ocean SIGNAL

User Manual

Configuration Programme

for Ocean Signal EPIRBs & PLBs

www.oceansignal.com

Programming Ocean Signal EPIRBs & PLBs

1. Introduction

The Ocean Signal Beacon Configuration software will programme all EPIRBs and PLBs including the SafeSea E100/E100G, the SafeSea EPIRB1 Pro, the rescueME PLB1 and the rescueME EPIRB1.

Where allowed, Ocean Signal beacons will be shipped pre-configured with the Cospas-Sarsat serialized protocol and the MID of the country that they are being shipped to.

Distributors and authorised dealers are able to configure or reconfigure beacons to change the country code or the protocol where alternatives are allowed.

It is the responsibility of the person performing the beacon configuration to ensure that on completion it is fully compliant with any/all regulations specific to the country code being used.

The Cospas Sarsat website and their Handbook of Beacon Regulations should be consulted prior to configuration to ensure that:

I. the use of beacons is permitted in the required country
II. the correct coding method is used for the required country

Visit the Cospas Sarsat website www.cospas-sarsat.int for all current information regarding the use of beacons around the world and for access to their Handbook of Beacon Regulations.

If guidance is not provided for a territory/country, the following default coding methods should be used for Ocean Signal products.:

Product	Default 1	Default 2
EPIRB1 Pro EPIRB1 E100G	Location Protocol: Standard Message Type: MMSI	Location Protocol: Standard Message Type: Serial No.
E100	User Protocol This is automatically assigned and cannot be changed. The Location Protocol field is unavailable. Message Type: MMSI	User Protocol This is automatically assigned and cannot be changed. The Location Protocol field is unavailable. Message Type: Serial No.
PLB1	Location Protocol: Standard Message Type: Serial	No alternative default.

N*B* **–** *For EPIRBs, either Default 1 or Default 2 can be used. Neither has precedence.*

2. Beacon Configuration Hardware

The Beacon Configuration kit can be ordered in two variants

701S-00654: Configuration Kit for SafeSea E100/E100G

701S-01320: Configuration Kit for SafeSea EPIRB1 Pro, rescueME EPIRB1, rescueME PLB1 and the E101V

The Programming kit is supplied with a USB programming adaptor and a link to the software download page on the ocean signal website.

Follow the applicable installation instructions provided on the same link.

The software operates with a low cost Brother label printer which can be used to print out new UIN labels for the PLB1 and EPIRB1.

Ocean Signal recommends the Brother PT-P700.

The Brother printers that can be used with the latest software version are as follows:

PT-P700	PT-P900W
PT-710BT	PT-P950NW
PT-P715eBT	PT-1230PC
PT-750W	PT-1500PC
PT-P900	PT-2430PC

Alternative Brother printers will also work however the correct drivers will need to be installed separately from the Brother website before use.

3. Activate Beacon Programming Mode

EPIRB1 Pro and EPIRB1

There are two different methods to activate the programming mode and is dependent on whether the EPIRB is has been previously configured.

Un-configured

a) Press and hold the TEST key until the red LED starts flashing.

b) Release the TEST key. The red LED will flash rapidly then go off and the strobe will flash.

Previously Configured

a) Press and hold the TEST key until the LED turns green.

NB – *pressing and holding the TEST key produces a red LED light which will flash, then go steady, then turn green (this takes approx. 15 seconds)*

b) Release the TEST key.

c) Press the Test key once (do not hold down). The strobe will flash and the LED will turn red, then go off.

The EPIRB1 is now in programming mode.

Place the programming adaptor over the indicator LED at a slight angle as shown.

Open the beacon configuration program. See Section 4.

E100 and E100G

a) If a battery is attached, remove it using a 3mm HEX (Allen) key

b) Connect the configuration adaptor to the EPIRB in place of the battery.

c) Activate programming mode by rotating the test switch to the right and holding until the green LED is lit.

The EPIRB is now in programming mode.

Open the beacon configuration program. See Section 4.

PLB1

a) Press and hold the ON and TEST keys at the same time until the amber LED starts flashing.

   NB – *pressing and holding both keys together produces a steady amber light which will start to flash after about 5 seconds.*

b) Release both keys. The LED will immediately change to green.

c) Press the Test key once (do not hold down). The strobe will flash and the LED will turn red, then go off.

The PLB is now in programming mode.

Place the programming adaptor over the indicator.

Open the beacon configuration program. See Section 4.

