

# ***Futronic MKII*** MANAGER (PC SOFTWARE) User Manual

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## INTRODUCTION

Futronic MKII manager allows you to:

- View all test results and save them to a PC
- Compose custom-made DSC messages
- Compose custom-made AIS messages
- Perform test box settings that cannot all be done on the test box itself
- Perform PC-controlled EPIRB tests and generate complete finished EPIRB Test Reports
- Monitor NMEA messages to detect suspected errors on the NMEA 0183 version 2.
- Determine the VHF channels to be tested for sensitivity
- Upgrade your test box with new facilities purchased from Danphone

### How to download and install

- 1) Download Futronic MKII manager from Danphones' website:  
<http://danphone.com/futronic-gmdss-testers/futronic-mkii/>
- 2) Open the zipped file.
- 3) Double click on the file **Installation guide** and follow the instructions.



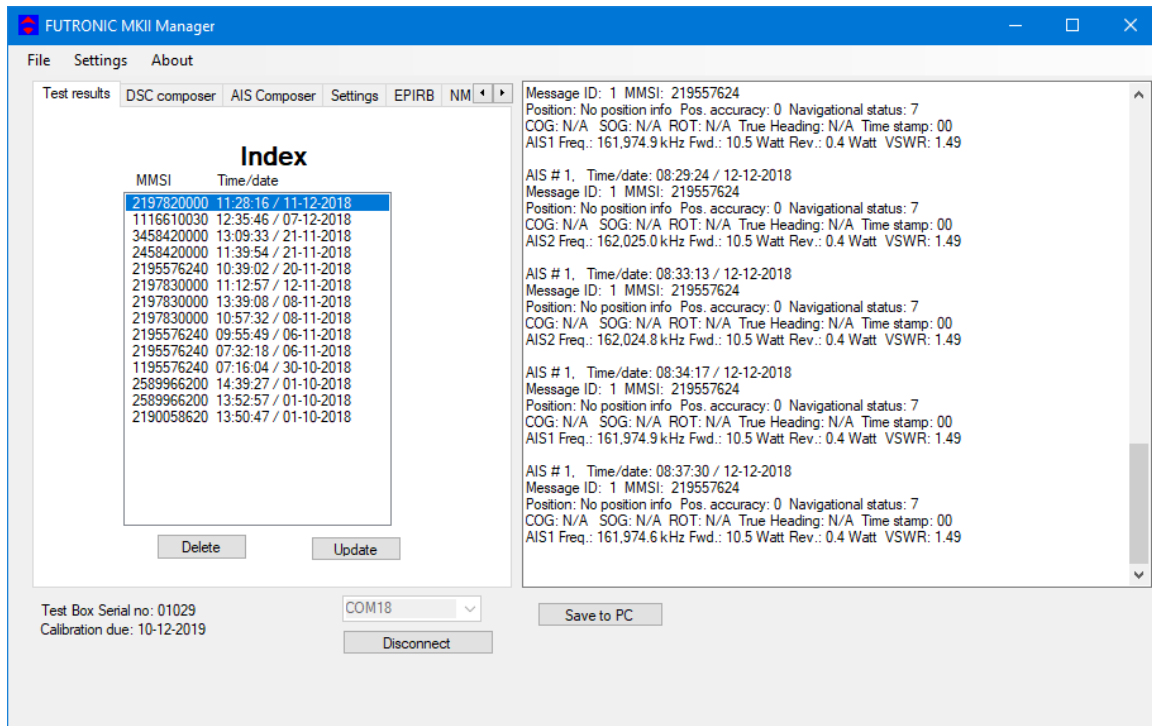
- 4) Once installed, the PC program will open a 6-tabbed dialogue box on your PC screen:

**Test Results - DSC Composer - AIS Composer - Settings - EPIRB - NMEA - Sensitivity - Upgrade**

The tabs are explained on the following pages.

# TEST RESULTS

The *Test Results* tab provides access to all the tests and test results stored in the test box.



Tests are organized with a header in the Index window to the left, under which the individual test results are displayed in the window at the right hand side.

Headers are indexed in time order with the latest test on top.

*Please note: In order to view a test result, you must select its header first.*

Press **Save to PC** in order to save the test results on your PC and to bring them into your own test report format, if so wished.

