

**AIS S.A.R.T. & DSC GMDSS MOB
easyRESCUE-PRO**

Instruction Manual - English



AIS S.A.R.T. Maritime Distress Transmitter and DSC MOB | Ao4o-PRO

Revision: 2.0

Weatherdock AG
Sigmundstrasse 180
D – 90431 Nürnberg

Tel. +49 (0) 911 – 376637830

Fax +49 (0) 911 – 37663840

www.weatherdock.com

info@weatherdock.de

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Revision Level of the Instruction Manual

Version 1.0 Author Knipp, State 23.04.2015

Version 1.1 Author Kotouczek, Stand 2. June 2015, Programming by VHF Radio added.

Version 2.0, ww & ak, state November 16th 2015, general revision, programming options added.

1 Safety Instructions

1.1 General Safety Instructions



Warning:

- ⚠ Read all safety instructions and information. Keep all safety instructions and information for future reference.
- ⚠ Keep the device out of the reach of children!
- ⚠ Triggering the device mistakenly and sending an official distress call is not considered a petty offence and may cause subsequent costs!
- ⚠ Attention: Replacing the batteries personally with a wrong type of battery, can lead to risk of explosion.

1.2 Special Instructions for the Device

- ⚠ The easyRESCUE-PRO uses lithium batteries. When used at a temperature of -20°C or over 55°C , the battery capacity will decrease. Keep the device away from heat and hot environments. In the case that these warnings are being ignored, the batteries in the easyRESCUE-PRO may overheat, explode or burn and cause damage to the device.
 - ⚠ The battery capacity is 7 years. Due to the SOLAS certification of the easyRESCUE-PRO, the batteries must be replaced after 5 years and the device must be sent back to the retailer for servicing. After an emergency use, the device must be sent back to the retailer in any case, to re-obtain 100% functionality.
 - ⚠ The strong internal transmitter may possibly affect medical devices, e.g. cardiac pace-makers, in their functionality!
 - ⚠ The manufacturer assumes no liability for damage or failures caused by these instructions or the deleting of data due to functionality failure, a faulty battery pack or improper use of the product.
 - ⚠ Only use supported and approved equipment. Unauthorised, altered or modified equipment can damage the device, violate legal regulations or affect radio controlled devices. Clean the device with a clean, dry and soft cloth. Do not use any aggressive liquid solvents, chemicals or strong detergents.
 - ⚠ Do not try to open the device on your own. Unauthorised or violent opening may destroy the device and you will lose your warranty claim.
-



2 LICENSE for the AIS-SART/DSC MOB easyRESCUE-PRO

Important note:

By using the easyRESCUE-PRO you accept the conditions of the following license agreements. Please read this agreement carefully. The Weatherdock AG grants you a limited license for using the device in the normal operation of the product. Title, proprietary rights and intellectual property rights, within and of the software shall remain with the Weatherdock AG. Warranty: for this product, Weatherdock AG grants a 2 year warranty on material and manufacturing faults from the date of purchase. Within this period, Weatherdock AG will repair or replace faulty components in normal operation, at its own discretion. Repairs or replacements within the warranty period will be made free of charge, for spare parts and labour. The customer however, has to pay for shipping costs. This warranty does not apply in case of misuse, wrong usage, accidents or unauthorised modifications or repairs.

The warranties and rights contained are exclusive and supersede all other explicitly or implicitly assumed warranties and laws; including all legal or other liabilities from a warranty of profitability or suitability for a certain purpose. According to different countries, this warranty grants you certain rights. The Weatherdock AG is not liable for incidental, special, indirect or consequential damages resulting from the use, misuse or inability to use the product or faults in the product. Weatherdock AG reserves the sole right to repair and replace the device or software or the refund of the purchasing price. This right is your sole and exclusive right in case of a warranty claim.

Products bought in online auctions do not qualify for discounts or the use of special offers of the Weatherdock AG. Also, purchase confirmations from online auctions will not be accepted as proof of the right to warranty claims. The satisfaction of warranty claims always requires the retailer's original purchase receipt. Weatherdock AG will not replace missing device and equipment parts for products bought in online auctions. In case of a warranty claim, please contact your Weatherdock AG retailer. He will coordinate the further procedure with you. In case of shipping, pack your device carefully and send it to the address your retailer will give to you, with sufficient postage. In case of warranty repairs, always enclose a copy of the original purchase confirmation as proof of ownership. The Weatherdock AG easyRESCUE-PRO does not contain any parts to be repaired by the user himself. For any problem that might occur with your device, contact your easyRESCUE-PRO retailer. Every attempt to alter or modify the device will lead to the expiration of all warranty claims and may damage the device beyond repair.

The opening of the device by an unauthorised person will lead to the expiration of the warranty! Please contact your retailer.

ATTENTION:

It is the user's responsibility to use the easyRESCUE-PRO carefully. The easyRESCUE-PRO can trigger an official maritime distress call with a distant emergency service (like the DGzRS [Sea Rescuers], for example) via its DSC functionality. This is not a petty offence! With a triggered

AIS emergency signal you will call the surrounding ships, respectively the coastal radio stations within reach of the AIS and inform them about your position.

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3 Scope of Delivery

The delivery contains:

- easyRESCUE-PRO (Ao4o-PRO)
- Instruction manual German/English

4 General Product Description

The easyRESCUE-PRO combines two devices in one. On the one hand, it is a portable AIS emergency transmitter (AIS SART) with an integrated GPS receiver. On the other hand, the device includes a fully approved DSC Class D transceiver.

This powerful combination of two services allows enhanced rescue operations in case of MOB (Man Over Board) distress situations. In case of a distress situation the two systems, which are operating absolutely simultaneously, guarantee the following:

4.1 AIS SART operation

Internationally defined emergency messages are transmitted every minute on the two worldwide used AIS frequencies. Every AIS receiver or transceiver in the vicinity of the transmitter is able to receive and interpret these messages, showing the emergency case on an ECDIS (Electronic Chart Display) installed aboard. Systems like this are nowadays operated not only on commercial vessels, but on an increasing amount of leisure ships as well. The emergency case is shown on these displays with a unique symbol (red cross inside a red circle), accompanied by an acoustic alarm. In addition all relevant information, like the unique Identification Number (MMSI of the Rescue transmitter) of the person in distress, exact position and time, SOG (Speed Over Ground), COG (Course Over Ground) regarding the distress situation, can be found on the display as well. All data is updated every minute, so vessels in the radio range are informed with revised data in this time interval. Compared to satellite operated systems AIS SART directly informs all vessels surrounding the emergency and a short-term rescue operation can be conducted. Even in harsh environment, the victim has highly raised chances to survive.



