10.4" Multi-Color LCD RADAR

MODEL 1937

SPECIFICATIONS OF MODEL 1937

ANTENNA RADIATOR

Type	Slotted waveguide array
Antenna Length and Rotation Speed	
	Open 120 cm (XN12A) 48 RPM
Wind Load	70 kn relative wind
Beamwidth	Hor. 1.9°, Vert. 22°

RF TRANSCEIVER

Frequency	9410 ± 30 MHz (X-band)
Output Power	4 kW

DISPLAY

Screen Size	10.4" color LCD
Pixel Number and Screen Resolution	
	640 (V) x 480 (H), VGA
Effective Diameter	158 mm
Echo Colors	32 levels
Display Modes	Head-up, Course-up*, North-up*, True view*, True motion** * Heading data required ** Heading and position data required
Range Units	nm, sm, km
Range Scales and Range Ring Intervals (nm)	
Range:	1/16, 1/8, 1/4, 1/2, 3/4, 1, 1.5, 1.6, 2, 3, 3.2, 4, 6, 8, 12, 16, 24, 32, 36, 48
Rings:	1/32, 1/16, 1/8, 1/4, 1/2, 0.8, 1, 2, 3, 4, 6, 8, 12
Minimum Range	16 m
Range Discrimination	15 m
Echo Trails	
Type	True or relative trails
Trail Length:	15, 30 sec., 1, 3, 6, 15, 30 min., or continuous Trail
Trail Width:	Narrow, Normal
Plotting Facilities (Required optional board ARP-11)	
Acquisition:	Auto, Manual
Number of Targets:	10 targets max.
AIS Functions (Data input from AIS is required)	
Symbols:	Sleeping, Activated, Dangerous, Selected, Lost targets
Number of Targets:	100 targets max.

INTERFACE

Input	AD-10 or IEC 61162 NMEA0183 Ver. 1.5/2.0/3.0
Output	IEC 61162 NMEA0183 Ver. 1.5/2.0/3.0

ENVIRONMENT

Temperature	
Antenna Unit:	-25°C to +55°C (-13°F to +131°F)
Display Unit:	-15°C to +55°C (5°F to +131°F)
Waterproofing	
Antenna Unit:	IEC60529 IP26
Display Unit:	IEC60529 IP55

POWER SUPPLY

12-24 VDC: 8.1-3.8 A

EQUIPMENT LIST

Standard

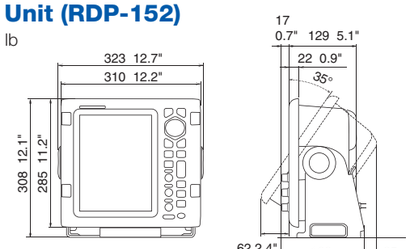
1. Display Unit		1 unit
2. Antenna Unit		1 unit
3. Antenna Cable	5, 10, 15, 20 or 30 m	1 pc
4. Power Cable	5 m	1 pc.
5. Installation Materials and Spare Parts		1 set

Option

1. Auto Plotter	ARP-11
2. Rectifier	RU-3423
3. External Alarm Buzzer	OP03-21
4. Interface Cable	
MJ-B24LPF0010	10, 20, or 30 m
MJ-A7SPF0007-050C	5 m
MJ-A6SPF0007-100C	10 m
MJ-A10SPFW0001+R	0.2 m

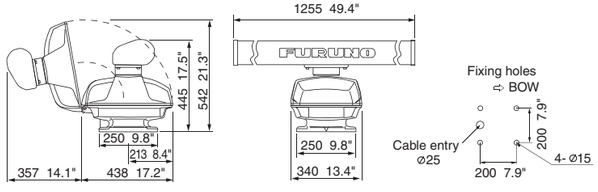
Display Unit (RDP-152)

5.4 kg 11.9 lb

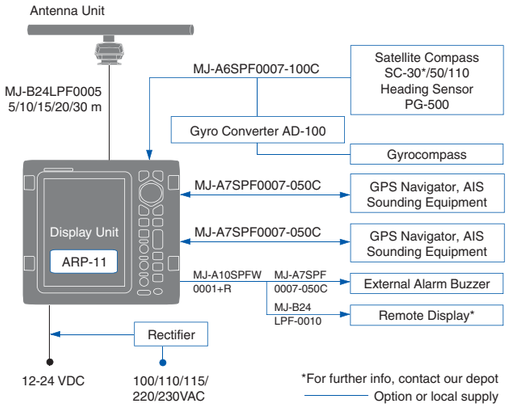


Antenna Unit (XN12A)

25 kg 55.1 lb



INTERCONNECTION DIAGRAM



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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FURUNO

10.4" Multi-Color LCD RADAR

MODEL 1937

www.furuno.com

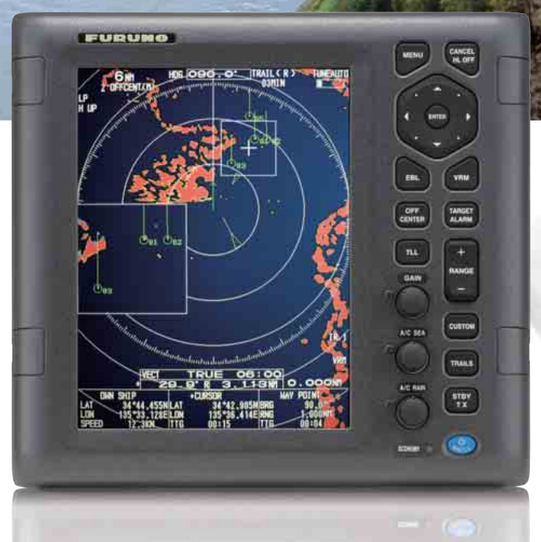
Setting a New Standard in Close-Range Radar Performance

Furuno's MODEL 1937 is a high contrast 10.4" color LCD Radar suited for the vessels sailing in narrow areas such as rivers. The radar features a high speed antenna rotation providing faster update rate of the radar image which gives the operator an earlier notification to avoid corruption.

