

# FURUNO®

10.4" color LCD, Free Synthesizer Transceiver

## COLOR LCD VIDEO SOUNDER

Model **FCV-1200L/1200LM**

**FCV-1200L:** 1/2/3/5 kW stand-alone  
dual-frequency echo sounder

**FCV-1200LM:** Monitor for external transceivers

- 1, 2, 3 or 5\* kW output power selectable  
\*Optional Booster Box BT-5 required
- High definition active matrix color LCD
- Furuno Free Synthesizer (FFS) Transceiver design allows use of User-Selectable operating frequencies (15/28/38/50/88/107/200 kHz)
- BlackBox system configuration allows use of optional CRT or LCD monitors
- FFS Transceiver provides future expansion capabilities and convenient retrofit of existing echo sounder systems
- Software programmable selection of display aspect ratio; Portrait (vertical) or Landscape (horizontal)
- Unique split range control allows independent range settings in dual-frequency mode
- Alarms for water depth, fish echoes and water temperature



© The future today with FURUNO's electronics technology

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Catalogue No. E-382g

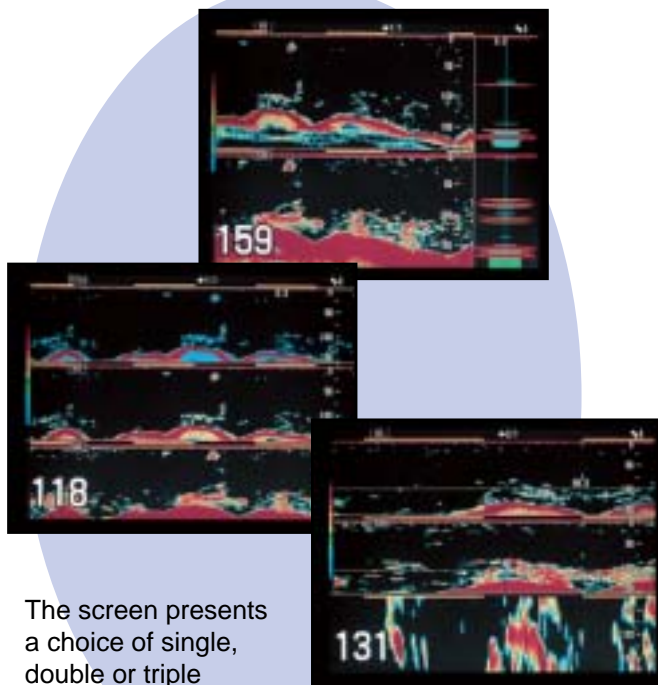
TRADE MARK REGISTERED  
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# Revolutionary Furuno Free Synthesizer (FFS) Transceiver

The FCV-1200L and FCV-1200LM are high-performance color video sounders designed for a variety of fishing vessels. The FCV-1200L is a dual-frequency sounder with built-in transceivers working in two frequencies selected from various combinations. The FCV-1200LM is a monitor which can connect with a maximum of two external transceivers or echo sounders. The high-definition 10.4" LCD screen presents clear-cut echoes of fish schools and seabed in 8 or 16 colors. The background color can be selected among black, blue, dark blue, light blue and white for optimum viewing at day or night.

The FCV-1200L/1200LM give a variety of presentation modes; Normal, (low frequency, high frequency or both), Mix, Bottom-lock Expansion and Bottom Discrimination, Zoom and A-scope. The Mix mode compares echo strength by high and low frequencies. A target represented in a level corresponding to red for both frequencies is displayed in the color of the high frequency (brown red - red); a target only detected by the lower frequency is displayed in the lowest level color (blue). This mode is useful in searching for a particular species in surface fishing.

## Flexibility of screen layout



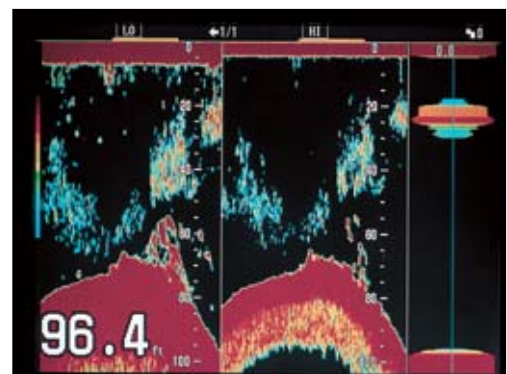
The screen presents a choice of single, double or triple pictures on a horizontally split screen or vertically split screen. Frequently used picture layouts can be preset as one of display modes. In the dual-frequency mode, the split range feature is available - echograms in different depth segments by high and low frequencies are visible side by side.