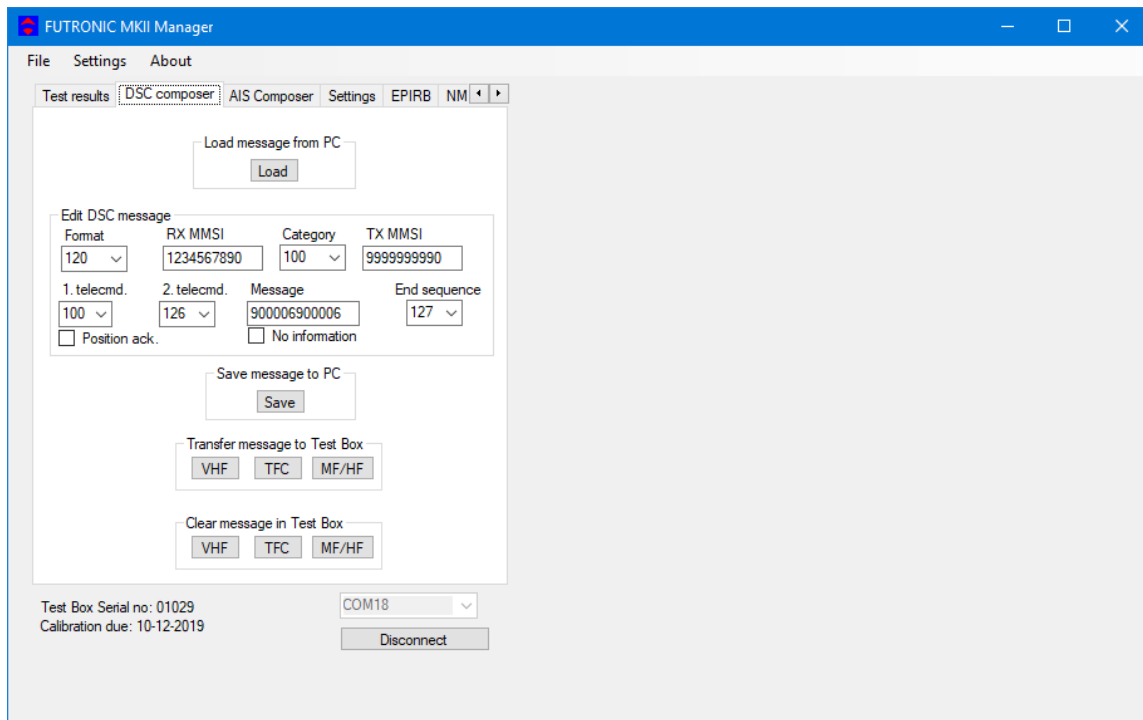
Press **Update** to update the Index list with new tests performed after you opened the PC program.

Press **Delete** to delete a test from the Index list.

Press **Disconnect** to disconnect the test box from your PC.

## DSC COMPOSER

Under the *DSC Composer* tab you can compose your own custom-made DSC messages and transfer them to the test box accordingly.



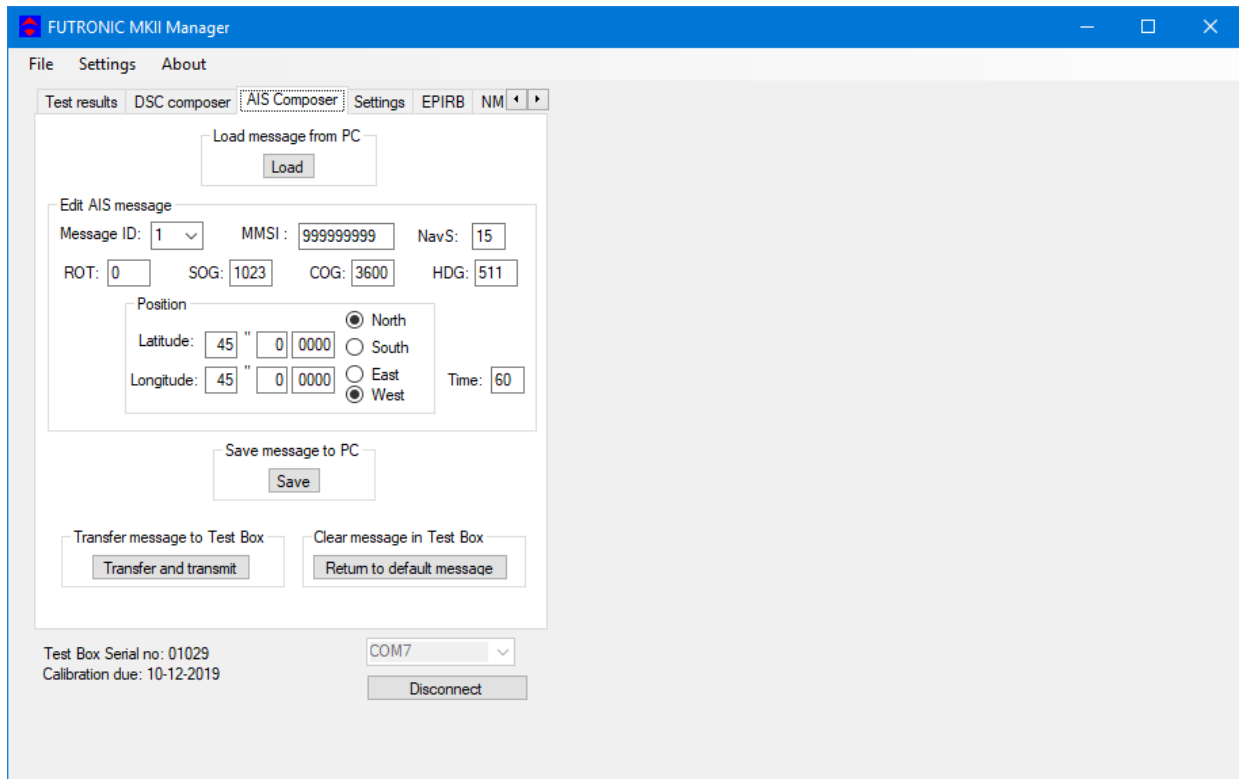
Please refer to ITU-R M.493 for composing of DSC messages.