4.2 DSC GMDSS

Simultaneously to the AIS SART emergency transmissions, the easyRescue-PRO starts transmitting DSC alert messages with the very beginning of the distress case. A three-step-process is used for this service. To understand this three-step-process it is important to know, that each easyRescue-PRO device can at least be programmed with the vessel's ID (MMSI) where the person wearing the rescue device is normally located. Beside its unique Identification number, which always starts with 970, the easyRescue-PRO therefore contains a minimum of one vessel-ID (MMSI) in its data memory. In addition, the easyRescue-PRO offers the possibility of programming up to eight vessel ID numbers into the device to those users, who often need to change a vessel like pilots, SAR crew members, etc.

First step:

Triggering the Alert case, the easyRescue-PRO immediately transmits DSC Individual Calls addressed to the programmed vessel IDs to inform these (buddy) vessels about the distress situation (This is called "closed loop", as only the addressed vessels are alerted!). If only one vessel ID is programmed into the easyRescue-PRO, only one Individual Call is transmitted. This first call has no position information yet, as the GPS receiver needs some time to derive the correct position (20 to 60 seconds).

Second step:

As soon as the position of the victim is fixed by means of the internal GPS of the easyRESCUE-PRO, a second series of DSC Individual Calls towards the programmed vessels (closed loop) is sent; now with the accurate position derived from the GPS receiver. These Individual Calls are repeated after five minutes with updated position information. Within a time frame of ten minutes¹ from the first transmission (with position information) on, any vessel of the buddy vessels (up to eight) can acknowledge these distress telegrams, which leads to a shutdown of the DSC operation of the easyRescue-PRO. No further distress DSC telegrams are transmitted. The victim is informed about this activity by a long beep from the internal buzzer as well as by the green DSC confirmation LED of the device, which starts to flash after the acknowledgement.

But the AIS-ALERT stays valid and is ongoing transmitted until the unit is switched off.

Third step:

In case, the DSC Individual Call (closed loop) has not been acknowledged within the time frame of ten minutes, the easyRescue-PRO changes to a DSC All Ships Call (this is called "open loop"), broadcasting the distress case to all ships, Coast Guard base stations, etc. in the surrounding. The full GMDSS (**G**lobal **M**aritim **d**istress and **S**afety **S**ystem) rescue chain is triggered with this All Ship Call. The All Ships DSC Broadcast Alert is repeated every five, later every ten minutes until the device is switched off, the battery runs empty, or the All Ships Call was acknowledged. It is important to know, that only the Coast Guard, or DSC Class A VHF Radios installed on commercial vessels are able to acknowledge an All Ship Broadcast Alert. The time frame to

¹ The easyRescue-PRO is available also for an "All Ships Call" (open loop) after 5 minutes from activation on. (RTCM1190.1 recommendation). Standard is 10 minutes.

acknowledge the All Ship Calls is two minutes, always following the end of a transmitted call. Audible and visible information for the victim about the status of the DSC operation is provided as mentioned before.

A timing chart with detailed information about the DSC distress process can be found in chapter 8.2.4.

If no vessel ID was programmed into the easyRescue-PRO, the device's alert operation will start ten minutes after the trigger directly with transmitting the first All Ship Call (Broadcast Alert).

Standard VHF DSC Class D Radios, which are fixed mounted aboard, normally allow the acknowledgement of DSC Individual Calls (Closed loop) addressed to them. Please be aware, that this is NOT THE FACT with most handheld DSC Radios. Those devices allow for programming an easyRescue-PRO by VHF messaging as described in this manual and can be used for testing the DSC radio link to an easyRescue-PRO only.

ACKNOWLEDGING OF DISTRESS CALLS, NEITHER INDIVIDUAL, CLOSED LOOP, NOR OPEN LOOP, CAN BE CONDUCTED BY HANDHELD DSC VHF RADIOS!

It is necessary to know, that an acknowledgement of the DSC Alert transmissions, which lead to a shutdown of the DSC operation, DO NOT cease the AIS SART transmissions. Those can be shut down only by switching off the easyRescue-PRO.

4.3 Miscellaneous

The achievable operating range of the easyRescue-PRO is found to be ten to twenty nautical miles at standard "working conditions". This value depends on several criteria:

In a standard distress case the rescue transceiver is integrated into a life vest, height above the sea surface between zero and twenty centimeters, receiving antenna on a sailing yacht in a height of approximately 15 meters. This condition allows a radio range of 10 to 15 nautical miles.

Rising the receiving antenna to a height of 25 to 40 meters, e.g. the mounting height of antennas on commercial vessels, the radio range will increase to 20 nautical miles and up. Receiving the distress telegrams from aircrafts, a range of 40 to 100 nautical miles is obtained easily.

Although the easyRescue-PRO has been developed for the use as an integral part of automated life vests, it can be operated from life rafts or rescue boats (as it is SOLAS approved, which is the official requirement for the usage on commercial vessels!), in upper arm pockets, etc. Chapter 10 shows some ideas regarding this.

The easyRESCUE-PRO is 10m waterproof, resistant against salt water, oil and direct exposure to sunlight and withstands a 20 meter drop onto the sea surface. Also, the device is 100% floatable without any floating aid.

5 Approvals

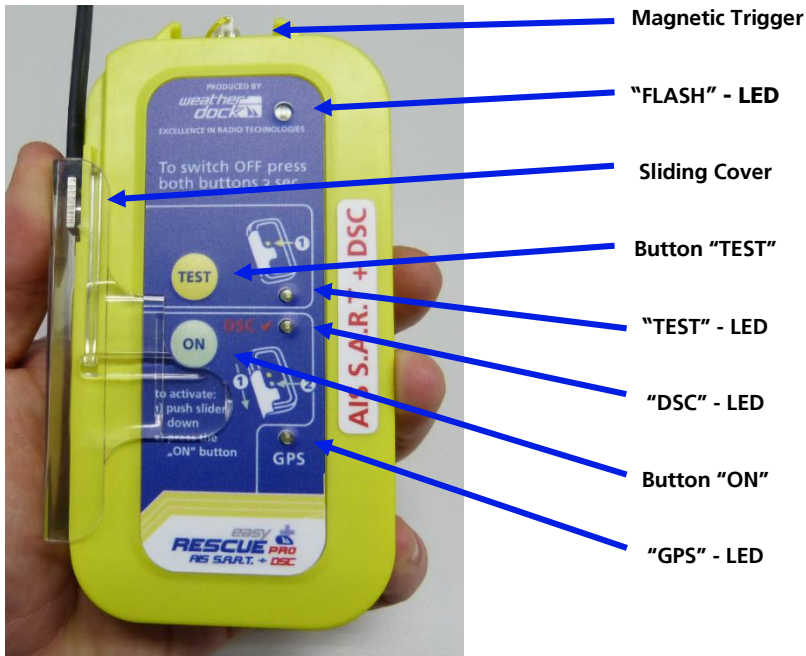
The AIS S.A.R.T. is approved by

- Bundesamt für Seefahrt und Hydrographie BSH (Federal Maritime and Hydrographic Agency)
- SOLAS (Safety of Life at Sea) by IMO (International Maritime Organization)
- US FCC (United States Federal Communication Commission)
- USCG (United States Coast Guard)

