz
8. **Beamwidth** 8° conical (at -3 dB)
9. **Transducer Control**

Tilt : 0° to -180° at 3° or 6° steps (in Vertical scan)  
+5° to -90° at 1° steps (in Full Circle scan)

Training sector: Manual or automatic training at 6° or 12° steps in search sector 6° to 360°

Target Lock: By L/L, Echo position or manual
10. **Interface (NMEA 0183)** Ver 1.5, 2.0, IEC 61162-1)
 

Input: DBS, DBT, DPT, GGA, GLL, HDG, HDM, HDT, MDA, MTW, RMA, RMC, VDR, VHW, VTG, SSTLL

Output:
11. **Power Supply**

Transceiver Unit: 12-24 VDC, 58 W

Hull Unit: 12/24 VDC, 60 W  
(144 W while raising/lowering transducer)
12. **Language** English, Spanish, Danish, Portuguese, French, Norwegian, Italian, Swedish, Thai

## EQUIPMENT LIST

### Standard

1. Display Unit MU-100C 1 unit
2. Control Unit CH-252 1 unit
3. Hull Unit CH-181 (travel 350 mm) or CH-184 (travel 250 mm) 1 unit
4. Transceiver Unit CH-273 1 unit
5. Installation Materials and Spare Parts 1 set
6. Interface Unit IF-8000 (BlackBox type only) 1 unit

### Option

1. Remote Controller CH-256
2. Rectifier RU-1746B-2
3. Loudspeaker SC-05WR, Horn
4. Transducer Tank
 

Steel, 6" schedule 80 pipe: 1, 1.8, 3.5 m

FRP, 147 mm ID: 1, 1.8 m
5. NMEA Cable
 

6P-6P: 5 m (MJ-A6SPF0012-050), 10 m (MJ-A6SPF0012-100)

6P-4P: 5 m (MJ-A6SPF0011-050), 10 m (MJ-A6SPF0011-100)
6. Motion Sensor MS-100 or Clinometer BS-704
7. Interface Unit IF-8000

## EMC AND ENVIRONMENT

### Temperature

Display Unit, Transceiver Unit: -15°C to +55°C

Hull Unit: 0°C to +45°C

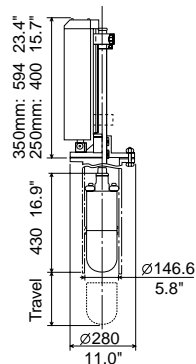
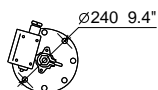
### Water resistance

Display Unit: IEC IPX5, USCG CFR 46

### HULL UNIT

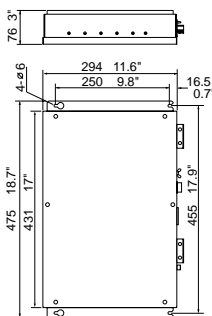
**CH-181** (Travel 350 mm)  
37 kg, 81.6 lb

**CH-184** (Travel 250 mm)  
35 kg, 77.2 lb



### TRANSCIVER UNIT

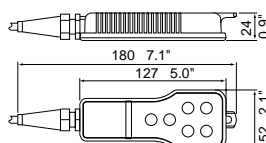
**CH-273** 3.5 kg, 7.8 lb



### REMOTE CONTROLLER

**CH-256**

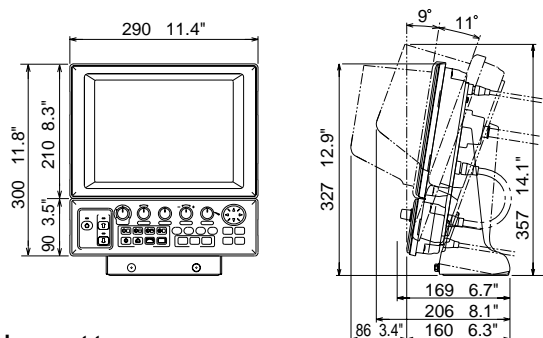
0.3 kg  
0.7 lb



## DISPLAY UNIT and CONTROL Unit

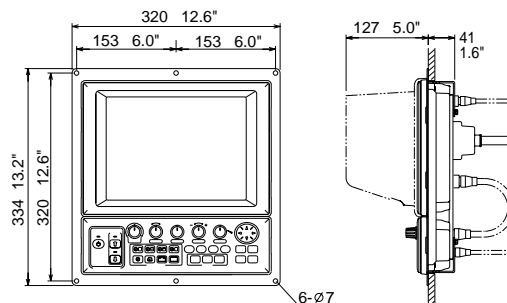
**MU-100C and CH-252**

5.7 kg, 12.6 lb



### Flush mount type

4.2 kg, 9.3 lb



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

### FURUNO U.S.A., INC.

Camas, Washington, U.S.A.  
Phone: +1 360-834-9300 Telefax: +1 360-834-9400

### FURUNO (UK) LIMITED

Denmead, Hampshire, U.K.  
Phone: +44 2392-230303 Telefax: +44 2392-230101

### FURUNO FRANCE S.A.

Bordeaux-Mérignac, France  
Phone: +33 5 56 13 48 00 Telefax: +33 5 56 13 48 01

### FURUNO ESPANA S.A.

Madrid, Spain  
Phone: +34 91-725-90-88 Telefax: +34 91-725-98-97

### FURUNO DANMARK AS

Hvidovre, Denmark  
Phone: +45 36 77 45 00 Telefax: +45 36 77 45 01

### FURUNO NORGE A/S

Ålesund, Norway  
Phone: +47 70 102950 Telefax: +47 70 127021

### FURUNO SVERIGE AB

Västra Frölunda, Sweden  
Phone: +46 31-7098940 Telefax: +46 31-497093

### FURUNO SUOMI OY

Helsinki, Finland  
Phone: +358 9 341 7570 Telefax: +358 9 3417 5716

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