

System Components

(KSE-110/210 fish-sizing echo sounder)

Common System

System Components:

System	KSE-110	KSE-210
Display	I-133 Display	
Processor	PRC-57 Processor	
Operation	RC-15 Track ball	
Transducer	SR-78-2 TX/RX	SR-81 TX/RX
Transducer	One (1) split beam transducer	
Transducer	Max. two (2) Single-beam transducer (s)	—

Operational Conditions

- : T-178 Processor (AC100V 300VA, -5~45°C)
- : SR-78-2 TX/RX (AC100V 800VA, -5~55°C)
- : SR-81 TX/RX (AC-100V 200VA, -5~55°C)
- ※AC220V is optional

Split Beam Transducer (Transducer for Fish-Sizing)

- : T-178 Transducer 38kHz
- : T-181 Transducer 70kHz
- : T-182 Transducer 120kHz

Optional Unit

Common Option

- : IF-36 Interface

Single Beam Transducer Options (※for KSE-110 Only)

- : T-105A Transducer 15kHz
- : T-51C Transducer 24kHz
- : T-51H Transducer 50kHz
- : T-51K Transducer 75kHz
- : T-105R Transducer 200kHz

Optional Specifications

Interface : IF-36 Interface

- : Input NMEA0183 (Latitude, longitude, GLL, ship speed VTG, Water temperature, MTW)
- : IF-17 Interface format (Latitude, longitude, ship speed, water temperature)
- : I-50 and I-132 net finder (Net finder water depth)
- ※IF-17, I-50, and I-132 are produced by Sonic
- : Output NMEA0183 (Fish finder sea depth DBT)

System Components (KCE-110/210 fish finder)

