WatchMate 850

AIS transponder with integrated screen and GPS antenna

The Easiest AIS to Install

Easy to Install, Easy to Use

Engineered for ease of install and use, yet packed with comprehensive functionality, the AIS WatchMate® is perfect when you want AIS that is robust, reliable and intuitive.

The built-in GPS antenna eliminates the need for another GPS antenna in most installations allowing you to just connect power, plug in a VHF antenna and your complete AIS system is installed. Alternately, share an existing connection to an antenna using our unique AIS splitter with 'gain not loss', or connect via NMEA 0183 or USB to show AIS data on your existing chart plotter or computer.

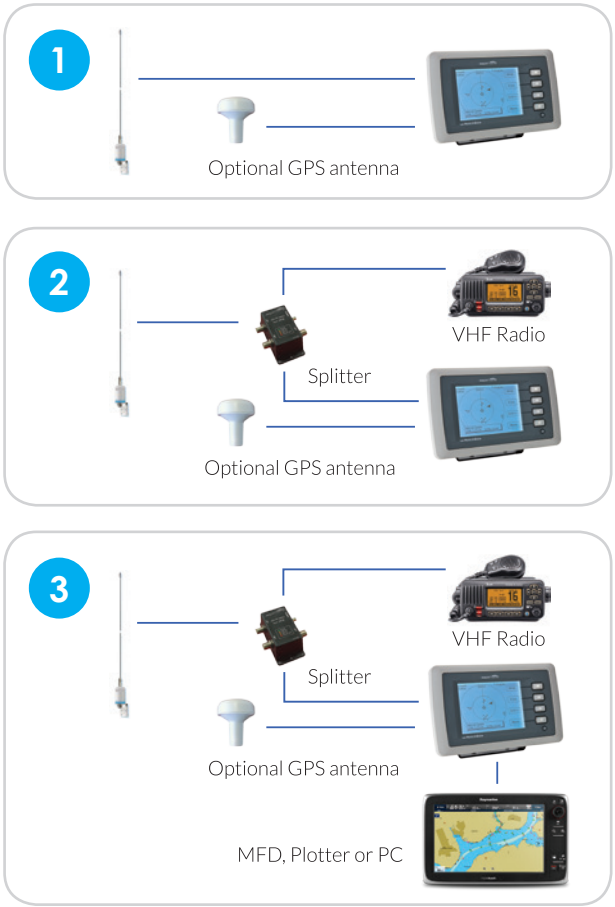
The unique target filtering function reduces clutter in busy locations by taking advantage of a collision avoidance display option which shows only those vessels on a collision course along with a graphical view of their crossing situation.

Sophisticated alarm management eliminates false collision warning alarms that plague chart plotters and other AIS displays.

Super-low power consumption allows you to leave the WatchMate 850 switched on at all times.

The high resolution backlit LCD screen is so intuitive that most users can operate "out of the box" without reading the manual. Large, backlit buttons make operation easy and fast.

Standalone or Integrate



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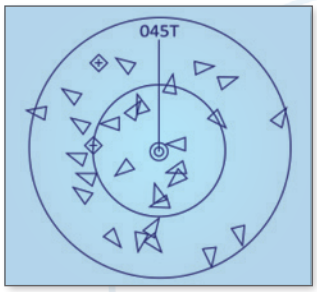
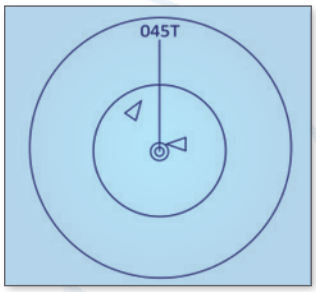
ADJUSTABLE FILTERS



Show icons for every vessel



Filtered to only show collision risks

Intelligent filtering enables you to de-clutter your display. The WatchMate 850 automatically calculates the closest point of approach (CPA) and time until CPA (TCPA). You can filter target vessels by range, speed, CPA or TCPA.

You can customize these settings for different situations – Harbor, Coastal, Offshore and Anchor, making it easy to alter your display and alarms with one button.

Vessels and alarms are presented in priority order, making it easy to identify critical hazards.

EASY INSTALLATION

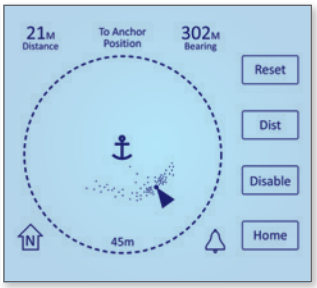
- Built-in GPS antenna does not require an external GPS antenna for most installations
- Optional external GPS antenna when a view of the sky is not available
- Connect to chart plotters with NMEA 0183 and computers with USB
- Standard VHF antenna connection which does not require special cables or connectors
- Very low power consumption

ROBUST AND RELIABLE

- Fully waterproof, rated IPx7 (submersible to 1m for 30 minutes)
- Rugged construction and easy to use buttons made for the marine environment
- Galvanic isolated NMEA and USB connections prevent ground loops and damage to connected devices
- Self diagnosis ensures AIS, GPS and antenna system are functioning properly
- World-wide two year warranty

ANCHOR WATCH

Press a button when you drop the anchor. The WatchMate 850 continuously shows the range and bearing to your anchor. Your position relative to the anchor is displayed over time so you can visualize your swing.



The alarm sounds if your position moves outside the selected range. Corrects for errors caused by the GPS antenna position on-board your vessel.

TECHNICAL DATA

Size	208mm wide x 135mm high x 76mm depth 8 3/16" x 5 5/16" x 3")
LCD panel	125mm (5") FSTN 320x240 LED backlit
Power supply	10-32 VDC 2A max, 3W nominal
Environmental	Watertight (IPx7)
Operating temperature	-25°C to +55°C (-13°F to 131°F)
Storage temperature	-25°C to +80°C (-13°F to 176°F)
Number of receivers	2 AIS, 1 DSC (timeshared)
Number of transmitters	1 AIS
Receive frequency range	156.025 – 162.025 MHz
Transmit frequency range	161.500 – 162.025 MHz
AIS sensitivity	-113 dBm < 20% PER
Power output	33 dBm (2W)
GPS sensitivity	-159dBm tracking & navigation -142dBm acquisition
GPS differential support	SBAS: WAAS, EGNOS, MSAS, GAGAN
Serial data	1 USB port (isolated), 1 NMEA input (isolated RS422), 1 NMEA output (RS422)
Baud rate	4800 or 38400. AIS output requires 38400 baud
USB connector	Mini USB (USB 2.0)
GPS antenna connector	TNC
VHF antenna required	50 ohm, max 2:1 VSWR @ 162MHz, PL-259 connector
External alarm maximum	150mA @ VDC
AIS Messages	Displays all class A and class B position reports, voyage data, static data, aids to navigation, SAR aircraft, SART, MOB, meteorological/ hydrographic and safety messages

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PATENTED

Incorporates Vesper Marine patented AIS technology.

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