

Matsutec[®]

**AIS Identifier for small vessel
AIS Fishing Net Tracking Buoy**

HAB-80

AIS Identifier for small vessel / AIS Fishing Net Tracking Buoy

MODEL:HAB-80



**NEW
VERSION**

Feature:

- ▶ Professional reliability RF performance
- ▶ Intergrated GPS antenna and VHF antenna sealed inside toughened outer shell
- ▶ Transmits Full AIS messages
- ▶ Configurable transmit intervals, Can Connect to PC to program the MMSI data, Vessel name etc. data with programming kit
- ▶ Can set up password, the MMSI and vessel name can't be changed without the password, in ase the product was lost or stolen, it can be easily find out once it be used
- ▶ Built-in rechargeable battery with more than 240 hours
- ▶ High-level waterproofing protection up to IPX7

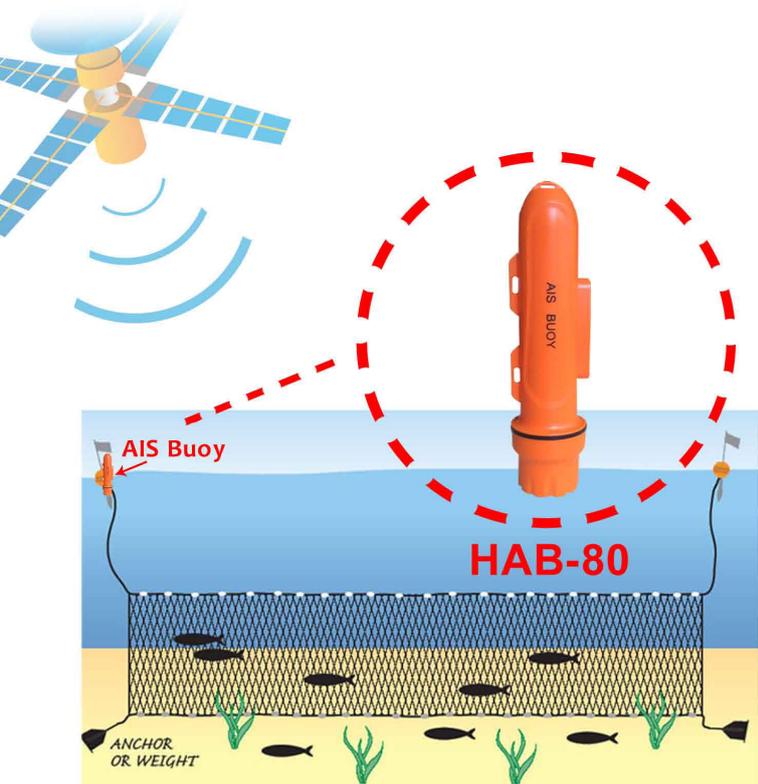
Proved Performance

- ▶ Up to 10nm range long distance for tracking, idea for tracking small vessel or fishing net

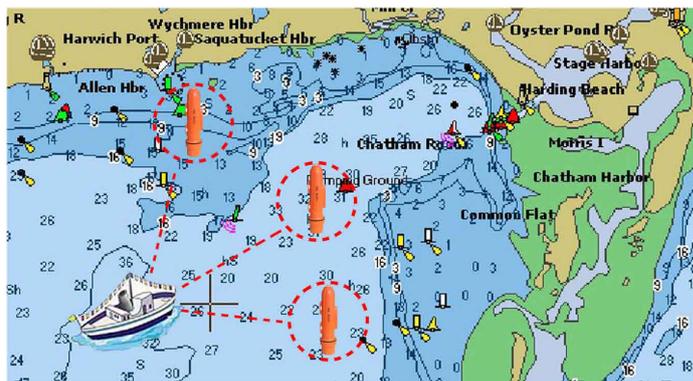
Application

Wanting for an accurate location of your fishing net? Wanting to save your time and fuel to find your net?

Self developed AIS Fishing Net Tracking Buoy, allows you to get an accurate location at night, in rain, and fog. Don't worry about losing your fishing net anymore!



HAB-80 AIS Fishing Net Tracking Buoy unit uses advanced AIS technology to transmit the combined data that include the unique ID and the position of a net. And the data can be received effectively by the vessel equipped with AIS device, then easily recognized and find back the nets with HAB-80. Also it can avoid collision accidents by other boats.