The FCV-1200L employs an advanced frequency synthesizer technique (FFS), which allows you to choose a variety of frequencies and output power to suit your transducer configuration. With an optional interface box, a conventional monitor can be connected as a substitute of the standard display or a remote display. A remote LCD display FCV-1200LM can be added to the FCV-1200L.



The LCD screen is available in portrait (vertical, above) or landscape (horizontal aspect, front page), with the control unit to the right or below. With an optional interface unit, another commercial monitor can be connected as a remote display.

## Dual-frequency with A-scope



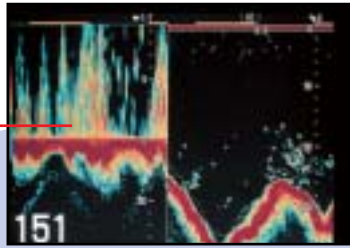
The lower frequency has a deeper penetration but less discrimination, while the higher frequency has a sharper beam for better discrimination. In many applications, the solution will be achieved by the dual-frequency operation by comparing two pictures.

The A-scope picture on the right 1/5 of the screen shows an instantaneous echo envelope at each ping, clearly showing echo differentials and positional relationships. This is useful for watching fish particularly within a close range of the seabed.



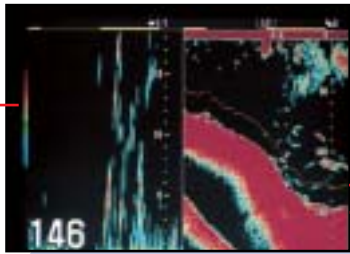
# ensures uncompromized performance in multiple fishing grounds and flexibility of installation

## Bottom discrimination



The bottom is displayed as a straight line. Echoes immediately below this line will have enhanced bottom tails. The nature and bottom hardness can easily be determined by changes in color or tail lengths.

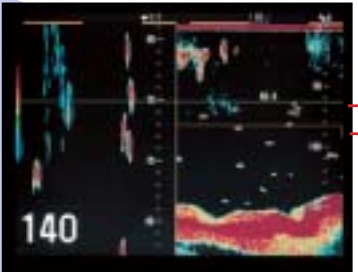
## Bottom lock expansion



The bottom is displayed as a straight line. This feature shows up the bottom fish.

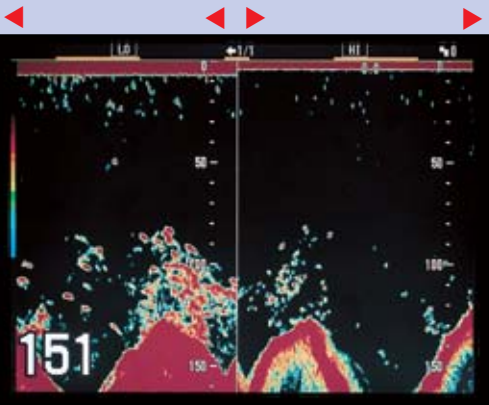
## Zoom

Marker zoom High frequency



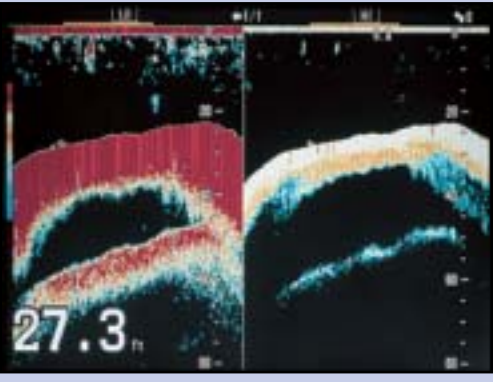
Zoom-in area can be freely moved for expanded view.