The DSC transceiver is compliant with

- the directive RTCM 11901.1 and
- EN301025, Class D

6 Function Overview



6.1 Control Elements

6.1.1 Sliding Cover

The sliding cover prevents the user from accidentally triggering the unit into the distress operation mode by covering the "ON" button. By pushing the plastic slider down, the "ON" button is exposed and can be activated. Through a spring mechanism the sliding cover will be pushed back into the original position.

6.1.2 Magnetic Trigger in Combination with special automated Life Vests

Triggering the easyRescue-PRO with the magnetic switch the device is equipped with, requires automatic life vests with pockets for the easyRescue-PRO already mounted and integrated to the lifejacket. Please refer to www.rettungswesten24.de to find out which life vest manufacturers offer appropriate life vests.

You find this magnetic switch on the upper rim of the device. It consists of a plastic plate holding the sealed magnet and a rip cord attached to it. The plastic plate with the magnet is inserted in a clamp on the easyRescue-PRO housing. The rip cord needs to be firmly attached to the life vest according to the life vest manufacturer's specification.

As soon as the vest inflates due to water contact, the rip cord tightens and pulls off the holder containing the magnet from the easyRescue-PRO main housing. Hereby the easyRESCUE-PRO is triggered in AIS emergency and DSC distress operation.

6.1.3 Button "TEST"

By pushing the "TEST" button the device will undergo several checks to secure the proper function in case of distress. Please refer to chapter 7 to learn in detail about the functionality check.

The international SOLAS (**S**afety **O**f **L**ife **A**t **S**ea) convention requires a battery change cycle of 5 years. The lithium batteries used to operate the easyRescue-PRO would sustain a much longer time period easily, but according the legal situation the batteries must be replaced every 5 years. This can be done by a service company only. Regarding addresses, please refer to your retailer.

Within these 5 years the functionality check can be conducted 30 times. These 30 tests will not affect the specified operating time; neither the 96 hours of pure AIS operation (if the DSC distress transmissions have been stopped by acknowledgment at the beginning of the distress case), nor the 24 hours of parallel AIS emergency and DSC distress messaging after the device has been activated. A detailed specification of the operating time can be found in chapter 9.

6.1.4 Button "ON"

Pushing the "ON" button manually results in an activation of the easyRESCUE-PRO in full distress operation. Simultaneous transmissions of AIS S.A.R.T. emergency and DSC distress telegrams on the two international specified AIS frequencies and the DSC channel 70 respectively will follow this distress trigger. Refer to chapter 4 for detailed information.

Pushing the TEST and the ON button simultaneously for longer than 3 seconds will deactivate the distress case and shut down the device.

- ⚠ In the case, that the easyRescue-PRO had been activated by the magnetic trigger, the magnet holder has to be re-attached for a full shut down of the device. Pushing both buttons as described, will of course cease the emergency transmissions, but the internal control electronics would stay alive. As a visual reminder of this fact, you will see the yellow TEST LED flashing fast.

6.2 Display

6.2.1 "GPS" - LED



This green LED is flashing after a successful position fix of the internal GPS receiver. The flashing lasts as long as the device is set to Distress Alert mode and as long as GPS signals can be received with sufficient signal strength. Conducting a device test by pressing the TEST button will also result in a flashing of this LED, as soon as GPS has position fix. Good GPS reception will be achieved with a free view to the sky, please have this in mind.

6.2.2 "DSC" - LED



This green LED flashes in the case, that the easyRescue-PRO has received an acknowledge telegram. Two cases are possible:

The device receives a DSC acknowledgment of a vessel, the coastguard, etc. during distress alert operation. The flashing lasts until the device is switched off or the battery runs flat.

The device receives a DSC acknowledgment during conducting a functional test (pressing the TEST button). Flashing of the LED ceases with the end of the test.

6.2.3 LED "TEST"



The yellow LED flashes as long as the easyRESCUE-PRO is in test mode.

6.2.4 LED "FLASH"



The white high bright LED flashes when the easyRESCUE-PRO is in the ON or TEST mode. This powerful bright LED assists finding the victim in darkness and under bad weather conditions.

7 Functionality Check

By pushing the "TEST" button the device will undergo a full functional check:

The GPS receiver is switched on until a GPS position fix occurs. (Time limit for this test is 5 minutes.)

The received GPS position is transmitted via a sequence of eight AIS test telegrams alternating between the two international specified AIS frequencies. These telegrams can be received by any AIS receiver/transceiver and displayed on the vessel's Electronic Chart Display. The transmitted telegrams have the status of TEST telegrams; the clear text content of the telegrams shows "SART TEST".

In parallel to the AIS transmissions, DSC test messages without position information are sent to all programmed vessel IDs (MMSIs). This can be one to eight different vessels. Please refer to chapter 8.1 to learn how vessel IDs can be programmed to the easyRescue-PRO's vessel ID memory. In the standard case only the MMSI of the VHF DSC Radio of your own ship is programmed.



The vessel's VHF DSC Radio will receive the DSC test messages showing an audible alarm and the MMSI of the calling easyRescue-PRO on the VHF DSC radio display. Manual acknowledging the reception at the VHF DSC Radio results in an answer message sent back to the easyRescue-PRO. The easyRescue-PRO will react with a long audible beep and the green DSC LED will start flashing confirming the proper radio reception.

The TEST mode is finished, when all AIS telegrams have been sent; normally this takes around one minute of time under open sky with sufficient GPS signal strength, but don't be concerned if it might take 3min – this is still perfect and depending on the surrounding conditions. During shut down the status's of the green GPS LED and the yellow TEST LED represent the test result. Please see the table below.

