ocean SIGNAL

User Manual

safe SEA

E100/E100G

rescueME

PLB1

rescueME

EPIRB1

Configuration Programme

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Programming Ocean Signal EPIRBs & PLBs

Programming Ocean Signal EPIRBs & PLBs 4
Introduction 4
Installation 5
Beacon Config 5
Brother PT2430PC 5
Installing the USB Configuration Adaptor 9
PLB1 programming 12
Using National Protocol 14
Updating an existing configuration 15
Printing forms 15
EPIRB1 programming 17
Updating an existing configuration 19
Printing forms 20
E100/E100G programming 22
Printing Forms 26
Resetting the battery usage counters 27

Introduction

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

Where allowed, the Ocean Signal beacons will be shipped pre-configured with the Cospas-Sarsat serialized protocol and the MID of the country that the PLBs are being shipped to. Distributors and authorised dealers will be able to configure or reconfigure beacons to change the country code or the protocol where alternatives are allowed. The following document describes the process.

The Beacon Configuration kit can be ordered in two variants

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

The software operates with a low cost label printer, the Brother 2430PC to allow printing out new UIN labels for the PLB1 and EPIRB1

Installation

IMPORTANT NOTE: Do not connect the printer until the software installation is completed.

Beacon Config

The Programming kit is supplied with the programming adaptor with USB cable and CD with the configuration programme installer on. The software is universal and will programme both EPIRBs and PLBs

Place the installation disk in your CD drive. The installation should start automatically[1]. On completion of the installation, plug the programming adaptor in to a free USB port. Windows will now install the drivers for the USB device.

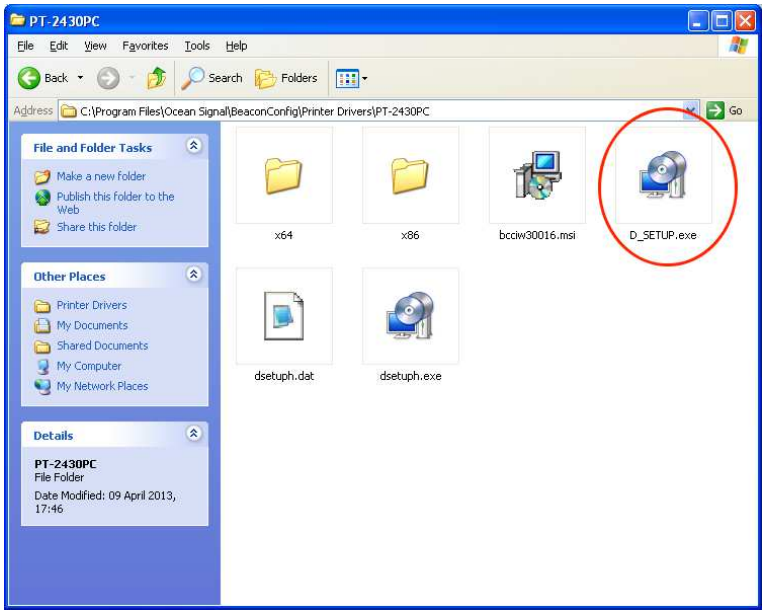
Your configuration kit is now ready for use. (Note if you already have an EPIRB adaptor plugged into the computer, you will need to remove it before using the PLB1/EPIRB1 adaptor.)

Brother PT2430PC

The printer drivers required will now be installed in a sub-directory of the Beacon Config installation directory, usually C:\Program Files\Ocean Signal\BeaconConfig\Printer Drivers.

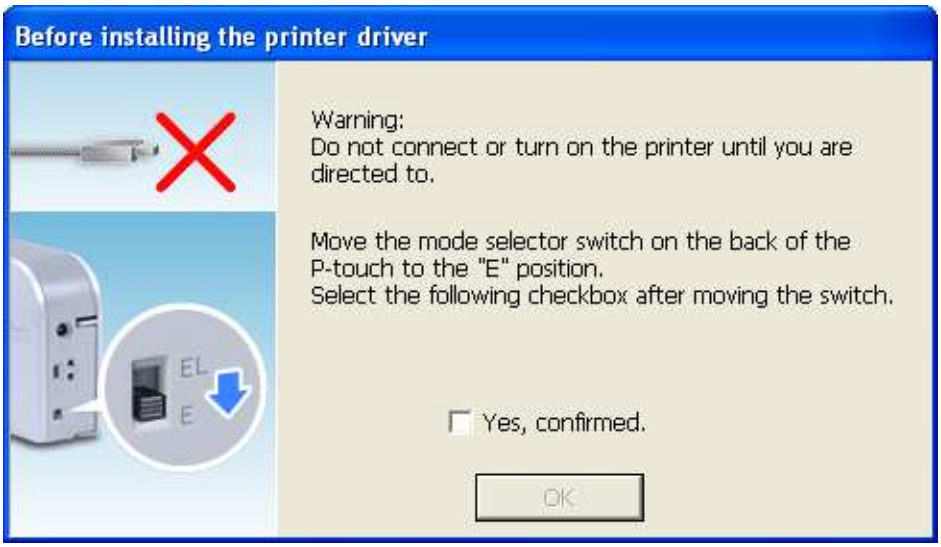
DO NOT CONNECT THE PRINTER UNTIL THE DRIVERS ARE INSTALLED.

[1] If an older version of the configuration software is already installed, the installer may ask for this to be removed first. You will need to go to Add/Remove programmes in the Control Panel to remove the programme. Do not just delete the existing files.



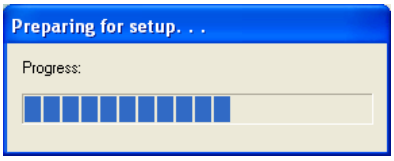
Open the folder called PT-2430PC and run the file 'D-SETUP.exe'

The following warning screen will be displayed.



Tick the 'Yes, confirmed' check box and press <OK>

Click the <Next> button. The progress indicator will appear



On completion of the driver installation the following screen will be shown requesting that he printer is connected.

