

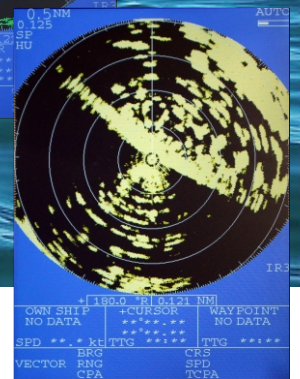
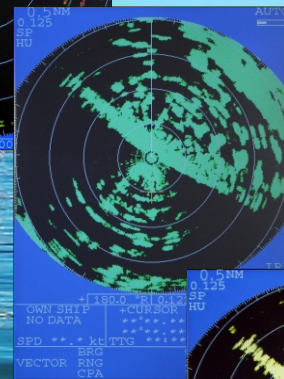
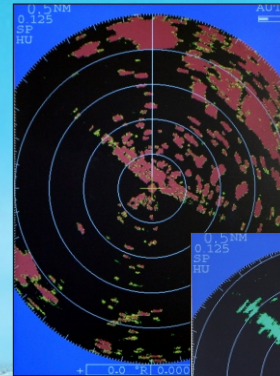
# ONWA<sup>®</sup>

## Color LCD Marine Radar/ with AIS Display Model **KR-1338C/KR-1668C**



AIS Display function is complemented in Onwa New Radar series, KR1338C and KR1668C. KR1338C and KR1668C is a high contrast 10.4" color LCD radar designed for a wide range of vessels including pleasure craft, fishing boats and work boats. They allow you to see far away objects before they are visible and allows you to see in the dark, fog or during periods of obstructed visibility in any weather condition.

These Radars can be inter-connected with other navigation equipment, AIS, chart plotters and sounders, through NMEA 0183 interface, which affords operators the ability to expand their boat's system as needed.



- AIS display function
- Multi target and background color selectable
- Rugged die-cast, waterproof housing
- **3 NMEA ports**
- User-programmable function keys
- Automatic optimization of radar picture
- Newly enhanced short range performance
- Head-up, Course-up and North-up representation mode
- Economy Mode, Guard Zone Alarm and Watch Mode



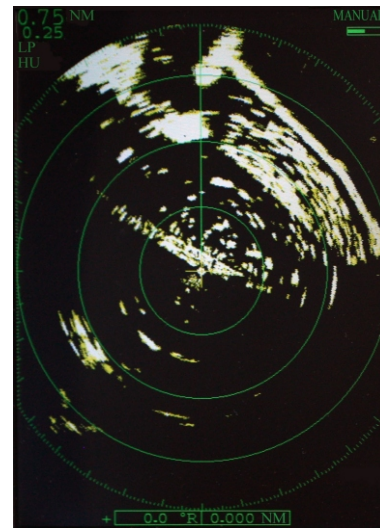
## AIS Display \*

It could display all AIS vessels around you on the Radar display by connecting AIS equipment through the Radar NMEA input port.