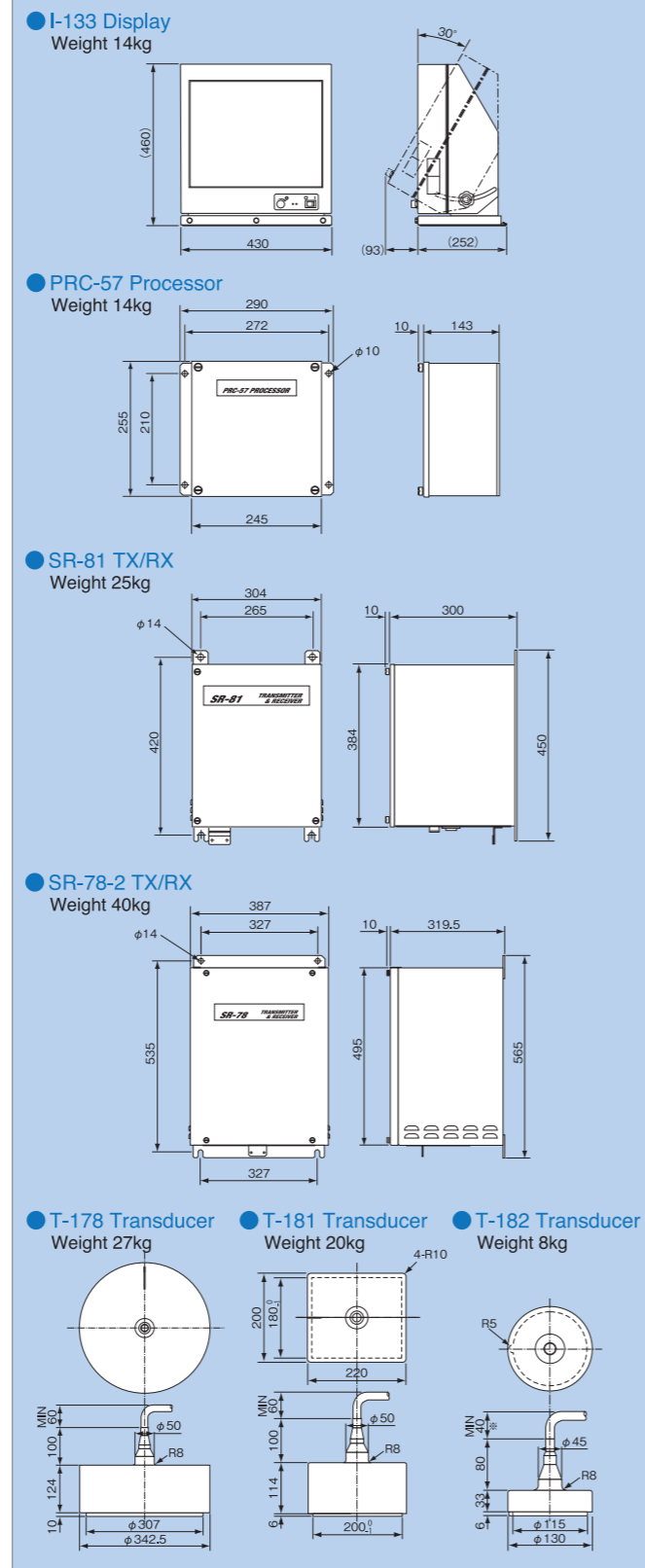
Common System

System Components:

System	KCE-110	KCE-210
Display	I-133 Display	
Processor	PRC-57 Processor	
Operation	RC-15 Track ball	
Transducer	SR-78-2 TX/RX	SR-81 TX/RX
Transducer	Max. three (3) Single-beam transducer (s)	Max. two (2) Single-beam transducer (s)

※Fish size graph and echo trace functions are not available on single beam echo sounder.

Dimensional Drawings



⚠ SAFETY PRECAUTION: Please be sure to read the Instruction Manual before operating.

- Specifications are subject to change without prior notice for development.

SONIC CORPORATION

19-6, Higashimatsubara, Hakonegasaki, Mizuho-machi,
Nishitama-gun, Tokyo 190-1222, Japan
TEL : +81-42-568-3208 FAX : +81-42-568-3302
Email : info@u-sonic.co.jp URL : www.u-sonic.co.jp

TORKAR MARİN
Elektronik Servis ve Ticaret A.Ş.

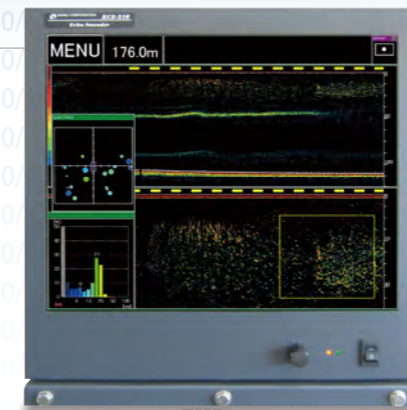
Ortaklar Cad. Nur Apt No. : 11 D : 3
34394 Mecidiyeköy - İSTANBUL
Tel. : 9 (0212) 217 97 47 - 217 97 48
Fax. : 9 (0212) 217 97 45
e-mail: torkarmarin@toruk.net.tr
Web : www.torkarmarin.com

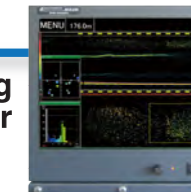


SONIC CORPORATION
SINCE 1948 KAIJO DENKI

KSE-110/210

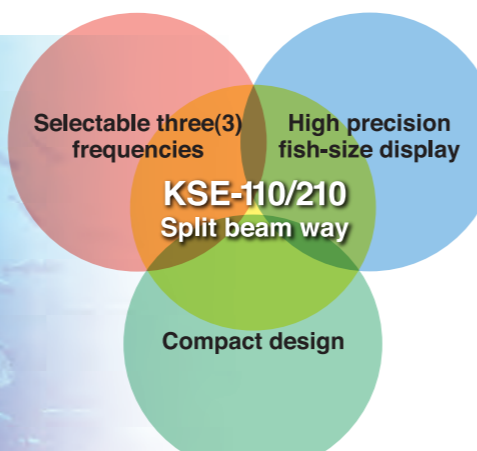
Fish-Sizing Echo Sounder





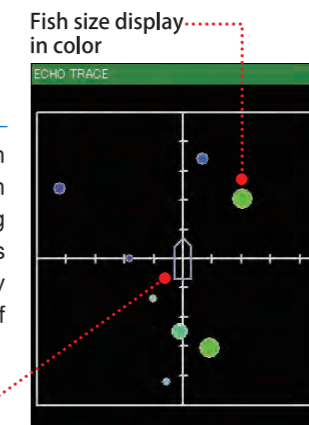
Features

- Easy control with graph display of fish size
- High precision digital TVG
- LCD monitor with high resolution picture
- Selectable display area using moveable window
- Instant saving and retrieval of user setting
- Detection of bottom fish with bottom fixed picture



Echo Trace

The Echo Trace function shows the position of each single fish on an axis using split beam technology. This graph information is very useful to estimate types of fish and their movements.