4. Beacon Configuration Software

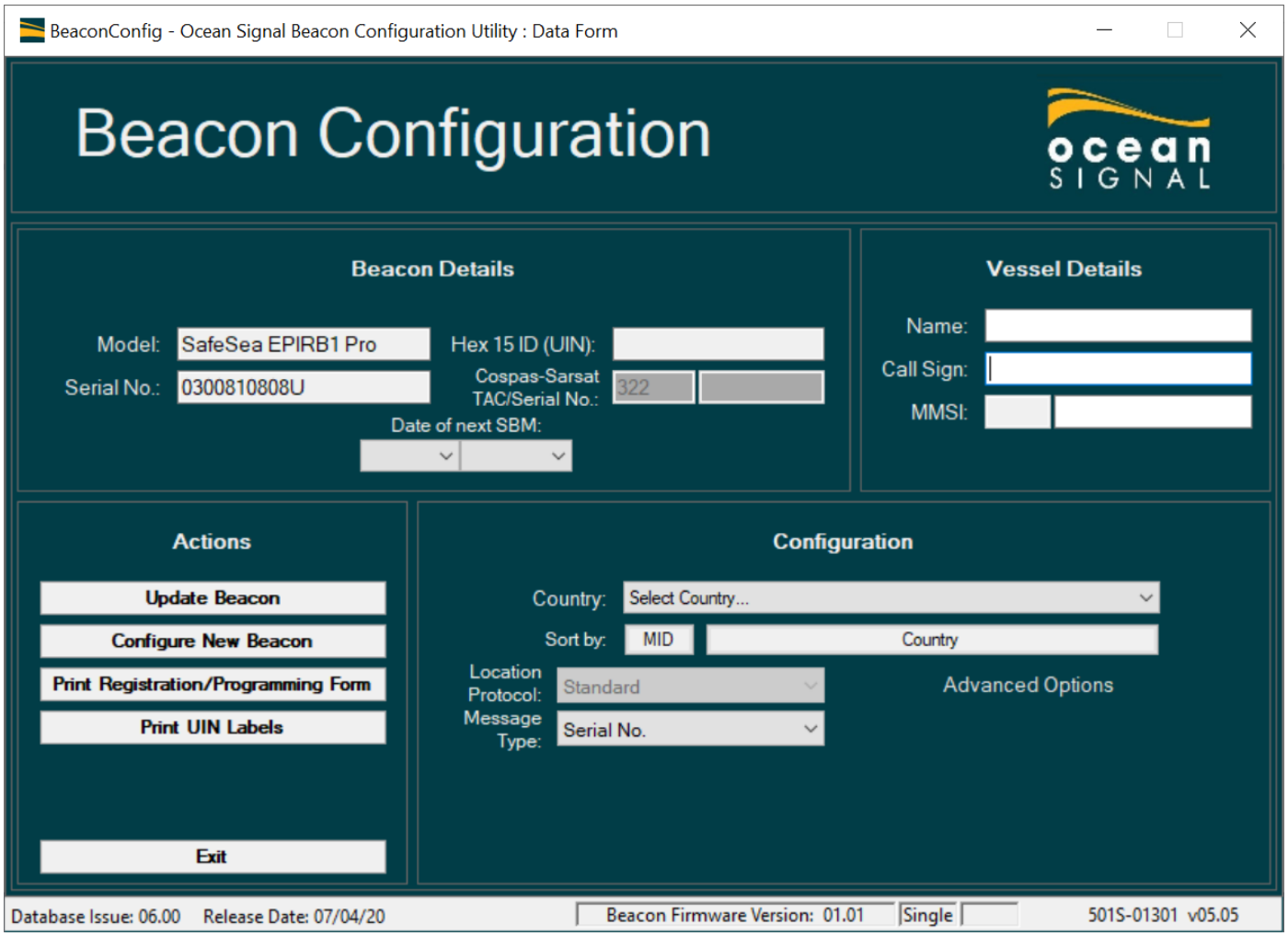
NB: *All following instructions and images are taken from software version 05.05. Older versions may look slightly different.*

Once the beacon is in programming mode and the adapter is attached, open the configuration program and wait for the beacon information to load.

There may be a slight delay between opening the program and the beacon data being displayed.

Once loaded, the configuration page will now be displayed showing the Model and Serial number. The below image shows an example of what this screen may look like for an unconfigured unit.

NB – *If the beacon has been previously configured, more data will be displayed which will need to be cleared before the beacon can be updated with any new data. See section 5.*

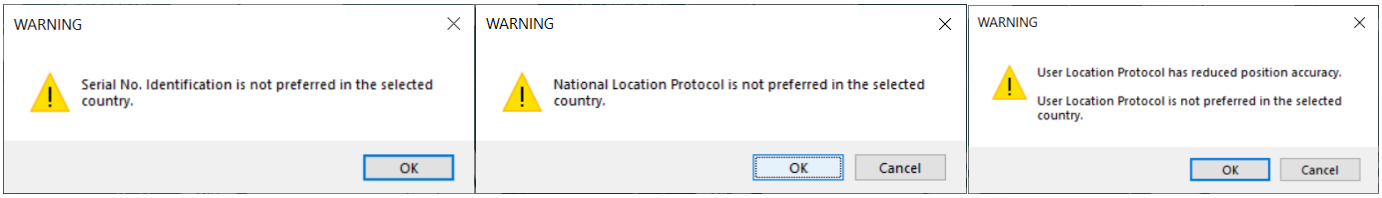


An Example of the Configuration Program screen

Before configuring a beacon, the handbook of Beacon Regulations from Cospas Sarsat should be consulted in order to determine the correct coding method to use.

If guidance is not provided for a territory/country, the default coding methods should be used. These are listed in Section 1.

During the configuration process, if any options are chosen that are not preferred or allowed, warning messages will be shown. The below are some examples of the warning messages shown.



These warnings are provided as a guide and can be ignored. They are primarily provided for those countries that have not reported their protocol preferences to Cospas-Sarsat.

