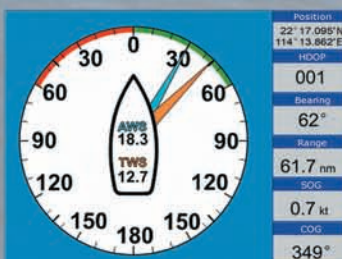
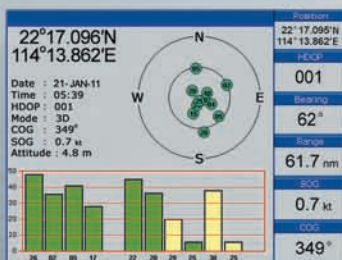
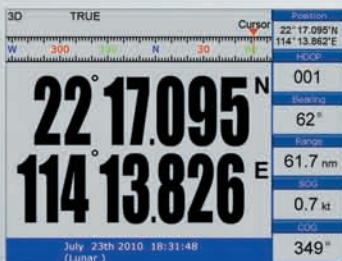
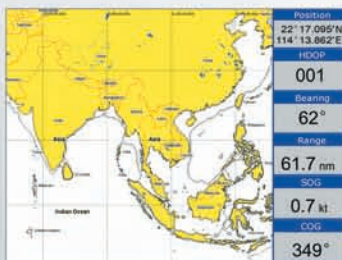
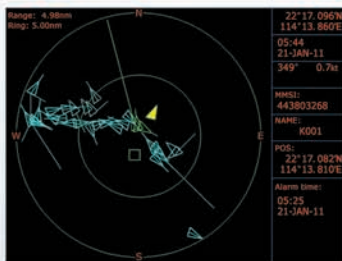
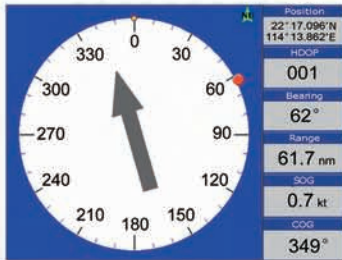


# ONWA®

## MODEL KP-8299A/8299B



- Built-in AIS Receiver (8299B) or AIS Class B Transponder (8299A)
- High resolution TFT day-view LCD display
- SD-cards slot for C-Map MAX and user data
- C-Map MAX and K-Chart Selectable
- Tide table and Celestial display
- Versatile display mode include
  - Plotter Screen
  - Nav.Data
  - Satellite Information
  - AIS Display
  - Compass Screen
  - Wind Screen
- GOTO track navigation
- Map orientation select
- Proximity waypoints alarms
- Perspective View
- Palette
  - Normal
  - Daylight - exposed to sunlight
  - Night - in dark environment
  - NOAA- paper chart colors
  - Celestial
- Wind speed and direction display by optional sensor input
- AIS guard zone with CPA and TCPA alarm

## KP-8299A/8299B



# SPECIFICATION OF KP-8299A/8299B

## PLOTTER CHARACTERISTICS

|                    |                                                                                                                                                                                                                                                                                                                                                              |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Waypoints/icons:   | 14,000 waypoints with name, symbol, 10 proximity waypoint                                                                                                                                                                                                                                                                                                    |
| Routes:            | waypoint up to 169 points each, plus MOB and Track Navigation or Goto Track modes                                                                                                                                                                                                                                                                            |
| Tracks:            | 21,000 point automatic track log; 10 saved track (up to 2100 track points each) let you retrace your path in both directions                                                                                                                                                                                                                                 |
| Alarms:            | XTE, Anchor drag, arrival, speed, voltage, proximity waypoint and time, AIS alarm.                                                                                                                                                                                                                                                                           |
| Palette:           | Normal<br>Daylight exposed to sunlight<br>Night in dark environment<br>NOAA paperchart colors                                                                                                                                                                                                                                                                |
| Tides:             | Tide data                                                                                                                                                                                                                                                                                                                                                    |
| Projection:        | Mercator projection                                                                                                                                                                                                                                                                                                                                          |
| Position format:   | Lat/Lon                                                                                                                                                                                                                                                                                                                                                      |
| Basemap:           | Built-in Onwa K-Chart                                                                                                                                                                                                                                                                                                                                        |
| External Map:      | SD Cards slot for C-Map MAX                                                                                                                                                                                                                                                                                                                                  |
| User data storage: | Internal backup of user settings, or external SD-card                                                                                                                                                                                                                                                                                                        |
| Plot Interval:     | 1s to 99h or 0.01 nm to 9.99nm                                                                                                                                                                                                                                                                                                                               |
| Plotting scales:   | 0.01nm to 1,000nm                                                                                                                                                                                                                                                                                                                                            |
| Nav Data:          | Inputs:<br>\$--DBT, \$--DPT, \$--GGA, \$--GLL, \$--GSA, \$--GSV, \$--HDG, \$--HDM, \$--HDT, \$--MTW, \$--RMB, \$--RMC, \$--VTG, \$--ZDA, \$--VWR, \$--VWT, \$--MWD, \$--VPW<br>Outputs:<br>\$--AAM, \$--APB, \$--BOD, \$--BWC, \$--GGA, \$--GLL, \$--RMB, \$--RMC, \$--VTG, \$--XTE, \$--ZDA<br>Outputs for autopilot:<br>\$--AAM, \$--APB, \$--BOD, \$--VTG |
| Perspective View:  | On/off                                                                                                                                                                                                                                                                                                                                                       |