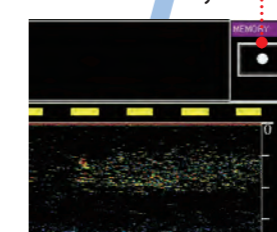


Own vessel mark

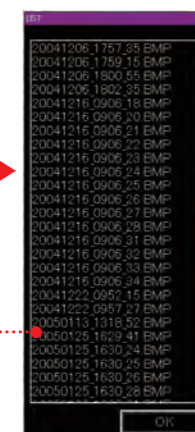
Image Record·Reply

Easy operation to record and replay. Auto/manual is selectable for image recording.

One touch memory



Replay is executed with a file selected by date/file.



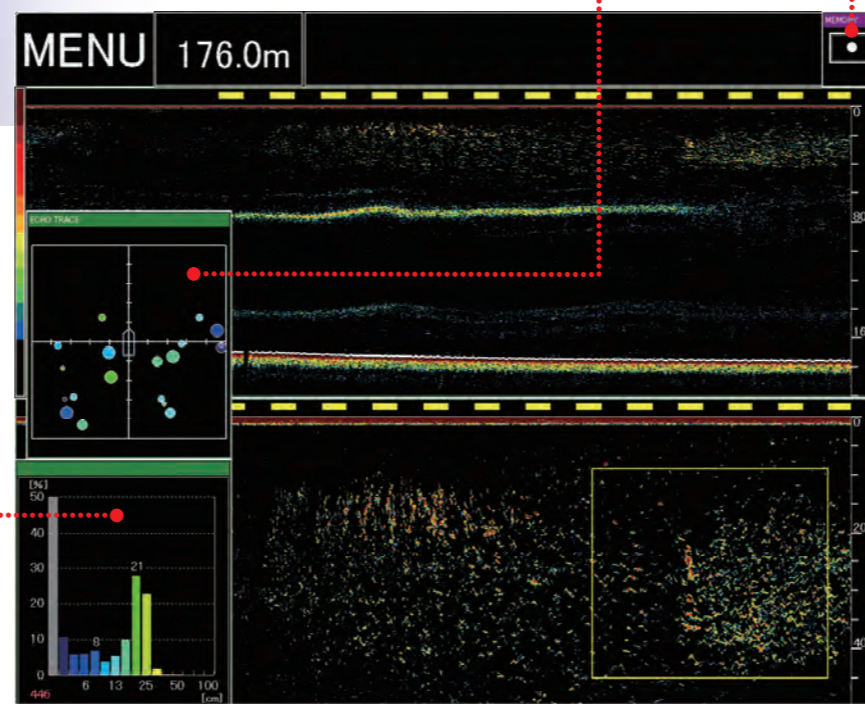
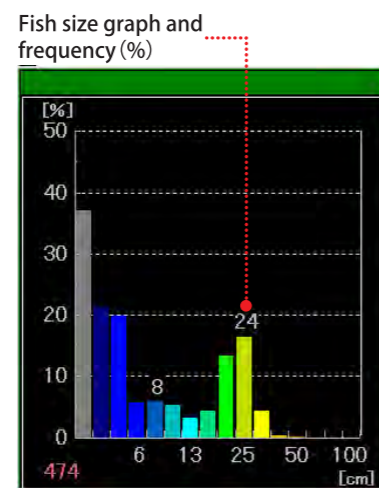
New and old data replay available



