SEA.AI



USER AND INSTALLATION MANUAL

Sentry

360° machine vision for safety and security at sea. Use, installation and care.

SOFTWARE
4.4-4

EDITION
27 October 2026

MODEL
Sentry FO6100

Contents

START HERE

01 Welcome and safety 3
02 Connect and get started 4
03 The app at a glance 9
04 Modes and alarms 11

USE SENTRY

05 Views, zoom and camera 14
06 Track and joystick 16
07 Record AI feedback 18
08 Settings reference 19
09 Your Sentry 20

ON LAND

10 Land Operation 23

FOR INSTALLERS

11 Plan the installation 27
12 Mount and wire 30
13 Connect to the boat 32
14 Commission the system 34

HELP

15 Update the software 38
16 Clean and inspect 39
17 Troubleshooting 40
18 Warranty and support 41
19 Words and terms 42

PART 1

Start here

Get started with your system.

01 Welcome and safety
02 Connect and get started
03 The app at a glance
04 Modes and alarms

START HERE

01

Welcome and safety



Sentry turns 360° and watches the water day and night. Two thermal cameras and two color cameras, wide and narrow. Its AI detects, classifies and tracks boats, buoys and people in the water. It warns you before they become a danger.

⚠ WARNING Sentry is an aid to navigation. It does not replace a proper lookout. The person in charge of the vessel stays responsible.

⚠ WARNING **Moving parts.** Sentry turns and tilts on its own. Keep hands, tools and objects out of its range (Ø 420 mm). If it hits an obstacle while it moves, the mount can break. This can cause injury or death.

Signal words in this manual

⚠ WARNING Risk to people on board, for example a missed alarm or a collision.

⚠ CAUTION Risk of damage to the equipment, or of reduced detection.

NOTE Important information. No risk.

TIP A shortcut or good practice.

Safety rules

- Only a qualified marine electronics technician installs the system.
- Switch off the power before you install or service the unit.
- Do not turn or tilt the camera head by hand.
- Supply 24 V DC only, with a dedicated breaker and fuse.
- Do not open the unit. This voids the warranty.

START HERE

02

Connect and get started

Go through the 9 steps with Next. The app shows what you see on your device.

STEP 1

Switch on Sentry

Switch on the Sentry breaker, or the remote switch of the DC-DC converter. Sentry has no on/off switch of its own. It needs up to 3 minutes to start.

Make sure your PC, tablet or phone is on the same network as Sentry.

STEP 2

Open the app on your device



PC

Install the SEA.AI app for Windows, macOS or Linux. Or open Sentry in Chrome or Safari: `http://sentry.local/`

Download the PC app

http://sentry.local/

With a fixed IP address: `http://192.168.1.191/`



Tablet or phone

Install the SEA.AI app. Connect to the boat Wi-Fi. Open the app. It finds Sentry.

App Store: SEA.AI Oceanus

Google Play: SEA.AI

MFD

The SEA.AI app runs on Raymarine Axiom and Simrad NSX and NSO 4 MFDs. You control Sentry on the touch screen.

Supported MFDs

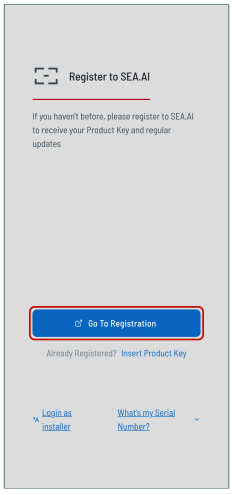
STEP 3

Register your Sentry

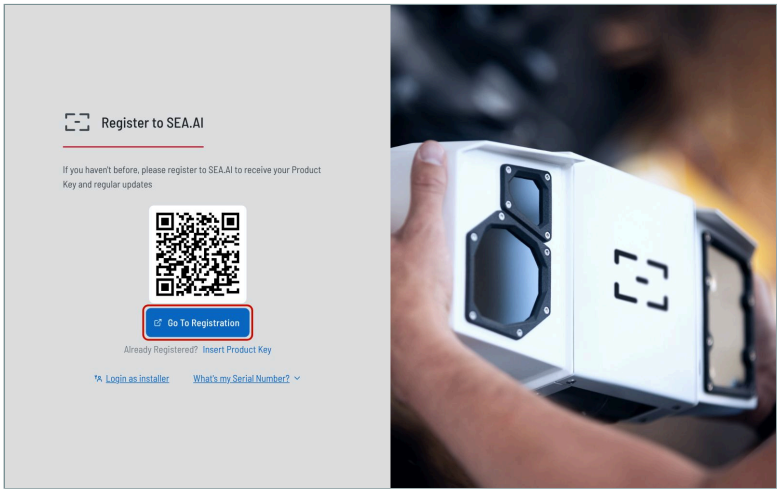
The first screen is **Register to SEA.AI**. Scan the QR code, or select **Go To Registration**.

Registration is required before the first use. It gives you software updates. You get a Product Key by e-mail.

Register at connect.sea.ai



On a phone.



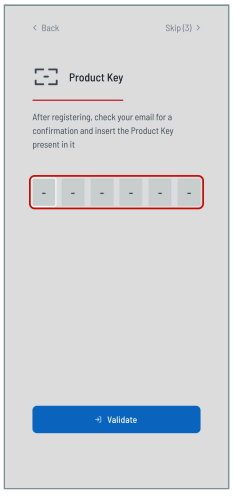
On a PC or tablet. Scan the QR code with your phone, or select Go To Registration.