Pushing the "TEST" button for more than 3 seconds during the time period the TEST is conducted, the test mode is shut down without being finished. The Test end will be signaled by a switch-off beep of the device.

LED - Display	Test - Result
Yellow TEST- LED is ON for 5 seconds	The test has been completed successfully. The battery capacity is within the specified limits.
Yellow TEST- LED flashes	The easyRESCUE-PRO has recognized, that the battery capacity is lower than specified. This occurs when the battery expiration date is exceeded, the test function has been conducted more than 30 times, the Bluetooth® programming has exceeded 30 minutes or generally when the device was set to full distress alert formerly.
Green GPS- LED is ON for 5 seconds	The GPS signal strength during the test was sufficient and the actual position could be derived.
Green GPS- LED flashes	Within the limited test time of 5 minutes, <u>no GPS position</u> could be derived. The test has to be repeated later again under better surrounding conditions (Free view to the sky!).
Green DSC-LED flashes	The green DSC LED flashes, if the transmitted DSC test telegram was acknowledged by whichever of the vessels VHF DSC Radios which are programmed into the easyRescue-PRO by their ID (MMSI).

8 Initial Operation

8.1 Programming of the own MMSI

Before using the full functionality, including DSC alert of the easyRescue-PRO, the unit needs to be enabled to transmit an “individual distress alert” to the own mothership (Closed loop). Therefore the MMSI of the mothership’s VHF DSC Radio must be programmed into the device. With this programming the easyRescue-PRO and the mothership’s VHF DSC Radio are paired and a two-way DSC radio communication according GMDSS Alerting can be established.

For those users of the easyRescue-PRO who often need to change a vessel, like SAR crew members or pilots, the easyRescue-PRO offers the possibility to program up to eight different vessel IDs into the internal memory. In case of an accident, all programmed vessels will be called by the easyRescue-PRO with individual calls (closed loop) according the vessel’s IDs at the beginning of the distress transmission of the unit.

If the easyRescue-PRO won’t receive a DSC acknowledge from neither one of the called vessels, the device will automatically change over into an “All Ships Call” (open loop) after 10 minutes.

For programming the MMSIs into the device, the user can chose between three different methods. It highly depends on the situation of programming, which way will be the easiest and most safe. E.g. for field programming with an easyRescue-PRO mounted inside a life vest and no additional service tools like notebook/laptop or Android-Bluetooth-phone/tablet around, we recommend to use the procedure mentioned as number 2.

- 1) With a Bluetooth® connection to an Android phone or tablet and the Weatherdock Programming App. Bluetooth® programming is available as an option.
- 2) With the mothership’s VHF DSC Radio itself
- 3) With the Weatherdock Programming socket (article number A124) and a notebook/laptop/PC via USB

8.1.1 Programming of the MMSI via App

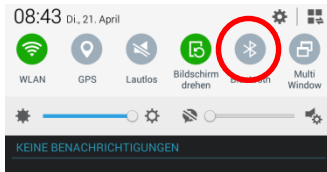
This can be done via a BLUETOOTH® connection from a smartphone or a tablet with the Weatherdock-App “easyRESCUE-PRO”, which can be downloaded on GooglePlayStore® for free.

Within the battery life cycle of 5 years, a total time period of 30 minutes is foreseen to perform programming and/or reprogramming by Bluetooth®, without cutting down the specified operating time.

8.1.1.1 Download and Installation of the App

Download the corresponding App for your mobile device. We recommend using a wireless network for the download, so no additional connection cost will arise. After the Download please install the App on your mobile device and open it.

8.1.1.2 Using the App



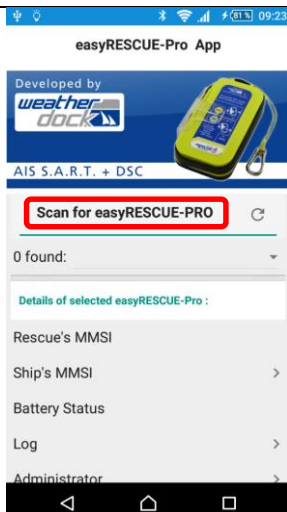
- Activate the BLUETOOTH® function on your mobile device.
- If not activated, the App will ask for automatic activation of the BLUETOOTH® function. Tick "allow" in this case.



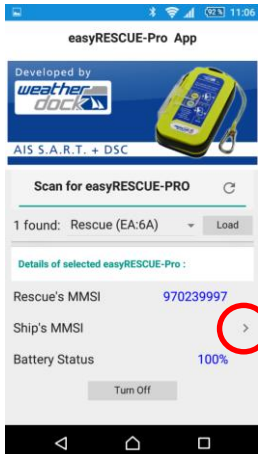
- Push the "TEST" button and keep it pressed for more than 3 seconds. All LEDs on the keypad start to glow.

BEEP – BEEP - BEEP

- The easyRESCUE-PRO will beep 3x to show that the device is now in programming mode.
- All LEDs stop glowing except the yellow LED, which remains ON during the whole programming procedure.



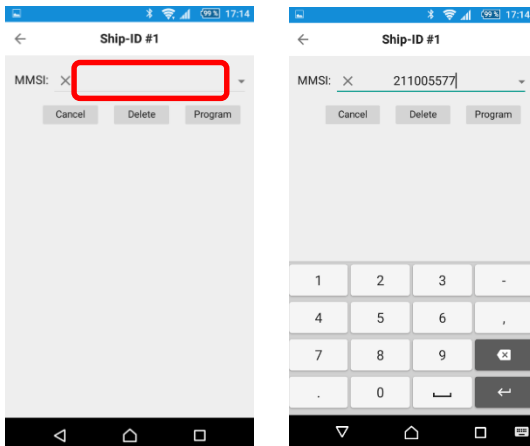
- Open the App.
- Press "Scan for easyRESCUE-PRO" to connect the App with the distress transmitter.



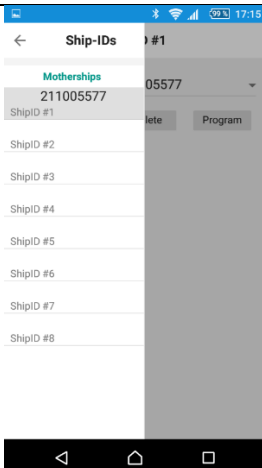
- On the rear side of the easyRESCUE-PRO you find the device's printed label. Please check whether the "Rescue's MMSI" in the App corresponds with the one printed on the device's label.
- Tick the arrow pointing to the left to start with the programming of your ship's MMSI.