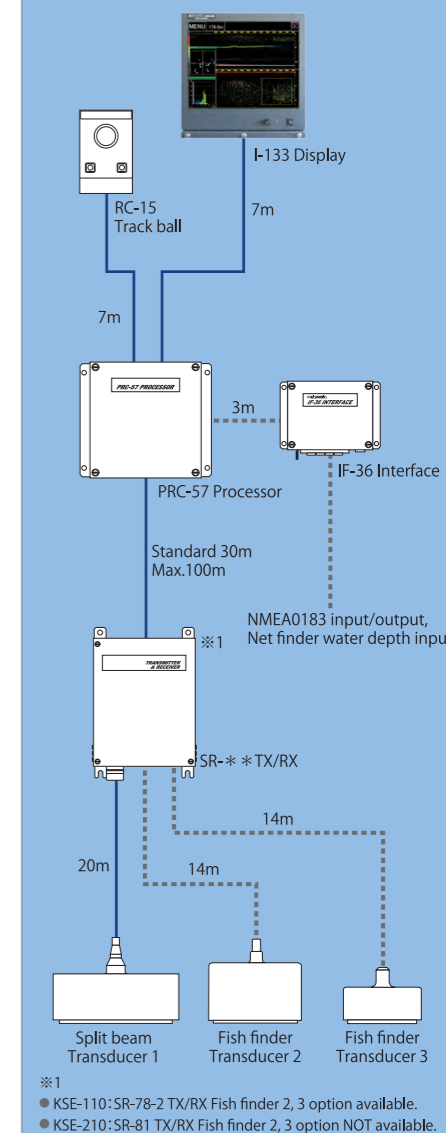
Fish Size Graph

Fish size graph displayed in bar graph format, showing estimated fish size using split beam technology. A vertical axis expresses detection frequency and a horizontal axis indicates fish size. Users can easily select and display a fish school to show specific size.

Kaijo's split beam system is composed of a unique circular transducer, which identifies accurate fish size, while reducing outside interference, such as screw noise. Sonic's recent technology develops allow for more detail and accurate information to be displayed on the graph.



KSE-110/210 System Diagram



※1
● KSE-110:SR-78-2 TX/RX Fish finder 2, 3 option available.
● KSE-210:SR-81 TX/RX Fish finder 2, 3 option NOT available.

..... Option

Standard Specifications

Common Specifications

- Operation : Menu operation with a track ball
- Display : High precision LCD display

Display Components:	Type	Contents
Fish size graph	Fish size display on selected area	
Normal display	Normal display single/dual display	KSE-110:Max. 3 pictures KSE-210:Single picture
Enlarged dual display	Enlarge, bottom fixed display	
Information	Navigation data, commands	
MENU	Operation menu on each setting	

- Fish Size Graph** : Bar graph display
 - Measurement Range Max. 600m
 - Fish Size Range Max. 200cm
 - Selected Range Operational range, Depth layer, Depth layer from sea bottom

- Echo Trace Display**:
 - Coordinate display
 - Display Range Max. 5.0 degrees
 - Measurement Range Max. 600m
 - Size Range Max. 200cm
 - Selected Range Operational range, Depth layer, Depth layer from sea bottom

- Range** : 5m~2000m (setting in each 10m step)
- Shift** : 0m~3000m (setting in each 10m step)
- Scale** : Selected by m or fathom

- Color** : 16 colors (6 patterns)
- Color expansion** : 5 steps
- Clutter** : 16 steps
- TVG** : 20LOG mode, optional mode
- Marker** : Minute, time, distance
- Picture advance speed** : 2 times, 1 time, 1/2 time, 1/5 times, pause
- Interference removal** : Correlation way
- Memory function** : Setting storage (2 type)
- Image record** : Auto mode, Manual mode (About 40 images)
- Character** : Vertical cursor (2 types), horizontal cursor, A scope
- Information** : Navigation information (latitude, longitude, ship speed, water temp., net finder, water depth)
 - ※Option Interface
- Outer synchronization** : Synchronous input, output trigger (TTL level or current)

Split Beam Transducer Specifications

- 38.0kHz** : T-178 Transducer
 - Impressed voltage 3kW
 - Beam width 8.5°x8.5° (-3dB, full angles)
- 70.0kHz** : T-181 Transducer
 - Impressed voltage 3kW
 - Beam width 8.5°x8.5° (-3dB, full angles)
- 120.0kHz** : T-182 Transducer
 - Impressed voltage 1.5kW
 - Beam width 8.5°x8.5° (-3dB, full angles)