DESIGNED AND MANUFACTURED IN ENGLAND

INSTALLATION AND USER INSTRUCTIONS for

AIS ENGINE

NASA MARINE INSTRUMENTS

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RoHS ✔
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CE

NASA Marine A.I.S Engine 3

The AIS Engine receives AIS data, converts it to an NMEA format, and sends it on to any display equipped to receive it. The engine can also receive NMEA information from a GPS receiver (at 4800 baud) which it then sends on to the display with the AIS data (at 38,400 baud).

Installing the AIS Engine

The AIS Engine requires its own marine VHF antenna and cannot be shared with a transceiver antenna. It should be mounted as high as possible to maximise range but should be spaced not less than 1 metre from a transmitting antenna. The antenna cable should be at least 3 metres long and the antenna should be sited at least 2 metres from the AIS receiver. The antenna should be a 50 ohm general purpose marine VHF antenna.

The AIS Engine is not watertight so it must be mounted in a position, which is dry at all times.

Few display units will have a socket for both a GPS receiver and an AIS Engine so provision has been made in the Engine to relay the GPS position.

Connect the power cable to the 12-volt supply. The red wire to positive and the wire with a black stripe to negative. If a GPS is to be fitted then connect the GPS NMEA output (or NMEA +VE) to the blue fly lead of the data cable. If the GPS has a NMEA – VE (or NMEA REF) connect this to the supply negative. Ensure the GPS is connected to the same negative supply as the AIS Engine.

The NMEA 0183 signal from the GPS must swing above and below 2 volts (ref to the supply negative) and contain the RMC sentence.
NOTE – it is not necessary to connect a GPS if the AIS Engine is connected to a plotter or other display device with a GPS built in.

Two LED's on the receiver show the status. The red LED indicated that power is present and the green LED flashes each time a valid AIS message is received and each time a valid RMC message is detected on the GPS input.

The AIS Engine 3 can be connected directly to a PC via a 9 pin serial port or to a USB input using a serial to USB converter. It can also be connected to a chart plotter capable of displaying AIS data. PIN 2 of the 9 pin plug is the data output. Connect this to the relevant AIS input of the plotter and connect PIN 5 (ground reference) to the reference input of the plotter.
Alternatively cut off the data lead plug and connect the internal BLACK wire to the relevant AIS input and internal silver wire to reference. Ignore the red wire.

All available AIS messages are decoded from both class A and class B AIS transmitters.

A Serial to USB adaptor is available direct from NASA Marine. It is suitable for Windows 98, ME, 2000, XP, Vista and 7. Order direct at www.nasamarine.com or from your local dealer.

This instrument, and software are used at your own risk. Use prudently and check operation from time to time against other data. Inspect the installation from time to time and seek advice if any part thereof is not fully seaworthy.

SeaClear PC Plotter CD software

Sea Clear software is freeware and is given freely with the AIS Engine.
Before use consult Sea Clear license conditions, particularly the last paragraph.
NASA Marine accepts no liability for page 28 of the instruction file.
Insert the disk in your CD drive and double click on the seaclear.exe icon.

CAUTION

Some vessels do not carry A.I.S. It is important at all times to keep a proper lookout.
The AIS Engine is not a substitute for good seamanship
Specification

Electronic Interface
Power input: +10Volts to + 16Volts.
RS232 interfaces:
data format: 8 bits, 1 start bit, no parity, 1 stop bit.
Connector: 9-pin D-type socket mounted on the board.

pin 2: 38,400 Baud output from Engine to PC = black to plotter NMEA input

pin 3: 38,400 Baud input to Engine from PC = red

pin 5: common (ground).= screen to plotter NMEA minus or REF

pin 9: 4800 Baud NMEA input from GPS receiver to Engine

Amplitudes: standard PC RS232 (0 to 5V)

Notes

IMPORTANT READ THIS BEFORE UNPACKING INSTRUMENT

Prior to unpacking this instrument read and fully understand the installation instructions. Only proceed with the installation if you are competent to do so. Nasa Marine Ltd. will not accept any responsibility for injury or damage caused by, during or as a result of the installation of this product. Any piece of equipment can fail due to a number of causes. Do not install this equipment if it is the only source of information and its failure could result in injury or death. Instead return the instrument to your retailer for full credit. Remember this equipment is an aid to navigation and not a substitute for proper seamanship. This instrument is used at your own risk, use it prudently and check its operation from time to time against other data. Inspect the installation from time to time and seek advice if any part thereof is not fully seaworthy.

LIMITED WARRANTY

Nasa Marine Ltd. warrants this instrument to be substantially free of defects in both materials and workmanship for a period of one year from the date of purchase. Nasa Marine Ltd. will at its discretion repair or replace any components which fail in normal use within the warranty period. Such repairs or replacements will be made at no charge to the customer for parts and labour. The customer is however responsible for transport costs. This warranty excludes failures resulting from abuse, misuse, accident or unauthorised modifications or repairs. In no event shall Nasa Marine Ltd. be liable for incidental, special, indirect or consequential damages, whether resulting from the use, misuse, the inability to correctly use the instrument or from defects in the instrument. If any of the above terms are unacceptable to you then return the instrument unopened and unused to your retailer for full credit.

Name _____

Address _____

_____

Dealer Name _____

Address _____

_____

Date of Purchase _____

Proof of purchase may be required for warranty claims.

Nasa Marine Ltd.
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Declaration of Conformity
NASA Marine Ltd declare this product is in compliance with the essential requirements of R&TTE directive 1995/5/EC.
The original Declaration of Conformity certificate can be requested at info@nasamarine.com
THIS PRODUCT IS INTENDED FOR USE ONLY ON NON SOLAS VESSELS

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