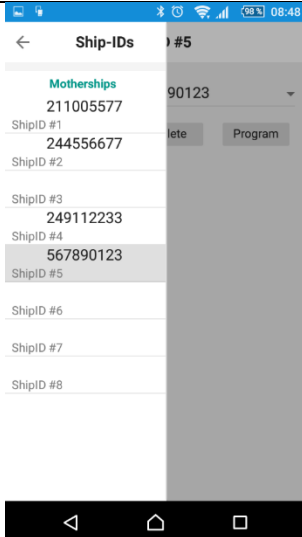
- The programming window opens up as shown
 - Tick on one of the eight ShipID programming fields to enter your MMSI.
- You can choose any of the fields.



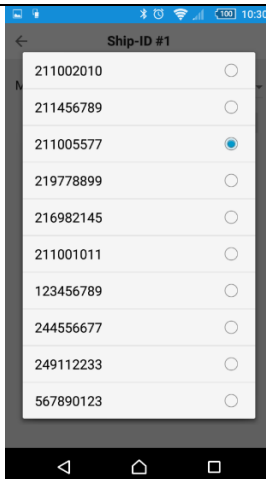
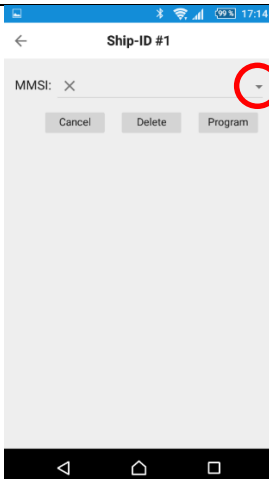
- Type in your ship MMSI here
- Press "Program"



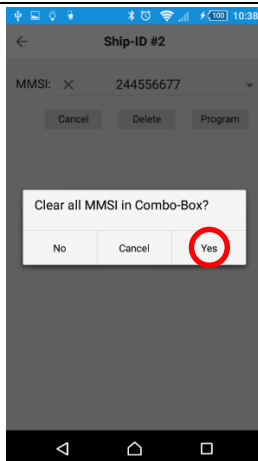
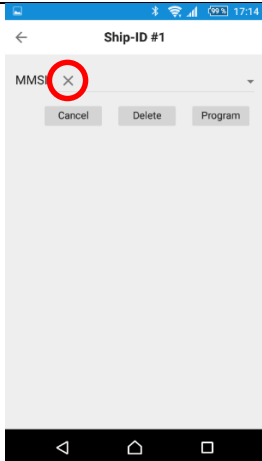
- The number you typed in is now stored into one of the eight ShipIDs. In the example on the left hand side it's stored at the ShipID #1.
- The easyRescue-PRO confirms the correct programming with an acoustic beep.
- Repeating this programming procedure for up to 8 times, allows you to store up to 8 different vessel IDs, which will be used simultaneously.



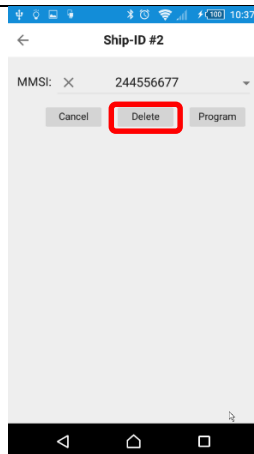
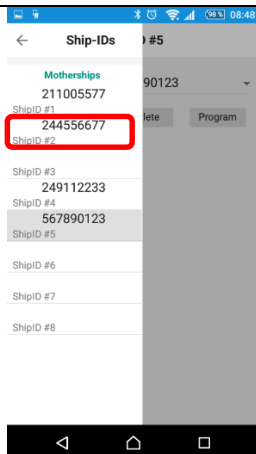
- Using the example on the left hand side you can see, how a programming of 4 different IDs could look like.
- If you typed in a wrong number, just tick this erroneous entry and edit the number according your need.
- Any change you make at the easyRescue-PRO's programming memory will be acoustically confirmed by the device with a beep after pressing the "Program" button.



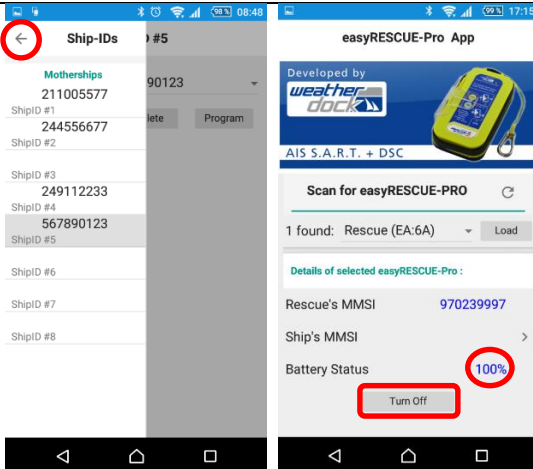
- Sometimes it might be necessary to program the same couple of vessel IDs into several different easyRescue-PRO devices.
- In this case just click on the arrow pointing downwards to open a list with recently programmed numbers. Chose the one which you want to use again.



- ➡ To clear the list in the handheld, (not in the easyRESCUE-PRO), with recently used IDs, tick the X, followed by "Yes"
- ➡ Be aware, that with this action the list in your handheld is cleared only, but NOT in the easyRescue-PRO's memory.



- ➡ To remove a Ship ID from the easyRescue-PRO's memory, tick the ID you want to delete.
- ➡ Press "Delete" afterwards.
- ➡ You can proceed until the ShipID memory is empty.
- ➡ Each deletion process is acknowledged by the easyRescue-PRO with an acoustic beep.



- Tick the arrow pointing to the left to leave the programming area.
- The App's standard window appears. In addition you can check here for the easyRescue-PRO's remaining battery capacity.
- Ticking "Turn Off" will switch the easyRescue-PRO off, which again will be acknowledged by an acoustic beep of the device.
- If you do not switch off the easyRescue-PRO manually, the device will shut down automatically after 1 minute.
- The easyRescue-PRO is now configured and prepared for use in a distress situation.

In case you need assistance programming your ship's MMSI into your easyRescue-PRO, your retailer probably can help out.

8.1.2 Programming of the MMSI with your own VHF DSC Radio

Below you will find the step-by-step procedure to pair your easyRescue-PRO with a vessel's VHF DSC Radio. This procedure can be repeated up to eight times, as the easyRescue-PRO provides memory capacity for up to eight different vessel IDs.



easyRescue-PRO:

- Press the „TEST“ button of the easyRescue-PRO for more than 3 seconds and keep it pressed to set the device into the programming mode.