Specification

Standards:

- IEC62287-1: 2006-03
- IEC60945: 2002
- ITU-R M.1371-2

Position update:

every 3 minutes

Working frequency:

161.975MHz / 162.025MHz

Output power:

34.8dBm±1.5dBm

Channel bandwidth:

25 KHz

Modulation mode:

GMSK

Bit Rate:

9600b/s±50ppm(GMSK)

Dimension:

330 mm x 90mm

Weight:

0.5 KGS

Battery:

8.4V, 4000mAh; rechargeable

Working time:

More than 240 hours

Antenna:

Built-in VHF/GPS antenna

GPS Module:

IEC61108-1 standard

Working Environment:

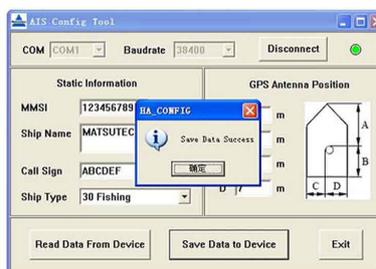
-20C – 55C

Waterproofing:

IPX7

Equipment List:

- HAB-80 Tracking Buoy unit
- Battery recharger



Instructions for Matsutec AIS Configuration

1. Requirements

- a. Matsutec AIS device, model HAB-80
- b. Computer (OS Windows)
- c. USB adapter cable
- d. Application software HA_CONFIG.exe

2. Procedure

- 2.1 Install the USB driver in order to drive the USB adapter cable.

Run the attached file PL2303_Prolific_DriverInstaller.exe in the disk.

Note:

Make sure to install the USB driver of the adapter properly.

- 2.2 Connect the Matsutec AIS device with the computer.

Use the attached USB adapter cable to connect the HAB-80 with the computer.

Insert the USB adapter to the USB port of the computer, it could be recognized by the computer and mapped to a new com port.

Note:

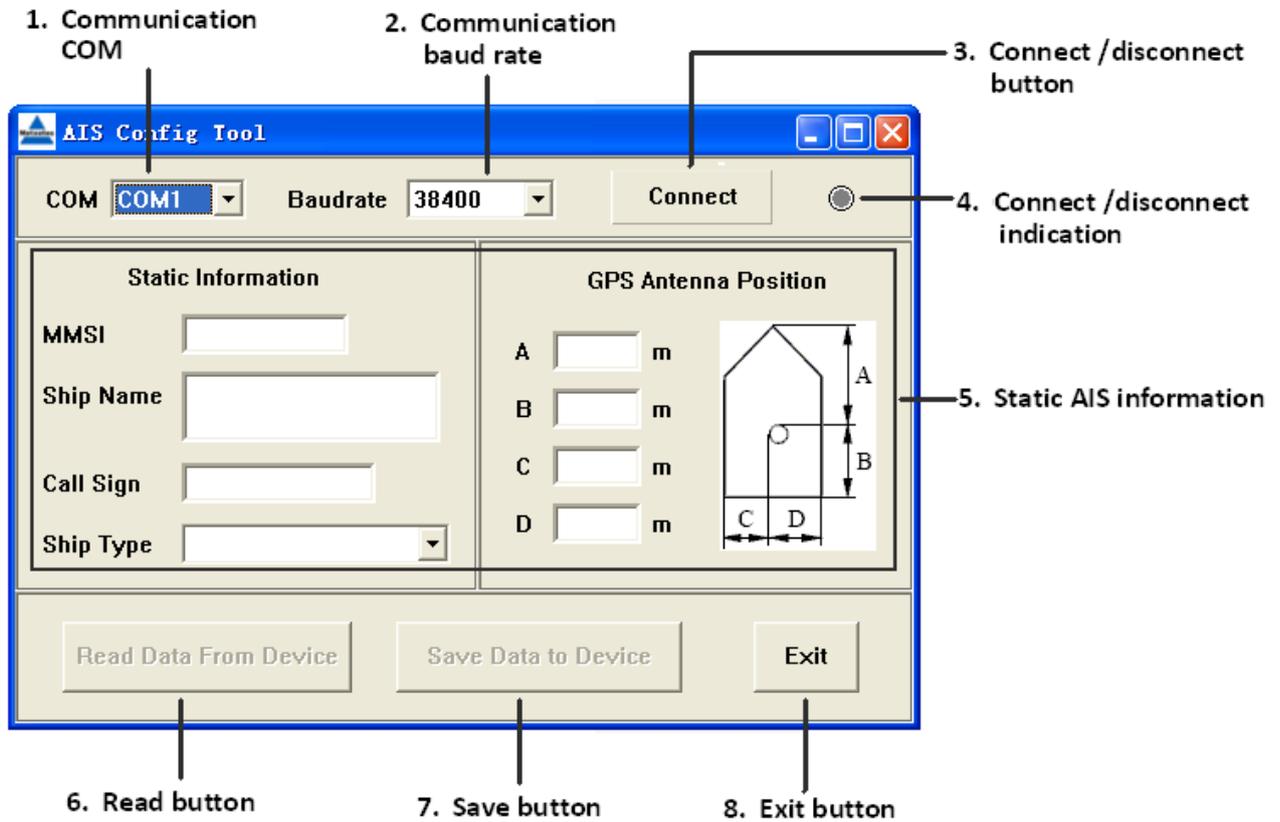
Get the correct com port number from the com port property on the device manager of the computer.

