



# USER MANUAL

MORE INFORMATION AND MANUALS IN FURTHER LANGUAGES ARE AVAILABLE AT  
[HTTP://WWW.SEAANGEL.AT](http://www.seaangel.at)



**Model: SA15 TRACK**

**Universal Short Range Tracking System**

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English

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**Subject to technical changes and printing errors.**

**All figures are sample images.**

## 1 Legal Notice

### 1.1 Where to use your SEAANGEL

This equipment will work all around the world. However, do not use it in contradiction to national laws.



Important notice:

**AIS FREQUENCIES ARE NOT ALLOWED FOR TRACKING**

### 1.2 National requirements



This equipment may be subject to national registration and/or licensing requirements. In some countries even a fee may be levied.

**Please verify with your national radio authorities!**



The use of this equipment requires a license in the following countries:

AT, BA, ES, HR, HU, IE, LU, LV, SI - **This list may not be complete!**

**Check with your local authorities!**



To use this equipment you need both a transmitter and a receiver. Make sure to set those to work on the same frequency.

Furthermore, make sure to use a frequency that is free to use in the country of usage.

### 1.3 Standards and Norms

This product meets the following requirements:

- **Directive 99/5/EC (R&TTE)**

For further details, please, refer to <http://seaangel.at> and go to the page corresponding to your product.

## 2 Knowing your SEAANGEL

Your new SEAANGEL is an advanced tracking device. When activated, the SA15 will transmit proprietary messages containing its exact GPS position to any receiving unit within its transmission range. This makes it easy to track a person or object of interest.

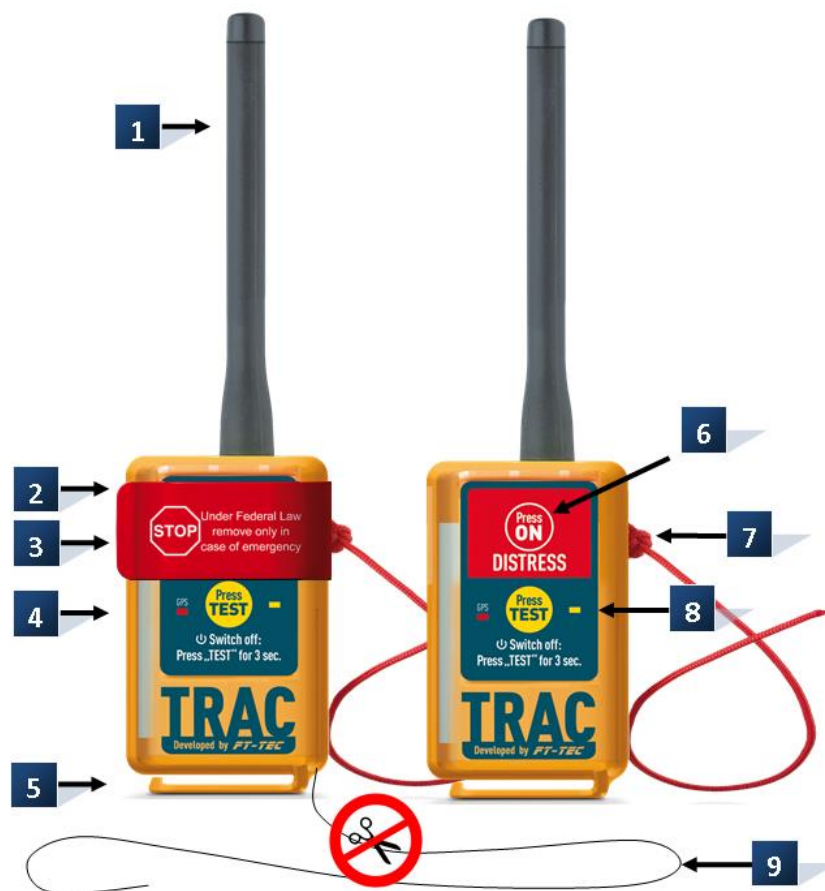


Figure 1: Description of individual components

- |          |                               |          |   |
|----------|-------------------------------|----------|---|
| <b>1</b> | Antenna                       | <b>5</b> | Belt clip   |
| <b>2</b> | Flash LED (white)             | <b>6</b> | ON button to activate<br>(if present on your model) |
| <b>3</b> | Protective bracket            | <b>7</b> | Ripcord   |
| <b>4</b> | Red LED indicating activation | <b>8</b> | TEST button & LED<br>(if present on your model)     |
|          |                               | <b>9</b> | Antenna Extension<br>(increases transmission range) |

### 3 Handling the SEAANGEL

Your SEAANGEL comes in various flavors, some of them having buttons as well as a ripcord, others having a ripcord only. Please, ignore instructions that are in contradiction with your model.