All LEDs glow

You hear beep – beep – beep

The yellow LED remains glowing (all other LEDs shut down)



- ➔ All LEDs start to glow.
- ➔ After a few seconds you hear the internal buzzer beeping three times. In parallel to the buzzer all LEDs except the yellow LED stop glowing.
- ➔ The constantly glowing yellow LED indicates, that the easyRESCUE-PRO and the VHF-DSC Radio can be paired now (programming mode). This status lasts for 1 minute. During this time period the easyRescue-PRO can be programmed.
- ➔ If no pairing has been performed during this time period, the unit shuts down automatically. If you miss this time period, you have to restart the programming procedure.



VHF DSC Radio:

- ➔ Chose the „CALL“ function with your VHF DSC Radio.
- ➔ Chose „INDIVIDUAL“ call.
- ➔ Chose „ROUTINE“ call.
- ➔ Chose „MANUAL NEW“.
- ➔ Insert now the easyRescue’s MMSI into the VHF DSC Radio
- ➔ Unit ID: 970 _ _ _ _ _
- ➔ Confirm the inserted MMSI with „ENTER“ and continue with „SEND“.
- ➔ The transmitted telegram is now received by the easyRescue-PRO and the MMSI of the transmitting VHF DSC Radio is stored into the easyRescue-PRO as a new mothership’s MMSI. The easyRescue-PRO is automatically answering with an acknowledge telegram, the

Unit ID: 970230190



Storage: -40°C to +30°C
BBN#4581001450236813
FCC ID: Z09190C-A045
U.S. Coast Guard approved
Compass safe distance 0.3nm
MFD: 10/2015

AIS-S.A.R.T.
easyRESCUE-Pro
#AA00-Pro
Made in Germany
Weatherdock AIS

FC CE 0700

Password: #680p



DSC-MOB
Compliant to: IECM 1998 v.1

Operation:
-35°C to 55°C
24h continuous AIS / DSC operation,
50%
95h AIS operation when DSC closed loop
acknowledge

RECEIVED 4000
10/12/2020

internal buzzer beeps five times and the device shuts down.

- The easyRescue-PRO's acknowledge telegram leads to an audible alarm at the vessel's VHF DSC Radio. In addition the easyRescue-PRO's MMSI can be found on the VHF DSC Radio's display as proof that the programming was successful.

-
- This method of pairing the easyRescue-PRO with a vessel's VHF DSC radio can be performed up to eight times to store up to eight different vessel IDs into the device.
 - Each programming procedure comes along with the audible and visible acknowledgements mentioned above, to ensure the proper programming.
 - Trying to program a ninth MMSI into the easyRescue-PRO, which is not possible, will result in a fast staccato of buzzer beeps accompanied by a fast flashing of the yellow LED to show, that the programming procedure failed due to insufficient ShipID memory. As a matter of safety you manually need to stop this alarming by pressing the TEST button.
 - **IMPORTANT:**
Once eight vessel IDs have been programmed into the easyRescue-PRO, you cannot change this programming using a VHF DSC Radio afterwards. If changes at the programmed IDs are necessary, one has to make use of the Bluetooth® option or the programming cradle. A brief description of the latter can be found in the following chapter.

8.1.3 Pairing of the easyRescue-PRO with Weatherdock's cradle by USB

- As a third method to program the easyRescue-PRO with one to eight vessel IDs one can make use of the cradle programming station, which is available at Weatherdock as an accessory part. Product number code is A124.
- The cradle, which comes together with the necessary operating software, needs to be connected to a PC/notebook/laptop via USB. After installation of the operating software to your PC/notebook/laptop the programming options, as listed below, can be performed:
 - Programming of one, up to eight, different vessel IDs
 - Editing of already programmed vessel IDs
 - Deleting of already programmed vessel IDs

8.2 Emergency Activation

8.2.1 Automatic Activation via Magnetic Switch

The easyRESCUE-PRO is primarily intended for use in an automatic life vest. Therefore, the device is inserted into an especially designed pocket which is an integral part of the life vest.

For more detailed information please refer to chapter 6.1.2.



8.2.2 Automatic Activation through Water Contact

In addition to the automatic activation by rip cord, the easyRESCUE-PRO is equipped with a water activation switch to trigger the distress alert. A constant water contact between one of the back plate screws and the antenna axis triggers the device. See the picture below.



8.2.3 Manual Activation

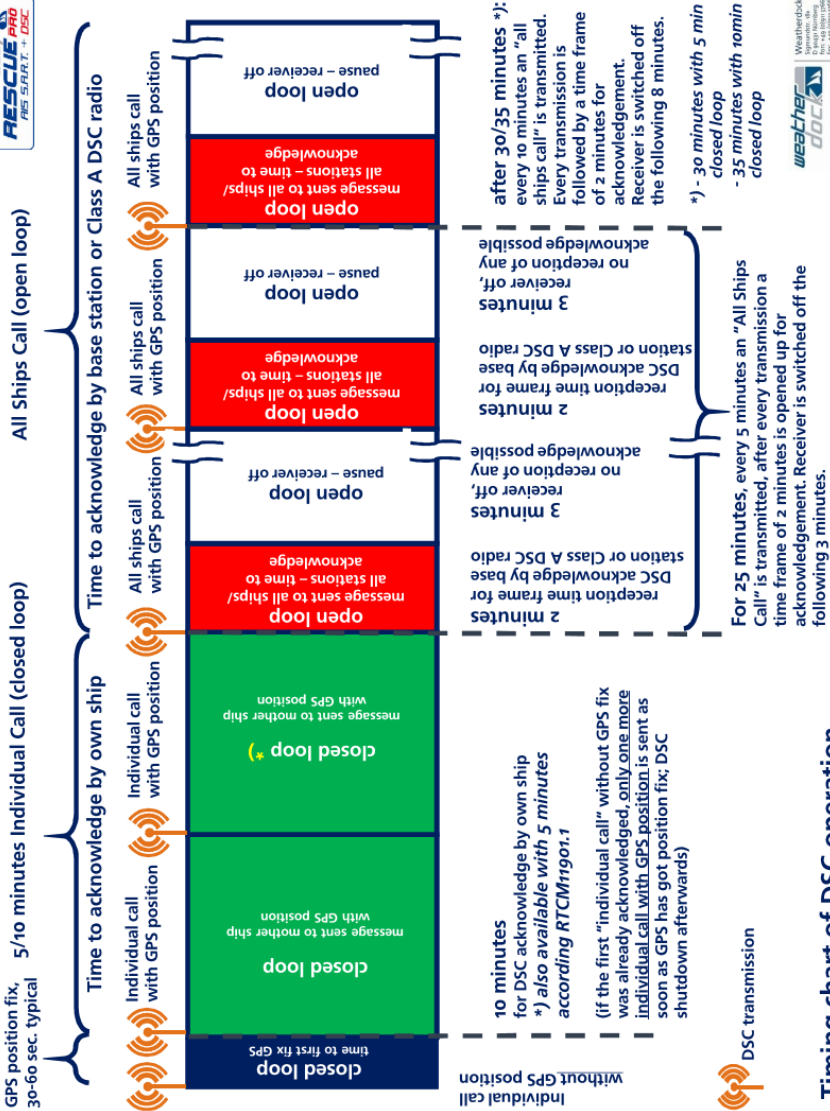
As the most standard way to activate the easyRescue-PRO into Distress Alert is to use the ON-button which is integral part of the front keypad.