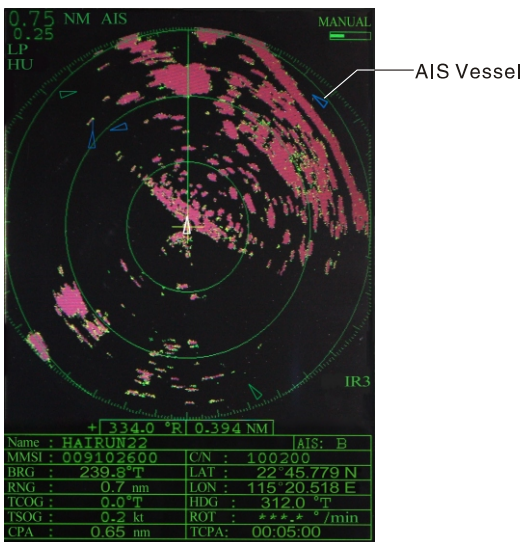
\* Optional input is needed



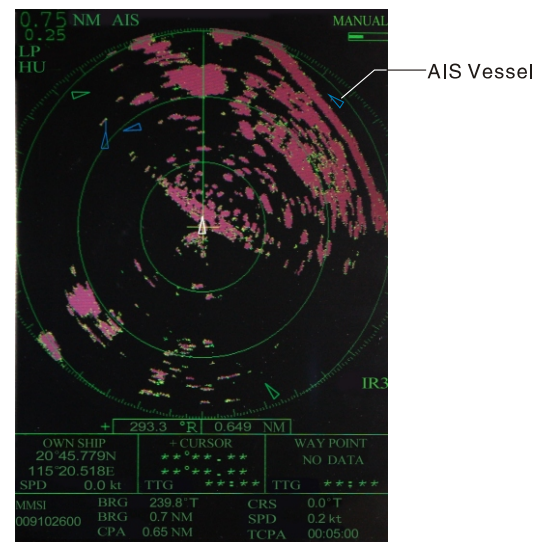
Actual View



RADAR Mode



AIS Data Mode



Full Data Mode

All the target has been received can be tracked and overlaid on the Radar screen to assist the operator in tracking vessel movements. Since AIS works by a VHF transceiver system, a variety of navigational information such as vessel name, speed, ROT, draft, and the destination of the selected targets can be included in real time. AIS targets are visible even if they are located behind large ships or islands.

# SPECIFICATION OF KR-1338C/KR-1668C

## ANTENNA RADIATOR

### 1. TYPE:

KR-1338C: 55cm hybrid array  
 KR-1668C: 120cm hybrid array

### 2. Length and Rotation speed:

KR-1338C: Radome 60cm (KRA-1002) 24RPM  
 KR-1668C: Open 120cm (KRA-1003) 24RPM

### 3. Wind load: Relative wind 100 knots

### 4. Beamwidth:

KRA-1002: Hor:4° Vert:25°  
 KRA-1003: Hor:1.9° Vert:22°

## RF TRANSCEIVER

### 1. Frequency: 9410 ± 30MHz (X-band)

### 2. Pulselength PRR

0.08 μs / 2100 Hz (0.125, 0.25, 0.5, 0.75, 1, 1.5\* nm)

0.3 μs / 1200 Hz (1.5\*, 2, 3 nm)

0.8 μs / 600 Hz (3\*, 4, 6, 8, 12, 16, 24, 36, 48\*\*, 64\*\* nm)

\*Pulselength & PRR for 1.5 and 3nm ranges can be select in menu

\*\*KR-1668C

### 3. Peak Output Power: 4KW nominal

### 4. Mixer and Local Oscillator: Microwave Integrated Circuit

### 5. IF: 60MHz

Bandwidth: 25 MHz (0.08/0.3 μs), 3MHz (0.8 μs)

### 6. Noise Figure: 10dB nominal

## DISPLAY UNIT

### 1. TYPE:

10.4" LED backlight, 32-bit TFT Color LCD Display.  
 640(V) × 480 (H) dots

### 2. Display Modes:

Head-up, Course-up\*, North-up\*, True Motion\*\*  
 \* Heading input required \*\*Heading and speed inputs required

### 3. Range Scales (nm)

Range: 0.125, 0.25, 0.5, 0.75, 1, 1.5, 2, 3, 4, 6, 8, 12, 16, 24, 36

Ring: 0.0625, 0.125, 0.125, 0.25, 0.25, 0.5, 0.5, 1, 1, 2, 2, 3, 4, 6, 12

### 4. Echo Trail:

Interval: 15s, 30s, 1min, 3min, 6min, 15min, 30min or Continuous

### 5. Interface (NMEA 0183 format) --: any talker (menu selection)

Input

\$ -- APB, \$ -- BWC, \$ -- BWR, \$ -- DBK, \$ -- DBS, \$ -- DBT, \$ -- DPT, \$ -- GGA,

\$ -- GLC, \$ -- GLL, \$ -- GTD, \$ -- HDG, \$ -- HDW, \$ -- HDT, \$ -- MDA,

\$ -- MTW, \$ -- RMA, \$ -- RMB, \$ -- RMC, \$ -- VTG, \$ -- VHW, \$ -- XTE

### 6. AIS Display

Acquisition: AIS vessels or ATON

Tracking: Auto

Display: Vessel Name, MMSI, Call sign, Range/Bearing, L/L,

Speed/Course, ROT, CPA/TCPA

(AIS data input required)

## ENVIRONMENT

### Temperature:

-15°C to +55°C (Display unit)

-25°C to +70°C (Antenna unit)

## POWER SUPPLY

- 10.5VDC to 40.0 VDC, 60W (30W in economy mode)

## EQUIPMENT LIST

1. Display Unit (KRD-1003) **1 unit**

2. Radome Antenna Unit

KR-1338C: KRA-1002 **1 unit**

KR-1668C: KRA-2002 **1 unit**

3. Antenna Cable (KRC-004-10/15/20),

10/15/20/30m (Specify when ordering)

4. Power Cable (KRP-002-0), 3m

5. Standard Spare Parts and Installation

Materials

**1 set**