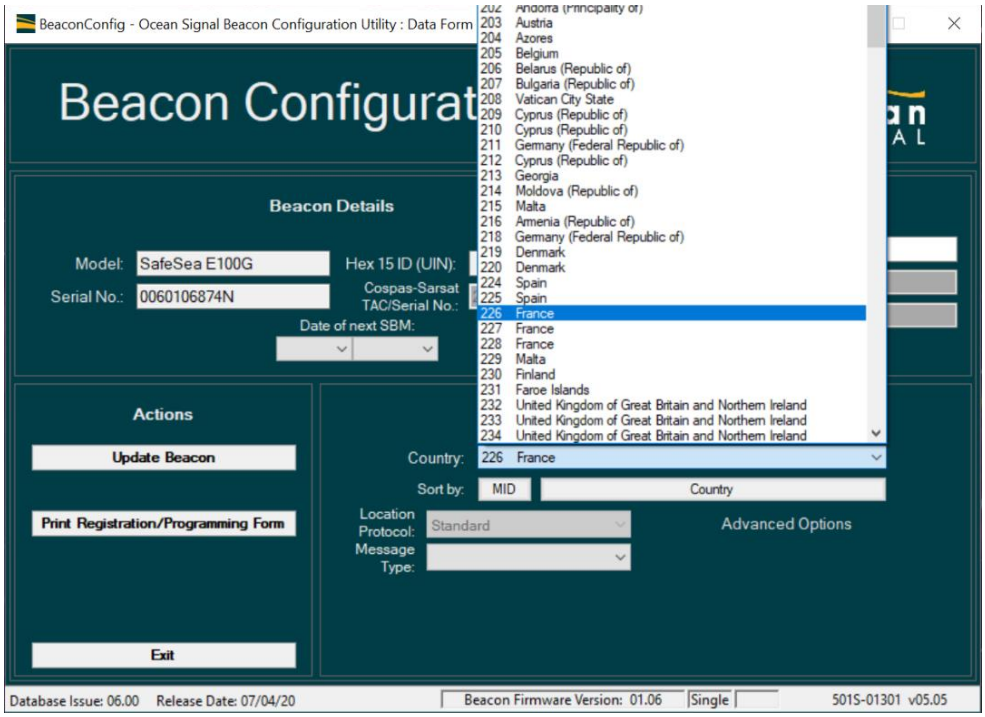
Beacon Programming

Programming selections should be made in the following order:

1. Country
2. Location Protocol
3. Message Type

Further data can then be entered manually as required, such as MMSI, vessel details, National protocol IDs etc.

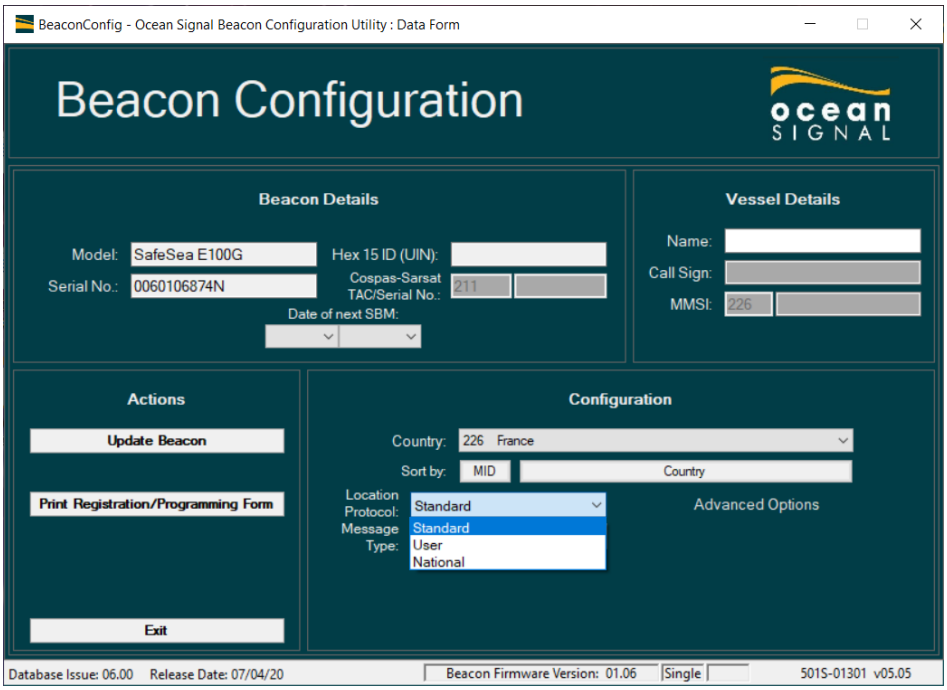
First select the required country from the drop down box:



The default list order is sorted numerically by MID (country code). It can be changed to sort alphabetically by country name. Use the [MID] and [Country] buttons to sort the list as required.