## Reversal mode

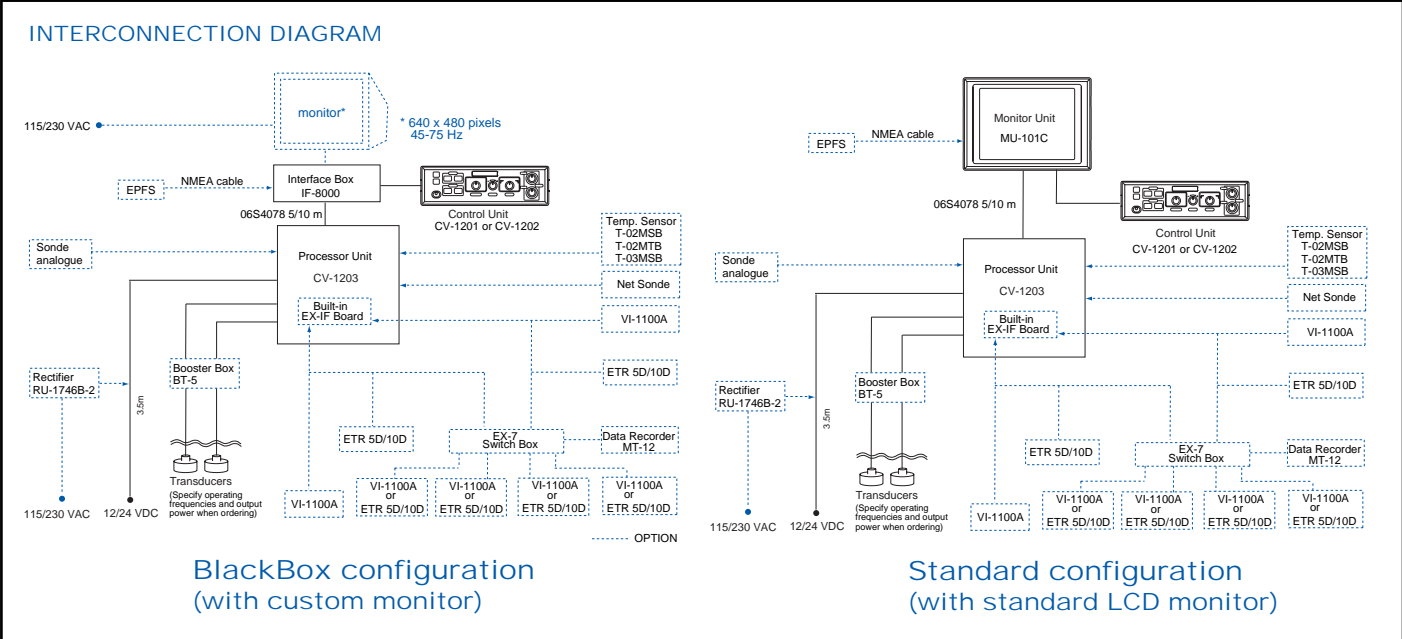


Picture advance can be selected to the right, left or L/R directions. The L/R mode displays two pictures in mirror effect. It is easy to compare low frequency with high frequency echoes.

## White marker



The top of the seabed appears in white to enhance the discrimination of bottom fish from rocks - useful for a specific fishing method. Other objects at the same level will appear in the same color.



# SPECIFICATIONS OF FCV-1200L/1200LM

- 1. Display** 10.4" TFT color LCD (VGA: 640 x 480 pixels)  
 Echoes: 8 or 16 colors  
 Background: Blue, light blue, dark blue black or white
- 2. Display Modes** Single (LF or HF), Dual, Triple Zoom, Bottom-lock Expansion, Mix and A-scope
- 3. Basic Ranges:** Any ranges customized between 5-2000 m  
 Foot, Fathom Passi/Braza may be selected.
- Marker Zoom/Bottom-lock Expansion Ranges:** 5-200 m  
**Range Phasing:** Up to 2000 m (Max depth: 4000 m)  
**Zoom Ranges:** 5-200 m (preset on menu)

- 4. Pulselength and Pulse Repetition Rate**  
 0.2-5.0 ms, 20-3000 pulses/min
- 5. Picture Advance** 0, 1/16, 1/8, 1/4, 1/2, 1 or 2 lines/tx
- 6. Data Interface** (NMEA 0183 Ver. 1.5 or 2.0; Any talker)  
 Inputs: GGA, GLC, GLL, GTD, MTW, RMA, RMC, VTG, RMB  
 Outputs: SDDBS, SDDBT, SDDPT, SDTLL, SDvrm (CIF), YCMTW\*, \*Optional sensor required.

*Depth data of a fishing gear and water temperatures by FURUNO Net sonde: FURUNO CIF.*

- 7. Alarms** Audio-visual alarms for water depth, fish echoes and water temperature\*  
 \*Optional sensor required.
- 8. Other Features** Automatic bottom tracking, Interference rejecter, Threshold, Water temperature graph\*, RGB output\*\*  
 \*Optional sensor required.  
 \*\*Optional buffer board required.
- 9. TX Output Power** 1, 2, 3 or 5\* kW (depending on transducer types)  
 \*Optional Booster Box BT-5 required

- 10. Operating Frequencies**  
 The synthesized transceiver works with dual frequencies in 10 to 200 kHz. Specify transducer type when ordering from 15/28/38/50/88/107/200 kHz.