The test box can contain one DSC message for VHF, TFC and MF/HF respectively.

Custom-made DSC messages can also be saved on your PC for later use.

# AIS COMPOSER

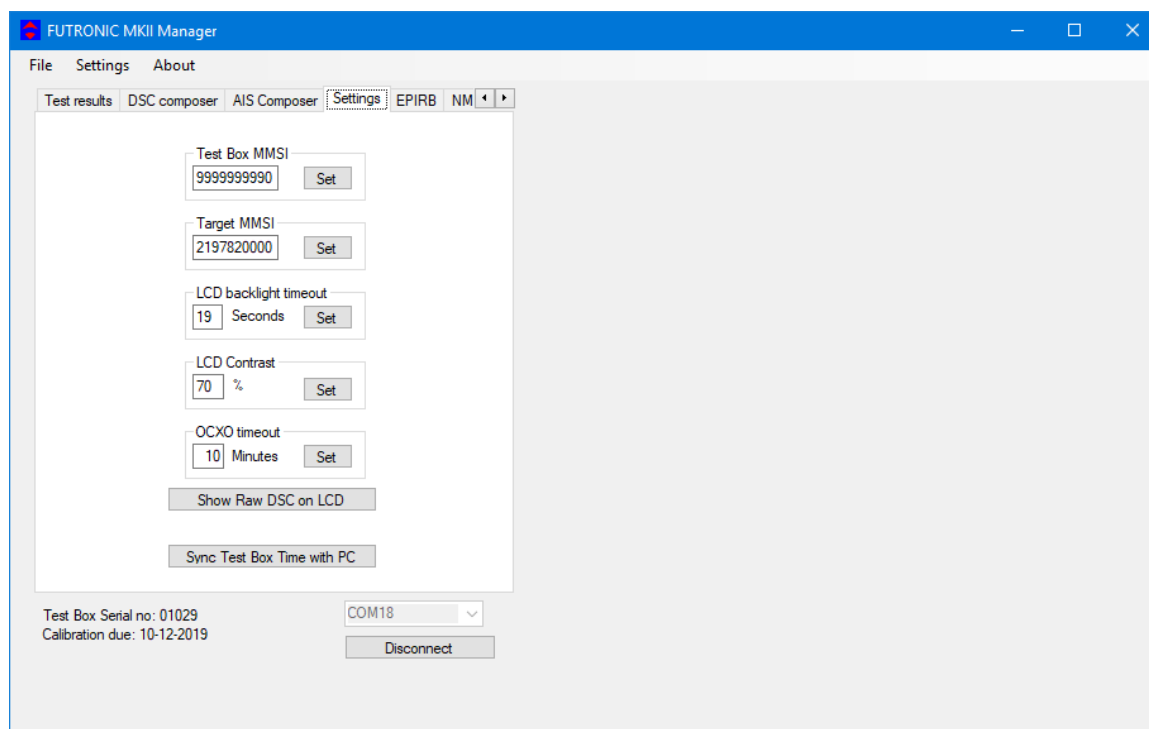
Under the *AIS Composer* tab you can compose and save your own custom-made AIS messages.



When transferred to the test box, the AIS message will be transmitted on both AIS channels, AIS1 and AIS2.

# SETTINGS

The *Settings* tab allows you to change the test box settings.



**Test box MMSI:** Write and set new MMSI number for the test box here.

**Target MMSI:** Write and set MMSI number of the device to be tested here.

**LCD backlight time out:** Write and set backlight time out between 0 and 200 seconds here.

**LCD contrast:** Write and set contrast between 0 and 100% here.

**OCXD time out:** Write and set OCXO time out between 0 and 99 minutes here.

**Show raw DSC on LCD:** Click here to have raw DSC data presented in the display along with clear text.

**Sync Test Box Time with PC:** Click here to synchronize the current date and time in the test box with the date and time in your PC.