STEP 4

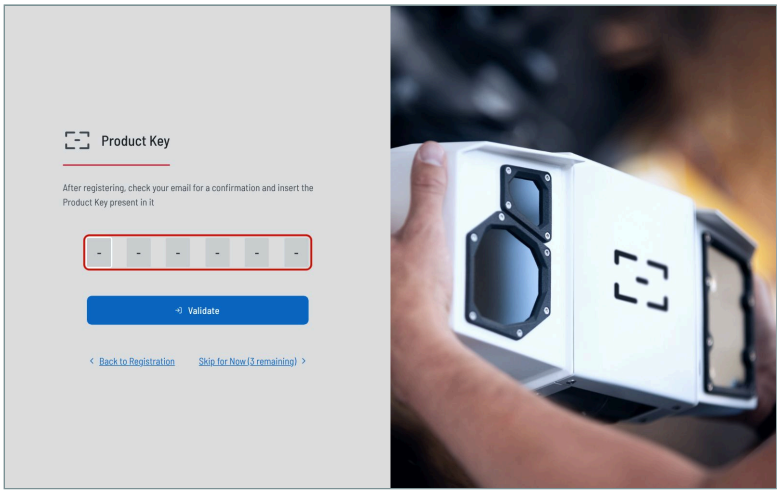
Enter the Product Key

Select **Insert Product Key**. Type the 6-character key from the e-mail. Select **Validate**.

> TIP You need the serial number for registration? Select **What's my Serial Number?**



On a phone.

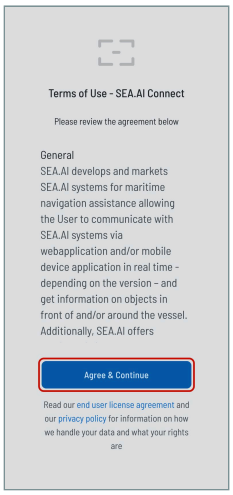


On a PC or tablet.

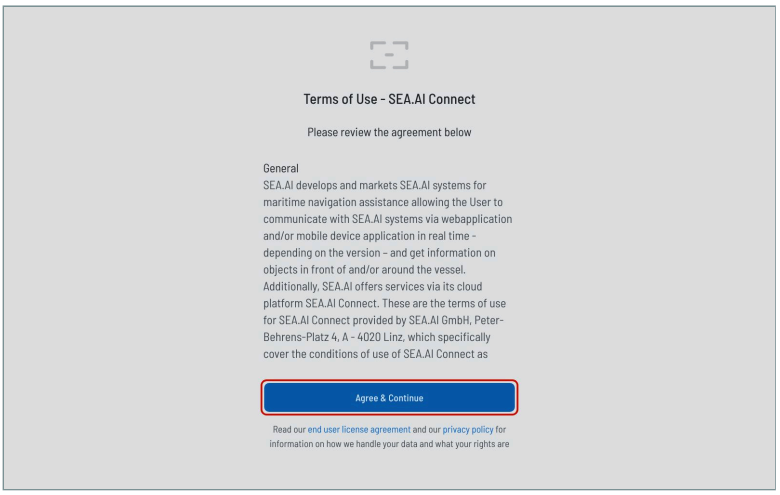
STEP 5

Accept the terms of use

Read the **Terms of Use – SEA.AI Connect**. Select **Agree & Continue**. The app asks only once.



On a phone.

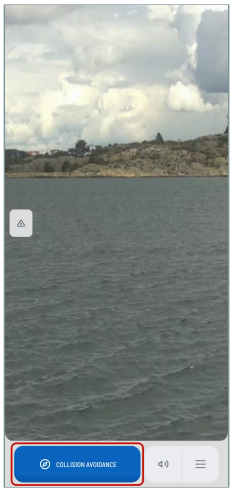


On a PC or tablet.

STEP 6

The camera view opens

You see the live image with the detections. The bar at the top shows the alarm state. The menu is on the right.



On a phone.



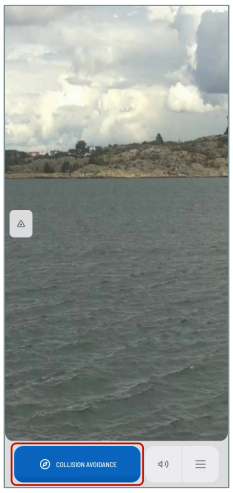
On a PC, tablet or MFD: the alarm bar is at the top.

STEP 7

Choose a mode

Select the mode button. Underway: **Collision Avoidance**. At anchor or in port: **Surveillance**. To steer the camera yourself: **Camera Control**.

> ⚠ WARNING In Camera Control there are no alarms.



On a phone.



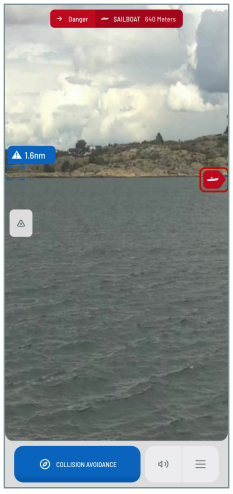
On a PC, tablet or MFD: the mode button is on the right.

STEP 8

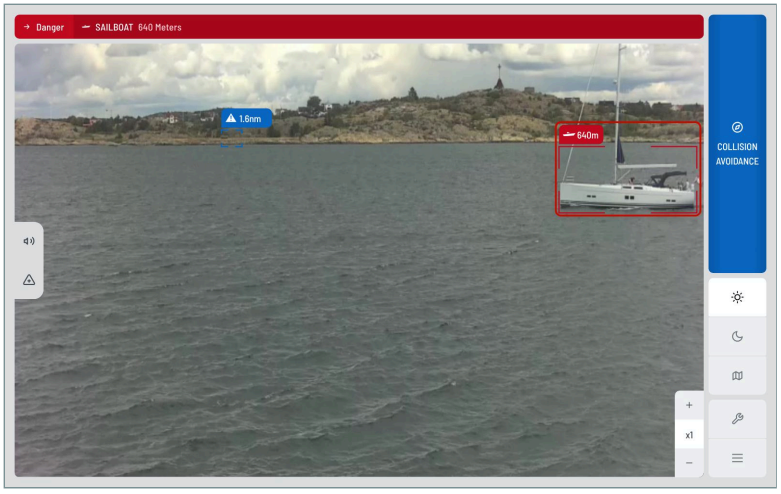
React to an alarm

When an object becomes dangerous, its box turns red and the alarm sounds. The bar at the top names the type, the direction and the distance.