- 2.3 Power on the AIS device.



2.4 Run the application HA_CONFIG.exe.

Below shows the illustration and definition.



Definitions:

1. Communication COM

The com port on the computer that is to communicate with the AIS device

2. Communication baud rate

The baud rate of the com port to communicate with the AIS device

3. Connect /disconnect button

Click to switch between com port connect and disconnect.

4. Connect /disconnect indication

Disconnected

Connected

5. Static AIS information

- a) 9 digits for MMSI
- b) Max 20 capital characters for ship name
- c) Max 7 capital characters for call sign
- d) Ship type list. Choose from the list
- e) Dimension of the ship, Bow A, Stern B, Port C, Starboard D.

Note: c), d), e) are de-active on HAB-80.

6. Read button

To read and show the static configuration of the AIS device

Button de-active when AIS device is disconnected.

Button active when AIS device is connected

7. Save button

To program the edit static configuration to the AIS device

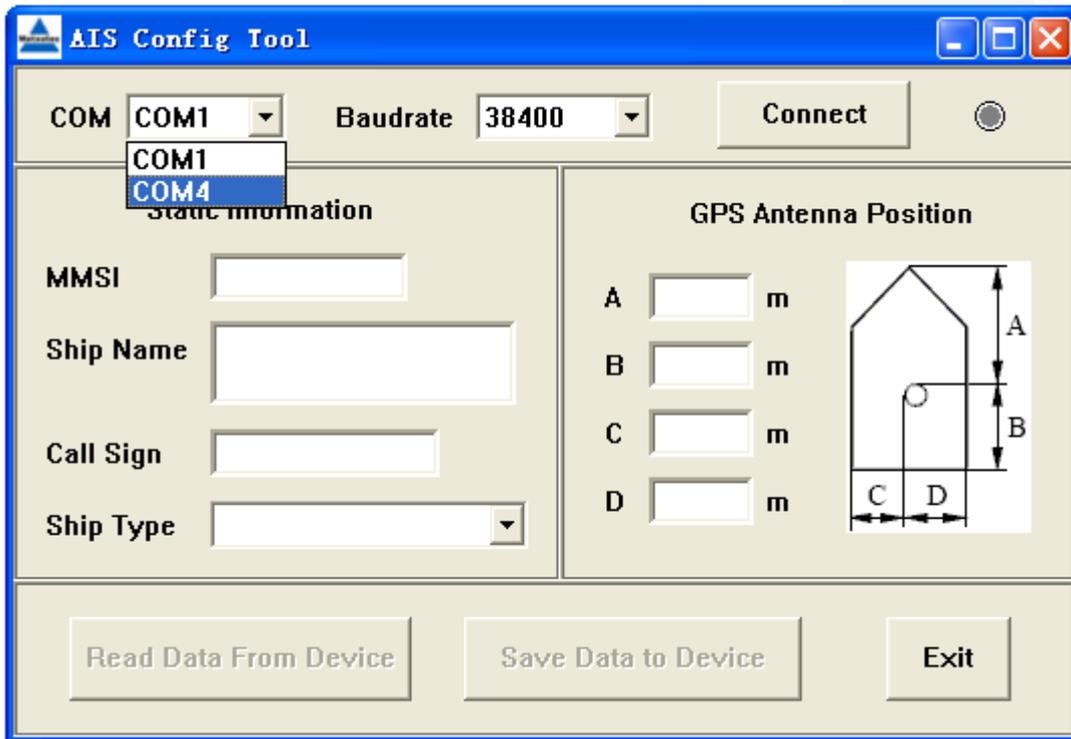
Button de-active when AIS device is disconnected