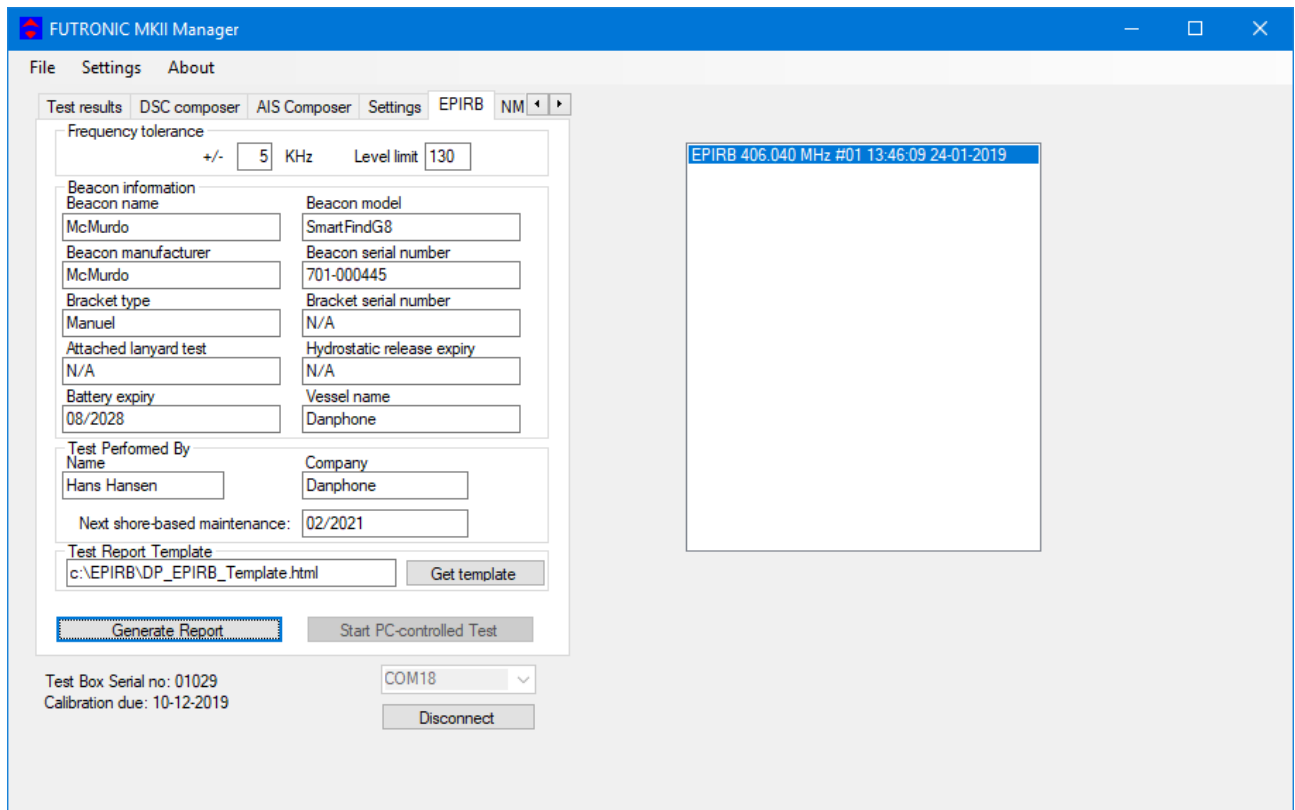
# EPIRB TEST REPORT GENERATOR

The *EPIRB* tab offers two options:

1. Generation of complete EPIRB test reports out of test results from the test box,
2. PC-controlled EPIRB testing and simultaneous generation of test reports.

## 1. Generating reports out of stored test results

This feature allows you to generate complete EPIRB test reports out of the test results stored in the test box.



- 1) Select the EPIRB test from the list at the right hand side. If there is no list, go to the “Test results” tab and select from the Index a header that contains the relevant EPIRB test. Then return to the “EPIRB” tab.
- 2) Fill in the beacon information form in the EPIRB dialogue box at the left hand side.
- 3) Press “Generate Report” to create the EPIRB Test Report (HTML format).



See example of an EPIRB Test report on the next page.

During the installation of the Futronic MKII manager, a default report template has been placed in C:\EPIRB\ on your PC. Feel free to use this HTML document as the basis for creating your own layout or design, if so wished. Then, press “Get template” and select the new one from your file system instead of the default template.

*Please note: Default limits of the frequency tolerance and minimum signal level are +/- 5 kHz and 190 respectively. Other limits may be inserted in accordance with specifications. Should the limits be exceeded during test, the report will write “Failed” in the status line.*

