SPECIFICATIONS OF FR-8062/8122/8252

ANTENNA RADIATOR
Type	Slotted waveguide array open radiator
Length	4 ft (XN12A) or 6 ft (XN13A)
Rotation Speed	24/36/48 rpm
Wind Load	70 kt relative wind

Beamwidth
4 ft (XN12A):	Hor. 1.9, Vert. 22
6 ft (XN13A):	Hor. 1.35, Vert. 22

RF TRANSCEIVER
Frequency	9410 30 MHz (X-band)

Output Power
FR-8062:	6 kW
FR-8122:	12 kW
FR-8252:	25 kW

DISPLAY
Screen Size	12.1" color LCD
Effective Viewing Area	184 (H) x 246 (V) mm
Pixel Number	600 (H) x 800 (V), SVGA
Effective Diameter	184 mm
Echo Colors	32 levels
Echo Trail Gradation	7 levels
Display Modes	Head-up, Course-up**, North-up**, True motion***
	** Heading data required
	*** Heading and speed data required
Range Units	nm, sm, km

Range Scales and Range Ring Intervals (nm)
Range:	1/8, 1/4, 1/2, 3/4, 1, 1.5, 2, 3, 4, 6, 8, 12, 16, 24, 36, 48, 64, 72, 96*
	*96nm available for the FR-8252 only
Rings:	1/16, 1/8, 1/4, 1/2, 1, 2, 3, 4, 6, 12, 16, 18, 24
Minimum Range	25 m on 0.25 nm range
Range Discrimination	20 m or better

Echo Trails
Type	True or relative trails
Trail Length:	15, 30 sec., 1, 3, 6, 15, 30 min., 12, 24 hour., or continuous Trail
Trail Width:	Narrow, Normal

Plotting Facilities (Required optional board ARP-11)
Acquisition:	Auto, Manual
Number of targets:	10 targets in 0.1-16 nm

AIS Functions (Data input from AIS is required)
Symbols:	Sleeping, Activated, Dangerous, Selected, Lost targets
Number of targets:	100 targets max.

INTERFACE
Input	IEC 61162 NMEA0183 Ver. 1.5/2.0
Output	IEC 61162 NMEA0183, Analog RGB video(option)

ENVIRONMENT
Temperature
Antenna Unit:	-25C to +70C (-13F to +158F)
Display Unit:	-15C to +55C (5F to +131F)

Waterproofing
Antenna Unit:	IEC60529 IPX6
Display Unit:	IEC60529 IPX5 (front panel)

POWER SUPPLY
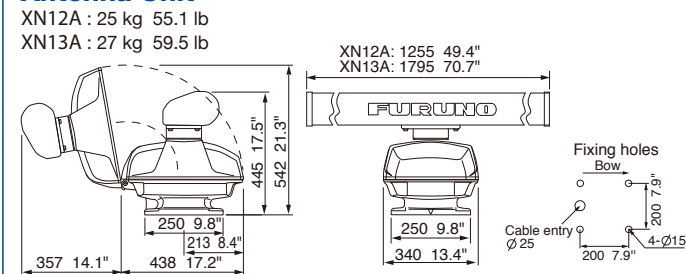|	
FR-8062:	10.8-31.2 VDC, 3.2A*
FR-8122:	10.8-31.2 VDC, 3.8A*
FR-8252:	10.8-31.2 VDC, 5.0A*
	*24VDC (windless)

EQUIPMENT LIST
Standard
1. Display Unit	1 unit
2. Antenna Unit (Specify when ordering)	1 unit
3. Antenna Cable 10, 15, 20 or 30 m	1 pc.
4. Power Cable 3.5 m	1 pc.
5. Power Supply Unit for FR-8252	1 unit
6. Installation materials and spare parts	1 set

