

# NASA AIS Receive Engine

## Installation/Configuration Instructions



The NASA AIS Engine allows real-time tracking of AIS equipped ships on SOB's chart display screen.

Size: 115mm x 100mm x 30mm  
Connections: 12V, RS-232, VHF BNC  
Power Consumption : 43 mA

**NMEA Sentences:**  
VDM for ITU messages 1,2,3,4,5,11 & 21  
RMC Relayed from an optional GPS

Specifications:  
[www.digiboat.com.au/sales\\_products\\_sob.htm#ais](http://www.digiboat.com.au/sales_products_sob.htm#ais)

### CONNECTING

If you only have one available SERIAL COM Port for connecting NMEA devices to your PC, or for whatever other reasons you need to connect a GPS and the NASA Engine to the same COM port on the computer, then use Option 1.

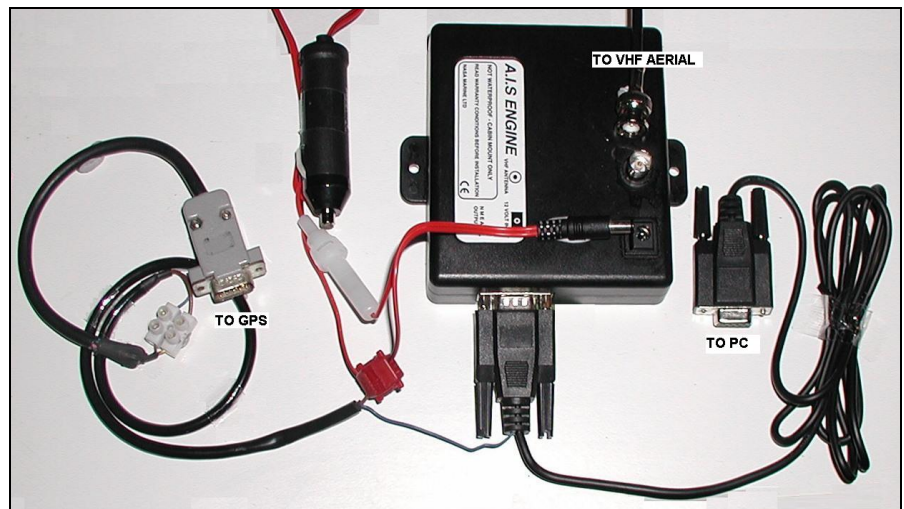
If you have your GPS connected to the computer already, and still have a spare COM port (either built-in or virtual) then connect the NASA Engine to the serial port without a GPS pass-thru, see Option 2.

#### OPTION 1:

Use this picture for help connecting a GPS to "pass-thru" the NASA Engine.

The GPS must be set for **WGS84** and **NMEA output** at 4800 baud (consult your GPS manual).

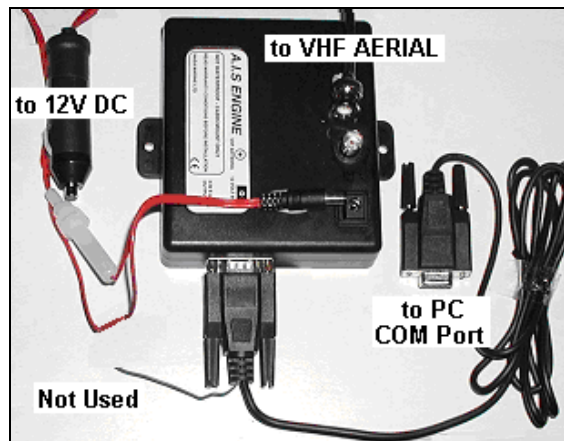
Then use **SOB\_COM.EXE** to configure **SOB** for 38400 baud for the COM port that the NASA Engine connects to on the PC. (see over page)



#### OPTION 2:

If your GPS is connected separately to the PC (ie: USB, Bluetooth, or connected through a Multiplexer) then simply connect your NASA as illustrated.

Still use **SOB\_COM.EXE** to set the PC's COM port for 38400 baud. (see over page)



Continue over the page to determine COM port to use and configure SOB to use it...