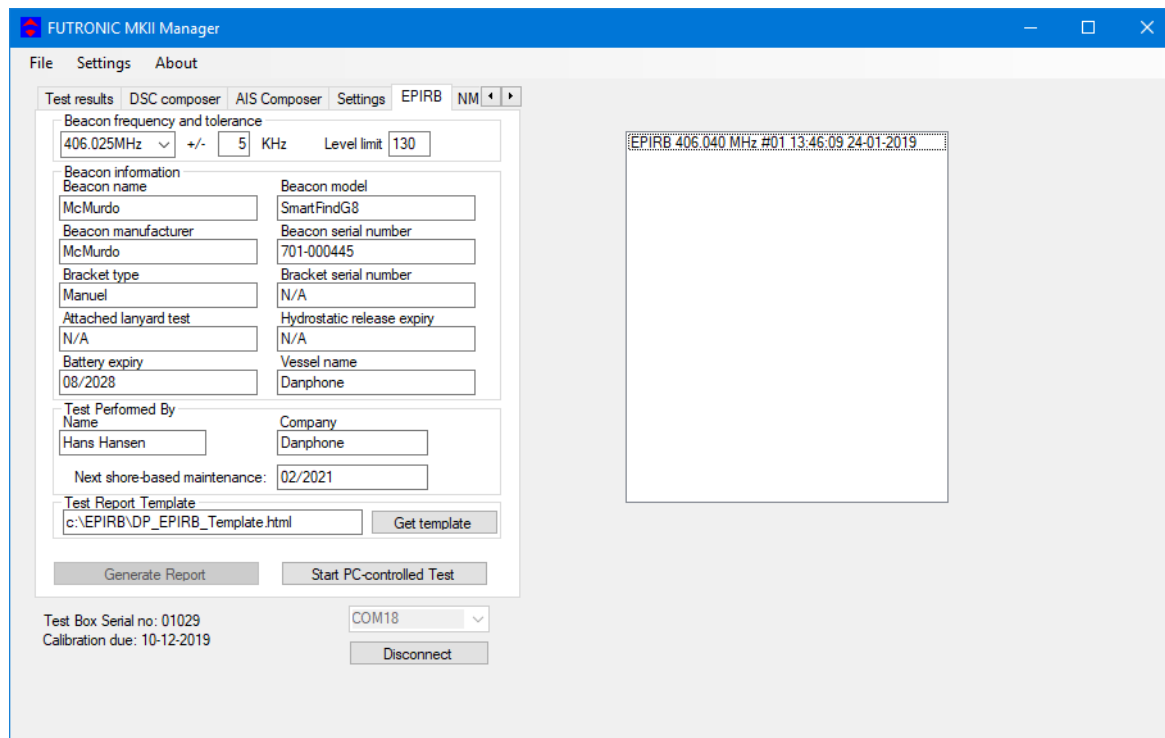


Example of Test Report based on the default HTML design:

<h1>EPIRB Test Report</h1>	
<b>Beacon Data</b>	
Beacon manufacturer:	McMurdo
Beacon name:	McMurdo
Beacon model:	SmartFindG8
Beacon serial number:	701-000445
Beacon frequency:	406.040 MHz
Bracket type:	Manuel
Bracket serial number:	N/A
Hydrostatic release expiry:	N/A
Battery expiry:	08/2028
Attached lanyard test	N/A
<b>Beacon Location</b>	
Vessel name:	Danphone
<b>Test Results</b>	
Frequency measured:	406.039,9 MHz
RF level measured:	230
Status:	Passed
Message decoding:	BCH code check ok
Hex message:	FFFED08DB203CA117FDFFC1E027783E0F66C
Message format:	Long format - Self-Test mode
Protocol:	Standard Location Protocol
Country code:	219
Unique ID:	1B64079422FFBFF
Decoded message:	MMSI: 015521 Specific Beacon: 1 Encoded position data source: Internal Latitude: default Longitude: default 121.5 MHz Homing: Yes
Date for next shore-based maintenance:	02/2021
<b>Test Instrument</b>	
Serial number:	Futronic MKII Test Box 01029
Calibration due:	10-12-2019
<b>Test Performed</b>	
Time / Date:	13:46:09 24-01-2019
Company:	Danphone
Test responsible:	Hans Hansen
Signature:	
Futronic MKII Maritime Communications Test Box manufactured by 	

## 2. PC-controlled EPIRB tests

In addition to generating test reports from EPIRB tests stored in the memory, the EPIRB tab also enables you to perform PC-controlled EPIRB tests generating test reports automatically. With this, the system will not transfer the test results to the test box, but still generate finished test reports that can be stored in your PC.