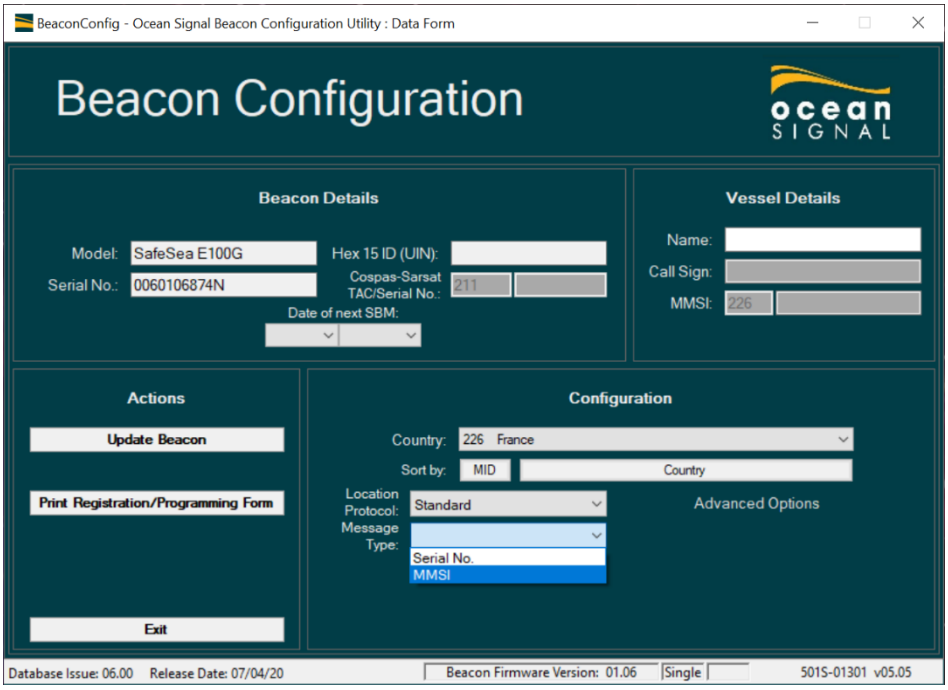
Coding Method: Standard Location/User Protocol

Select the Location Protocol required:



For all beacons except the E100[1], the Location Protocol can be selected as Standard, User or National. Standard Location Protocol will provide the best position accuracy and should be selected when available, unless specified by the customer.

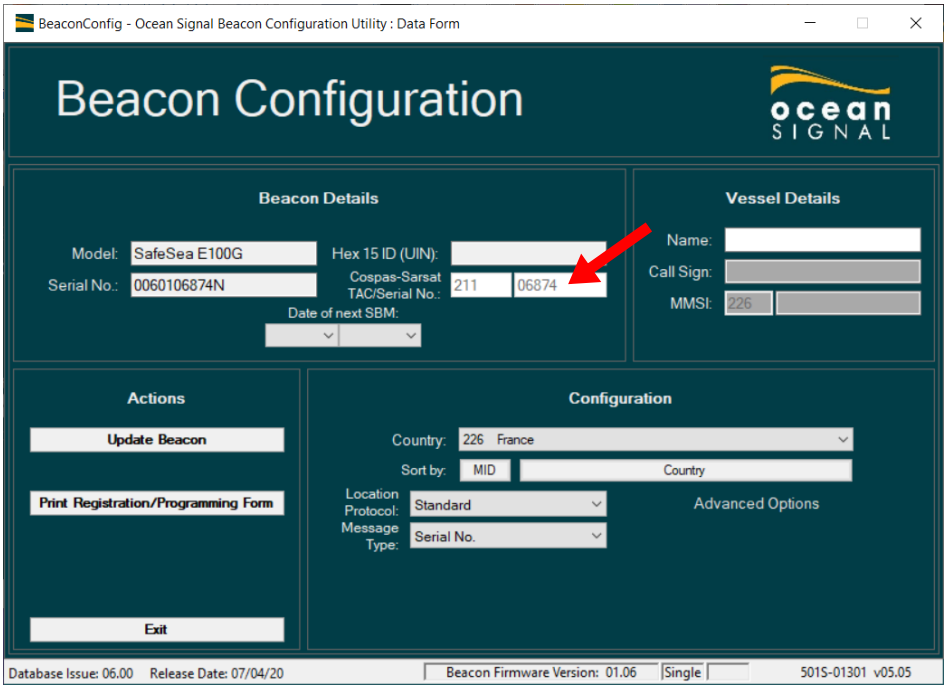
Select the Message Type required:



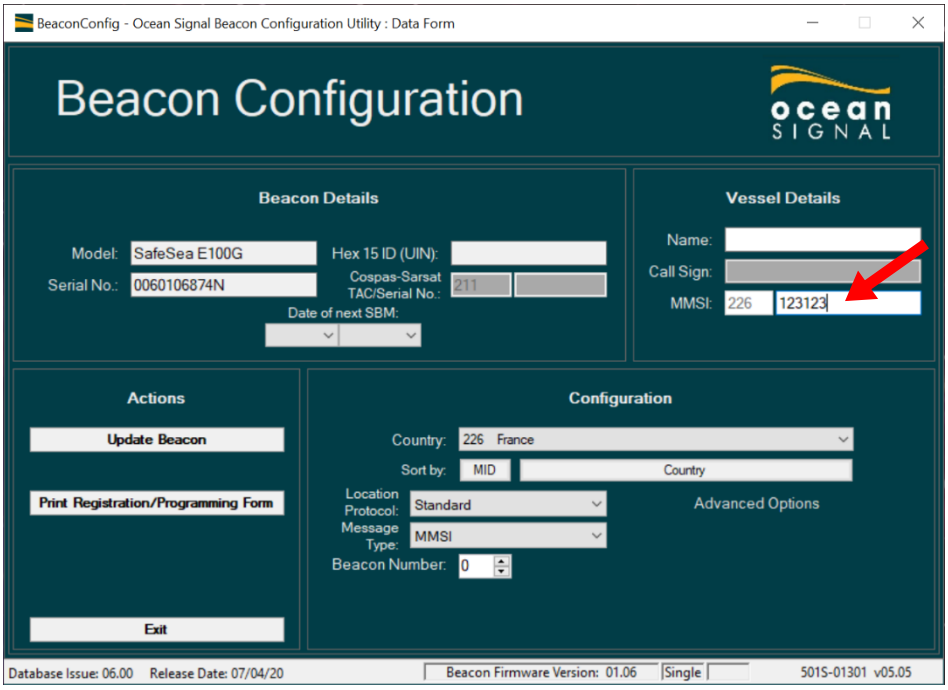
If using Standard Location Protocol, the Serial No or MMSI can be selected. If using User Protocol an additional option of Call Sign can also be selected.

[1] the E100 is set to User Protocol and cannot be changed

If serial number is selected this will be automatically entered.[2]



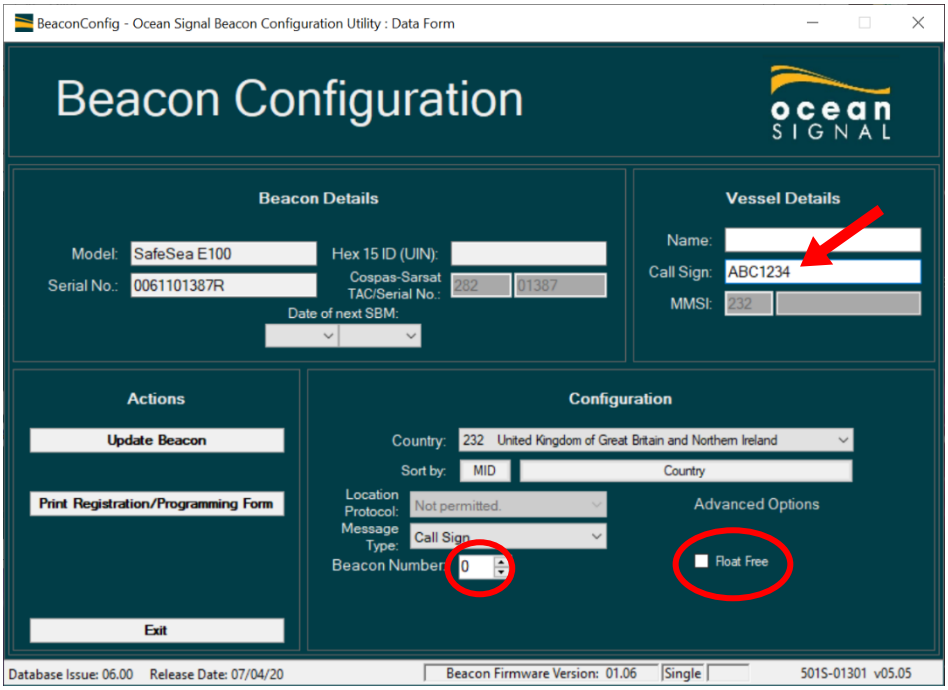
If MMSI is selected, enter the last six digits of the MMSI into the box:



NB - *The first three digits of the MMSI are the MID which is automatically entered when the country code is selected.*

[2] If the Russian MID is selected, it will be possible to edit the serial number as required by the Russian administration, otherwise this field cannot be changed.

If Call Sign is selected, this can be entered with any combination of letters and numbers of between 4 and 7 characters:



NB - *With User Protocol, when Serial No. or Call Sign is selected as the Message Type, the option to identify whether the EPIRB is mounted in a Float Free Housing is available as a check box that can be ticked.*

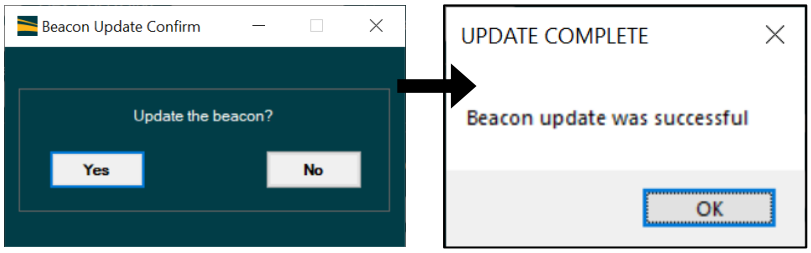
For all models the beacon number will be shown if either the MMSI or Call Sign protocol are selected. This should be left at 0 unless configuring multiple beacons with the same MMSI number. In this case, it should be increased by 1 each time to produce a different UIN (Hex ID) for each beacon.