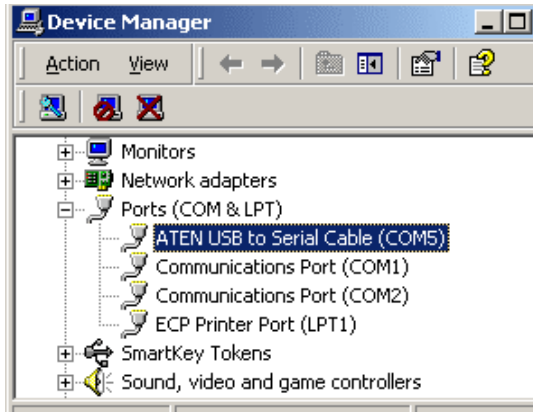
## DRIVER INSTALLATION

No driver is required if connected to a Serial COM port.

If you have no available COM ports on your computer, then use a **USB to Serial Converter** to create a "virtual" COM port.

## IDENTIFY AVAILABLE COM PORTS

Use **SOB\_PORTS.EXE** or **Device Manager** to confirm the existence of COM ports and determine the COM numbers assigned to them.



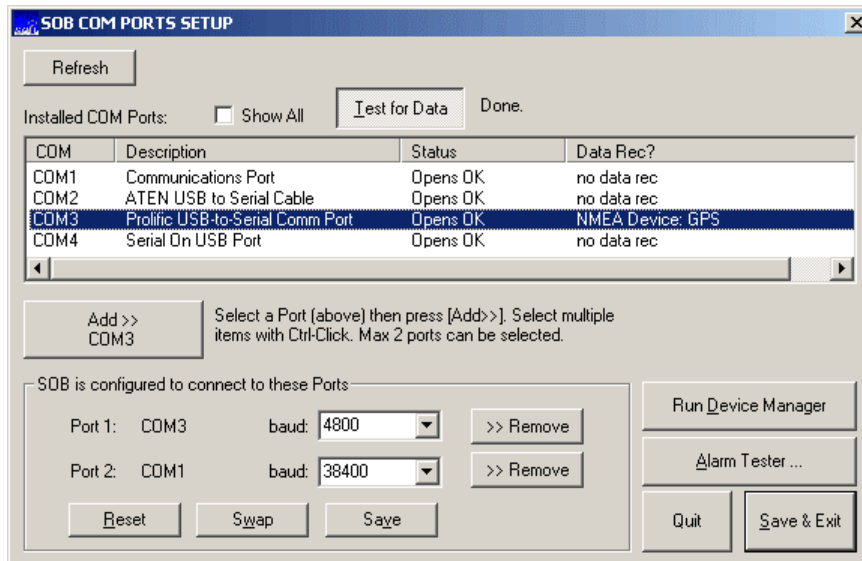
### Running Device Manager

Device Manager is a Windows™ utility program that is very awkward to find.

The easiest way to run Device Manager is to select **Run** from the **Start** menu, then type **devmgmt.msc** and [OK].

**SOB\_PORTS.EXE** is a SOB utility program for configuring the COM ports that SOB will use to communicate with GPS, AIS and any other NMEA compatible instruments.

SOB\_PORTS is installed in the **SOBvMAX** folder, or can be downloaded from the website [www.digiboat.com.au](http://www.digiboat.com.au)



In this example, the NASA could be configured to connect to COM1, COM2 or COM4 (COM2 & 4 are "virtual" ports created by "USB to Serial Converters"; COM3 is the virtual port for a USB GPS).

The **NASA AIS Receiver** will require a speed (baud rate) setting of **38400** to communicate correctly.

## START SOB, CONFIRM DATA RECEPTION

When you next start SOB, double-click the chart surface to display the **Raw NMEA Data** form. The "NMEA data Source" box at the top right will reflect the settings made with SOB\_COM.

A steady stream of GPS data, like the sample below, should be scrolling in the data window:

```
$GPGLL,3637.320,S,17452.979,E,234541
!AIVDM,1,1,,A,144jDo000105tHdNCVocVT<40@1n,0*58
$GPGGA,234542,3637.323,S,17452.980,E,1,11,0.9,26.9,M,28.9,M,0
$GPGSA,A,3,05,06,10,15,17,18,23,24,26,29,30,0,1.5,0.9,1.
$GPGSV,3,1,11,05,10,341,38,06,64,239,44,10,52,138,45,15,08,259,3
```

Note: the \$GPxxx sentences are from a GPS, the !AIVDM sentence is from the AIS receiver

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**WARRANTY 3 MONTHS:** Please return in original or suitable packaging with a copy of the Invoice/Receipt. Item will be repaired or replaced at the discretion of our technical department.

**RETURNS/REFUNDS:** Item will be refunded if returned within 30 days of the date of the invoice/receipt. Items must be returned in undamaged condition in original packaging. Refund amount will be purchase price less 10%.