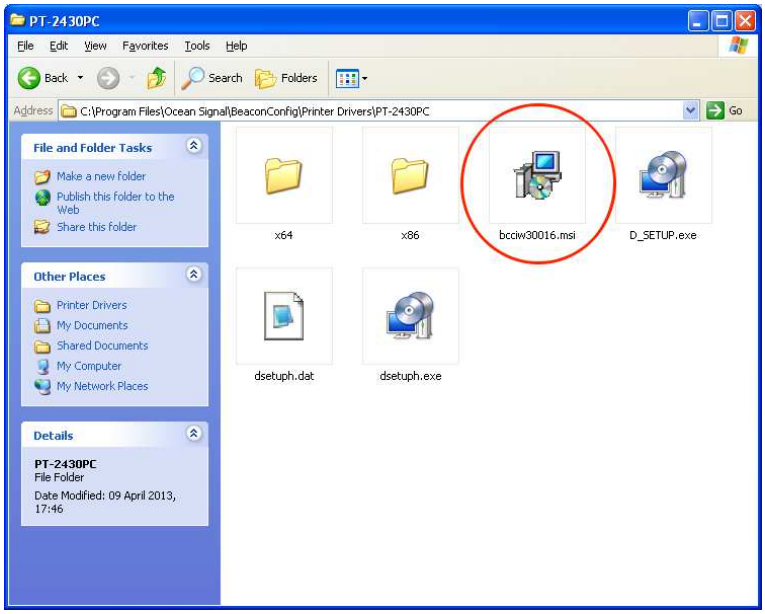
Make sure that the switch on the back of the printer is set to the 'E' position, then connect the printer to the power and a free USB port, then turn the printer on.

Windows will now start the Found New Hardware process and install the printer drivers. Wait until this process has completed.

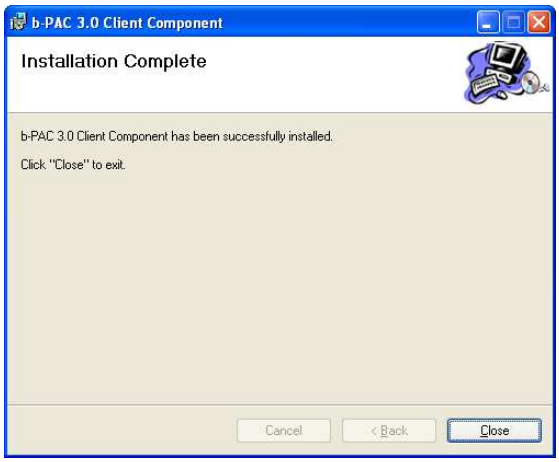
The installation software window will then change to the following.

Choose 'No, restart later' option and click <Finish>.

It is also necessary to install the 'Brother' SDK client application. In the same directory as the driver installation files, there is a file called "bcciw30016.msi.



Double click on this file. The self installer will start running automatically. On completion, the following will be displayed.



Close the window. Windows should now be restarted to complete the driver installation. Make sure that any open applications and files are saved and restart Windows.

Your Beacon Config installation is now completed.

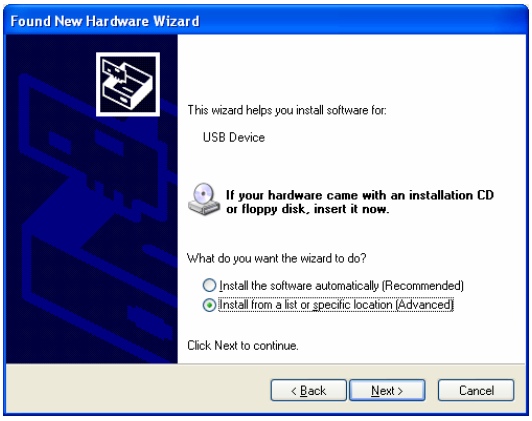
Installing the USB Configuration Adaptor

On completion of the software installation the configuration adaptor should be plugged in to a USB port on the computer.

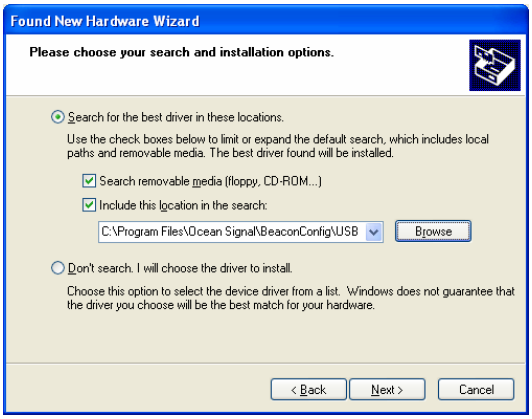
Windows will detect the USB devices and start the driver installation. First the USB device is installed. Installation may vary depending on the version of Windows installed. When prompted, select the options to choose where the driver files are located as follows.

Ensure Windows only looks in the chosen location by selecting 'No, not this time' from the options

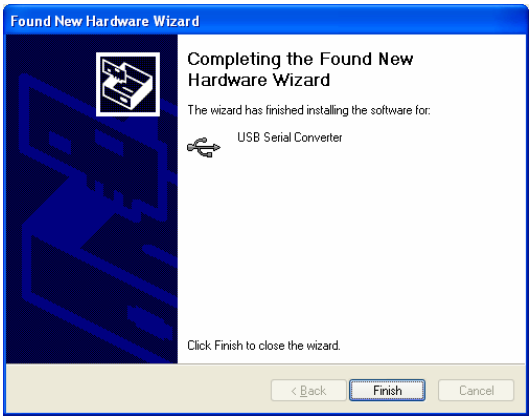
Then select ' Install from a list or specific location'



When prompted to select the location, browse for the driver files in the Beacon Config directory chosen during installation. (The default location is shown below)

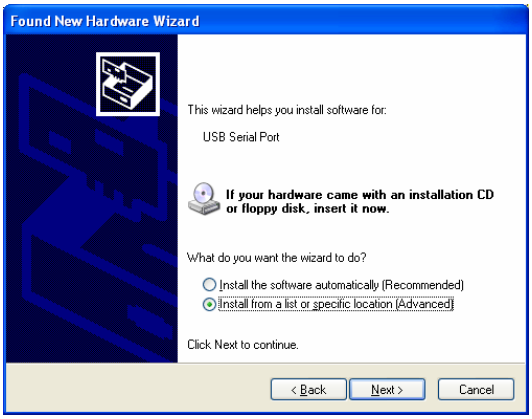


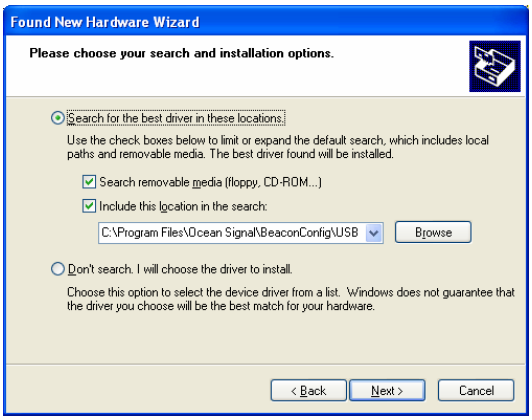
The driver installation process will continue and on completion the following will show.