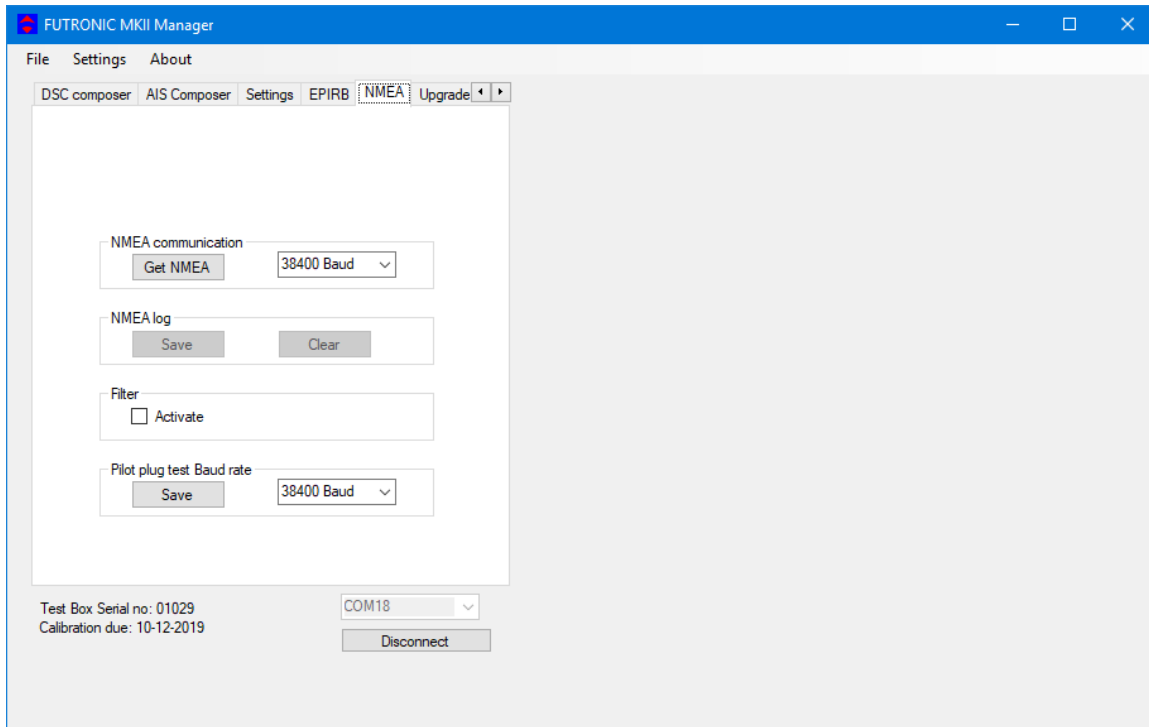


- 1) Turn the test box on. No need to select EPIRB tests, your PC will take control.
- 2) Deselect all tests from the header list at the right-hand side, if any.
- 3) Select frequency in the EPIRB dialogue box at the left-hand side and fill in the beacon information form.
- 4) Press "Start PC-controlled Test" and then activate the EPIRB.
- 5) Wait for the EPIRB Test Report to be automatically generated (HTML format).

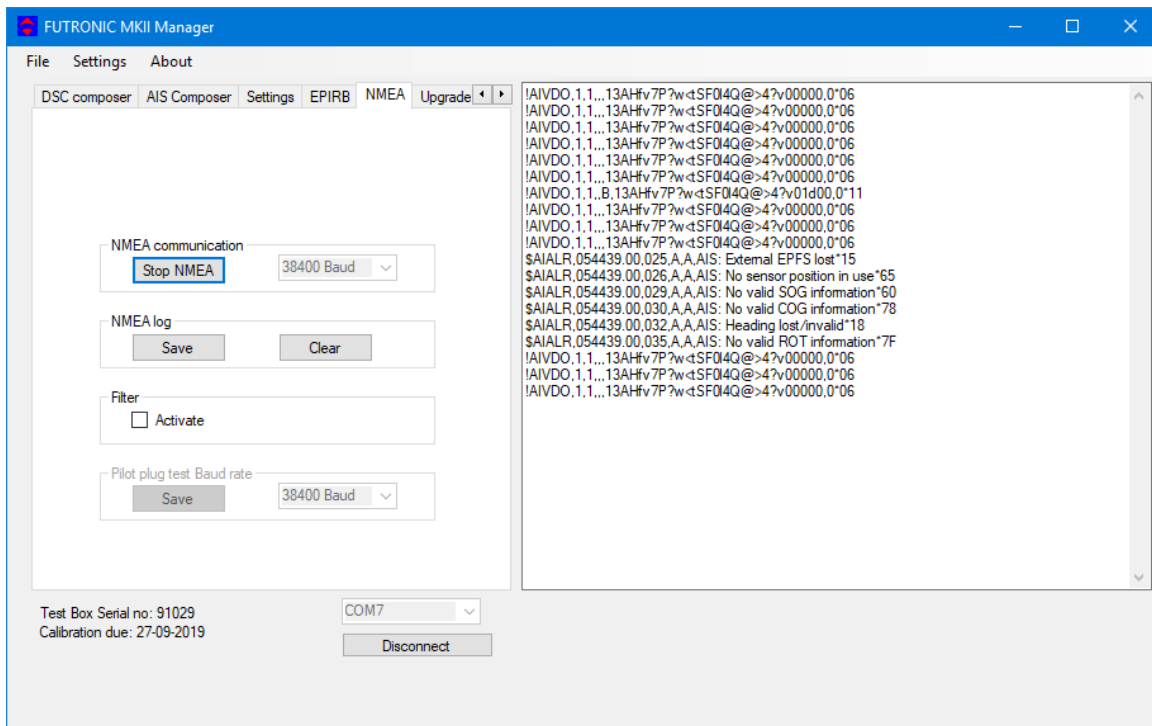
See example of an EPIRB Test report on the previous page.