Button active when AIS device is connected

8. Exit button

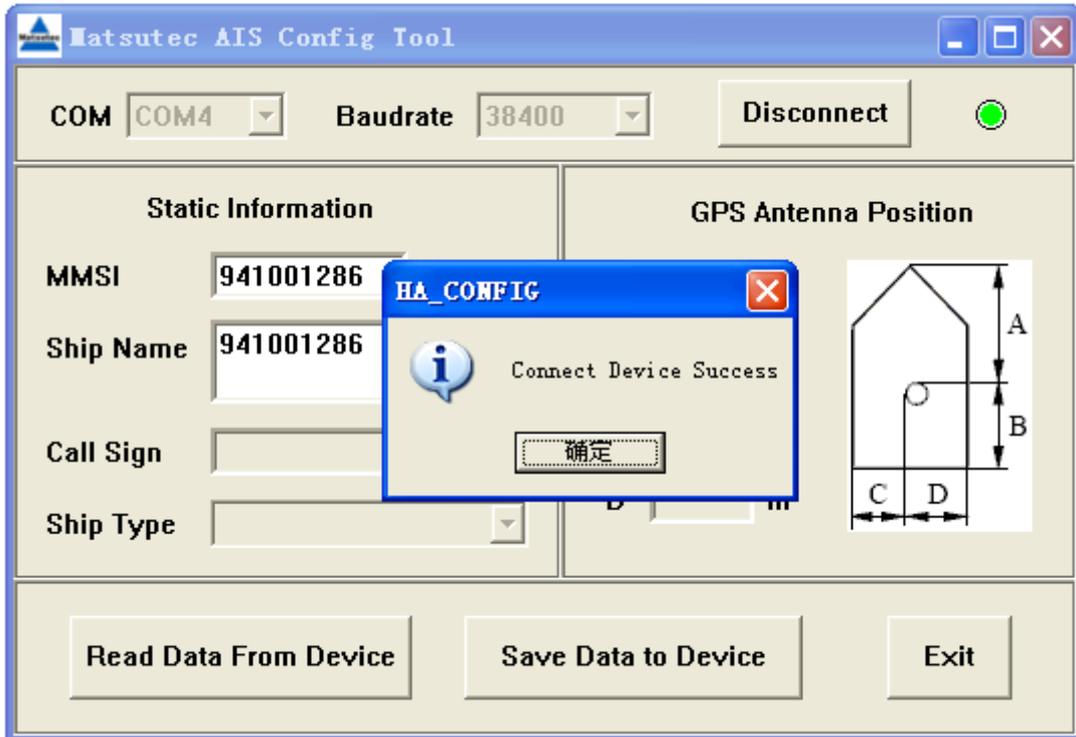
To exit from the application

- 2.5 Select the correct com port that the USB adapter cable is recognized by the computer.
Use the default baud rate 38400bps.



- 2.6 Click the **[Connect]** button on the right side to setup a connection between the application and the AIS device.

It will return “Connect Device Success” and update the current static configuration of the AIS device.



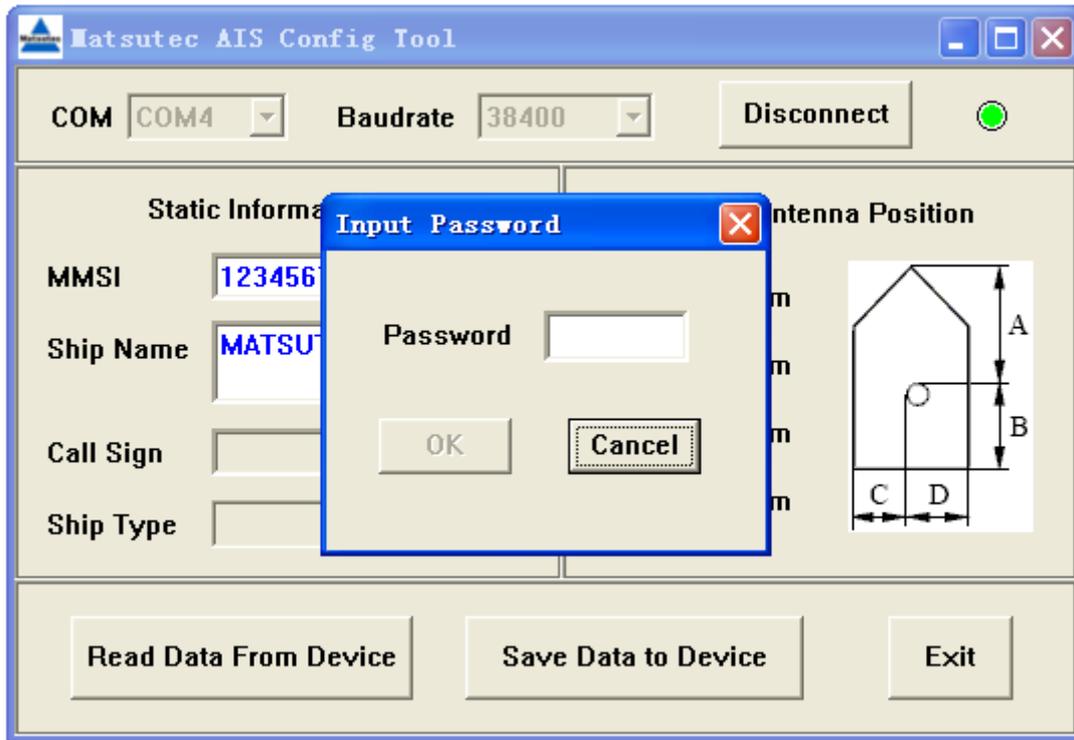
*For model HAB-80, only MMSI and Ship Name are active, other items are de-active.