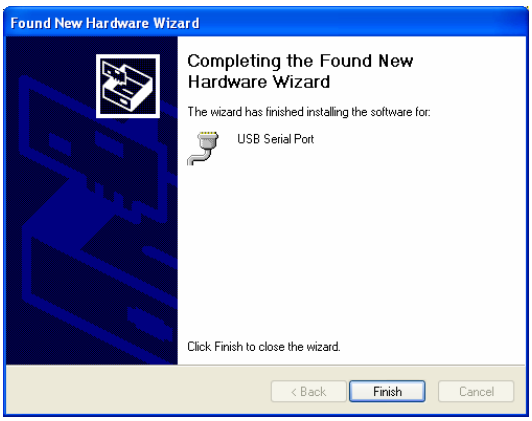


Windows will now install the serial port for this USB device as follows. Make the same selections as above.

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy
Can Windows connect to Windows Update to search for software?
Yes, this time only
Yes, now and every time I connect a device
No, not this time
Click Next to continue.
< Back
Next >
Cancel


Found New Hardware Wizard
This wizard helps you install software for:
USB Serial Port
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel


Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
C:\Program Files\Ocean Signal\BeaconConfig\USB
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel


Found New Hardware Wizard
Completing the Found New Hardware Wizard
The wizard has finished installing the software for:
USB Serial Port
Click Finish to close the wizard.
< Back
Finish
Cancel

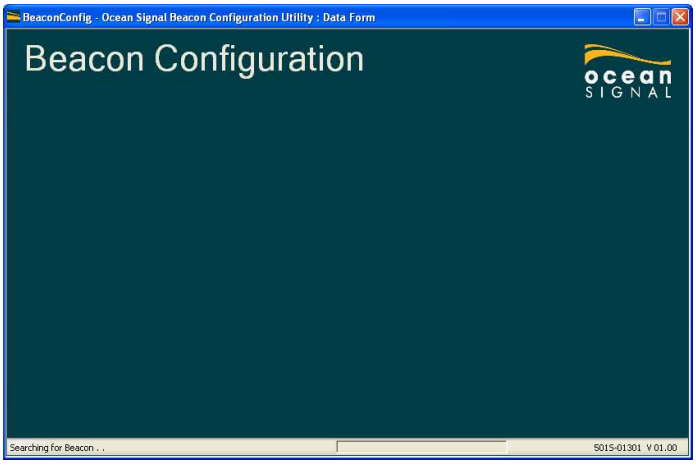
PLB1 programming

The beacon should be turned on in the programming mode.

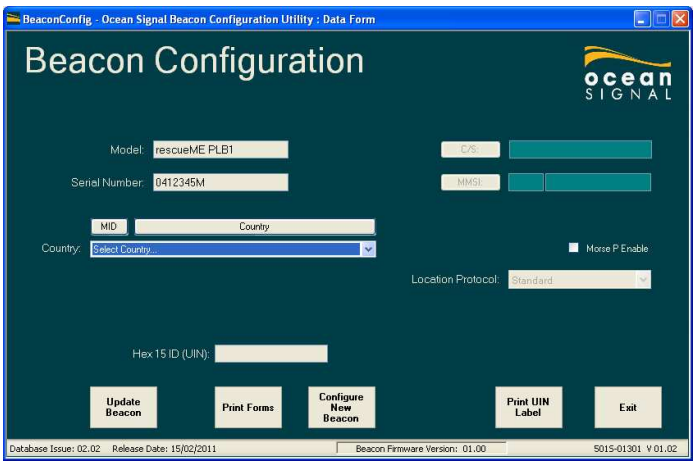
Press and hold the ON and TEST keys simultaneously. The Indicator LED will show amber. Wait until the LED starts flashing. Release both keys. The LED will change to green. Press the Test key. The LED will flash red once and the strobe will flash. The PLB is now in programming mode.

Place the programming adaptor over the indicator LED as shown.

Open the beacon configuration programme. The opening screen shows the following.

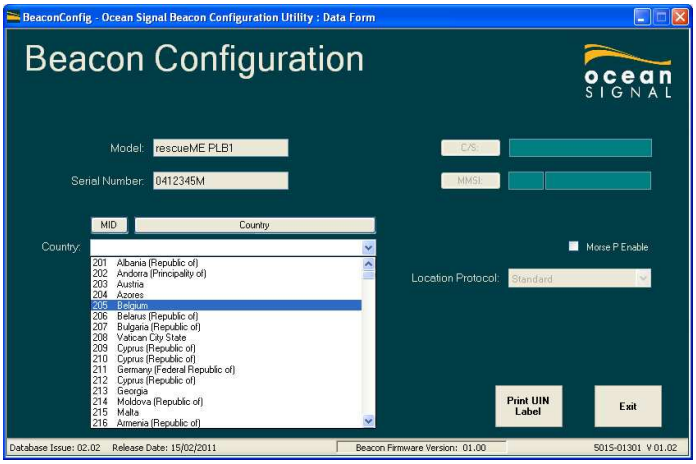


After the PLB data has been loaded, the configuration page will now be displayed with the details of the unit being configured being displayed.

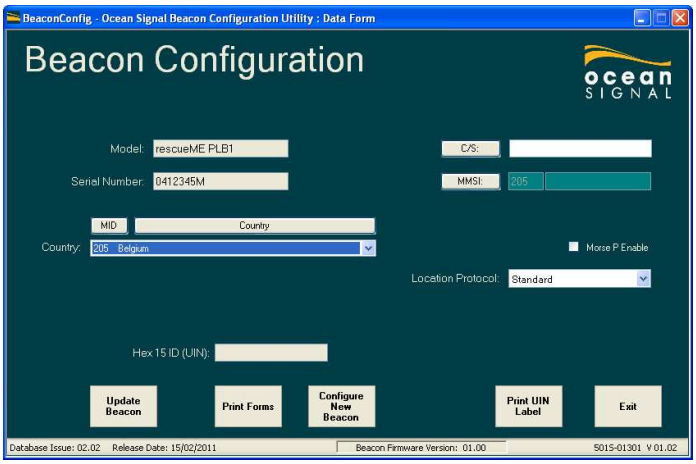


This screen shows an un-programmed PLB1 so there is no protocol, country code or HEX ID showing.

Select the country from the drop down box, as shown below.