# NATIONAL MARINE ELECTRONIC ASSOCIATION (NMEA)

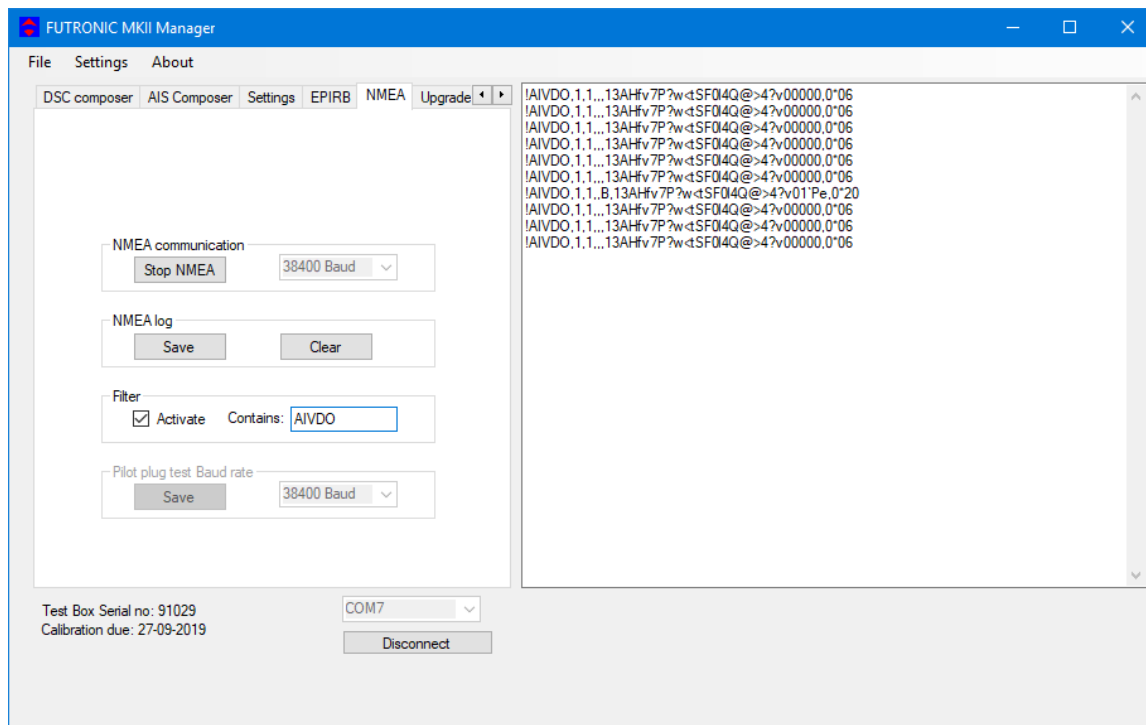
The *NMEA* tab enables monitoring of NMEA 0183 version 2 messages.



This feature enables monitoring of NMEA supporting units by retrieving NMEA messages via the pilot plug. Connect the NMEA bus to the pilot plug on the Futronic test box and press **“Get NMEA”**. The test box automatically transfer the requested messages to the PC. All messages can be saved as text files.