Updating the Beacon

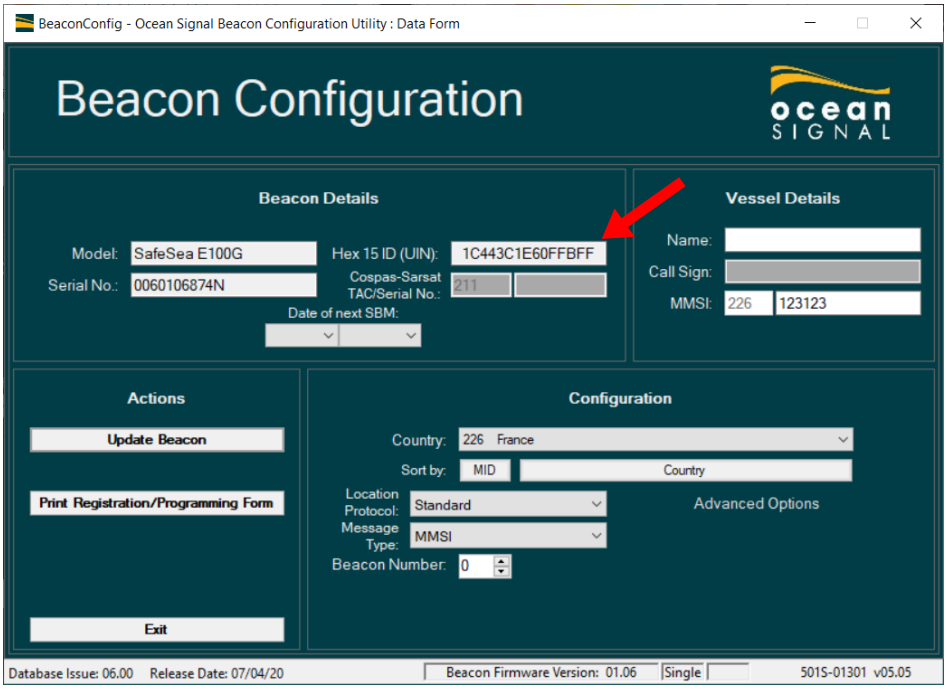
Once all selections have been made, the beacon can be updated with the new configuration.

Click on the [Update Beacon] button. The confirmation popup will show. Press [OK].

Press [Yes] to complete the programming. Confirmation will be shown in the following popup:



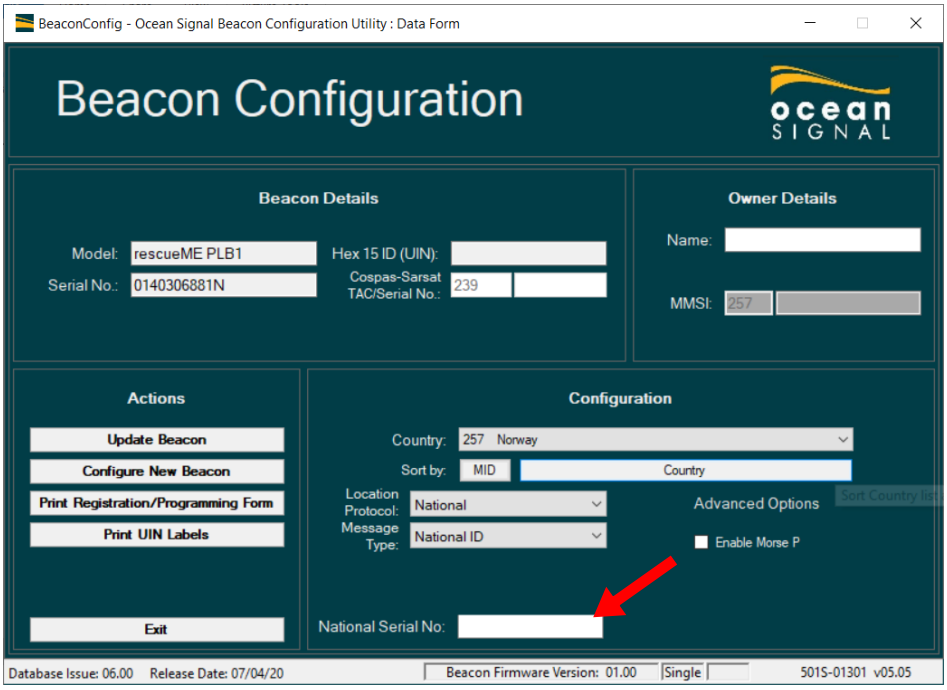
The main screen will now be updated with the calculated HEX ID.



Coding Method: National Protocol

Some countries such as Finland, Greece and Norway use individually allocated National numbers for coding PLBs. These can be entered manually.

By selecting National as the location protocol and National ID as the message type, an additional box will appear for entering the provided National Serial No.

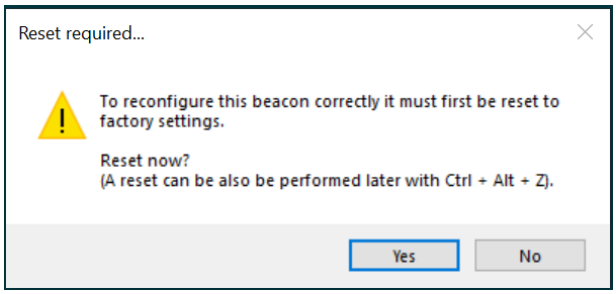


***NB-** national numbers may be allocated in bulk and programmed directly into the PLB at the time of manufacture. Do not attempt to change this number unless the country is also being changed.*

5. Clearing Existing Configuration

If a beacon has been programmed previously, it will need to be cleared before updating it with a new identity.

