Futronic MKII MANAGER
(PC SOFTWARE)
User Manual

Version 18 August 2020

This manual supports software version
610.0019.003

◆◆ DANPHONE

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INTRODUCTION

Futronic MKll manager allows you to:

- Conduct all tests on the PC with remote control
- 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
- Send and receive TELEX messages.

How to download and install

1) Download Futronic MKll manager from Danphones' website:
   https://www.danphone.com/downloads/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 – Upgrade – Sensitivity - TELEX**

The tabs are explained on the following pages.

REMOTE CONTROL

The test box can be remote controlled from a PC.

Download the Futronic MKll manager PC software (remote control is supported from version 610.0019.002) Connect the test box to the PC via USB cable (standard accessory).

Remote control is supported on the test box from software versions (Master) 682.0001.036 (Application) 682.0002.032. See "Test Box info".
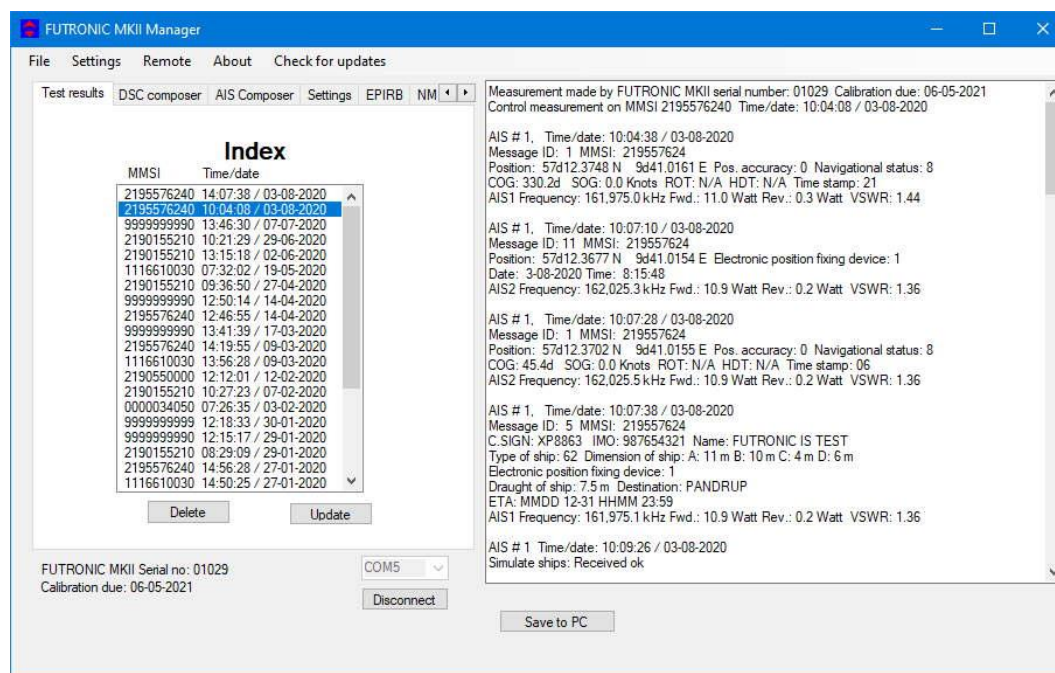
All test box functions are available for remote control.