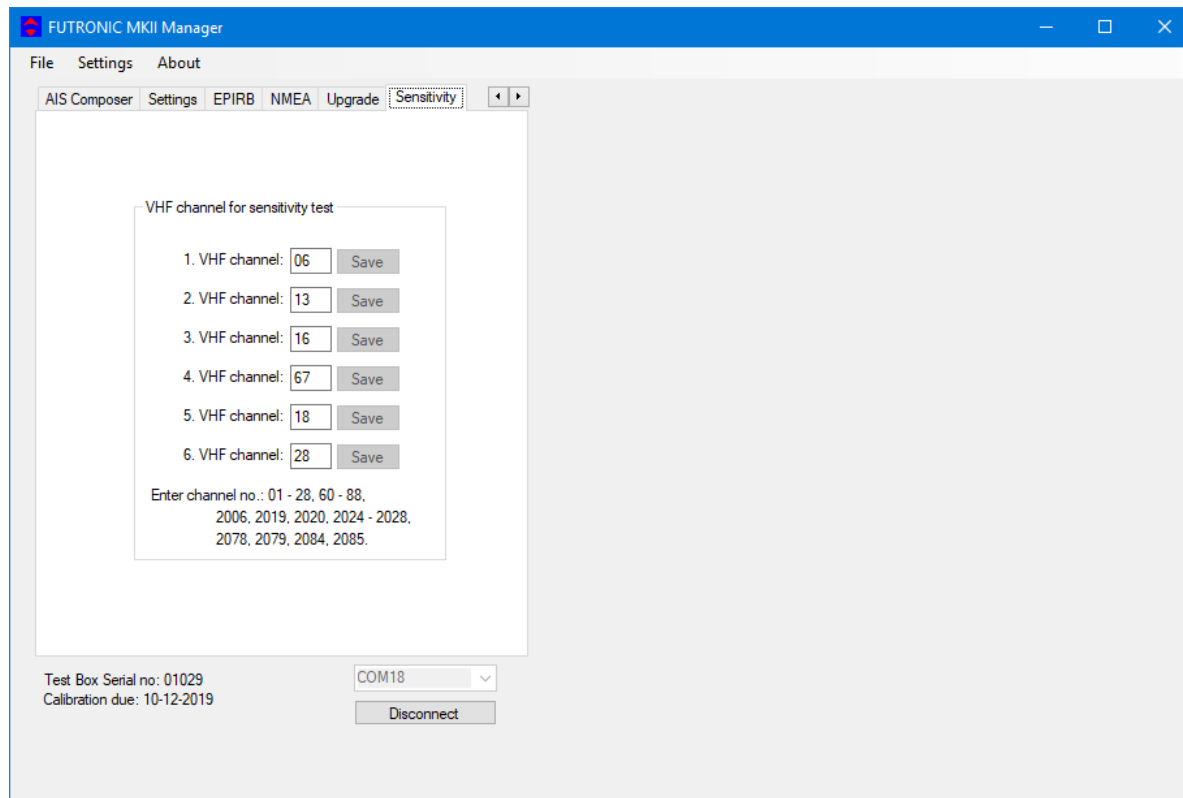


Activate filter to restrain the messages to one type.



## VHF SENSITIVITY TEST

The *Sensitivity* tab enables determination of the VHF channels to be tested for sensitivity.



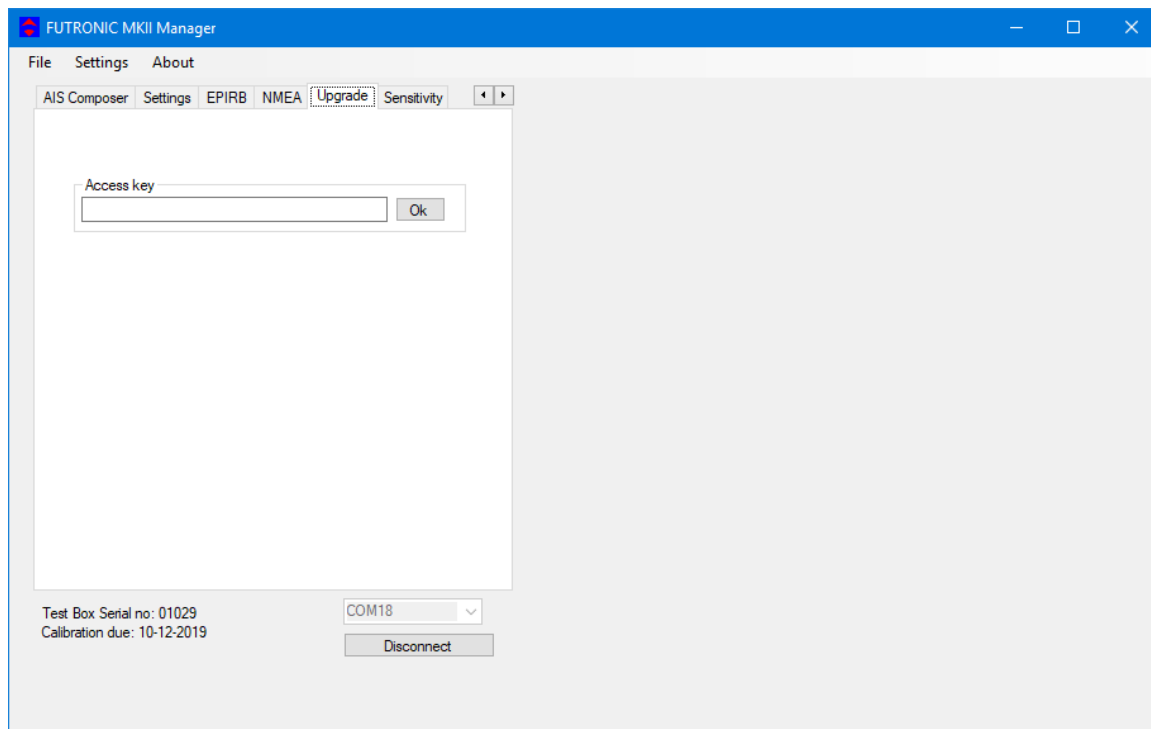
Futronic MKII manager allows you to configure the Futronic test box on 6 selected VHF channels. Set the VHF channel between 01 – 28 or 60 – 88, 2006, 2019, 2020, 2024 – 2028, 2078, 2079, 2084, 2085 and press “**Save**”.

The channel is hereby visible on the test box and ready for testing.

Press ↑ and ↓ on the test box to choose between the predefined channels.

# UPGRADE

The *Upgrade* tab is for upgrading the Futronic test box model.



If your test box is a GMDSS-only model and you have purchased the additional AIS test facility from Danphone, you will be given an access key to be entered, and the new facility will work immediately.