- Push the sliding cover down to expose the "ON" button.
- Push the "ON"-button.



- The white "Flash" - LED starts flashing in a 2 second interval.
- As soon as the integral GPS receiver provides the correct position, the green "GPS" – LED starts to flash too.

8.2.4 Timing Chart of DSC Distress Operation



Weatherdock AG
Doverstr. 10
42699 Solingen
Tel. +49 (0)2126 38-0
Fax. +49 (0)2126 38-100
November 2015



Timing chart of DSC operation

9 Technical Data

9.1 AIS S.A.R.T.

Description	Value
Article number	A040-PRO
BSH Admission	BSH / 4615 / 4361565 / 10
United States FCC	ZO5WDC-A040
Case Measurements	(L) 130mm * (B) 70mm * (H) 30mm
Total Weight	Approx. 280 grams
Battery	Industrial pack Lithium Cells 9V/3V
Frequencies	AIS 1: 161.975 MHz AIS 2: 162.025 MHz
Transmission Power	Minimum of 2 Watt radiated (Average >2.8W)
GPS Receiver	56 Channel Receiver with integrated Antenna, approved according to IEC 61108-1
VHF Antenna	Flexible steel ribbon antenna, foldable
Operation Time (activated)	Minimum of 96 hours over the full temperature range, AIS transmissions only, DSC acknowledged and shut down
Battery Replacement Cycle	Every 5 years (according to SOLAS requirement)
Operating temperature range	-20°C to +55°C
Storage temperature range	-30°C to +70°C
Display	<ul style="list-style-type: none"> ↻ 3 coloured LEDs for function ↻ 1 white Flash LED for alarming
Control Elements	<ul style="list-style-type: none"> ↻ 2 Buttons ↻ 1 Magnetic Trigger Switch
Supported AIS messages	Msg.1:

- AIS position report (dynamic data)
- 6/8 times per minute
 - Unit ID: 9 digit Identification Number (unique worldwide)
 - Position
 - Speed above Ground (SOG)
 - Course above Ground (COG)
 - Navigational status Alarm: 14; Test: 15

- Msg.14:
AIS Safety message
- 2 times every 4 minutes
 - Unit-ID
 - Text: "SART ACTIVE" in Emergency Operation
 - Text: "SART TEST" in Test Operation

Complied standards	IEC 61097-14, IEC 60945, ITU-RM.1371-3, IMO Res. MSC.246(83), IEC 61108-1
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9.2 DSC (specific data)

Description	Value
Article number	Ao4o-PRO
DSC operation modes	"closed loop" and "open loop" pursuant to RTCM 11901.1
Frequency	DSC Frequency: 156,525 MHz, Channel 70
Transmission power	Minimum 1 Watt (Average >2W)
Operating time (activated)	In joint operation with AIS emergency messaging: 24 hours
Battery Replacement Cycle	5 years, pursuant to SOLAS requirements
Complied standards	RTCM 11901.1, EN301025, Class D

10 Installation details

10.1 In the life vest



10.2 Wall bracket

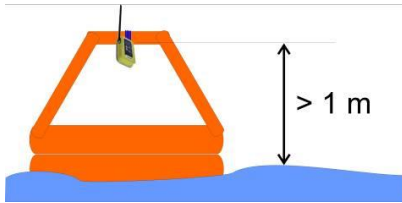


A wall bracket with the easyRescue-PRO clicked into it can be mounted on deck, with the rip cord tightly fixed to it. In the event of a man-overboard situation, the easyRescue-PRO can be removed from the bracket. The device triggers and can be thrown after the victim in order to obtain position messages.

10.3 Neoprene bag

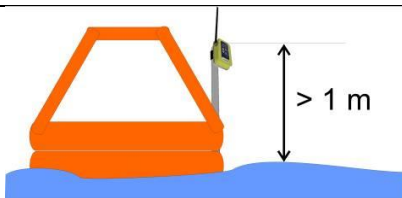


10.4 In the life raft



Most life rafts offer the possibility to fix the easyRescue-PRO at a position which is 1 meter or more above the sea level. To do so, the wall bracket, a cord or the Weatherdock neoprene bag (available as accessory) can be used.

Some life rafts carry a rod as accessory. This rod can be used for the same purpose. An increased height is always raising the radio range.



11 Troubleshooting

Problem	Possible cause	Solution
"TEST" LED is flashing in TEST mode, but the "GPS" LED has not started flashing even after 5 minutes.	No GPS reception	The easyRESCUE-PRO needs a GPS signal to perform this test. Indoor or under deck GPS cannot be received or only with fair results. Therefore, please perform the test outdoors. If the same error occurs again, please return the device to your dealer.
The device cannot be turned on.	Battery voltage is not sufficient	The battery is designed for a 5 years service interval, with multiple functional tests and sufficient time to perform the necessary programming. After this period the device must be returned to the dealer for battery replacement. Only the dealer is authorised and capable to do this.

12 Hints and tips

- Turn the easyRESCUE-PRO on only in an emergency. Please keep in mind, that ships will also receive the easyRESCUE-PRO AIS messages in test mode, always with the message stating "SART TEST". Nevertheless keep in mind, that the test transmissions might disturb ships in your proximity.
- The battery capacity is specified to run 30 tests and 30 minutes of programming activities in 5 years battery lifespan. The operation of 24 hours joint operation of AIS SART and DSC MOB, or 96 hours AIS SART (with DSC shut down due to acknowledge) is not affected in the distress case.
- Please ensure that the easyRESCUE-Pro has a "clear view to the sky" if being used. Only then a flawless GPS reception can be ensured. Test should be conducted therefore always on deck.