Look in the direction of the alarm. Keep a proper lookout.



On a phone.



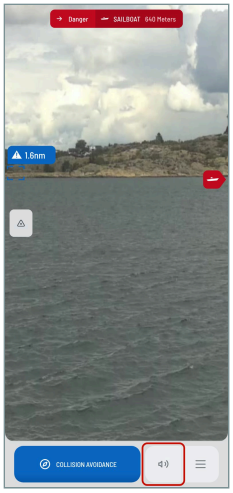
On a PC, tablet or MFD.

STEP 9

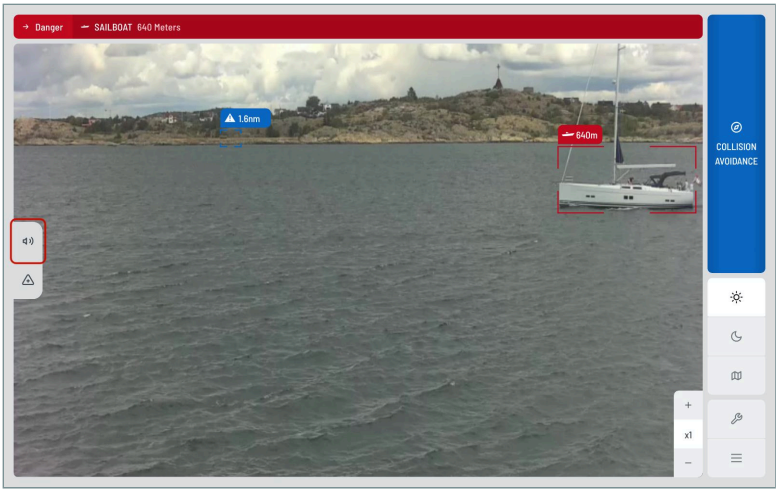
Mute the sound

Tap the speaker to mute the alarm sound. Tap it again to switch the sound back on. The visual alarm stays on.

Next: try every button yourself in Try the app, or read about modes and alarms.



On a phone.



On a PC, tablet or MFD: Mute is on the left.

START HERE

03

The app at a glance

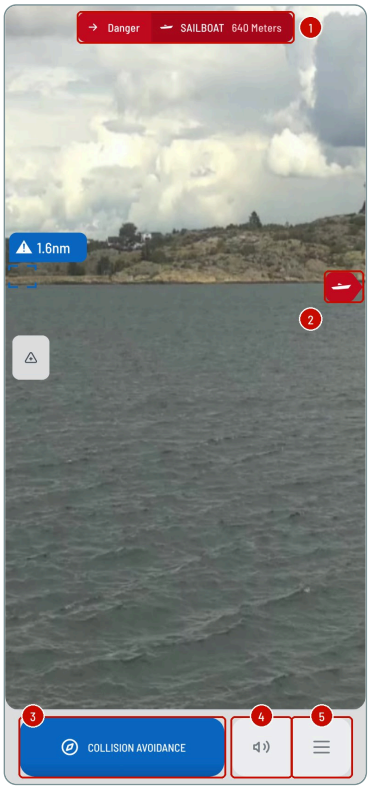
The main screen during a danger alarm, in Collision Avoidance.

On a PC or a large display



1. **Alarm bar** Grey: no alarm. Yellow: warning. Red: danger. It names the object, the direction and the distance.
2. **Detection** Red box: danger. Yellow box: warning. Blue box: object. The label shows type and distance.
3. **Mute** Switches the alarm sound off and on.
4. **AI Feedback** Records a short clip when the AI missed an object or warned about nothing.
5. **Mode** Camera Control, Collision Avoidance or Surveillance. Select it to change the mode.
6. **Views** Color, Thermal and Map.
7. **Settings** System, modes, personalization, setup, feedback and help.
8. **Menu** Modes, actions, views and settings.
9. **Zoom** + and –. Zooming in changes to the narrow camera.

On a phone



1. **Alarm** The alarm level, the object and the distance.
2. **Detection** A marker at the edge points to a detection outside the view. Red: danger.
3. **Mode** Camera Control, Collision Avoidance or Surveillance.
4. **Mute** Switches the alarm sound off and on.
5. **Menu** Views, AI Feedback, Track and Settings.

START HERE

04

Modes and alarms

The mode decides where Sentry looks and when it sounds an alarm. Choose it with the mode button in the menu.

LEVEL	CAMERA CONTROL	COLLISION AVOIDANCE	SURVEILLANCE
Object · blue box	Blue box, no sound	No sound	No sound
Warning · yellow box	Blue box, no sound	2 beeps every 10 s	Inside the warning distance: 2 beeps every 10 s
Danger · red box	Blue box, no sound	3 beeps every 3 s, voice “Danger” + direction	Inside the danger distance: 3 beeps every 3 s, voice “Danger” + direction

The three modes on a vessel

MODE	USE IT	CAMERA	ALARMS
Collision Avoidance	Underway	Pans automatically ahead. Panning width: 50°, 90° or 180°.	On. Threat by distance, bearing and size.
Surveillance	At anchor, in port, at a mooring	Pans 360° around the vessel. One turn takes 30 s (fast) or 110 s (slow).	On. Threat by distance only: you set the danger and warning distance.
Camera Control	Look at something, follow a target	You steer it. You can track a detection.	**Off.** Detections stay on, all as blue boxes.