Once the required country code is selected, the next step is to select the protocol required



Press either the CS or MMSI buttons. If CS is selected the serial number will be automatically entered[2].

If the MMSI mode is selected enter the last six digits of the MMSI into the box. The first three digits are the MID which is automatically entered when the country code is selected.

Check that the correct protocols have been selected and press the <Update Beacon> button. The confirmation popup will show.

Press <Yes> to complete the programming. Confirmation will be shown in the following popup.

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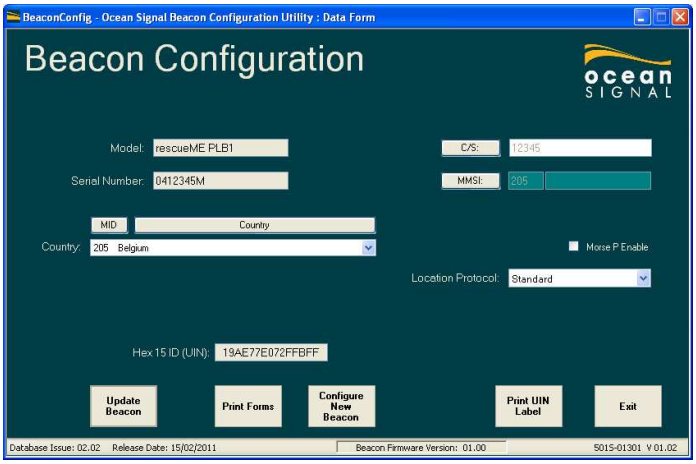
[2] If the Russian MID is selected, it will be possible to edit the serial number as required by the Russian administration, otherwise this field cannot be changed.

Press <OK>. The main screen will now be updated with the calculated HEX ID.

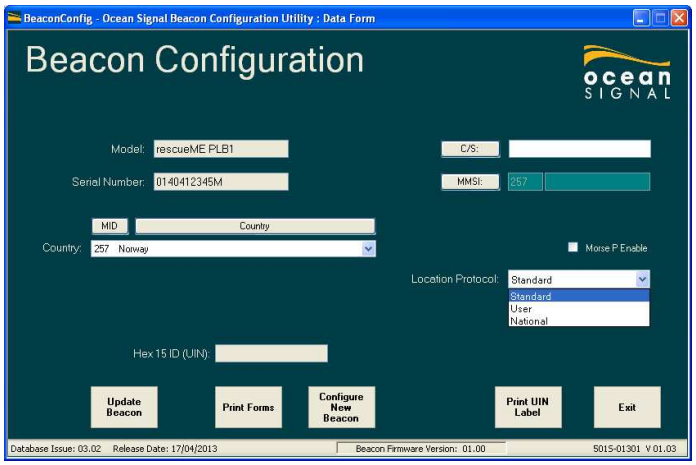


(Note this is how the screen will look when a pre-programmed PLB is first read.)

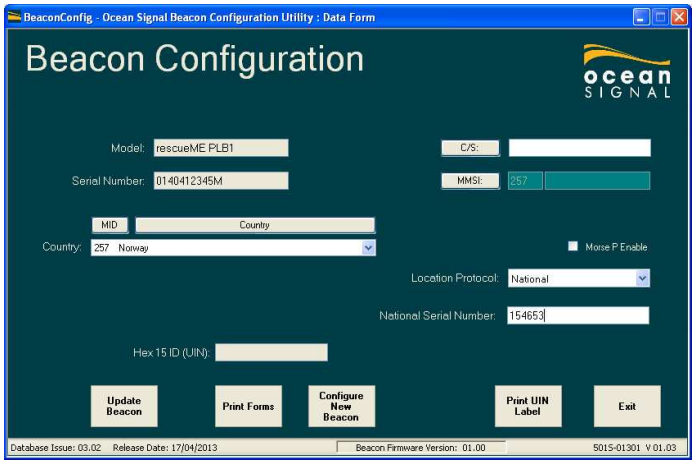
The PLB is now programmed.

Using National Protocol

Some countries such as Finland, Greece and Norway use individually allocated National numbers for coding PLBs. These can be entered as follows. Select the location protocol from the dropdown box as 'National'



Then enter the allocated number in the box that will appear below the protocol selector



The PLB is now updated in the normal way

(Note that national numbers may be allocated in bulk and programmed directly into the PLB at the time of manufacture. Australia is one such country. Do not attempt to change this number unless the country is also being changed.)

Updating an existing configuration

If the PLB1 has been programmed previously, it will need to be cleared before updating it with a new identity. After the PLB has been read and the contents are displayed, press the <CTRL>, <ALT> and <Z> keys simultaneously. A confirmation pop up will appear.

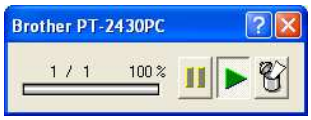
Press <Yes> to confirm. The PLB will now be cleared.

Press the <Configure New Beacon> button and continue as for a new PLB.

(Note: This process was introduced to prevent accidentally writing the current configuration to a new PLB and creating a duplicate.)

Printing forms

Following the successful configuration of the PLB, the UIN label should be printed, using the Brother PT-2430PC printer. Click the <Print UIN Label> button. The following dialogue will show briefly.

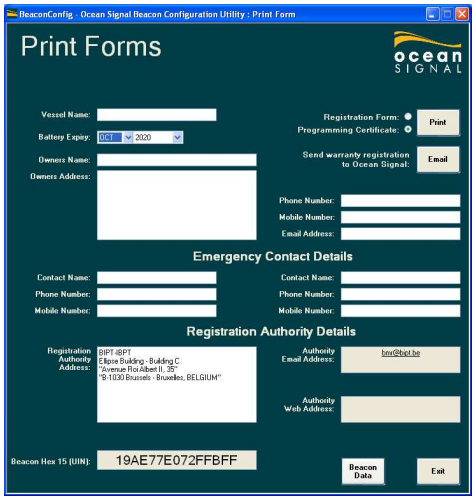


The label will now be printed and cut on your printer. This label should now be affixed to the rear of the PLB over the existing UIN number where

already printed. A clear label is included in the rescueME PLB1 box to cover over the rear label, which should be fitted at this point.

(It will be a good idea to print another label to fit over the box end label.)

The programming certificate can now be printed. Click the <Print Forms> button, which will open a new window.



Enter the battery expiry date (etched on the top of the PLB). If the users contact details are also known, please enter these in the appropriate boxes. Click on <Print> to print the programming certificate on your default printer.