Online software update is available on www.danphone.com/service-support/software-update/ Click on "Check for updates".
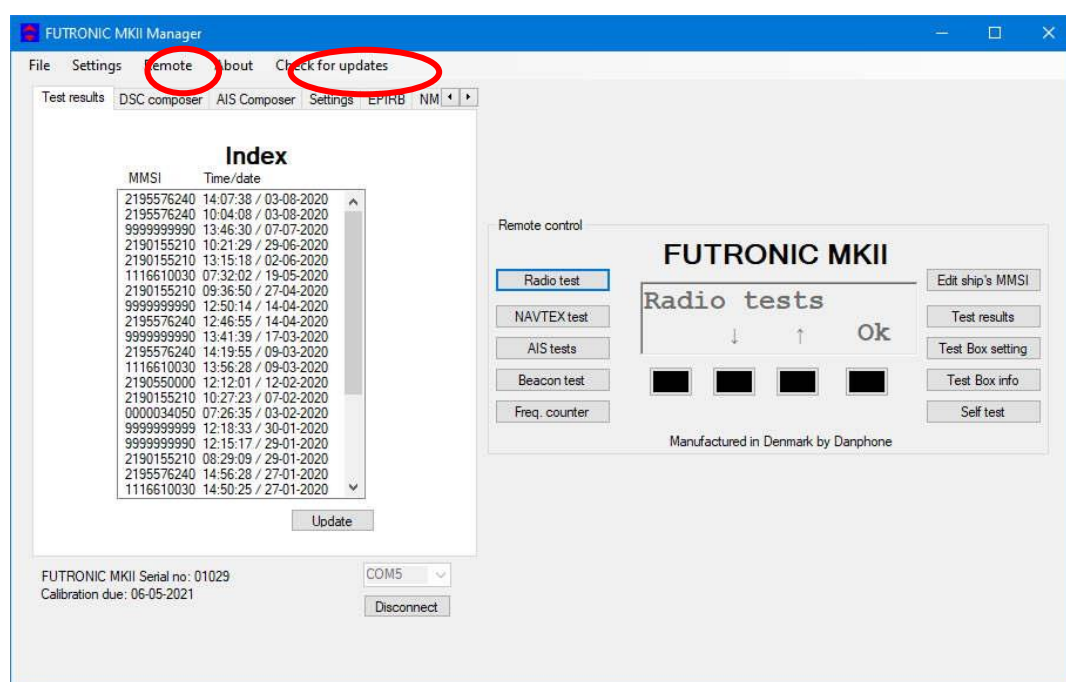
TEST RESULTS

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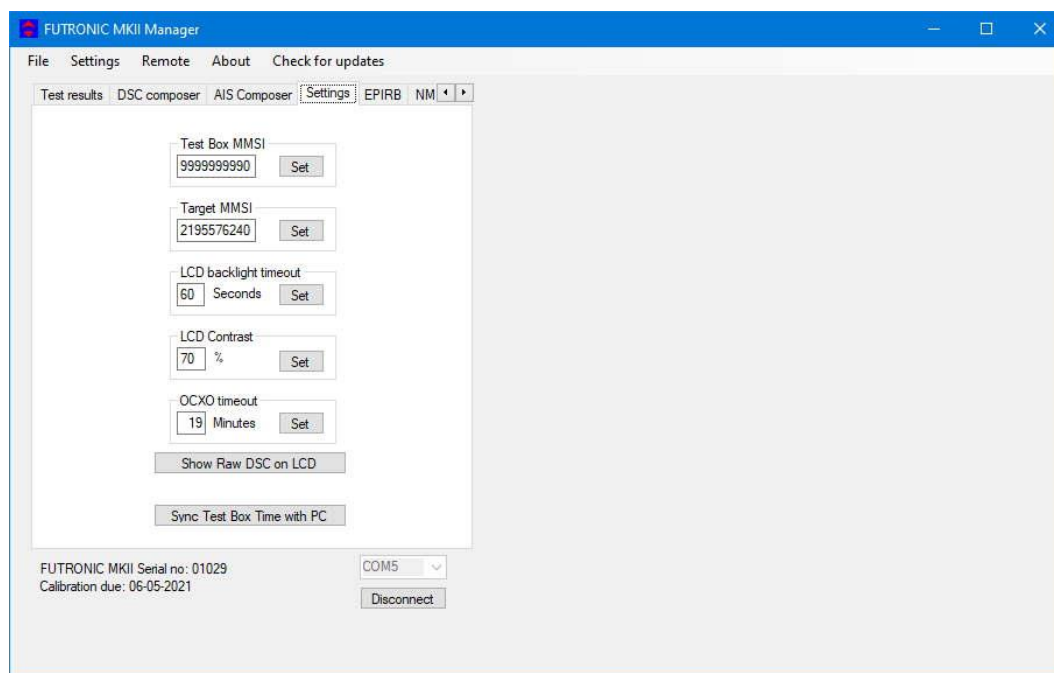
Test box MMSI: Write and set new MMSI number for the test box here.