Change the panning width, the panning speed and the surveillance distances in **Settings › Modes**.

Mute



A danger: red bar at the top, red box on the object.

Select . The sound stops . The red box and the bar stay. Select it again to switch the sound on.

Voice alarms

For a danger, a voice tells you the direction. A warning is always a beep. Switch the voice on or off in **Settings** › **Personalization** › **Sounds** › **Voice Alarms**. When it is off, you hear beeps only.

LEVEL	LISTEN
Danger	▶ Danger ahead ▶ Danger port ▶ Danger starboard
Warning	▶ Warning beep
Danger, Voice Alarms off	▶ Danger beep

Alarms on other devices

Settings › **Personalization** › **Sounds**: MFD alarms (Raymarine, B&G, Simrad), NMEA 2000 buzzer or Garmin MFD. Buzzers need an NMEA 2000 gateway (see Connect to the boat).

On land

On a fixed site on land, Sentry has the modes Camera Control, Sector Watch and Area Surveillance. See Land Operation.

PART 2

Use Sentry

Daily use: views, camera, tracking and settings.

05 Views, zoom and camera
06 Track and joystick
07 Record AI feedback
08 Settings reference
09 Your Sentry

USE SENTRY

05

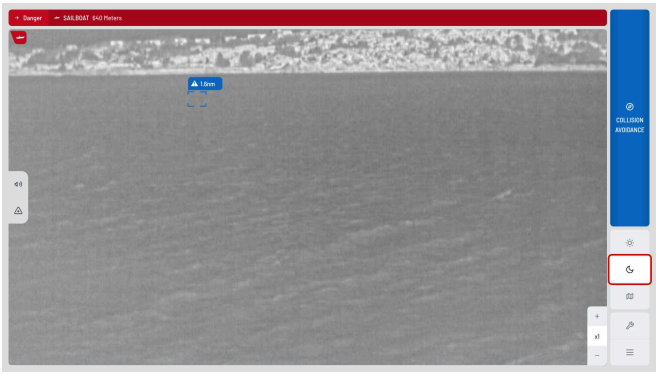
Views, zoom and camera

Switch the view with the buttons in the menu.



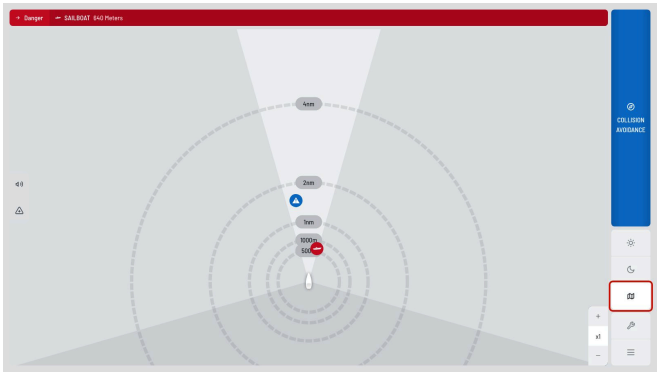
Color

Day, dawn and dusk.



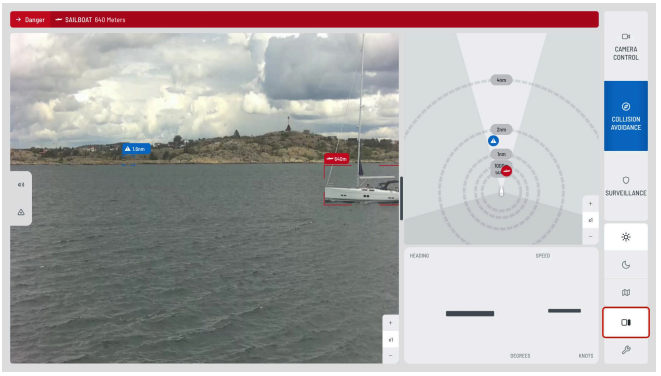
Thermal

Night and bad visibility.



Map

All detections from above. The cone shows where the camera looks.

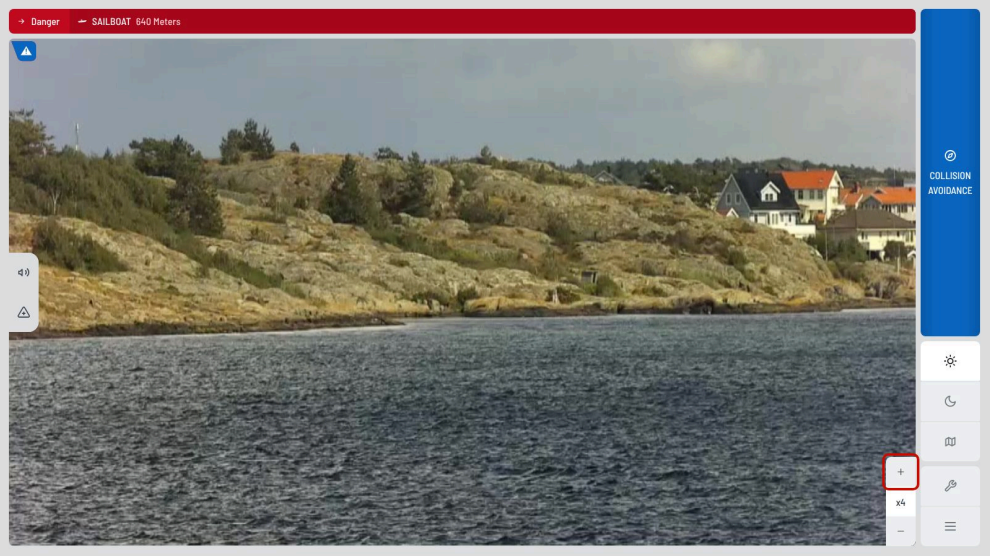


Dual View

Two views side by side. Large screens.