Also to allow Ocean Signal to keep a record of the changes made to the PLBs, please click on the <Email> button to email the registration details. (Requires the computer to be connected to the Internet.)

EPIRB1 programming

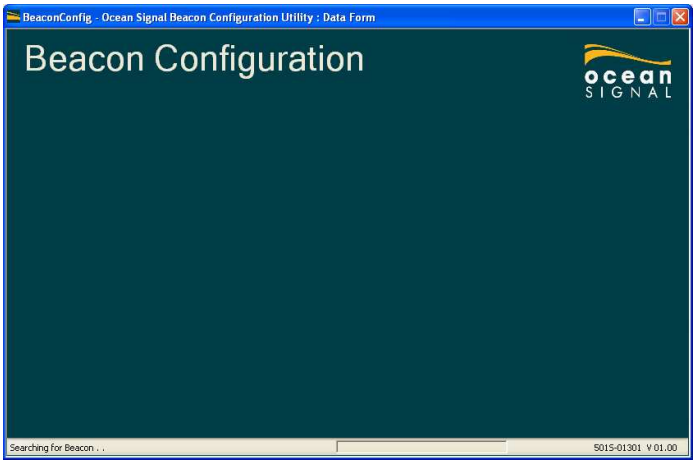
The beacon should be turned on in the programming mode.

If the EPIRB1 is un-programmed, press the test key until the RED LED starts flashing. Release the test key. The LED will start flashing at a faster rate for a short while and the strobe light will flash. The EPIRB is now in programming mode.

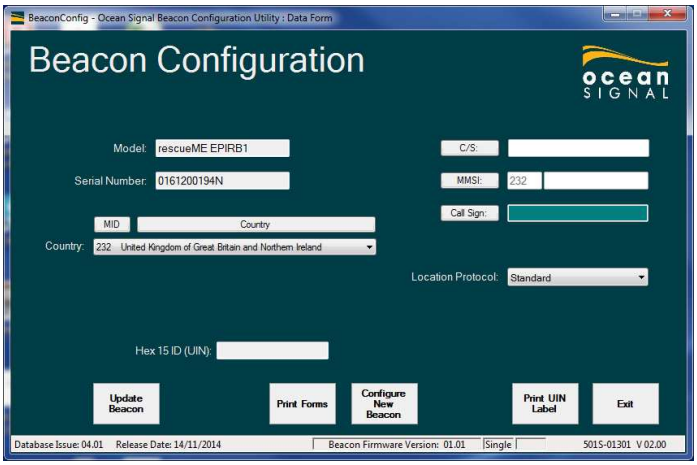
(If the EPIRB1 is already configured, press and hold the TEST key for over 15 seconds. The LED will start flashing green after 15 seconds has elapsed. Release the key and press the TEST key a second time. The LED will flash RED and the strobe light will flash)

Place the programming adaptor over the indicator LED as shown.

Open the beacon configuration programme. The opening screen shows the following.

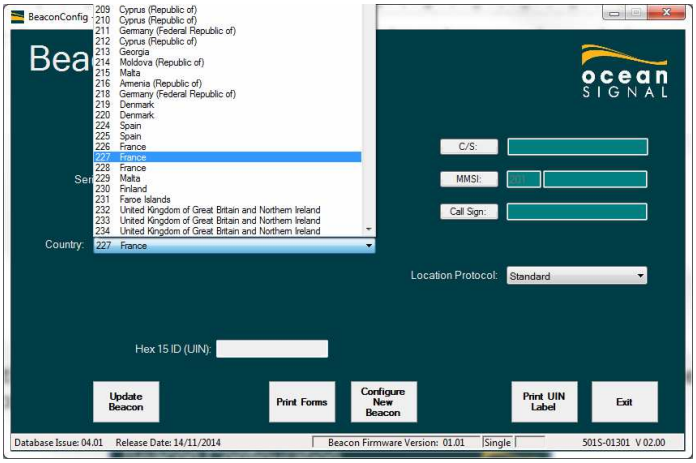


After the EPIRB data has been loaded, the configuration page will now be displayed with the details of the unit being configured being displayed.

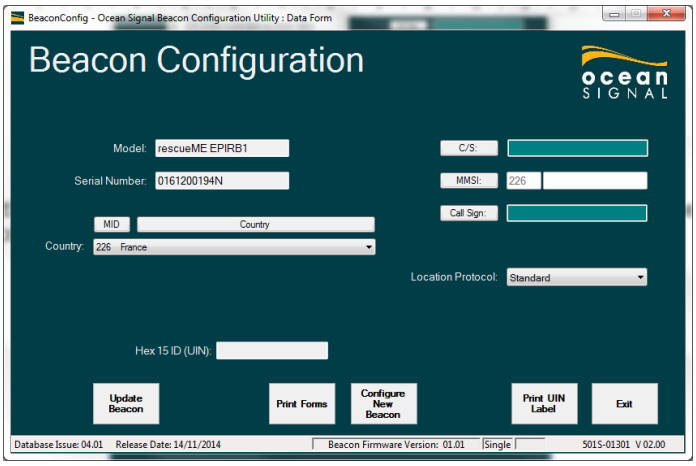


This screen shows an un-programmed EPIRB1 so there is no protocol, or HEX ID showing, and the country code is the default of United Kingdom.

Select the required country from the drop down box, as shown below.



Once the required country code is selected, the next step is to select the protocol required



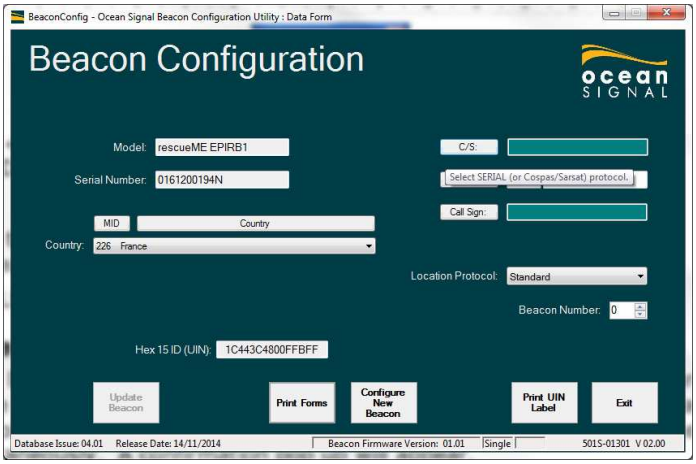
Press either the CS, MMSI or Call Sign buttons. If CS is selected the serial number will be automatically entered. (Note: It is recommended that the Call Sign option is not used and the transmitted position accuracy is severely reduced)

If the MMSI mode is selected enter the last six digits of the MMSI into the box. The first three digits are the MID which is automatically entered when the country code is selected.

