

Marine GPS/AIS Chart plotter

Model: KP-82A/82B

- Built-in Class B AIS Transponder (82A) or Receiver only (82B)
- 8" Color TFT Day-View LCD
- Improved accuracy with built-in SBAS receiver
- Multiple display modes to suit a variety of navigational requirements
- Up to 18,000 waypoints, 50 routes and 84,000 track points
- 99 kinds of marks for various objects
- Waypoint & Route upload/download through USB port



Plotter Mode



Navigation Mode



Position Mode



Route Mode



AIS Radar Mode

The KP-82 is an advanced built-in Class B AIS Transponder(or Receiver) GPS Chartplotter with a SBAS receiver designed for coastal ships, fishing boats and pleasure craft. The powerful processor performs high speed processing of position fixing and augmentation using SBAS correction. It comes with an easy to use chartplotter which stores up to 84,000 track points. This compact and cost-effective unit offers extremely accurate position fixes. It is accurate to 15 meters, and with SBAS mode activated, it's accurate to within 3 meters. The display modes include Plotter, Nav Route, Position and AIS Radar mode. The user-friendly design permits easy and straightforward operation with minimum key strokes. The system has various alarm functions to warn of arrival to or departure from a predefined area (arrival/anchor watch), next point alarm, arrival alarm, deviation alarm, anchor alarm, clock alarm, collision alarm and accuracy alarm.

The KP-82 is using K-chart mapping system developed by Onwa. Users could hide or display waypoint names, routes, place names, grid lines, dynamic track, history of the track, name of obstacles, water depth, etc.

AIS Functions :

- Users can check all AIS vessels being received in real-time on the Chart screen and AIS Radar screen
- Users could easily recognize Class A vessels, Class B vessels and Base station by different colors and shapes of marks on the screens
- The collision alarm could be pre-setted for safety navigation
- The Enter/Departure setting is for temporarily shut down or restart the collision alarm when entering and leaving the port
- Vessel List to check all the information of AIS vessels received

SPECIFICATIONS OF KP-82A/82B

Plotter Characteristics

1. **Display** : 8" (162mm x 121.5mm), 640 x 480, Color TFT LCD
2. **Waypoints** : Up to 18,000 waypoints, including the optional logo, or as geographic information
3. **Routes** : Up to 50 routes (300 waypoints for each route)
4. **Tracks** : 40 Tracks including 1 real-time track record and 39 history track records. 2,100 points for each track, 84,000 points in total. The information of each point including time, location and direction
5. **Marks** : Up to 99 kinds of marks for various objects
6. **Alarms** : Anchor, XTE, Arrival, Next WPT, Impact, PDOP
7. **Charting System** : K-chart
8. **Chart Scale** : 0.006nm~380nm

GPS Characteristics

1. **Satellite Receiver Type** : 50 Channels, GPS L1 frequency, C/A Code
2. **Horizontal Position Accuracy** : Autonomous < 2.5m, SBAS < 2.0 m
3. **Velocity Accuracy** : 0.1m/s
4. **Heading Accuracy** : 0.5 degrees
5. **Time-To-First-Fix** :
Cold Start (Autonomous) : 32 s
Warm Start (Autonomous) : 32 s
Hot Start (Autonomous) : <1s
6. **Max Navigation Update Rate** : 4 Hz
7. **Dynamics** : $\leq 4g$
8. **Operational Limits** : Velocity 600 m/s

Environment

1. **Temperature** :
Display unit : -15 to +55°C
GPS Antenna unit : -25 to +70°C
2. **Waterproofing**
Display unit : IPX5
GPS Antenna unit : IPX7

Power Supply

12-24 VDC, 12V---2.0A

AIS Characteristics

1. **Transmitter** x 1 (For KP-82A only)
2. **Receiver** x 2 (one time shared between AIS/DSC)
3. **Frequency** : 156.025 to 162.025 MHz in 25KHz steps
4. **Output power** : 2 Watts typical (For KP-82A only)
5. **Channel bandwidth** : 25KHz
6. **Channel step** : 25KHz
7. **Modulation modes** :
25KHz GMSK (AIS, TX and RX)
25KHz AFSK (DSC, RX only)
8. **Bit rate** :
9600 b/s \pm 50 ppm (GMSK)
1200 b/s \pm 30 ppm (FSK)
9. **RX sensitivity** :
Sensitivity - 107dBm 25KHz
Message error rate less than: 2%
Co-channel 10dB
Adjacent channel 70dB
IMD 65dB
Blocking 84dB

Output

1. GPS DATA : GGA, GLL, RMB, RMC, GSA (NMEA0183 ver 2.0)
2. AIS DATA (Standard)
3. External Alarm

Equipment List

1. Display unit accommodating GPS/SBAS receiver and Class B AIS Transponder (KP-82A) or Receiver Only (KP-82B)
2. Antenna unit KA-07 with 10 m cable
3. Standard installation materials and accessories
Options : VHF Antenna KA-156 with 10m cable (specify when ordering)

Compliant with the following standards:

- IEC62287-1 (IEC standard, Class B ship borne equipment)
- IEC60945 Edn 4.0 (IEC standard, environmental requirements)
- ITU-RM.1371-1 (Universal AIS Technical Characteristics)
- IEC61162-1 Edn. 2.0 (IEC standard, digital interfaces part 1)
- IEC61108-1 (IEC standard, GPS receiver equipment)

Display Unit