Zoom: wide and narrow camera

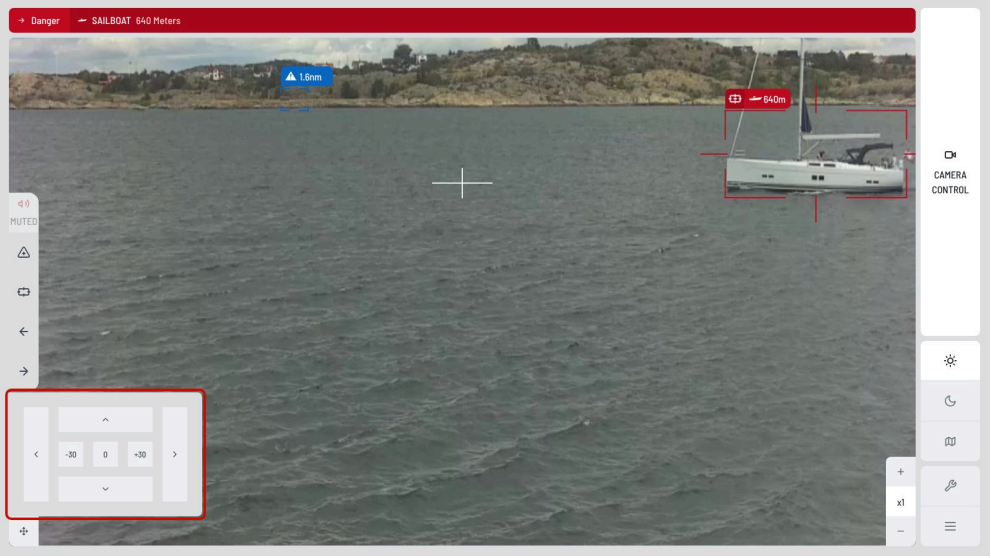
Select **+** and **–** at the bottom right. The number shows the zoom, for example **x1**. When you zoom in, Sentry changes from the wide to the narrow camera. You see far objects in more detail.



Zoom x4: the narrow camera shows the coast in detail.

Steer the camera (Camera Control)

Choose **Camera Control**. Then select ✣ at the bottom left. The pan/tilt pad opens.



The pan/tilt pad and the buttons on the left.

‹ › **Pan:** hold the arrow. The camera turns until you release it.

∧ ∨ **Tilt:** hold the arrow. Up to 20° up or down.

☝ **Drag:** drag in the image to move the camera.

±30 **Step:** turn the camera 30° to port or starboard. 0 brings it back to the bow.

Follow a target automatically, or use the joystick: see Track and joystick.

USE SENTRY

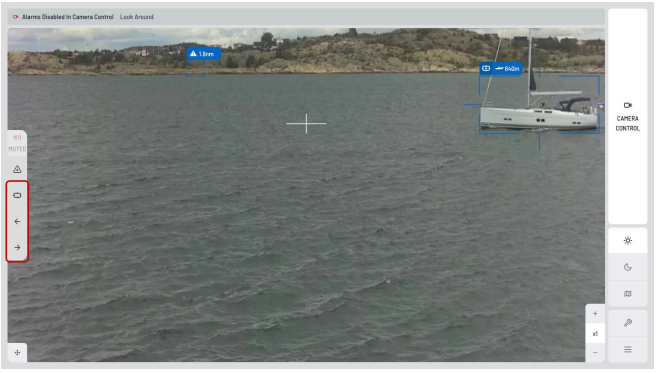
06
Track and joystick

In **Camera Control** you can let Sentry follow one detection. The camera turns with it and keeps it in the centre.

> ⚠ WARNING Camera Control and tracking have no alarms. The bar shows **Alarms Disabled In Camera Control**. Go back to Collision Avoidance or Surveillance to get alarms.

Track a detection

1. Choose **Camera Control**.
2. Turn the camera so the detection is near the cross in the centre. A track icon appears on its label.
3. Select ⌖ **Track** on the left (or in the menu). The button now shows **STOP**.
4. Switch to another detection with ⟵ or ⟶. The app shows **Tracking New Detection**.
5. Select **STOP** to end tracking. You are back in Camera Control.



Camera Control. Track, ⟵ and ⟶ on the left.

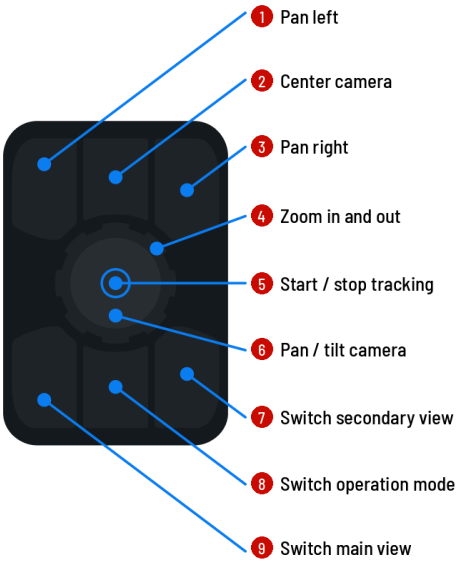


Tracking. Select STOP to end it.

Not tracking? ⟵ and ⟶ turn the camera to the next detection on that side.
No Available Detection means there is none.

Joystick

The optional joystick (F06130, in the professional installation kit) controls Sentry without the screen.



The joystick functions, as the app shows them.