Check that the correct protocols have been selected and press the <Update Beacon> button. The confirmation popup will show.

Press <Yes> to complete the programming. Confirmation will be shown in the following popup.

Press <OK>. The main screen will now be updated with the calculated HEX ID.



(Note this is how the screen will look when a pre-programmed EPIRB is first read.)

The PLB is now programmed.

Updating an existing configuration

If the EPIRB1 has been programmed previously, it will need to be cleared before updating it with a new identity. After the PLB has been read and the contents are displayed, press the <CTRL>, <ALT> and <Z> keys simultaneously. A confirmation pop up will appear.

Press <Yes> to confirm. The EPIRB will now be cleared.

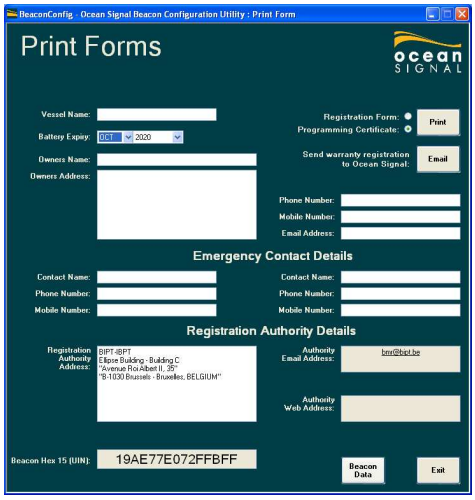
Press the <Configure New Beacon> button and continue as for a new EPIRB.

(Note: This process was introduced to prevent accidentally writing the current configuration to a new EPIRB and creating a duplicate.)

Printing forms

Following the successful configuration of the PLB, the programming certificate and user information labels label should be printed

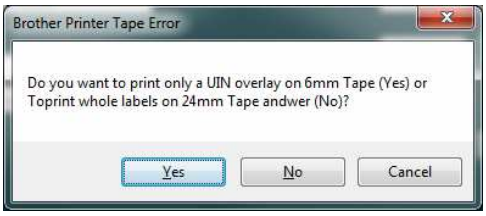
The programming certificate should be printed first. Click the <Print Forms> button, which will open a new window.



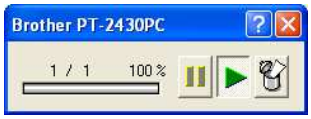
Enter the battery expiry date (marked on the original right hand label) and the Vessel name, if known. If the users contact details are also known, please enter these in the appropriate boxes. Click on <Print> to print the programming certificate on your default printer.

Also to allow Ocean Signal to keep a record of the changes made to the EPIRBs, please click on the <Email> button to email the registration details. (Requires the computer to be connected to the Internet.)

When completed press the <Beacon Data> button to return to the main screen. The new identity labels may now be printed using the Brother PT-2430PC printer with 24mm tape (TZe-251) in. Click the <Print UIN Label> button. The following dialogue will show show.



Press "No" to print the full labels on 24mm tape.



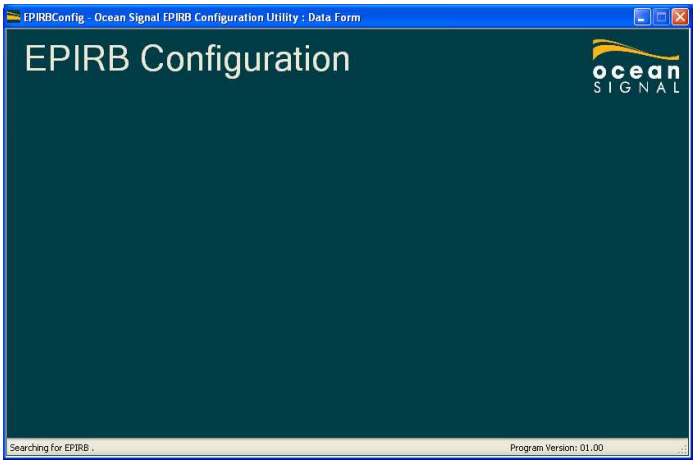
Two labels will now be printed and cut on your printer. These labels should now be affixed to the sides of the EPIRB (over the existing UIN and user identification labels where already fitted). Clear labels are included in the box to cover over these labels, which should be fitted at this point to protect against abrasive wear rubbing the print off in use.

E100/E100G programming

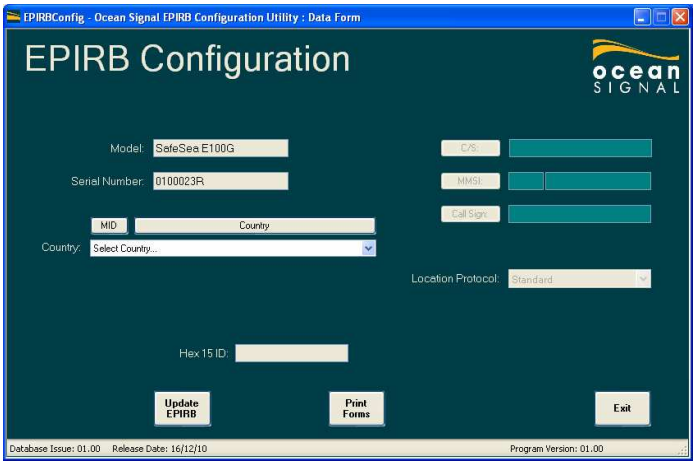
Connect the configuration adaptor to the EPIRB in place of the battery. Plug the adaptor into the computer, if not already connected.

Turn the EPIRB on, by rotating the test switch to the right and holding briefly until the green LED is lit.

Run the BeaconConfig software. Initially the following screen will show.

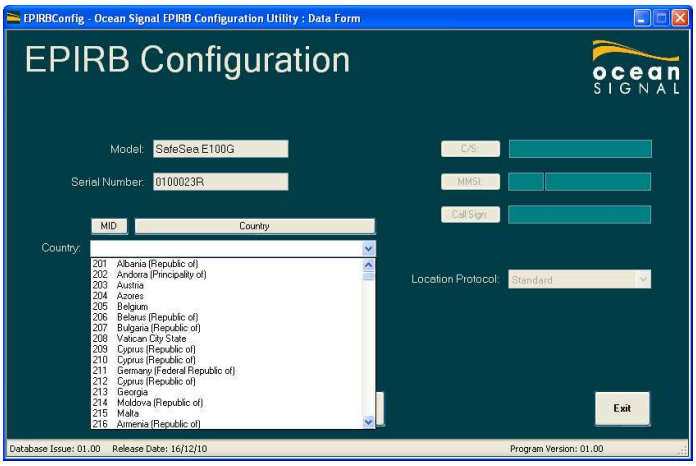


The software automatically searches for the correct USB port the EPIRB is connected to. When the port is identified the current contents of the EPIRB are downloaded.