Thanks to its state-of-the-art signal/graphics processing technology together with automatic gain and anti-clutter controls, the Radar also features substantial increases in target detection, particularly in close range in order to observe the surroundings at congested areas.

A wide variety of display modes are available, which will assist with safe navigation. The operator can select and customize a display mode to suit their needs.

The radar can be inter-connected with other navigation equipment, such as satellite compass, chart plotters and sounders using NMEA0183 format, which gives operators the ability to expand their boat's system as needed.



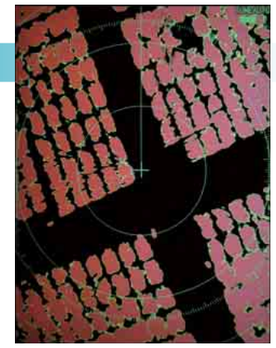
AUTO ARPA Bonded LCD Enhanced Sunlight Viewable

- *Superb detection in Close-Range*
- *High speed antenna rotation (48 rpm) for faster update of radar image*
- *Easy-to-install 10.4" portrait color LCD (350 cd) display*
- *Bonded LCD provides clear view in all weather conditions*
- *Stable AIS/ARPA target-tracking with zoom display function*
- *Full Screen Mode lets operators observe a wider range around the vessel*
- *Enhanced auto tuning/gain/anti-clutter controls*

Superb Discrimination in Close-Range

With its advanced signal processing technology, the MODEL 1937 demonstrates substantial increases in target detection, particularly in close range.

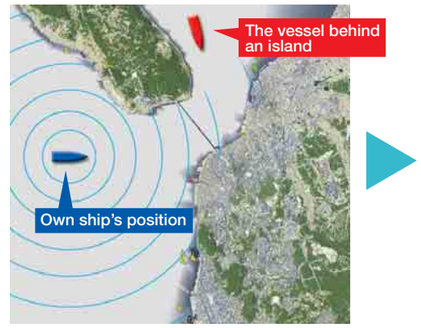
Radar clearly displays the landscape with clarity and separation.
The photo taken at Ariake Bay, Japan where seaweed is harvested.

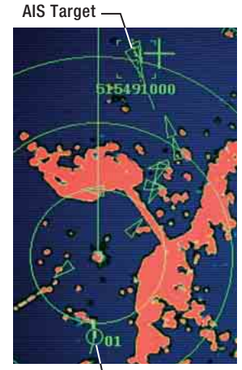


AIS / ARPA Display*

Up to 100 AIS and 10 ARPA targets can be tracked and overlaid on the Radar screen to assist the operator in tracking vessel movements. AIS provides a means for ships to exchange ship data including: identification, position, course, and speed, with other nearby ships and VTS stations. Since AIS works by a VHF transceiver system, unlike ARPA targets, AIS targets are visible even if they are located behind large ships or islands.

* Optional supply required

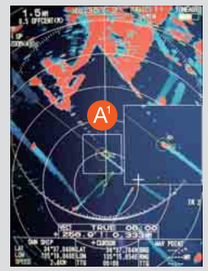




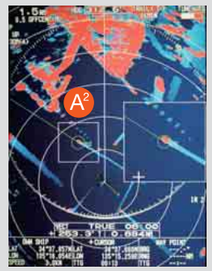
AIS targets can show that a vessel is coming from behind an island, where a Radar beam does not reach.

Target Zoom

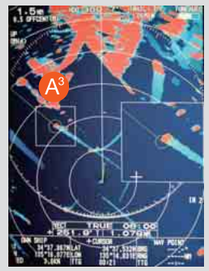
A specified target is tracked and magnified in a zoom display while its detailed movements are tracked by AIS or ARPA.



Target acquired and tracked.



Target shifts its position.

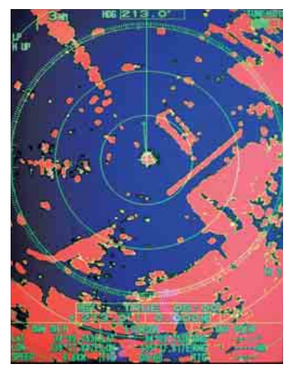


Zoom box tracks the target object according to its movement.

Full Screen Mode

With Full Screen Mode, the entire screen is filled with an echo image. Full-screen echo presentation capability allows the operator to observe a wider overview of the surrounding area.

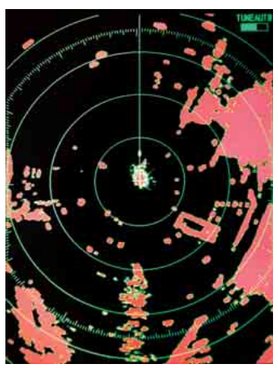
There is also an option to clear the navigation data from the Radar display.
Individual navigation data can be easily toggled ON or OFF from the menu.



Full screen mode

Data off

Data off



Full Screen Mode with no NAV data