**POWER SUPPLY**

12 to 32 VDC, 120 W max. 115/230 VAC with optional rectifier

**ENVIRONMENTAL CONDITIONS** (IEC 60945 testing)

Temperature: -15°C to +55°C (Display unit)  
 Water resistance IEC IPX5, USCG CFR 46 (Display unit)

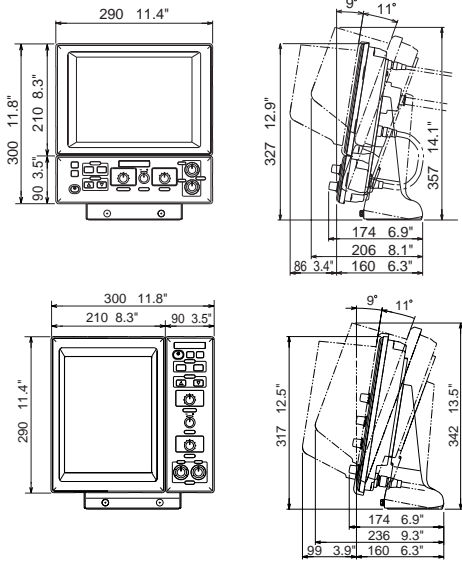
**EQUIPMENT LIST**

<b>Standard</b>		
1. Monitor Unit	MU101C (Specify Hor/Vert screen)	1 unit
2. Control Unit	CV-1201 (For Ver screen), CV-1202 (For Hor screen),	1 unit
3. Processor unit	CV-1203/1203M	1 unit
4. Installation materials and standard spare parts		1 set
5. Interface Box IF-8000 (BlackBox type only)		1 unit

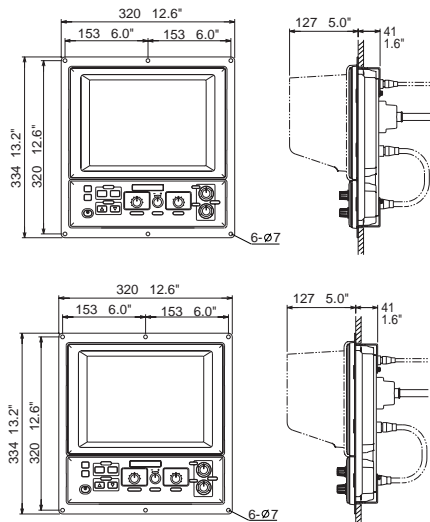
- Optional**
- Temperature Sensor  
 T-02MSB (thru-hull bronze), T-02MTB (transom, bronze),  
 T-03MSB (thru-hull bronze detachable)
  - NMEA Cable 5/10 m
  - Rectifier RU-1746B-2
  - Interface Box IF-8000 with 5/10 m cable
  - EX-IF Board with connector
  - Transducer Switch Box EX-7
  - Data Recorder MT-12 (EX-7 required)
  - Echo Sounder Interface VI-1100A
  - Booster Box BT-5-1 (Single freq), BT-5-2 (Dual freq)
  - External Transceiver ETR-5D/10D
  - Transducer (Specify the frequency and type of transducer)  
 1 kW: 15F-4S (15 kHz), 28F-8 (28 kHz), 50B-6/6B (50 kHz),  
 50B-9/9B (50 kHz), 50F-8G (50 kHz), 88B-8 (88 kHz),  
 200B-5S (200 kHz)

- 2 kW: 15F-10 (15 kHz), 28F-18 (28 kHz), 50B-12 (50 kHz),  
 50BL-12 (50 kHz), 88B-10 (88 kHz), 200B-8/8B (200 kHz),  
 200B-8N (200 kHz)
- 3 kW: 15F-10 x 2 (15 kHz), 28F-24H (28 kHz), 50BL-24H (50 kHz),  
 88F-126H (88 kHz), 100B-10R (107 kHz),  
 200B-12H (200 kHz)
- 5 kW: 28F-38M (28 kHz), 28F-72 (28 kHz), 50F-38 (50 kHz),  
 50F-70 (50 kHz)

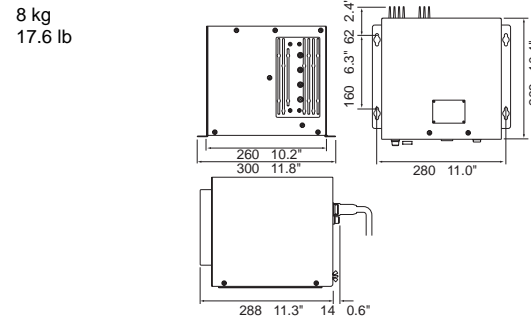
**MONITOR UNIT MU101C** 5.7 kg, 12.6 lb



**Flush mount type** 4.2 kg, 9.3 lb



**PROCESSOR UNIT CV-1203**



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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