- **Connect:** Settings › Personalization › Joystick Controls. Switch on Connect this device to the joystick.
- **Brightness:** set the backlight of the joystick and its buttons in the same place.
- Only one device can use the joystick. When another app takes it, you see Joystick disconnected.

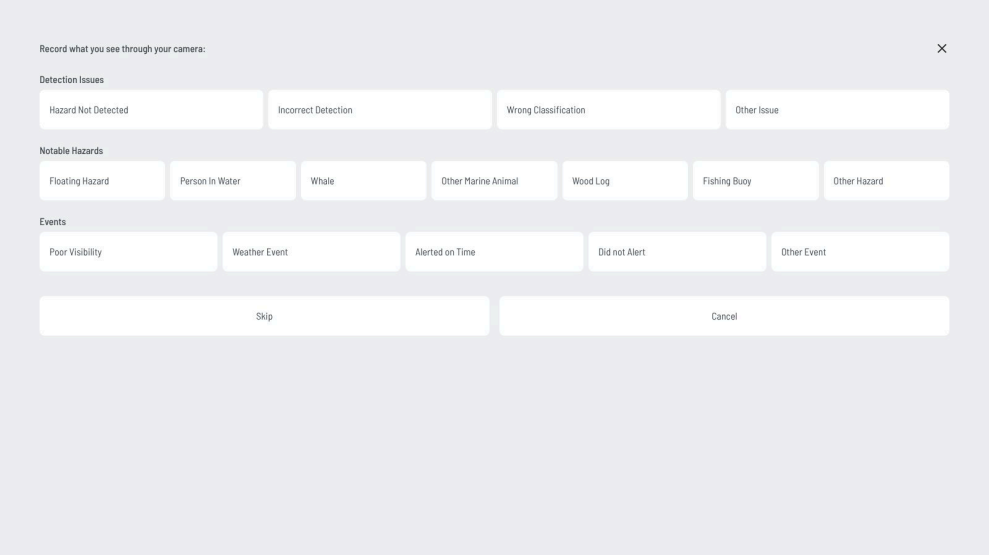
USE SENTRY

07
Record AI feedback

Sentry missed an object, or warned about nothing? Record a short clip. Your clips train the AI. They help Sentry see better on every boat, and make the sea safer for everyone.

> NOTE **You stay in control.** Sentry saves the clips on the unit only. It does not upload them. You download the clips and decide what you send to SEA.AI.

1. Select ⚠ **AI Feedback**. Choose what you see. Sentry saves a short clip.



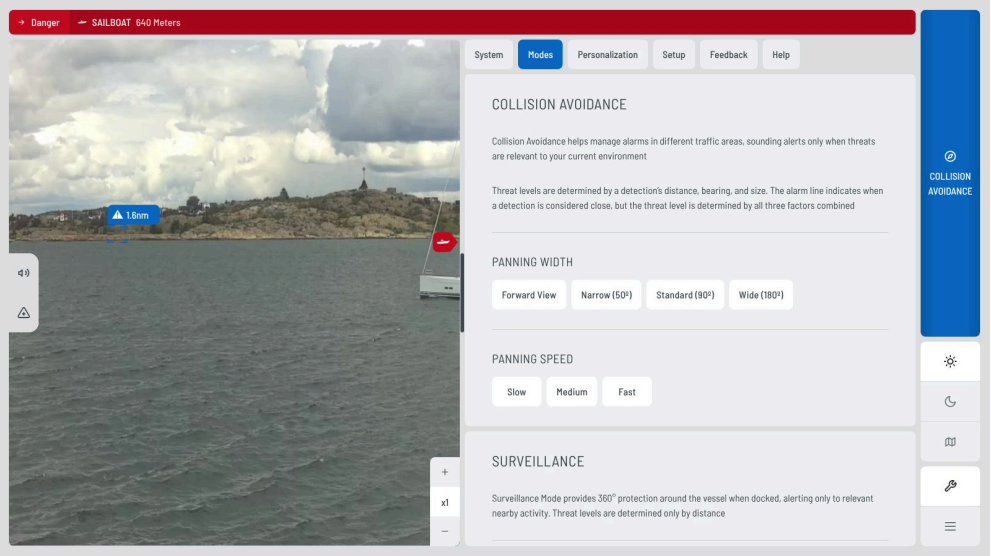
Choose the type of event.

3. Download the clips from Sentry: **Settings › System › Download Recorded Data**.
4. Contact `feedback@sea.ai` to share the clips. The files are too large for e-mail. SEA.AI tells you how to send them.
5. Delete the clips on Sentry. This frees the storage.

USE SENTRY

08
Settings reference

Select to open the settings.



Settings open next to the camera view. Here: Modes.

Surveillance distances

In Surveillance, only the distance decides the threat level. Set two distances in **Settings › Modes › Surveillance Alerts**:

- **Danger (red):** 50, 100, 200, 300 or 500 m
- **Warning (yellow):** 100, 200, 300, 500 or 1000 m

The danger distance must be shorter than the warning distance.

> TIP Thermal polarity: **Normal** shows the shape of objects. **Inverted** helps to find small objects.

What is in each tab

TAB	WHAT YOU FIND THERE
System	Product ID, software version, software update, storage, recorded data
Modes	Collision Avoidance: panning width (50°, 90°, 180°) and speed. Surveillance: panning speed, danger and warning distance.
Personalization	Theme (Light, Dark, Night), thermal polarity, display scale, distance unit, sounds (voice, MFD, NMEA 2000)
Setup	Language, NMEA gateway, installer login
Feedback	How to send recordings, data sharing
Help	Contact SEA.AI service

USE SENTRY

09
Your Sentry

Sentry is a gyro-stabilised camera on a pan/tilt base. It has four cameras and an AI computer on board. It needs no cloud.