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 MKll 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:

EPIRB Test Report

Beacon Data

Beacon manufacturer:	Litebeacon Ltd.
Beacon name:	Litebeacon
Beacon model:	L-987
Beacon serial number:	123456
Beacon frequency:	406.028 MHz
Bracket type:	Fix
Bracket serial number:	6789
Hydrostatic release expiry:	13 June 2014
Battery expiry:	26 August 2015
Attached lanyard test	ok

Beacon Location

Vessel name:	Mary Celeste

Test Results

Frequency measured:	406.027,4 MHz
RF level measured:	202
Status:	Passed
Message decoding:	BCH code check ok
Hex message:	FFFED04DB418618618668CD35900
Message format:	Short format
Protocol:	Maritime User Protocol
Country code:	219
Unique ID:	9B6830C30C30CD1
Decoded message:	MID: 999999 Specific beacon: 0 Aux. device type: 121.5 MHz

Test Instrument

	Futronic MKII Test Box
Serial number:	01029
Calibration due:	19-03-2013

Test Performed

Time / Date:	13:44:23 08-10-2012
Company:	Testco
Test responsible:	Martin Smith
Signature:	*M. Smith*

Futronic MKII Maritime Communications Test Box manufactured by ◆ DANPHONE

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 <u>NMEA 0183 version 2</u> messages*.*
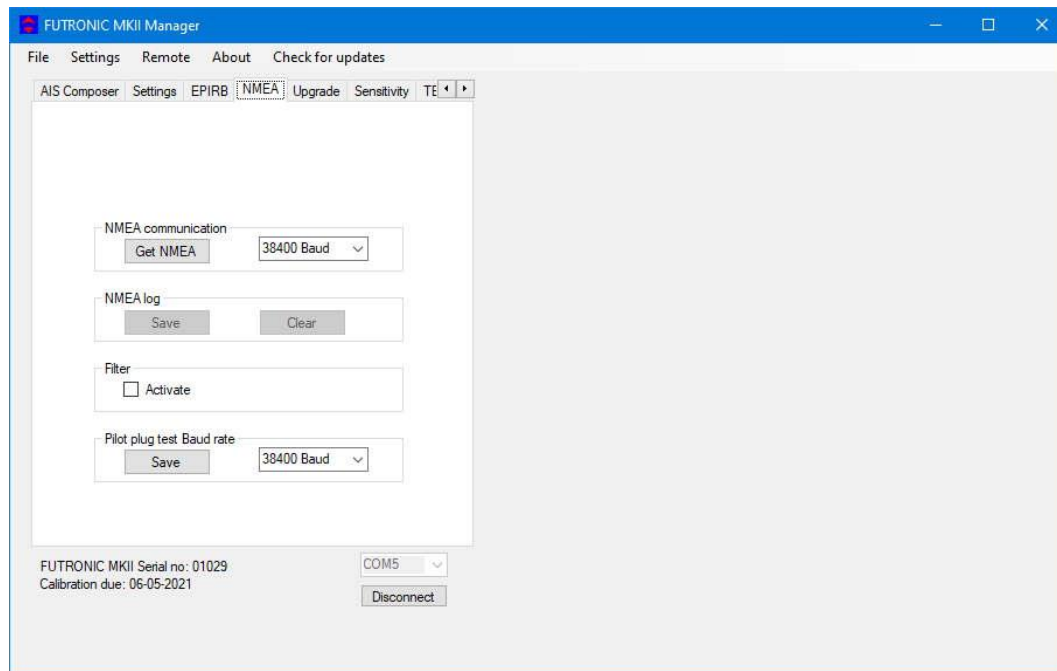
This feature enables monitoring of NMEA supporting units by retrieving NMEA messages via the pilot plug. Connect the NMEA bus to the pilot plug on the Futronic test box and press **"Get NMEA"**. The test box automatically transfers the requested messages to the PC. All messages can be saved as text files.
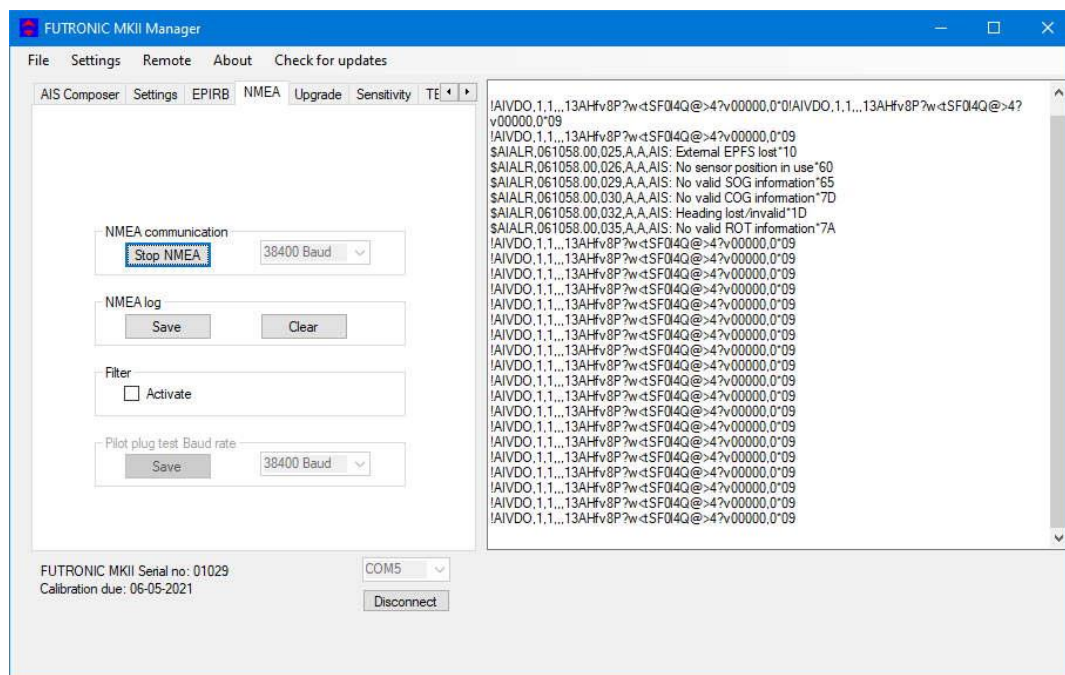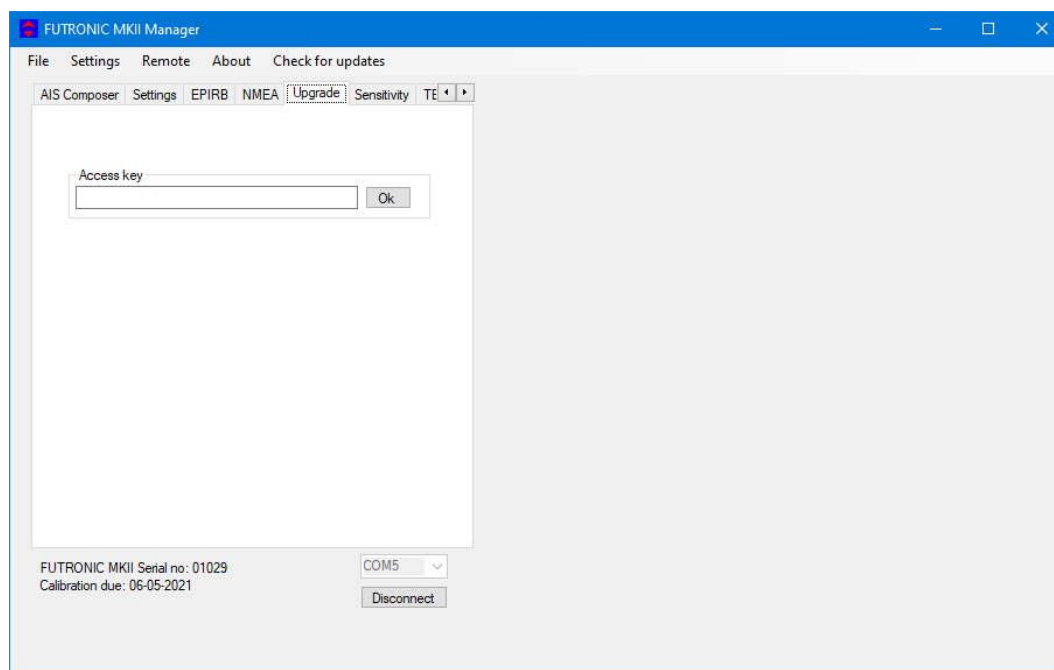
Activate filter to restrain the messages to one type.
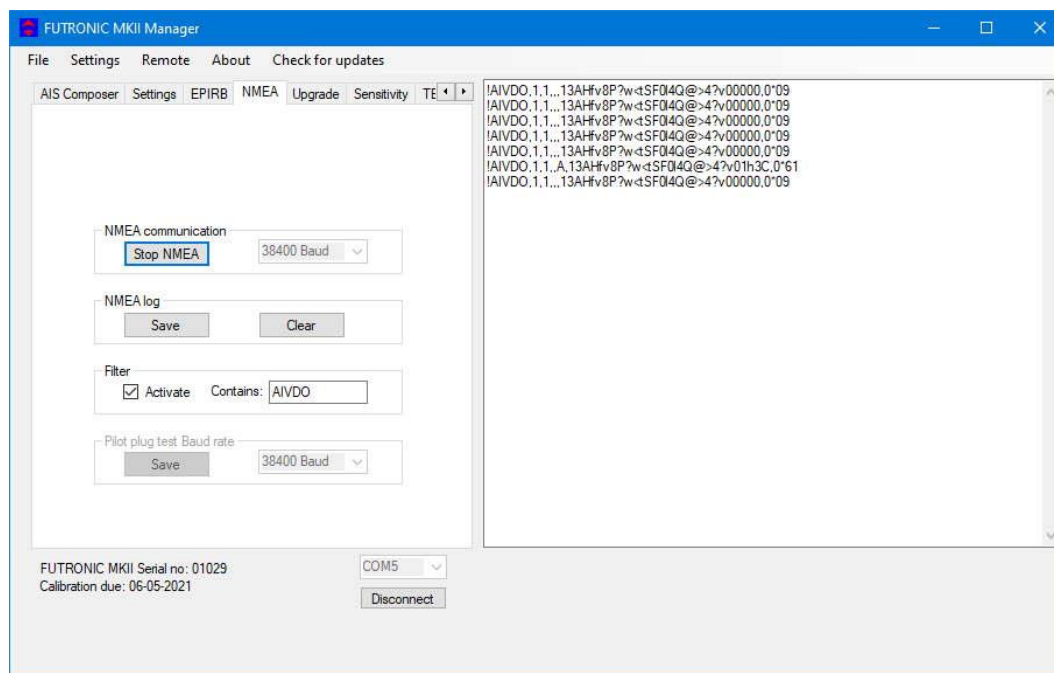