#### 3.1 Activating your SEAANGEL



Figure 2: Activating the tracking signal using the ripcord

1. Remove the protective bracket **1**.
2. Pull the ripcord to remove the magnet switch from its position **2**  
**OR** Press the **ON** button **3**.
3. The SEAANGEL will remain activated until explicitly deactivated.



**Make sure you do not lose the ripcord.**

You need it to deactivate the device.

Keep the ripcord magnet away from sensitive components such as compasses and cards with magnetic strips like credit cards.





**For proper working please make sure that the antenna is above the water surface!**

### 3.2 Understanding the LEDs

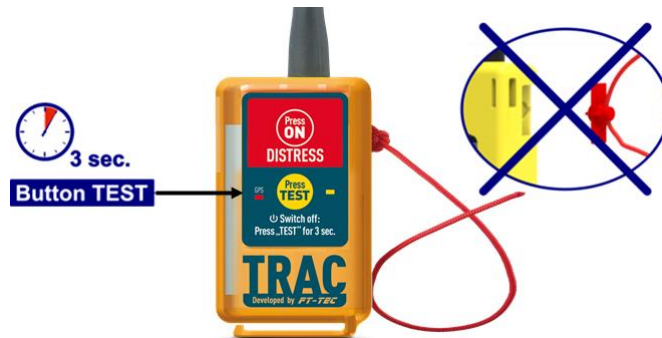
For results of self-test, refer to **Table 2**, page Fehler! Textmarke nicht definiert..

**Table 1:** Status LEDs

Which LED	Signal	Meaning
Flash LED		Device activated
Red LED		GPS position determined GPS position (yet) unknown
Yellow LED		Only active during selftest

Info: A long bar symbolizes continuous glowing, a broken bar a flashing signal.

### 3.3 Deactivating your SEAANGEL



**Figure 3:** Deactivating the SEAANGEL

1. Put the ripcord back in place.  
**OR** hold the *Test* button down for more than 3 seconds until both LEDs (red and yellow) light up.
2. All status LEDs will go dark.

## 4 Charging the SEAANGEL

Your SEAANGEL is equipped with rechargeable batteries

Pressing the *Test* button will cause the SEAANGEL to prompt the battery state. A color LED will inform you of the result.

**Table 2:** Battery state indicator LEDs on the SEAANGEL while loading

LED color	Meaning
red blinking, blue constant	<33% => recharge to avoid damage
yellow blinkin, blue constant	70%
green	100% => battery loaded (very short time only)
dark	upon compleation of laoding cycle all LEDs will go dim
blinking red - yellow	loading cycle broken – waiting to resume place device correctly on pad again

For charging details see description of your charging pad. The coil is located near the lower end of the device and should be aligned with the coil of the charging pad.

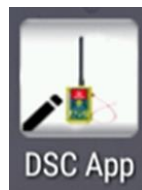


## 5 Configuring the SEAANGEL



The App is currently available for Android devices (5.0.1 and newer) only. The mobile device needs to feature a NFC chip, the NFC function needs to be activated in the settings.

1. Go to the app store and download the “DSC App” by FT-TEC. Alternatively you can get it also from <https://seaangel.at/downloads.2792.html>



2. Tap on the app’s icon to open the app.
3. Place the mobile above your SEAANGEL to read the current configuration.
4. Select the parameter you want to edit. Go to the bottom of the list to find tracking parameters.
5. Then enter the data and tap on the “pencil icon” to save your entries.
6. The app will inform you whether the writing was successful or not.





Depending on your device you may not be able to set all of the parameters:

Tracking number

enter any 9 digit number starting with 1.

