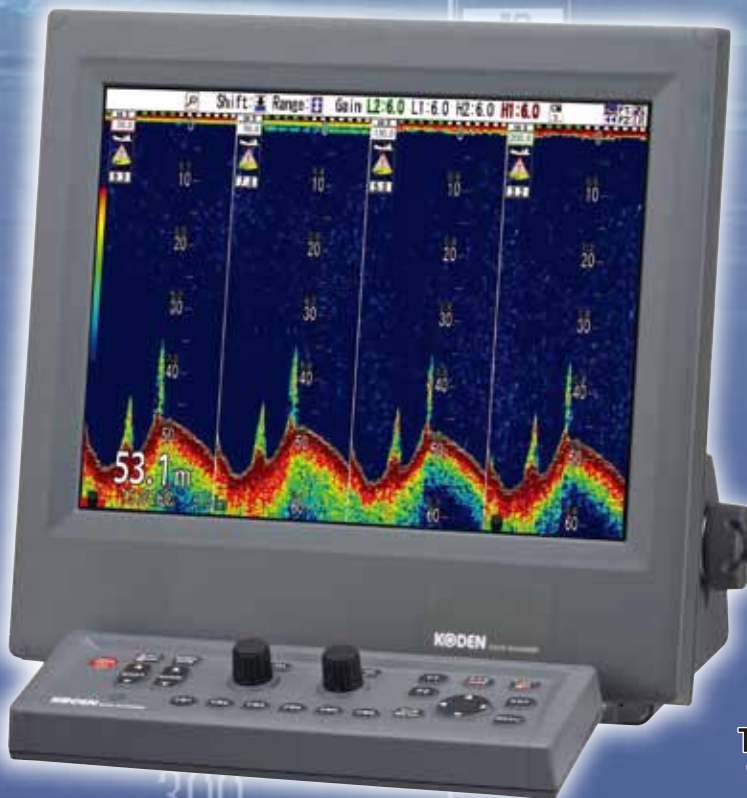


15-inch Color LCD  
Echo Sounder

## CVS-FX2/FX2BB

(((Broadband)))

**Digital Broadband Sounder**  
**Perfect solution for your fishing**



Dedicated Transducer  
TDM-052(38-75 / 130-210 kHz)  
TDM-062(38-75 / 85-135 kHz)

### Features

World's first simultaneous and variable quad frequency sounder enables clear target discrimination.

Four frequencies are selectable in 0.1 kHz step by using the dedicated transducer.

Six Condition Memory keys for immediate calling of your preferred setups.

Extremely high resolution and low noise materialized by Koden Digital Filtering (KDF™) technology.

CVS-FX2BB Black box echo sounder connects to any XGA type display.

## SPECIFICATIONS

Model	CVS-FX2	CVS-FX2BB
Display unit	ESD-200	-
Processor unit	-	ESM-200
Operation unit	ESO-200	
Output power (RMS)	3kW	
Transducer (Output frequency)	TDM-052 (38 to 75 kHz and 130 to 210 kHz) TDM-062 (38 to 75 kHz and 85 to 135 kHz)	
Selectable frequency range	24 to 240 kHz 0.1kHz step	
Output method	Simultaneous / Alternate	
Display size and type	15 inch color XGA LCD	Any monitor with XGA resolution (Owner supply)
Display resolution	1024 x 768 pixels (XGA)	-
Basic ranges	1 to 3000 (m), 5 to 8000 (ft), 1 to 1700 (fm), 1 to 2000 (l. fm) (8 ranges can be set to users choice)	
Zoom ranges	1 to 260 (m), 5 to 960 (ft), 1 to 140 (fm), 1 to 180 (l. fm)	
Range units	m, ft, fm, l. fm	
Shift step	Selectable: 1m, Range ratio 1/5, Registered value (8 types), Shift digit input, Range dependant	
Presentation modes	High frequency, Low frequency, 1 to 4 frequency, Zoom image (Bottom lock, Bottom discrimination, Bottom zoom, Zoom, Bottom follow zoom), Nav mode, Vertical split, Horizontal split, Mix A-scope can be displayed at all above modes	
Presentation colors	64 colors, 16 colors, 8 colors, Monochrome	
Back ground colors	Marine blue, Blue, Dark blue, Black, White, Nighttime color, Other 4 colors	
Alarms	Bottom, Fish, Temperature*, Speed**, Arrival***, XTE***	
Image speed	9 steps & stop	
Functions	Interference rejection, Color rejection, VRM, Noise reduction, White line, Draft correct, Water temperature correct, Boat speed correct, Store image (500 images), Sona-Tone™, Fishing Hot Spot, Event memory, Simple plotter, Panel illumination, Power reduction, External trigger, Detection area display, CM key, Water Temp. graph, Individual range operation, Individual shift operation, External memory storage (SD card, USB memory), Heaving compensation	
Auto functions	Range, Shift, TVG, TX power, White line	
Languages	Chinese****, English, French, Greek****, Italian****, Japanese, Korean, Spanish, Thai	
Input data formats and sentences	NMEA0183 Ver. 1.5 / 2.0 / 3.0 GGA, GLL, HDT, MTW, MWV, MWD, RMC, VHW, VTG, ZDA	
Output data formats and sentences	NMEA0183 Ver.2.0 (DBT : Ver.1.5) DBT, DPT, GGA, GLL, HDT, MTW, MWV, RMC, TLL, VHW, VTG, ZDA	
NMEA ports	Total 2 : input and output	
Power supply	21.6 to 31.2 VDC	
Power consumption	70 W or less (24 VDC)	50 W or less (24 VDC)