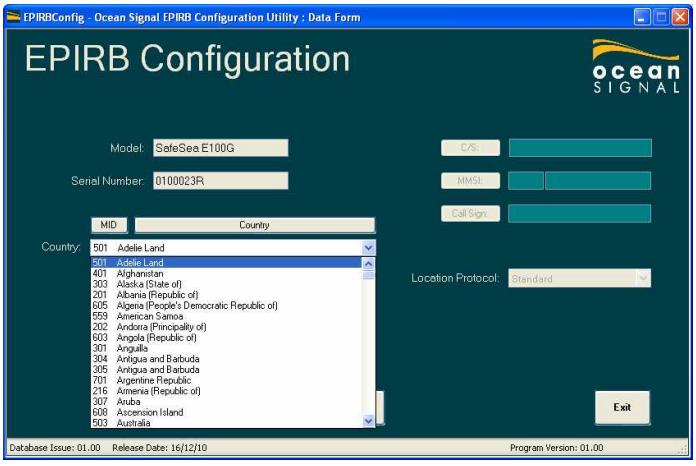


On successful download, the screen will show the product type and the serial number. In this example the EPIRB used is an E100G, so the location protocol options are also shown. (If the EPIRB had been previously configured the screen will also show the beacon identity).

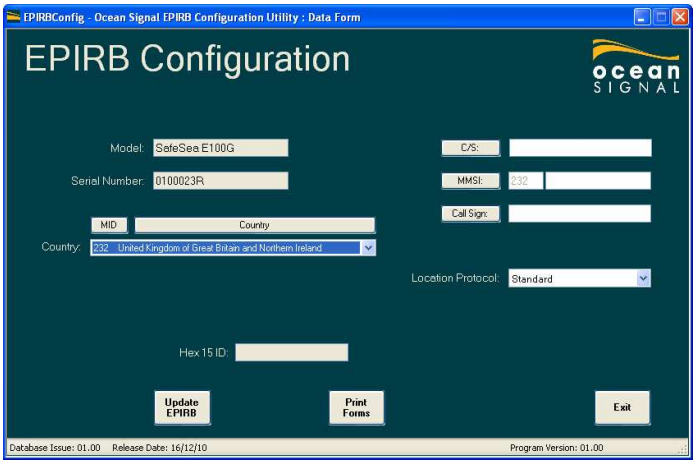
First select the country of registration using the pull down.

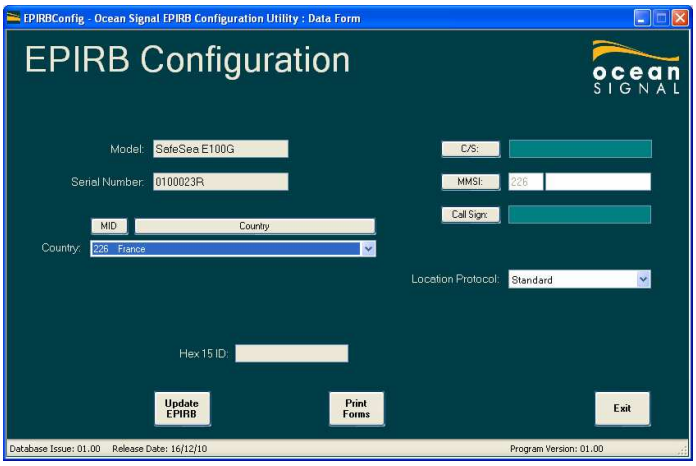


Pressing either the 'MID' or 'Country' buttons will sort the list in MID numerical order or alphabetical country order.



Having selected a country, the allowed identity options will be highlighted. For example in the UK serialised protocol (C/S), MMSI and Call Sign are all allowed, but in France, only MMSI is permissible. The permissible options will be indicated as below.

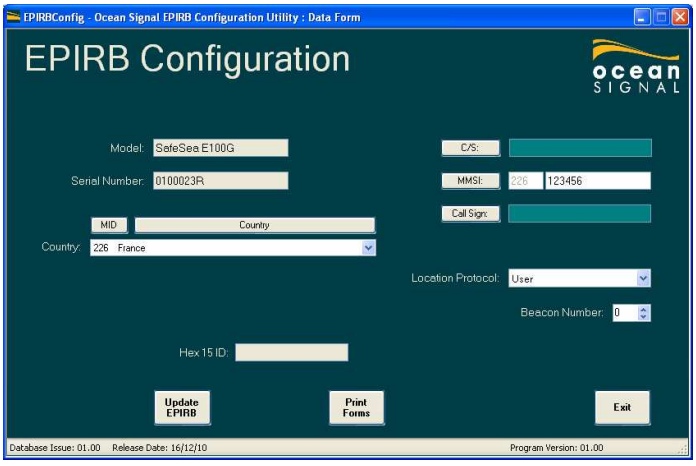




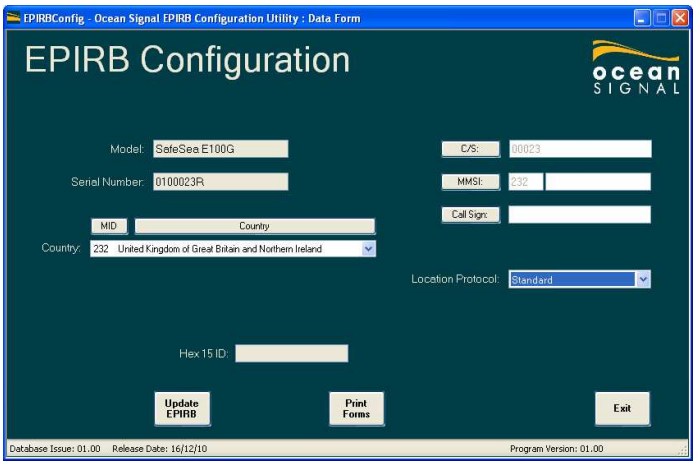
The required protocol may now be selected using the 'C/S', 'MMSI' or 'Call Sign' buttons.