- 2.7 Edit the static data, make it of your own unit.
Changed items will show in color BLUE.

The screenshot shows the 'Matsutec AIS Config Tool' window. At the top, there are dropdown menus for 'COM' (set to COM4) and 'Baudrate' (set to 38400), a 'Disconnect' button, and a green status indicator. The main area is divided into two panels: 'Static Information' and 'GPS Antenna Position'. The 'Static Information' panel contains fields for 'MMSI' (123456789), 'Ship Name' (MATSUTEC), 'Call Sign', and 'Ship Type'. The 'GPS Antenna Position' panel has four input fields labeled A, B, C, and D, each followed by a unit 'm'. To the right of these fields is a diagram of a ship's hull with a GPS antenna mounted on the deck. Dimension lines indicate that 'A' is the height from the waterline to the antenna, 'B' is the height from the deck to the antenna, 'C' is the distance from the left side of the hull to the antenna, and 'D' is the distance from the right side of the hull to the antenna. At the bottom of the window, there are three buttons: 'Read Data From Device', 'Save Data to Device', and 'Exit'.

2.8 Click the **[Save Data to Device]** button to program the AIS device.

A password is needed.

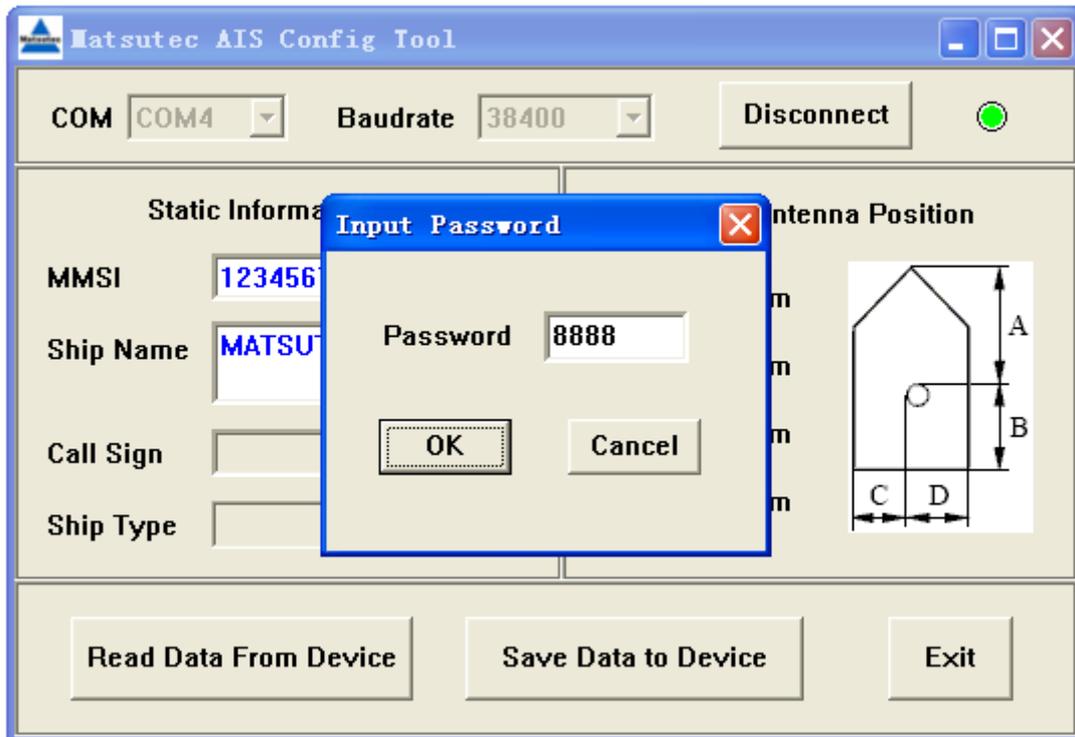


Input the password, click [OK].