Tracking frequency

valid range 154000 – 175000

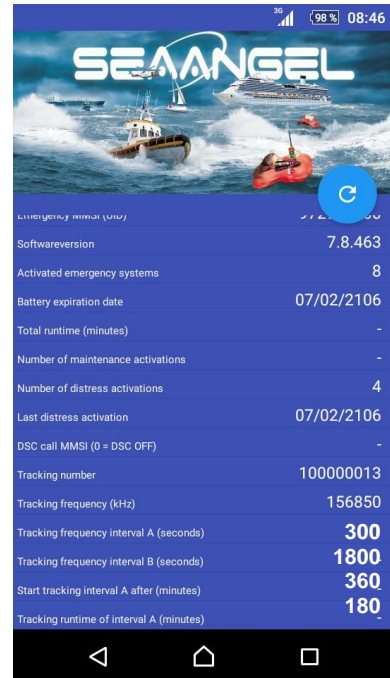
**DO NOT USE AIS FREQUENCIES** 161975, 162025

Intervals A and B

Adjust these options to save energy. Interval B will take effect once Interval A has completed (start delay + runtime).

e.g. Interval A: no transmission for 360 min (6h), then 1 signal every 300 secs (5min) for 180 minutes (3h)

e.g. Interval B: 1 signal every 1800 secs (30 min)



## 6 Maintenance and Support

The SEAANGEL does not feature any components which need to be maintained by the customer himself. For any maintenance work, simply send your device to:

**FT-TEC Electronics GmbH**  
Werner von Siemens Str. 5  
A-7343 Neutal  
AUSTRIA

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**Website:** [www.ft-tec.com](http://www.ft-tec.com)



**YOUR DEVICE MAY NOT WORK IF IT IS NOT MAINTAINED PROPERLY. IN AN EMERGENCY SITUATION, THIS COULD HAVE AN IMPACT ON YOUR HEALTH.**

To report any problems encountered with the SEAANGEL go to <http://seaangel.at/support.2889.html>, scroll to the bottom of the page and click “+contact seaangel”.

## 7 Technical specifications

Product name:	SEAANGEL
Model:	SA15-FLARE TRACK
Size (L x W x H):	62 mm x 41 mm x 29 mm
Weight:	90 g
Power supply:	3 V LiMnO <sub>2</sub> Industry cells, CR17450
Transmission antenna:	Vertically polarized
Integrated GNSS receiver:	72 channels GPS, QZSS, GLONASS and BeiDou (simultaneous reception possible) Navigation sensitivity: -167 dBm integrated antenna Position information updated once a minute
Self-test:	indicates state of battery
Protection class:	Standard devices: IPx7 (= 10m)
Storage temperature:	-30 °C to +70 °C
Operation temperature:	-20 °C to +55 °C
Status LEDs:	Color: red, yellow, blue
Flash LED:	Color: white
Casing: Color:	Material: PC-ABS Orange and transparent (casing shell) Red (protective bracket)
Transmission frequency:	adjustable: 154-175 MHz <b>DO NOT USE AIS FREQUENCIES!</b>
Transmission power:	adjustable: up to. 1 W
Transmission range:	More than 5 NM
Minimum Transmission time:	depending on operating temperatures and selected transmission rate

## 8 Declaration of conformity

- CZ FT-TEC Electronics GmbH tímto prohlašuje, že tento SA15, je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
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- DK FT-TEC Electronics GmbH erklærer herved, at udstyr SA15 overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
- EE FT-TEC Electronics GmbH kinnitab seadme SA15 vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
- EN FT-TEC Electronics GmbH hereby declares that the SA15 complies with the essential requirements and other relevant provisions of Directive 1999/5/EC.
- ES FT-TEC Electronics GmbH declara que el SA15 cumple con los requisitos esenciales y cualquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
- FR FT-TEC Electronics GmbH déclare que l'appareil SA15 est conforme aux exigences essentielles et aux autres dispositions pertinentes à la directive 1999/5/CE.
- GR FT-TEC Electronics GmbH ΔΗΛΩΝΕΙ ΟΤΙ SA15 ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/EK
- HU FT-TEC Electronics GmbH nyilatkozik, hogy az SA15 megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
- IS FT-TEC Electronics GmbH lýsir yfir því að SA15 er samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EC.
- IT FT-TEC Electronics GmbH dichiara che questo SA15 è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE
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- SF FT-TEC Electronics GmbH vakuuttaa etta SA15 tyypinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
- SI FT-TEC Electronics GmbH tímto vyhlasuje, že SA15 spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.

**CE 0700** 