### Environmental

Operating temperature	-15°C to +55°C	
Water protection	IPX5 (Display unit, Operation unit)	IPX5 (Operation unit) n/a (Processor unit)

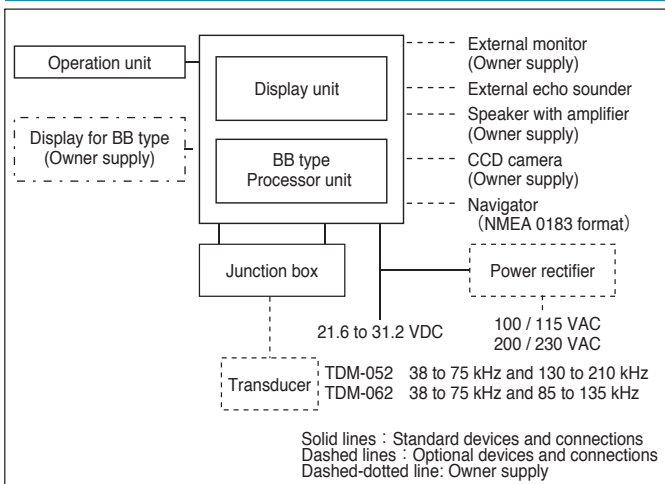
\* Requires data from Temp sensor

\*\* Requires speed data from Speed sensor or GPS sensor

\*\*\* Requires data from GPS sensor

\*\*\*\* Future expansion planned (as of Feb. 2013)

## CONNECTIONS



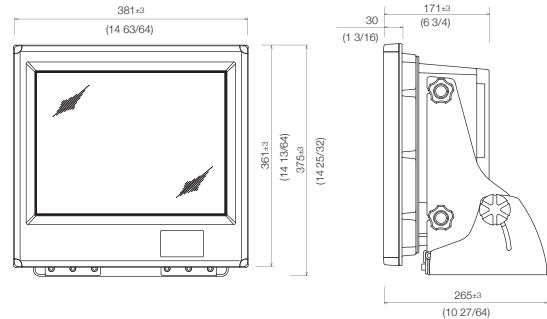
## EQUIPMENT LIST

Standard equipment	Display unit with mounting bracket (CVS-FX2 only)	1 set
	Processor unit (CVS-FX2BB only)	1 set
	Operation unit	1 set
	DC power cable, Junction box, Spare parts,	1 set
	Operation manual, Installation manual, Quick reference	1 set
Essential option	Transducer	1 set
Options	Connection cables for external devices, Power rectifier	

## DIMENSIONS AND WEIGHT

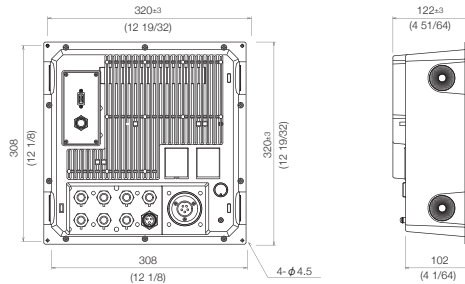
Unit: mm (inch)

### Display Unit ESD-200(CVS-FX2)



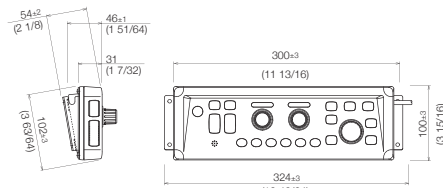
### Processor Unit ESM-200(CVS-FX2BB)

Weight : 13kg (29lb)



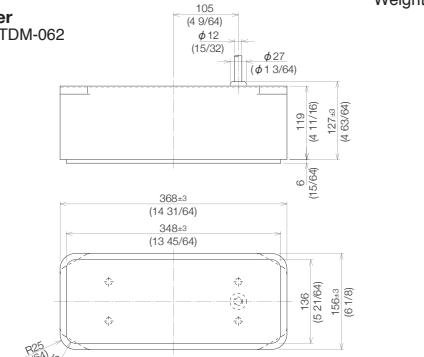
### Operation Unit ESO-200(CVS-FX2/FX2BB)

Weight : 5.6kg (12.5lb)



### Transducer TDM-052 / TDM-062

Weight : 0.7kg (1.55lb)



Weight : TDM-052 / 11kg (24.5lb)  
TDM-062 / 11.5kg (25.5lb)

• Design and specifications are subject to change without notice.

# KODEN

Koden Electronics Co., Ltd.

Tamagawa Office:

2-13-24 Tamagawa, Ota-ku, Tokyo, 146-0095 Japan

Tel: +81-3-3756-6501 Fax: +81-3-3756-6509

Uenohara Office:

5278 Uenohara, Uenohara-shi, Yamanashi, 409-0112 Japan

Tel: +81-554-20-5860 Fax: +81-554-20-5875

overseas@koden-electronics.co.jp

[www.koden-electronics.co.jp](http://www.koden-electronics.co.jp)



**Safety precaution**

To ensure proper and safe use of the equipment, please carefully read and follow the instructions in the Operation Manual.

For details, please contact:



Marine Electronics &  
Satellite Communications  
[www.mackaymarine.com](http://www.mackaymarine.com)

**Mackay Marine**

+1 281 479 1515 [marinesales@mackaymarine.com](mailto:marinesales@mackaymarine.com)

**Mackay Communications, Satellite Solutions**

+1 919 850 3100 [satserv@mackaycomm.com](mailto:satserv@mackaycomm.com)

**Mackay Marine Canada**

+1 902 469 8480 [sales.canada@mackaymarine.com](mailto:sales.canada@mackaymarine.com)

**Mackay Govt. Group**

+1 904 880 4633 [government@mackaycomm.com](mailto:government@mackaycomm.com)