13 Maintenance

The easyRESCUE-PRO (A040-PRO) is subject to the following maintenance and inspection intervals:

The device should be activated in test mode by pressing the "TEST" button after 6 months, however, under no circumstances later than after 12 months. The flashing LED "GPS" indicates that the device is receiving GPS data. A position report is being sent on AIS frequencies if you perform a TEST. The AIS S.A.R.T. messages will be displayed on your AIS-capable chart plotter or PC software, with the current position data and the text: "SART TEST". The simultaneous transmission of the DSC Individual Call does not contain a position information, but will be received and displayed on your VHF DSC Radio to check for this radio link too.

Naturally these self-tests consume battery power. Thus you should try to keep the number of "TEST" runs as low as possible. The system is designed for a maximum of 30 "TEST"s within 5 years.

The battery must be replaced after 5 years. This is mandatory pursuant SOLAS requirements, in order to prevent self-discharge and the reduced functionality and performance resulting thereof.

<p>Unit ID: 970210019</p>  <p>4 2 6 0 2 7 6 7 4 0 4 0 6 1 0 0 1 9</p> <p>Stowage: -40°C to +70°C BSH/4581/001/4552369/13 FCC ID: Z05WDC-A040 U.S. Coast Guard approved Compas safe distance: 0,3m MFD: 01/2015</p> <p>AIS-S.A.R.T. easyRESCUE-Pro #Ao40-Pro Made in Germany Weatherdock AG</p> <p>FC CE 0700 </p>   <p>0735 15</p> <p>Password: 57489</p>  <p>DSC-MOB Compliant to: RTCM 11901.1</p> <p>Operation: -20°C to 55°C 24h continuous AIS / DSC operation, or 96h AIS operation when DSC closed loop acknowledged</p> <p>Battery replacement date: 1/2020</p>	<p>↻ The exact expiration date of the batteries can be found on the rear side of the unit. Month and year are provided there.</p> <p>↻ A change of batteries can only be performed by an authorized service partner, as the change includes a check and possible change of other mechanical parts, like the gaskets. Also the watertightness needs to be assured after the service. This is only possible with the respective expertise and product training.</p>
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14 Contact and product support

Even though Weatherdock AG is always striving to edit all publications with the highest level of accuracy, this manual may contain errors or ambiguities or misleading descriptions or requests.

In addition, the incumbent changes of this manual are in the sole responsibility of the company Weatherdock AG and may be made without prior notice.

Contact:

Weatherdock AG
Sigmundstraße 180
D – 90431 Nürnberg
Phone: +49 911 37 66 38 30
Email: support@weatherdock.de
URL: www.easymais.de

15 easyRESCUE-PRO – Database and login

In order to make the functionality of the AIS S.A.R.T./DSC MOB easyRESCUE-PRO even safer and more effective, we would like to inform you in this context, that we have provided the easyRESCUE-PRO with an additional feature. We set up a database which can be accessed via the Weatherdock website where data relevant for shipping can be provided for an emergency.

They are provided by you as an user of the easyRESCUE-PRO, on a voluntary basis. By providing this data you enable the official first responders such as Rescue Organisations, to act effectively and quickly in case of an emergency.

As an example:

You enter the life raft or lifeboat and activate the easyRESCUE-PRO. Every ship in your proximity, which is equipped with AIS and DSC, will now see your "live position" and will be able to participate in the rescue. By providing the radio identification of your ship to the database, the following scenario may arise:

A ship in your proximity receives your activated easyRESCUE-PRO. This special identification can then be forwarded or relayed via radio to the Rescue Organisation or the coast guard. With this identification, and only thus, the "official bodies" will have a granted access to the database and will be able to radio and inform your "mother ship". If you are located near the coast or within reach of an official lifeboat when your accident occurs, your easyRESCUE-PRO identification will be recognised immediately and compared with the contents provided in the database. If it comes to a rescue mission by one of these institutions, any peculiarities provided in the database such as allergies, specific diseases and the like may be considered.

We assure you that nobody else except the official rescue centres will have access to data you provide.

Only in an emergency, the official bodies will be allowed, to access the relevant emergency data through the identification of the activated easyRESCUE-PRO. This is not possible without an activated identification.

Each easyRESCUE-PRO has a unique device ID provided on its label, as well as your personal access code for the database. With the device identification number you can enter our web-based data base, which you find under:

https://www.easyais.de/en/en_easyrescue_database_login.php,

to change and delete your data.

16 License Agreement

By using the easyRESCUE-PRO you agree to the terms of the following warranty provisions. Please read these provisions carefully.

Weatherdock AG grants a limited license for the use of the device under normal operation conditions of the product. Title, proprietary rights and intellectual property rights in and to the software shall remain with Weatherdock AG.



17 Warranty

Weatherdock AG grants a warranty period of 2 years for this product on material and manufacturing defects from the date of purchase. Weatherdock AG will, at its own discretion, repair and replace defective components within this period. Repair or replacement will be made free of charge for parts or labour. The customer, however, shall bear the shipping costs. This warranty shall not be granted in case of abuse, misuse, accidents or changes or repair which is not approved.

The included warranty and rights are exclusive and are in lieu of any other express or implied warranty or laws, including any legal or other liability arising from a warranty of profitability or fitness for a particular purpose. This warranty grants you specific rights depending on your country. In no case shall Weatherdock AG be held responsible for incidental, special, indirect or consequential damages arising from the use of potential disuse of the product or from defects of the product. Weatherdock AG reserves the sole right to repair or replace the device or software or to refund the purchase price. This right is your only and exclusive right in the event of warranty.

Products which have been acquired in online auctions do not entitle you to rebates or to the use of special offers of Weatherdock AG. Furthermore receipts from online auctions are not accepted as proof of entitlement to warranty claims. In order to satisfy warranty claims, dealers' the original receipt is always required. Weatherdock AG will not replace any parts of the device or accessories of products which were purchased in online auctions. Please contact your Weatherdock AG dealer in case of a warranty claim. They will coordinate the next steps with you. Package the device carefully in case of a shipment and send it to the address provided by your dealer, with sufficient postage. Always enclose a copy of the original receipt in warranty repair as proof of ownership. The Weatherdock AG easyRESCUE-PRO does not contain parts which require repair by the user. Please contact your easyRESCUE-PRO dealer if you have a problem with the device. Any attempt to open, change and modify the device will void the warranty claims and may cause irreparable damage to the device.