Note: for C/S protocol, the number is automatically inserted and cannot be changed. If an option is chosen that is not preferred or allowed in the selected country a warning message will be shown, as below. The option to select a protocol not normally allowed is primarily provided for those countries that have not reported their protocol preferences to Cospas-Sarsat.

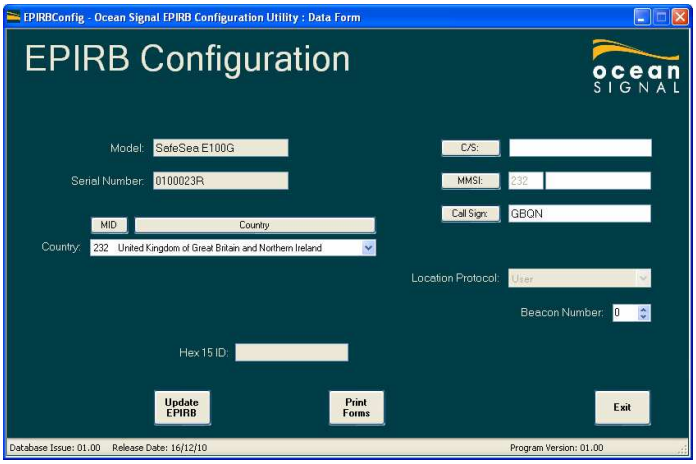
Enter the MMSI number or Call Sign as selected. For the MMSI the first three digits (MID) are automatically inserted when the country is selected. The Call Sign can be entered with any combination of letters and numbers of between 4 and 7 characters.



Screen showing MMSI entry



Screen showing Serialised Protocol (C/S)

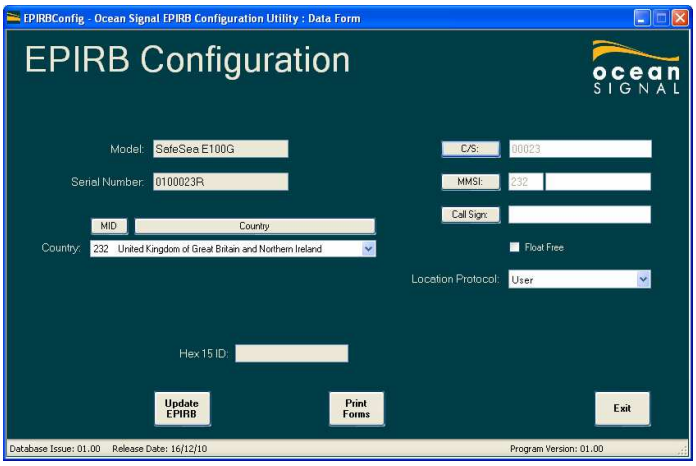


Screen showing Call Sign entry

When the beacon identity has been entered, other options will be available, depending on the selected protocol.

For all models the beacon number will be shown for MMSI and Call Sign protocol. This allows for multiple beacons to be allocated to one vessel. Normally this will be set to 0.

For the E100G if C/S or MMSI is selected the location protocol can be selected. Standard will provide the best position accuracy and should be selected unless otherwise specified by the customer. The other options are User and National. When User is selected with C/S protocol, the option to identify whether the EPIRB is mounted in a Float Free Housing is available.



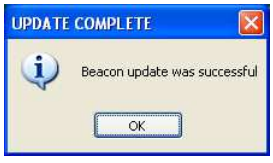
Click on the check box to select.

To update the EPIRB with the entered configuration, click on the 'Update EPIRB' button. The following box will show.

Select 'Yes' to continue.

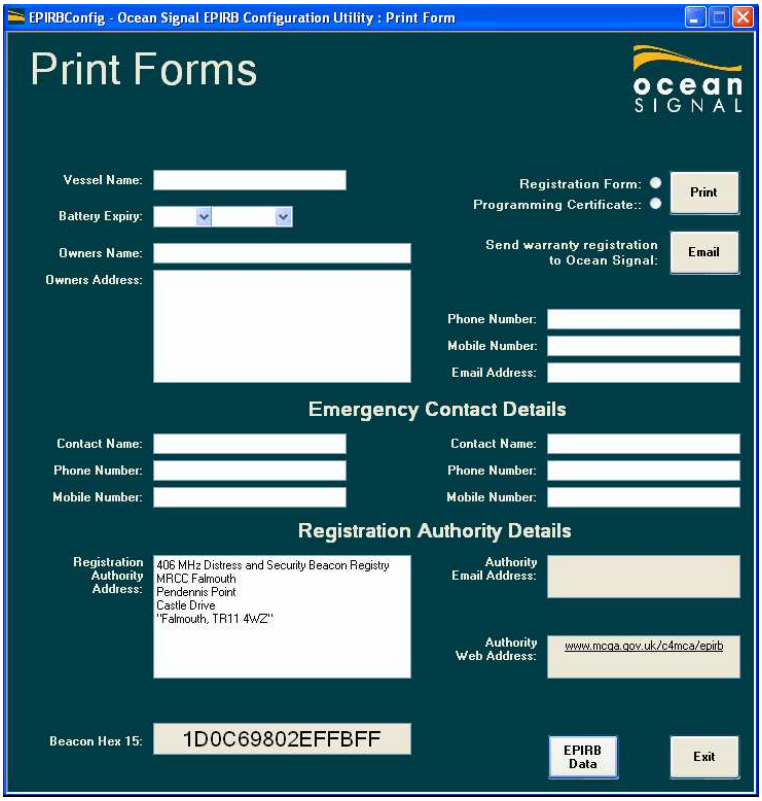
If any of the data in incorrectly entered a warning box will show as below.

On successful completion on the configuration upload the following message will show.



Printing Forms

On completion of the configuration upload the registration form and programming certificate should be printed out. Click on the 'Print Forms' button. A new screen will open.



This form allows the users vessel and contact details to be entered, which will be printed out directly on the form. Enter as much information as possible. When the data has been entered, select the 'Registration Form' option button and press print. The two page Cospas-Sarsat form will be printed out to the default printer. The vessel name and battery expiry date must both be entered before the form will print

The supplied details will be printed 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 for the customer's reference.

There is also the option to email the details to Ocean Signal for warranty registration. Using this option will be useful to Ocean Signal if an authority detects and EPIRB Distress Alert from an EPIRB that has not be properly registered.

Resetting the battery usage counters

When a battery in the EPIRB is changed for a new one, the battery use counters should be reset. This can be accomplished using the configuration software.

Load the software and download the EPIRB contents as normal. Then to open the hidden reset function, press the <Ctrl>, <Alt>, <R> keys together. The screen should now show the Reset Counters tick box.