

HIGH TRANSMIT POWER (5W SOTDMA)

## B200 CLASS B | AIS Transceiver



### DESCRIPTION

The em-trak B200 is a high transmit power (5W) priority AIS Class B transceiver specifically designed for serious ocean sailors, offering enhanced safety through maximum range and transmission priority.

The high powered, advanced AIS engine provides reliability you can depend on and the very best AIS performance in its class. Completely water and weatherproof (IPx6 & IPx7 certified), and ruggedized to withstand shock and vibration, the B200 has been extensively tested in the most extreme marine environments and will provide years of maintenance free operation. The dual NMEA2000 & 0183, coupled with serial ports, USB, WiFi, and Bluetooth also make connecting to all your tablets, PC's, display and navigation devices easy and simple.

Peace of mind is further enhanced with an internal battery that ensures continuous operation for up 120 hours in the event of total power loss. The B200 also supports silent mode, where transmissions are switched off, but receiving continues, and can be enabled through the integrated switch or via your mobile phone using em-trak's CONNECT-AIS app.

### FEATURES

- | Certified AIS Class B - 5W SOTDMA
- | Ruggedized and impervious to extreme environments – water (IPx6, IPx7), damp, shock, vibration, temperatures
- | High performance latest generation GPS
- | Internal battery back-up for up to 120hrs operation – charge is automatically maintained by primary vessel power and automatically switches to battery if lost
- | WiFi & Bluetooth wireless connectivity
- | NMEA 0183 & NMEA 2000
- | Low power consumption
- | Anti-tamper protection
- | Enhanced RF screening to protect against electromagnetic interference
- | Built-in power surge protection



## PHYSICAL & ENVIRONMENTAL SPECIFICATION

Size (H x W x D)	170 x 140 x 69mm
Weight	695g
Operating temperature	-25°C to +55°C
Storage temperature	-25°C to +70°C
Ingress protection	IPx6 and IPx7

## ELECTRICAL SPECIFICATION

Supply voltage	12V or 24V DC
Supply voltage range	9.6V - 31.2V DC
Average current (at 12V)	240mA (1.6A when battery charging)
Peak current	3.85A
Average power consumption (at 12V)	2.9W (19.2W when battery charging)
Galvanic isolation	NMEA 0183 inputs only, NMEA 2000, VHF antenna port
Battery capacity	4600mAh
Battery type	3.7V Li-Ion rechargeable
Battery life (default operating conditions)	48 hours

## CONNECTORS

VHF antenna	SO-239
GNSS	TNC
Power	2 way circular multipole
NMEA 0183/silent mode	12 way circular multipole
NMEA 2000	5 way Micro-C connector
USB	14 way circular multipole

## DATA INTERFACES

NMEA 0183	2 x bi-directional ports
NMEA 2000	NMEA 2000 Ed 3.101, LEN=1
USB	PC virtual com port for NMEA 0183 data
WiFi	IEEE 802.11 (a/b/g), client and access point mode supported (2 connections in access point mode)
Bluetooth	BT Classic 4.0, 7 concurrent connections

## STANDARDS COMPLIANCE

AIS standards	IEC 62287-2 Ed. 2 ITU-R M.1371.5
Product safety standards	EN60950-1 2006 +A1:2009 +A1:2010 +A12:2011 +A2:2013 EN62311:2008
Environmental standards	IEC 60945 Ed. 4
Serial data interface standards	IEC 61162-1 Ed 5.0 IEC 61162-2 Ed 1.0
NMEA 2000	NMEA 2000 Ed 3.101
GNSS performance standards	IEC 61108-1 Ed 2.0 IEC 61108-02 Ed 1.0

## GNSS

Systems supported	GPS, GLONASS, BeiDou, Galileo (two of any combination, three including GPS, Galileo)
Channels	72
Internal/external antenna	External only
Time to first fix from cold start	26s

## VHF TRANSCEIVER

VDL access scheme	SOTDMA
Operating frequency	156.025MHz - 162.025MHz
Channel bandwidth	25kHz
Receivers/transmitters	2 x receivers, 1 x transmitter
AIS receiver sensitivity (20% PER)	-111dBm
AIS transmitter power	5W (+37dBm)

## USER INTERFACE

Buttons	Integrated silent mode
Indicators	Power, transmit timeout, error, silent mode

## GNSS ANTENNA

Size	85 x 70mm
Weight	470g
Ingress protection	IPx6 and IPx7
Mounting	1 inch 14 TPI pole mount required
GNSS systems supported	GPS, GLONASS, Galileo, BeiDou

## IN THE BOX

1 x AIS transceiver	2 x Anti-tamper locking plates
1 x Power cable (2M)	1 x Fixing pack
1 x Anti-tamper bracket	1 x Mounting template

## WARRANTY

With em-trak you can buy with confidence. If you are unhappy with your new product for any reason, within two days of receipt and subject to the product and packaging being complete and undamaged, you may return it to us for a full refund. We are sorry, but we cannot accept the return of any product if you have not advised us in writing within 48 hours of receiving your em-trak product, or if it has been used and or damaged or if any of the package is incomplete. All em-trak products benefit from our three year global warranty. In the unlikely event of a problem, please contact our Customer Support department (24/7) at support@em-trak.com and one of our experts will work with you to resolve your issue or arrange the repair or replacement of your em-trak product. The warranty is invalidated if the product has been incorrectly used, damaged or tampered.

## HEAD OFFICE

em-trak Marine Electronics Ltd  
Wireless House  
Westfield Industrial Estate  
Midsomer Norton  
Bath BA3 4BS  
United Kingdom

T +44 (0)1761 409 559  
F +44 (0)1761 410 093  
E enquiries@em-trak.com  
W www.em-trak.com

## USA OFFICE

em-trak Marine Electronics Ltd  
470 Atlantic Avenue  
4th floor  
Boston  
02210  
USA

T +1 617 273 8395  
F +1 617 273 8001  
E enquiries@em-trak.com  
W www.em-trak.com



EM-TRAK.COM