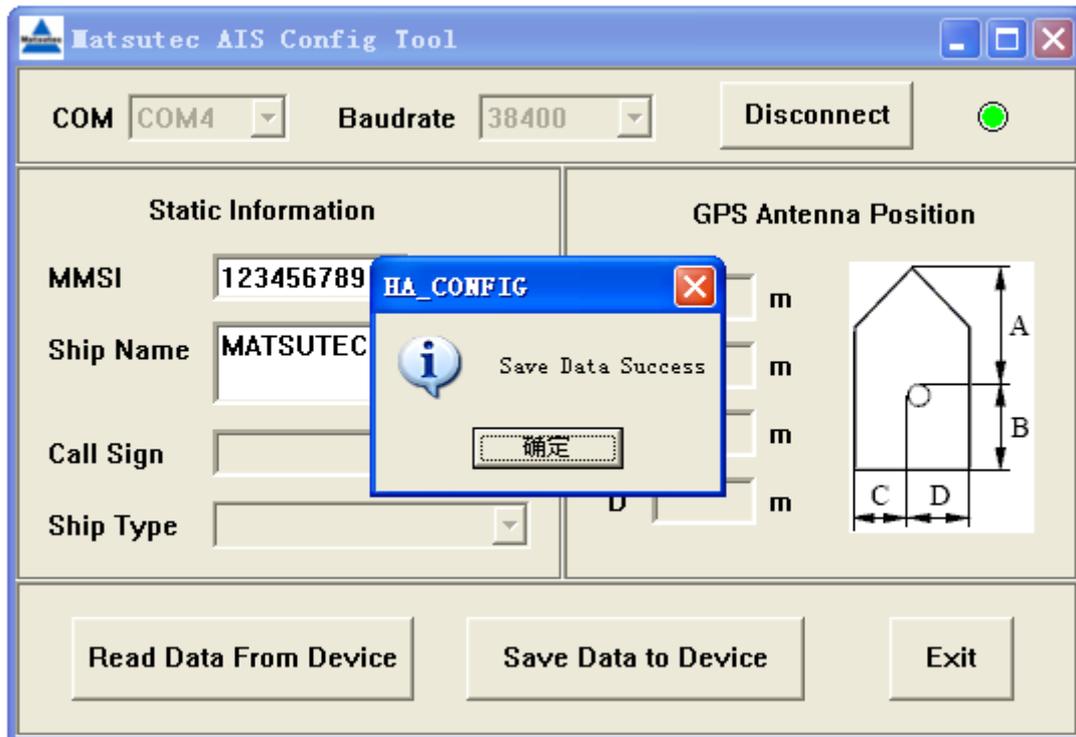
Note:

The initial password is 8888.

You can change the password. Please refer to chapter 2.9 Set New Password.

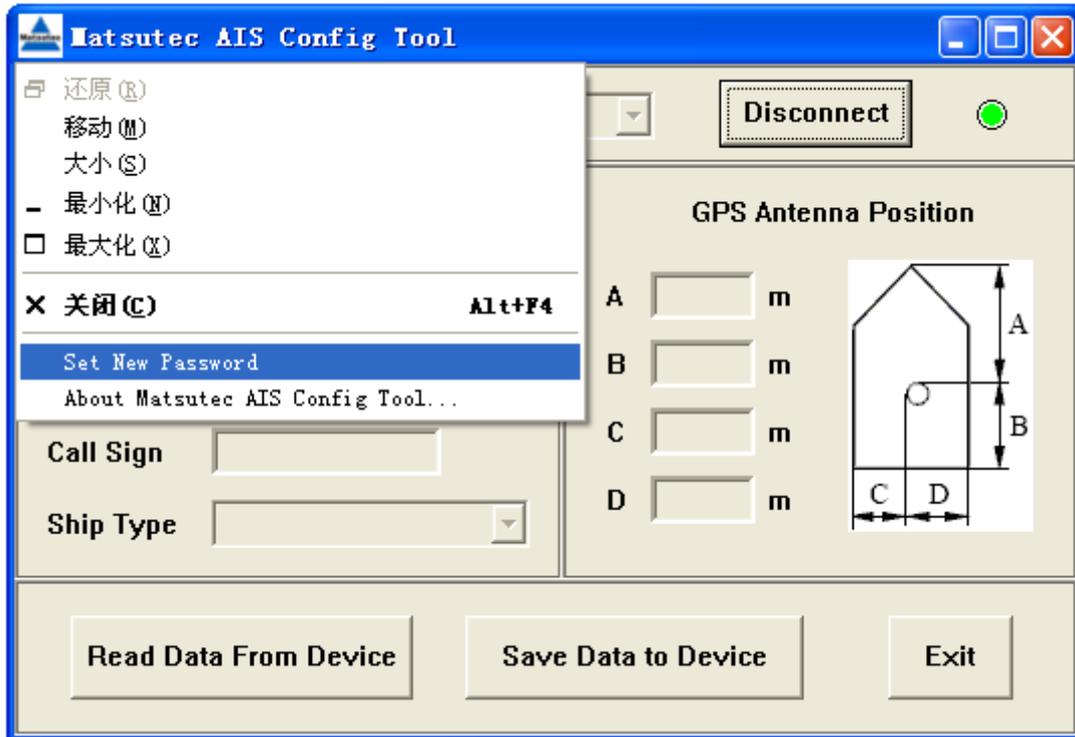


It will return “Save Data Success” and update the current static configuration of the AIS device when the password is correct, otherwise it will return “Save Data Fail!”.