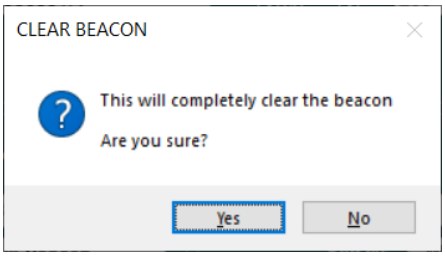
If this is possible when opening the Configuration program, the following message will appear. Click [Yes] to clear the beacon.



Alternatively, when the Configuration program is open, press the [CTRL], [ALT] and [Z] keys simultaneously.

A confirmation pop up will appear. Press [Yes] to confirm.

Once cleared, the beacon can be updated with new configuration data.



6. Printing UIN Labels

Click the [Print UIN Label] button to print the label on your installed Brother Printer.

The available print options (depending on product) will be:

I. A 3mm UIN overlay label which can be attached in the appropriate blank space on the beacon label. Alternatively it can be used to cover the previous UIN printed on the beacon label.

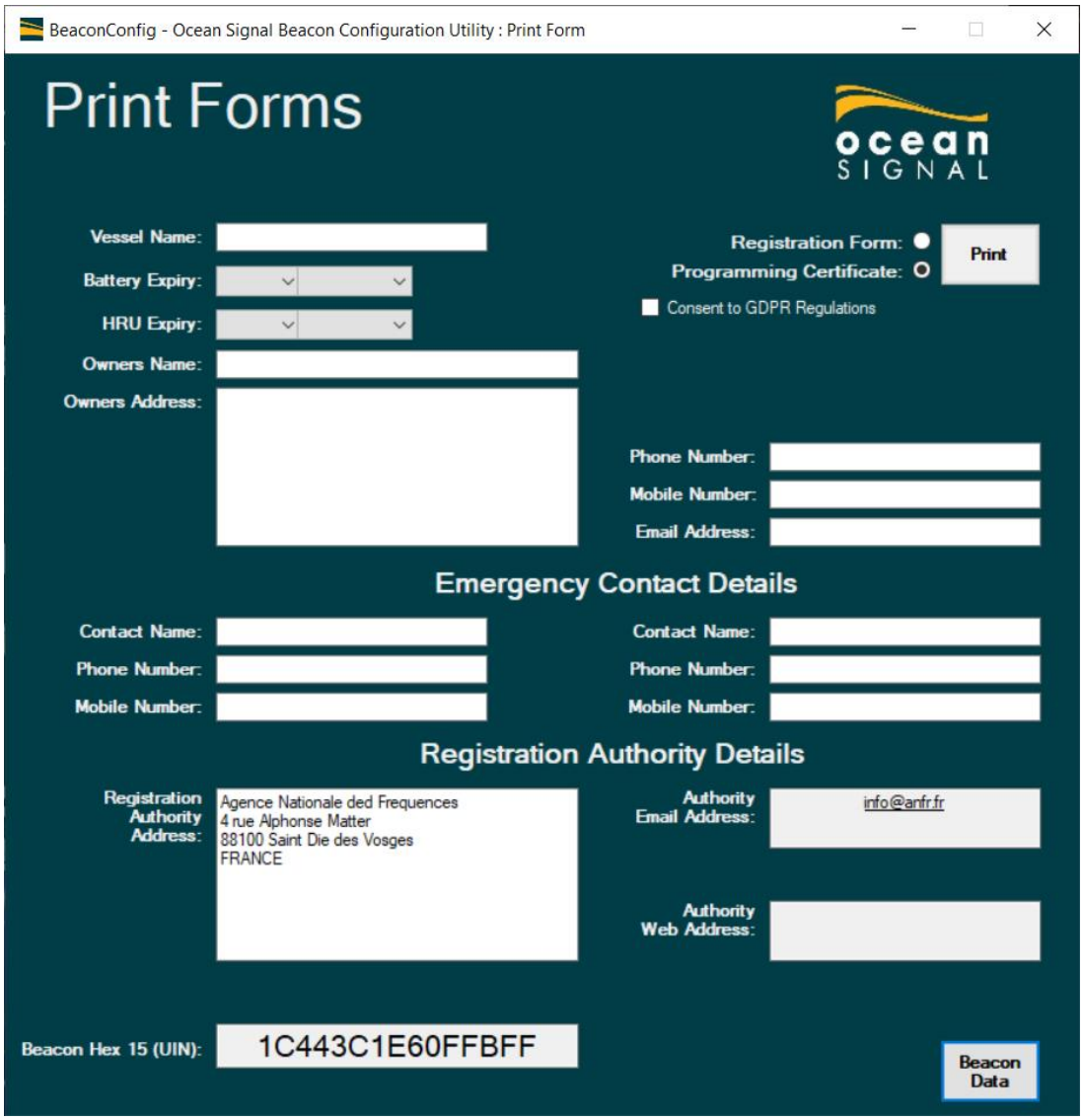
II. A 24mm full label which can be attached over/in place of the corresponding label on the beacon.