**Power Supply** 10.5 to 35VDC, current drain <600mA at 12V

## Physical

|                    |                                                              |
|--------------------|--------------------------------------------------------------|
| Size:              | 290mm(H)X195.5mm(W)X99.5mm(D)                                |
| Weight:            | 2.43kg                                                       |
| Display:           | 8.0-inches ColorTFT day-view LCD<br>800 X 600 pixels         |
| Waterproofing:     | Display unit: IPX5<br>Antenna unit: IPX6                     |
| Temperature range: | Display unit: -15°C to +55°C<br>Antenna unit: -25°C to +70°C |

## AIS Characteristics

|                     |                                                                                                                 |
|---------------------|-----------------------------------------------------------------------------------------------------------------|
| Transmitter x 1     | (For KP-8299A ONLY)                                                                                             |
| Receiver x 2        | (one time shared between AIS/CDSC)                                                                              |
| Frequency :         | 156.025 to 162.025 MHz in 25KHz steps                                                                           |
| Output power :      | 2 watts typical(For KP-8299A only)                                                                              |
| Channel bandwidth : | 25KHz                                                                                                           |
| Channel step :      | 25KHz                                                                                                           |
| Modulation modes :  | 25KHz GMSK (AIS, TX AND RX)<br>25KHz AFSK (DSC, RX only)                                                        |
| Bit rate :          | 9600 b/s ± 50 ppm (GMSK)<br>1200 b/s ± 50 ppm (FSK)                                                             |
| RX sensitivity :    | Sensitivity - 107dBm/25 KHz<br>Message error rate less than :2%<br>Co-channel 10dB<br>IMD 62dB<br>Blocking 84dB |

## EQUIPMENT LIST

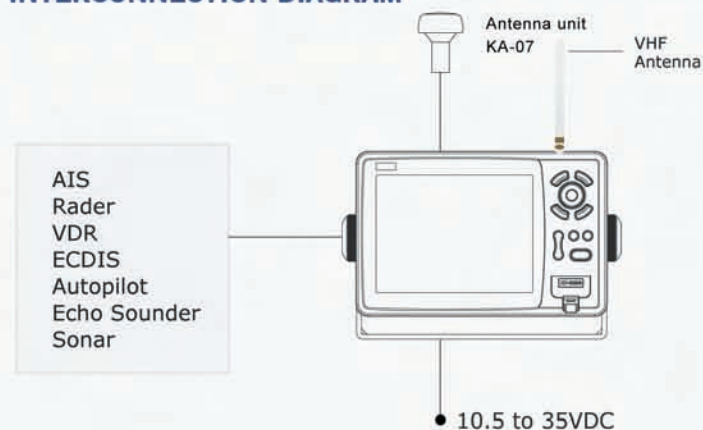
### Standard

1. Display unit
2. GPS Antenna unit with 10m cable
3. Operator manual
4. Installation materials and standard spare parts

## GPS RECEIVER CHARACTERISTICS

|                    |                                                                                                                       |
|--------------------|-----------------------------------------------------------------------------------------------------------------------|
| Receiver:          | 50 parallel channel GPS receiver continuously Tracks and uses up to 50 satellites to compute and update your position |
| Acquisition times: | Cold start: 27 seconds average<br>Warm start: 27 seconds average<br>Hot start: 1 seconds average                      |
| Update rate:       | 1/second, continuous                                                                                                  |
| Accuracy:          | Position: 2.5 meters(95%) without S/A<br>Velocity: 0.1 Meter/sec without S/A<br>Time: ±100ns synchronized to GPS time |
| Dynamics:          | Altitude: 50,000m Max<br>Velocity: 500 m/s<br>Acceleration: 4g Max                                                    |
| Datum:             | WGS 84 & Others                                                                                                       |
| Interfaces:        | NMEA 0183 input, RS232 output                                                                                         |
| Antenna:           | KA07                                                                                                                  |

## INTERCONNECTION DIAGRAM



## DISPLAY UNIT