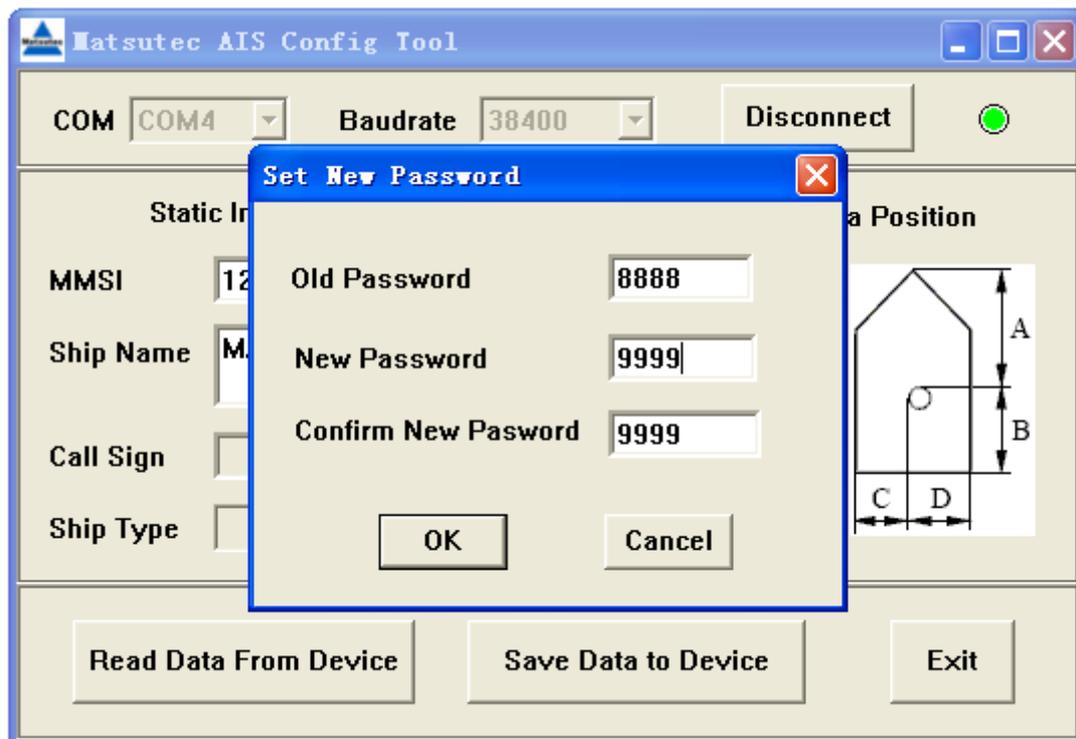


2.9 Set New Password.

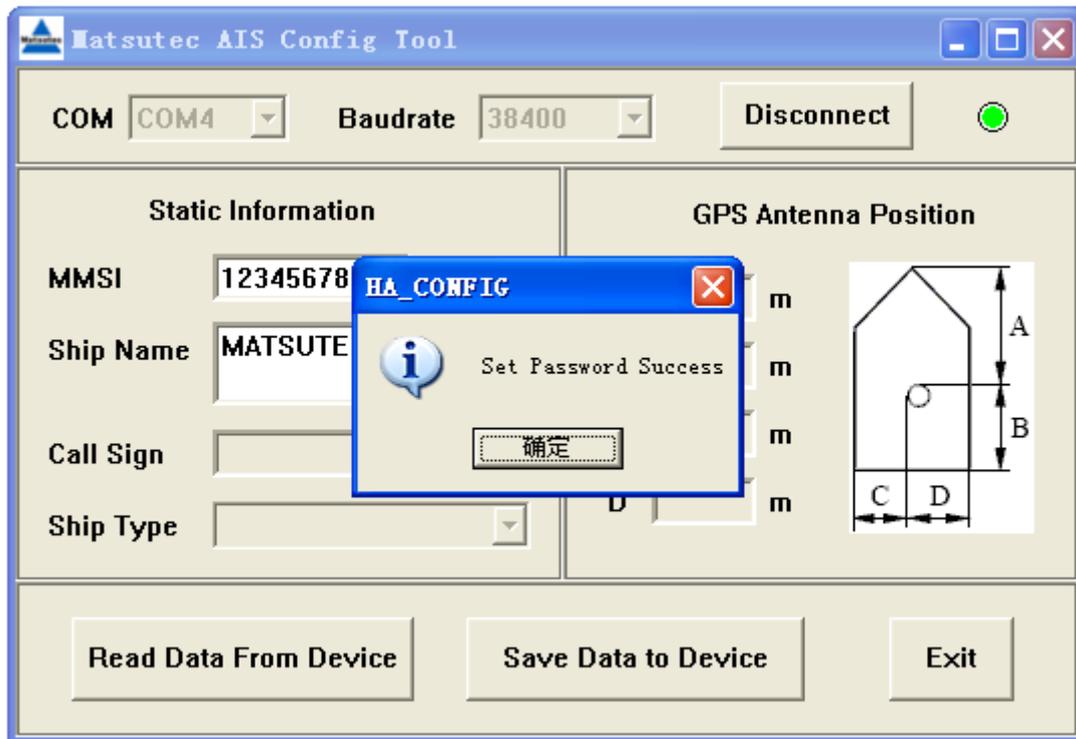
Click the logo  on the upper left side of the window to get the dropdown menu, and select the item Set New Password.