Thermal, wide

32° wide. Night and bad visibility.



Thermal, narrow

8° wide. Far objects.



Color, wide

39.2° wide. Day, dawn and dusk.



Color, narrow

9.3° wide. Details far away.

Detection range

Large vessel, cargo ship	to the horizon
Yacht, fishing vessel	7,500 m
RIB, fast craft	3,000 m
Buoy, person in water	700 m

Ideal conditions. Rain, fog, humidity and sea state reduce the range. Large vessels: 10 km and more from 7 m mounting height.

Key data

ITEM	VALUE
Thermal cameras	2 × 640 × 512 px, ≤ 30 mK. Wide 32°, narrow 8°.
Color cameras	2 × 2560 × 1944 px (5 MP), low-light. Wide 39.2°, narrow 9.3°.
Zoom	4× optical equivalent (wide to narrow) and 2× digital
Pan / tilt	360° continuous / ±20°, 2-axis gyro stabilisation
AI	Detects unknown hazard, vessel, motorboat, sailing boat, buoy, person in water. Tracks targets. Estimates distance with the cameras only.
Size, weight	355 × 202 × 250 mm (H × W × L), 6.2 kg
Power	24 V DC, 50 to 70 W
Temperature	Operation –15 to +55 °C. Storage –30 to +70 °C.
Protection	IP67. Shock 10 G rated.
Interfaces	Ethernet, NMEA 2000 via gateway, video stream (RTSP, H.264), API

> NOTE All AI functions need an active AI subscription. Without it, Sentry is a camera only: no detections, no boxes, no alarms.

PART 3

On land

Sector Watch and Area Surveillance for sites on land.

10 Land Operation

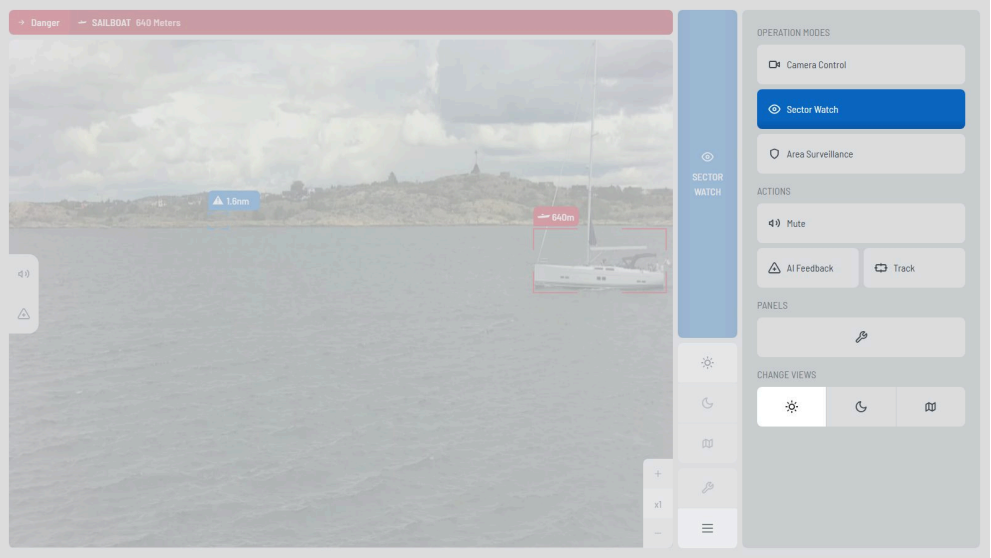
ON LAND

10
Land Operation

Sentry also watches the water from a fixed site on land: a coast, a port, a pier. On land it has other modes and settings than on a vessel.
Installers: set up a site on land in Commission the system.

The three modes on land

MODE	CAMERA	ALARMS
Camera Control	You steer it.	**Off.** Detections stay on as blue boxes.
Sector Watch	Pans automatically.	Only for objects in the sectors and the distance range you choose.
Area Surveillance	Pans automatically.	Only for objects in the areas you draw in the image.



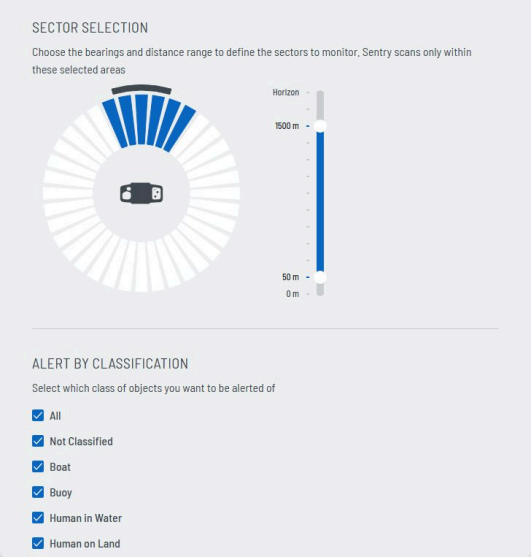
The menu on land: Camera Control, Sector Watch, Area Surveillance.

Sector Watch and Area Surveillance need an active AI subscription, like all AI functions (see Your Sentry).
Choose the mode with the mode button in the menu. Set the panning speed (**Slow**, **Medium**, **Fast**) in **Settings › Modes › Land Operation Modes**.

