The future today with FURUNO's electronics technology.

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TRADE MARK REGISTERED
MARCA REGISTRADA

The BlackBox radar system FR-2115-B, FR-2125-B, FR-2155-B* and FR-2135S-B are custom configured by adding a user’s favorite display to the blackbox radar package. The package is based on a Furuno standard radar used in the FR-21x5-B series with (FURUNO) monitor which is designed to comply with IMO Res MSC.64(67) Annex 4 for shipborne radar and A.823 (19) for ARPA performance. The display unit may be selected from virtually any size of multi-sync PC monitor, either a CRT screen or flat panel LCD display.

The blackbox radar system is suitable for various ships which require no specific type approval as a SOLAS compliant radar.

The radar is available in a variety of configurations: 12, 25, 30 and 50* kW output, short or long antenna radiator, 24 or 42 rpm scanner, with standard Electronic Plotting Aid (EPA) and optional Automatic Radar Plotting Aid (ARPA). These plotting aids help the operator monitor and adjust CPA, TCPA, vector lengths, acquisition of interested targets.

Radar echoes are presented in a selected color with a day or night background color for easy observation under all lighting conditions. Different colors are assigned for marks, symbols and text for user-friendly operation. The control unit has logically arranged controls in a combination of push keys, rotary controls and a well-organized menu structure.
SPECIFICATIONS OF FR-2115-B/2125-B/2155-B*/2135S-B BlackBox type

ANTENNA
1. Radiator system Slotted waveguide array
2. Beamwidth
   - **Radiation Type**: XN12AF, XN20AF, XN24AF, XN4A*, XN5A*, SN30AF, SN36AF
   - **Length**: 4 ft, 6.5 ft, 8 ft, 10 ft, 9 ft, 12 ft
   - **Beamwidth (H)**: 1.8°, 1.23°, 0.95°, 0.95°, 0.75°, 2.3°, 1.9°
   - **Beamwidth (V)**: 25°, 20°, 20°, 20°, 25°, 25°
3. Rotation speed
   - 24 rpm or 42 rpm (option to FR-2115B/2125B with XN12AF or XN20AF only)

RF TRANSEIVER (in scanner unit)
1. Frequency
   - **X-band**: 9410 MHz, 9415 MHz* (50 kW)
   - **S-band**: 3050 MHz (30 kW)
2. Output Power
   - **FR-2155-B**: 50 kW*
   - **FR-2135S-B**: 30 kW
   - **FR-2115-B/2125-B**: 12 kW, FR-2125-B: 25 kW, FR-2155-B: 50 kW*
3. Pulselength & PRR
   - **Range scales**: P/L (µs) PRR (Hz)
   - **Pulse length**: 0.125, 0.25, 0.5, 0.75, 1.5, 3, 6, 12, 24, 48, 96
   - **Pulse repetition rate**: 0.025, 0.05, 0.1, 0.25, 0.5, 1, 2, 4, 8, 16, 16
   - **Pulse length (mm)**: 35 m (16, 32 and 120 nm range scales can be menu-added)
4. Accuracy
   - **Range**: 1% of range in use or 15 m, whichever is greater
   - **Bearing**: Better than 1°
5. Presentation
   - **Head-up, Head-up TB, North-up, True Motion**
   - **Power Supply (IEC 61162-1 & NMEA 0183)**
   - **Interconnection diagram**

DISPLAY REQUIREMENTS
1. Non-Interlaced, Multi-sync PC Monitor (Owner supplied)
   - Virtually any size including, 15", 17", 20", 21" and 28" CRTs, as well as Flat Panel color LCDs (SXGA 1280 x 1024)
2. Minimum range and discrimination
   - 35 m
3. Range Scales
   - **Range (nm)**: 0.125, 0.25, 0.5, 0.75, 1.5, 3, 6, 12, 24, 48, 96
   - **Ring (nm)**: 0.025, 0.05, 0.1, 0.25, 0.5, 1, 2, 4, 8, 16, 16
4. Range Scales
   - **Range (nm)**: 0.125, 0.25, 0.5, 0.75, 1.5, 3, 6, 12, 24, 48, 96
   - **Ring (nm)**: 0.025, 0.05, 0.1, 0.25, 0.5, 1, 2, 4, 8, 16, 16
   - **Range (mm)**: 35 m
5. Rotation speed
   - 24 rpm or 42 rpm (option to FR-2115B/2125B with XN12AF or XN20AF only)
6. Presentation
   - **Head-up, Head-up TB, North-up, True Motion**
   - **Power Supply (IEC 61162-1 & NMEA 0183)**

EQUIPMENT LIST
Standard
1. **Antenna Unit**
   - 1 unit
2. **Processor Unit RPU-011**
   - 1 unit
3. **Control Unit RCU-011**
   - 1 unit
4. **Installation Materials and spare parts**
   - 1 set
Optional
1. **Auto Plotter ARP-26 (ARPA module)**
2. **VideoPlotter RP-26**
3. **Chart ROM card for RP-26**
4. **RAM card for RP-26**
5. **42 rpm gear box RSB-0075 for FR-2115-B/2125-B**
6. **Interswitch box RJ-7/8**
7. **Gyro Interface GC-8**
8. **Stepdown Transformer for 380/440 VAC**
9. **Power Supply Unit PSU-001/001**

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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