Input the old password and new password, then click [OK].



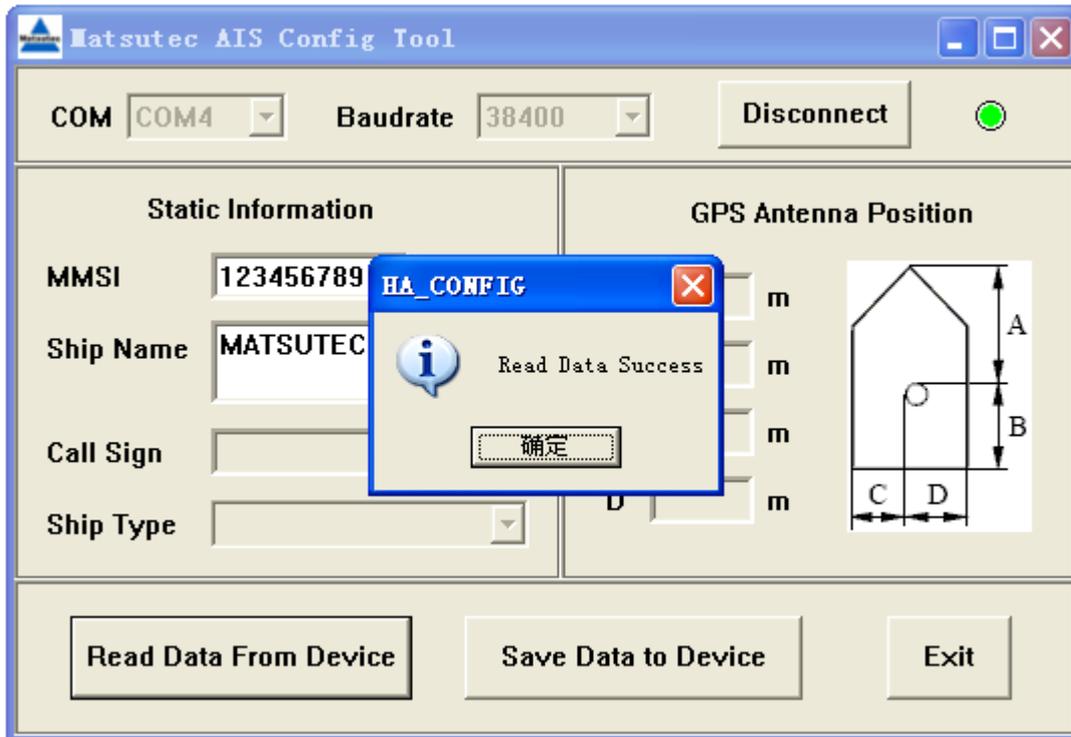
It will return "Set Password Success".



Remember the new password, next time when you program MMSI and ship name, you need input the new password.

2.10 Click the **[Read Data From Device]** button to get the current configuration.

It will return “Read Data Success” and update the current static configuration of the AIS device.



Appendix 1 Troubleshooting

| Type | Symptom | Remedy |
|--|---|--|
| COM Port Error |  | <p>The port is not recognized or could not be used. This fault is normally irrelevant to the AIS device. Check the computer port connection.</p> |
| Communication Fails |  | <p>Communication fails.</p> <ol style="list-style-type: none"> 1. AIS device power on? 2. Use the wrong com port to communicate? 3. Confirm the wire connection. |
| Password Error |  | <p>Password Error.</p> <ol style="list-style-type: none"> 1. Please confirm input the correct password. |
| Could not input in the edit box of MMSI, ship name, call sign. | | <ol style="list-style-type: none"> 1. Confirm <ul style="list-style-type: none"> 9 digits for MMSI Max 20 capital characters for ship name Max 7 capital characters for call sign 2. Delete the space characters at the end of the line and input again. |