UPGRADE

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.

VHF SENSITIVITY TEST

The *Sensitivity* tab enables determination of the VHF channels to be tested for sensitivity.
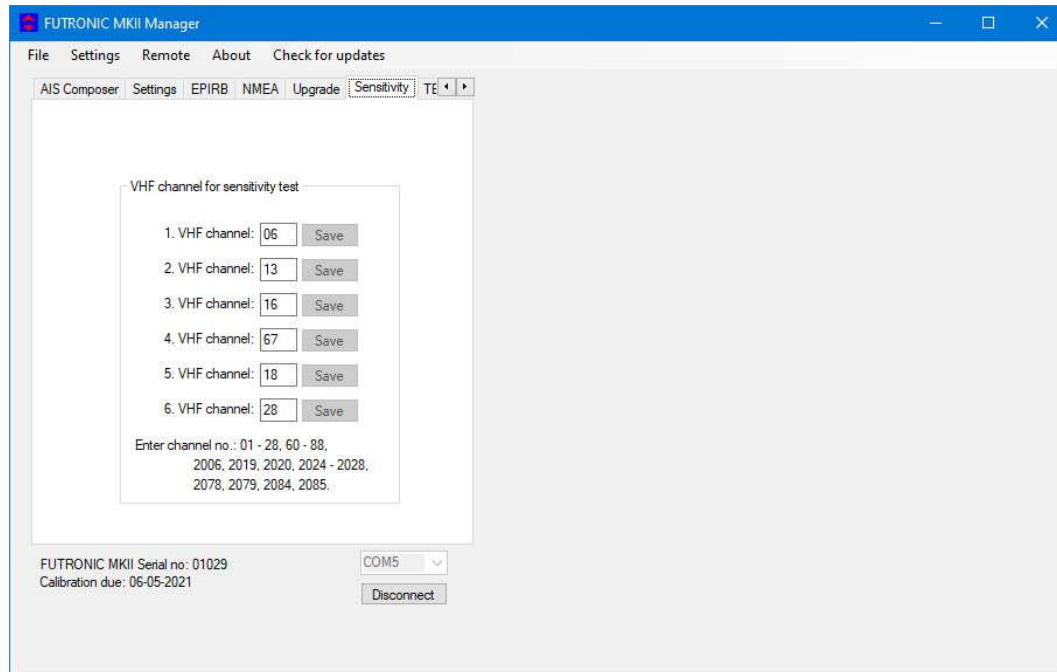
Futronic MKII manager allows you to configure the Futronic test box on 6 selected VHF channels. Set the VHF channel between 01 – 28 or 60 – 88 and press **"Save"**.
The channel is hereby visible on the test box and ready for testing.
Press ↑ and ↓ on the test box to choose between the predefined channels.

TELEX

Connect your test box to the PC via the USB cable supplied.

Connect the wire antenna to RF OUT.

"Send std. Msg." Transmit standard
TELEX message on the chosen
TX frequency.

"Send custom msg." Transmit the 4
Line custom message on the chosen
TX frequency.

The "Stop" button cancels the
Transmission of data.
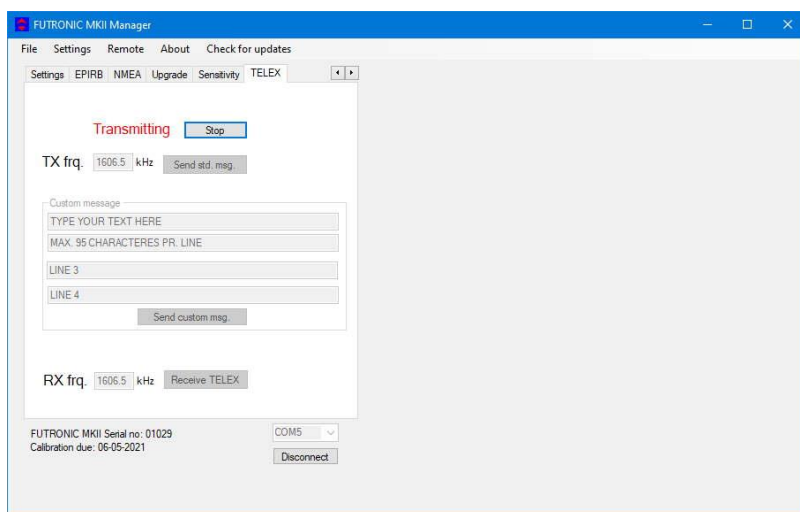
Connect the wire antenna to RF IN

"Receive TELEX" on the chosen
RX frequency.
The received message is shown in
the "Received message" window.

** indicates noise or faulty characters.

The "Stop" button stops the reception
of data.