It is advisable to print extra UIN labels to attach to the box end label also.

All new labels should be covered with clear labels in order to protect the information printed.

7. Printing Forms

Click [Print Registration/Programming Form] which will open the following window:



NB – *The battery expiry date of the beacon must be entered in order to print the registration or programming form.*

This form allows the users contact details and vessel information to be entered if available. Enter as much information as possible in the appropriate boxes.

Select the 'Registration Form' option in the top right corner and press [Print]. The supplied details will be printed directly on the form for the customer to send to the registration authority. The address of the authority will be printed on the form, where known.

The Programming Certificate should also be printed out and handed to the customer for their reference.

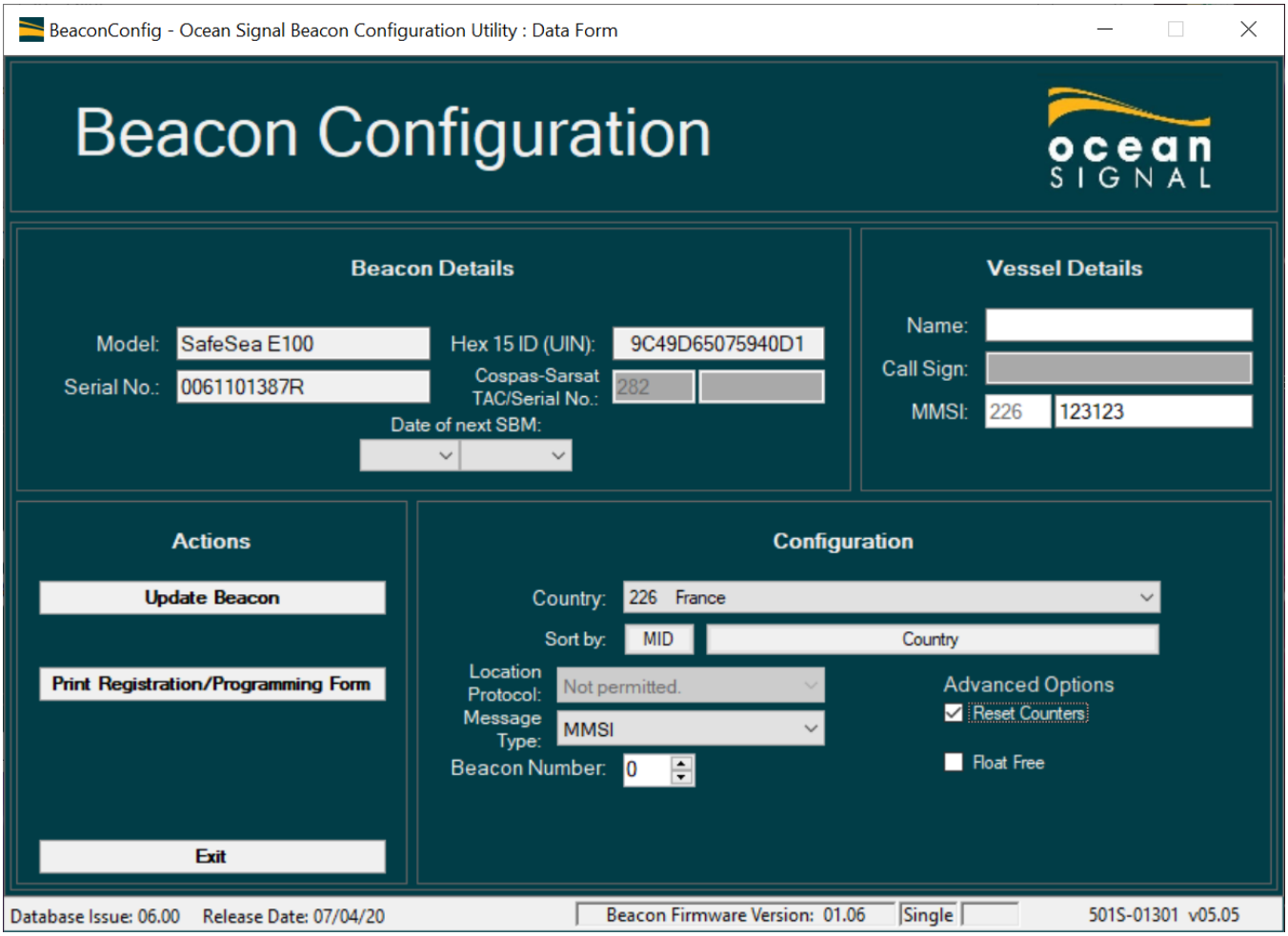
When completed press the [Beacon Data] button to return to the main screen.

8. Resetting the battery usage counters

When a beacon battery is replaced with a new one, the battery use counters must be reset.

Whilst in the beacon data screen, press [CTRL], [ALT] and [R] together.

The screen should now show the Reset Counters tick box:



This box can be checked and the beacon updated.

NB – *If a beacon's self-test produces a light-sequence that indicates multiple hours of use, replacing the battery will not reset this <u>unless</u> the beacon is also updated with the Reset Counters option selected.*