Option
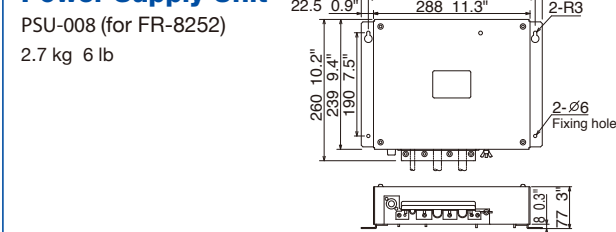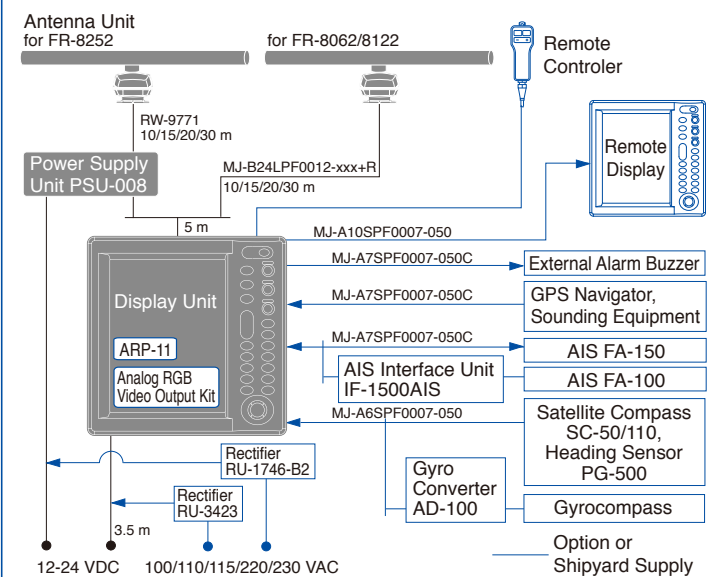|	
1. Rectifier	RU-3423
2. Interface Cable	MJ-A7SPF0007-050C, 5 m
	MJ-A6SPF0007-100, 10 m
3. External Alarm Buzzer	OP03-136
4. Auto Plotter	ARP-11 (built in display unit)
5. Gyro Converter	AD-100
6. AIS Interface Unit	IF-1500AIS
7. Analog RGB Video Output Kit for remote display (built in display unit)	
8. Remote Control	RCU-019-E
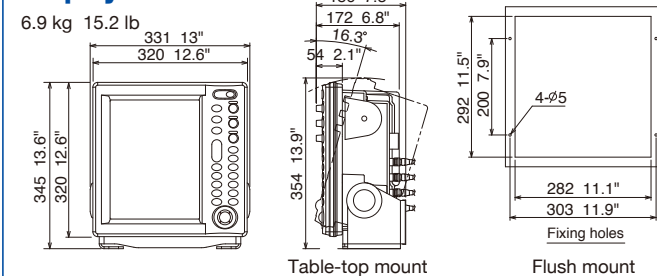
INTERCONNECTION DIAGRAM

Display Unit
6.9 kg 15.2 lb

Table-top mount   Flush mount

Antenna Unit
XN12A : 25 kg 55.1 lb
XN13A : 27 kg 59.5 lb

Power Supply Unit
PSU-008 (for FR-8252)
2.7 kg 6 lb

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SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

FURUNO

12.1" Multi-Color LCD RADAR
FR-8062/8122/8252
[6 kW]   [12 kW]   [25 kW]

Optimized detection with variable antenna rotation speed

- 12.1" SVGA color TFT LCD with echo colors of 32 levels
- Superior short range target detection capability
- Advanced auto modes to automatically adjust gain, tuning and AC rain/sea for delivering the best available picture
- 48 rpm antenna for high-speed craft as well as for river use
- True motion echo trail
- Up to three programmable radar settings can be selected to give the best radar performance in different sea conditions
- Auto plotter ARP-11 for automatic acquisition and tracking of 10 targets (option)
- Displays up to 100 AIS targets on the screen (with optional AIS interface.)

www.furuno.com

FURUNO's new high-performance FR-8002 series fully complies with the IEC testing standard for small radar

The FURUNO FR-8002 series is a new 12.1" color radar that displays high quality radar images. The FR-8002 series fully complies with IEC 62252 testing standard for small radar to enhance the safety of your boating life.

The FR-8002 series radar presents outstanding short-range detection capability, detecting objects at the range of 20 m. The distance resolution is as fine as 15 m, helping to distinguish small targets in congested waterways. The maximum detection range has been greatly extended, thanks to the high sensitivity of its antenna radiator.

In addition, its high antenna rotation speed, of 48 rpm, allows the FR-8002 to be utilized on high speed craft and river vessels. The antenna rotation speed can be automatically adjusted according to the selected range scale. The range scale of this radar series can also be switched to display kilometers for use in rivers.

6ft open array

4ft open array

User friendly Control Knobs

Control knobs for fine adjustment of gain, anti-clutter rain and sea.

