

# KODEN

10.4-inch Color LCD  
Sonar

## ESR-140MkII

Affordable professional sonar

Compact design for easy installation



- ▶ Available Frequencies: 180 kHz, 200 kHz or 220 kHz
- ▶ Echo sounder mode and RGB monitor output (VGA) are available
- ▶ Remote controller, Audio kit and speaker are available as option

## FEATURES

### Easy Installation

Brilliant color LCD flat screen allows for installation anywhere, and with built-in flush mounting system installation is easy. You simply install screws at 4 corners from front side and cover with included screw covers. Plus the hoist / lower unit is made small and lightweight for easy carrying and installation.

### High-speed Searchlight Sonar

The high-speed Searchlight Sonar beam scans sectors horizontal and vertical to search up to a 360 degree area around your vessel. This gives you optimum performance as the searching time is reduced and search omission is prevented to improve the operation efficiency.

### Stabilizer function included in standard equipment

The performance of fish detection is improved by automatically correcting the direction of transducer affected by the boat fluctuation. Upper class functions are included in standard equipment.

### Easy to operate switches

Set by turning knob and operate by pushing buttons. The simplified operation is accomplished by categorizing the operation system.

### Target-lock function

With this lock function, the azimuth and the elevation angle of the beam are controlled automatically to always display the targeted schools of fish on the screen.

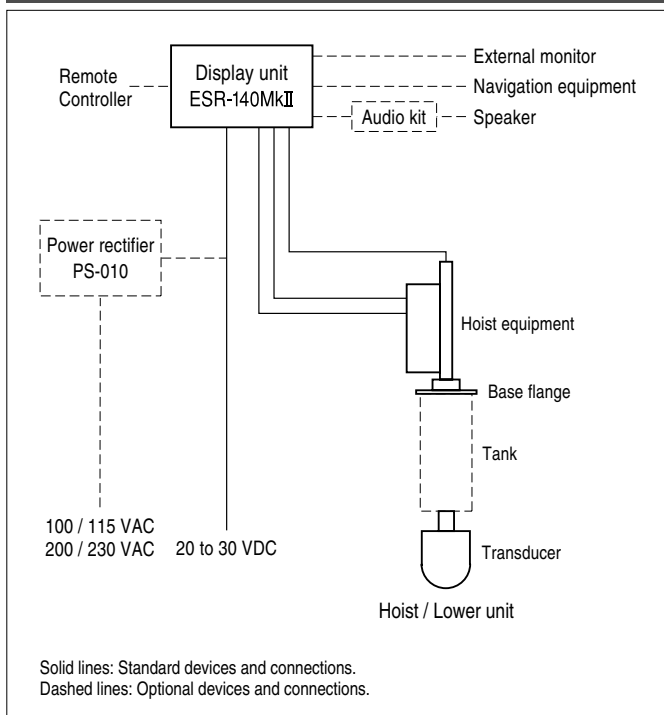
### Ring marker and cross cursor

The distance to schools of fish is accurately measured by the ring marker, and the distance and azimuth by the cross cursor.

### Automatic storing of hoist/lower unit

By setting the boat speed in advance, when the boat speed exceeds the setting value, the transducer unit is stored automatically in order to prevent damages.

## CONNECTIONS



## SPECIFICATIONS

Model	ESR-140MKII	
Display size / type	10.4-inch color LCD	
Display resolution	640 x 480 pixels	
Output Frequency	180 kHz type, 200 kHz type and 220 kHz type*	
Power output	800 W	
Tilt angle	+5° to -90° (variable with 1° step)	
Hoist stroke	120 to 200 mm	
Presentation colors	8 image colors (selectable from 4096 colors on color palette)	
Presentation modes	Sonar, Off center, Bottom scan, Echo sounder	
Off-centering	Fore, Back, Left, Right (Movable 50% of radius from the center of effective screen)	
Target lock	Horizontal, Horizontal + vertical, Automatic track, Automatic track with tilt control	
Distance unit	Meter, Fathom, I.Fathom, Feet	
Scanning range	10 to 300 m, 10 to 200 fathom / I.fathom, 50 to 1000 ft	
Scanning sector angle	Sonar mode	5° step: 5° 25° 45° 85° 125° 165° 205° 360° 10° step: 10° 30° 50° 90° 130° 170° 210° 360°
	Bottom scan mode	3° step: 3° 27° 45° 63° 93° 117° 147° 177° 5° step: 5° 25° 45° 65° 95° 115° 145° 175°
360° scanning time (extracts)	Scanning range (m)	10 40 80 100 160 200 300
Scanning time (sec)	5° step:	4.2 7.1 10.9 12.8 18.6 22.4 32.0
	10° step:	3.7 5.1 7.0 7.0 10.9 12.8 17.6
Input data format and sentences	NMEA 0183 (GGA, GLL, VTG, HTW)	
Functions	TVG (4 types), Pulse selection (3 types), Color rejection, Dynamic range (3 levels), Compass display, interference rejection, Bow compensation, Out trigger, RGB Monitor output (VGA), Audio (option)	
Power supply	20 to 30 VDC	
Power consumption	80 W at 24 VDC	

\*180 kHz: Recommended for deep depth and middle depth. 2nd echo might be shown at shallow depth from strong reflection of sea bottom.

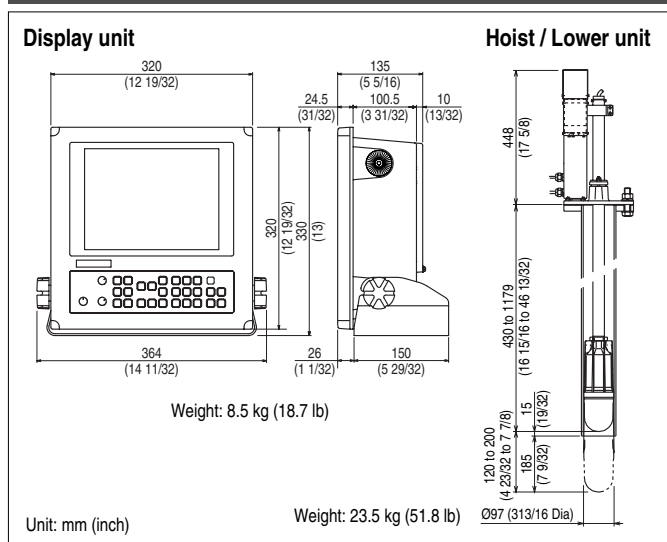
\*200 kHz: Recommended for middle depth. Interference might be caused by 200 kHz Echo sounder.

\*220 kHz: Recommended for seeing shallow depth. Sensitivity might be insufficient at deep depth.

## EQUIPMENT LIST

Standard equipments	Display unit	1
	Hoist / Lower unit	1 set
	DC power cable, Connecting cable	1 set
Options	Installation materials, Spare parts, Operation manual	1 set
	Remote controller, PVC tank unit, FRP tank unit, Pipe guide and waterproof packing for FRP tank, Power rectifier, NMEA input cable, Trigger output cable, Audio kit	

## DIMENSIONS AND WEIGHT



• Design and specifications are subject to change without notice.

# KODEN

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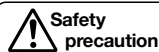
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**Safety precaution**

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

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