Advanced Auto Mode

The FR-8002 series is capable of constantly presenting the best possible pictures by simply pressing the respective knobs. The advanced auto mode automatically adjusts the tuning, gain and anti clutter controls. These settings can also be manually adjusted by turning the respective knobs on the front panel.

User Customized Modes

When the vessel is on a regular route or under circumstances such as heavy rain and rough seas where special radar settings are required, the operator may simply press the CUSTOM key to activate the user-customized operating mode. Up to three programs can be registered with specific settings for clutter controls and unwanted echo suppression, antenna rotation speed, etc., according to the given situation and specific usage.

Choice Of Antenna Units

The FR-8002 series offers flexibility in its utilization for river-use, as well as, high-speed craft with its high speed antenna rotation. The antenna rotation speed can automatically be adjusted according to the selected range scale for optimum detection.

|	Antenna rotation speed	Output power	Antenna length
FR-8062	24/36/48 rpm	6 kW	Either 4 ft or 6 ft
FR-8122	24/36/48 rpm	12 kW	
FR-8252	24/36/48 rpm	25 kW	

True Motion Echo Trail

When connected with a heading sensor and position receiver, i.e. GPS, the FR-8002 series can display True Echo Trails to present true target movements in accordance with their speed-over-ground and course-over-ground. This mode provides intuitive monitoring of moving targets.

Zoom Mode

There are three zoom modes available for the FR-8002 series to highlight a selected area in a pop-up window, which are relative, true and target zoom. With the target zoom mode, a selected ARP/AIS target is shown and tracked in a zoomed-in window.

— Selected zoom area

— Pop-up window
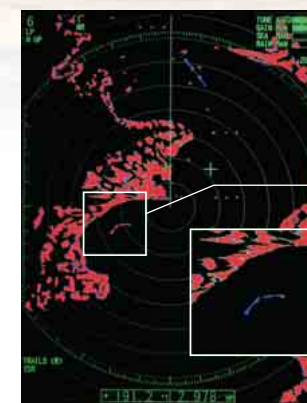
ARP/AIS

With the optional ARP board ARP-11, up to 10 targets can be acquired and tracked on the radar screen. Additionally, up to 100 AIS targets can be presented with appropriate AIS data input.
Detailed information on up to two ARP/AIS targets can be displayed in the data cells at the bottom of the screen.

AIS Target

ARP Target
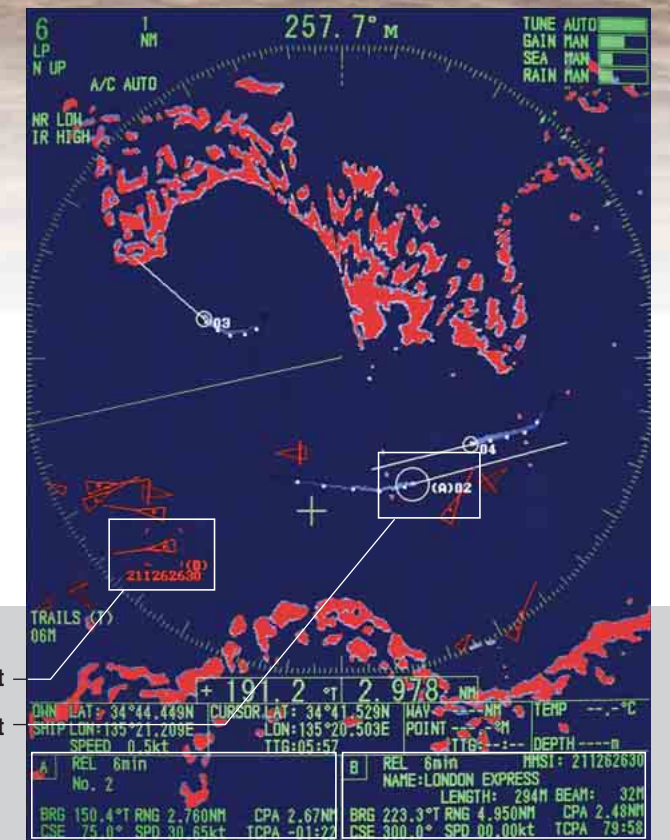
Data Cell A : ARP Information   Data Cell B : AIS Information

In this brochure, the echo images go beyond the outer most ring and cover the data area. The FR-8002 series does that to present wider overview of the surrounding area. The FR-8002 series can also restrict the presentation of echo images within the ring as in the ordinary radar setting.