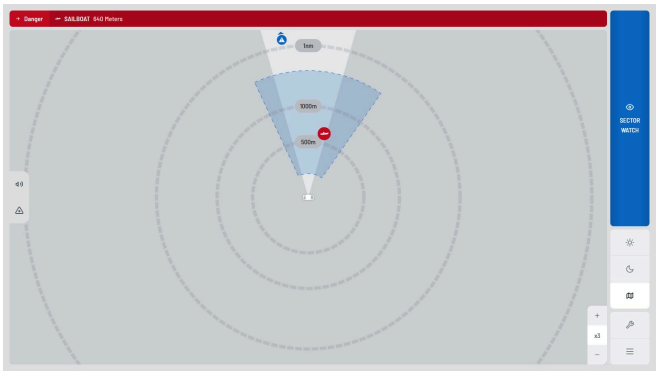
Sector Watch: choose the sectors

1. Open **Settings › Modes › Sector Watch › Sector Selection**.
2. The ring has 36 sectors of 10°. The top is the Home Heading. The grey arc shows where the camera looks now.
3. Select a sector to switch it on or off. Drag over the ring to select several sectors at once.

4. Set the minimum and maximum distance with the slider. The longest setting is **Horizon**.



Six sectors selected, distance 50 m to 1500 m.



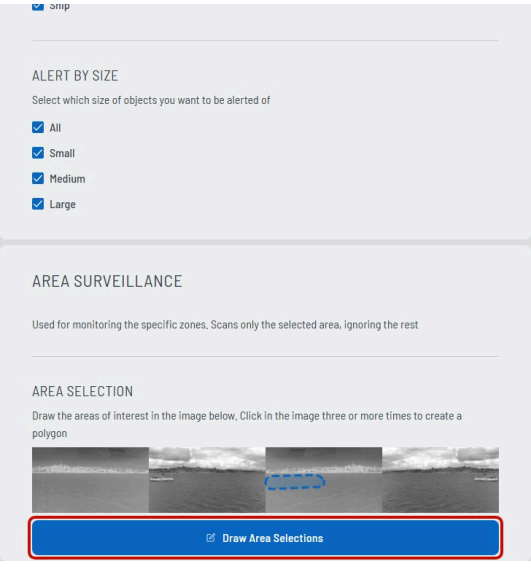
The map shows the watched sectors.

Without a selected sector, Sentry cannot watch: the ring turns red. In Sector Watch, the map shows the selected sectors as a ring between the two distances.

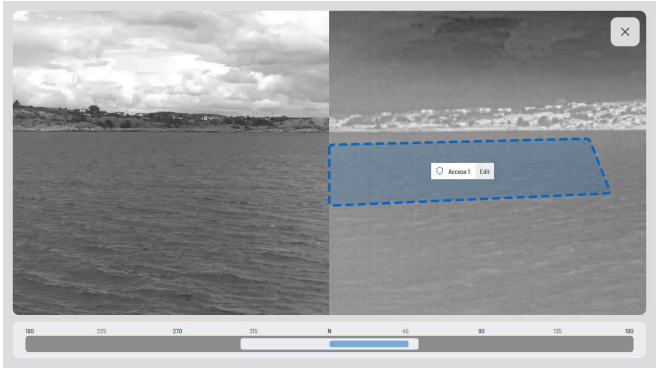
Area Surveillance: draw the areas

Use a PC or a tablet. Drawing does not work on a phone.

1. Open **Settings › Modes › Area Surveillance › Area Selection**.
2. No image yet? Select **Run Camera Diagnostic** and wait for the panorama.
3. Select **Draw Area Selections**. The 360° panorama opens full screen. The compass strip at the bottom shows the bearings.
4. Click 3 or more points around the area. Click the first point again to close it. Right-click or `Ctrl` + `Z` removes the last point.
5. The area gets a name (Access 1, Access 2, ...). Drag a point to change the shape. Click outside the area to save.



The panorama preview and Draw Area Selections.



An area with its name and Edit. The strip shows the bearings.

Select **Edit** on an area to change its name and its alarm filters, or to delete it (**Remove area**). Deleting cannot be undone.

Alarm filters

Choose which objects raise an alarm. Sector Watch has one filter for all sectors. Area Surveillance has one filter per area.

FILTER	OPTIONS
Alert by classification	All, Not Classified, Boat, Buoy, Human in Water, Human on Land, Sailing Boat, Ship
Alert by size	All, Small, Medium, Large

At least one option stays selected.

Differences to a vessel

- No boat data: the NMEA 2000 settings are hidden.
- No sound settings: **Settings** › **Personalization** › **Sounds** is hidden.
- The map shows Sentry at its fixed position instead of a boat.

PART 4

For installers

Plan, mount, connect and commission.

11 Plan the installation
12 Mount and wire
13 Connect to the boat
14 Commission the system

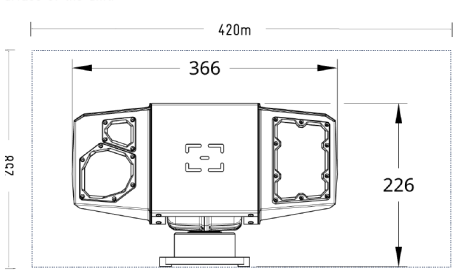
FOR INSTALLERS

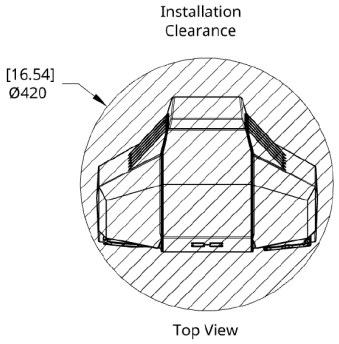
11
Plan the installation

Choose the location

- **High and rigid.** At least 5 m above the water. Higher gives longer range and better distances.
- **Clear view.** No antennas, radar, flags or boat structure in the view.
- **No heat in view.** Exhausts disturb the thermal cameras.
- **Low vibration.** Away from engine vibration.
- **Upright only**, on a flat, horizontal surface.

Keep the space free

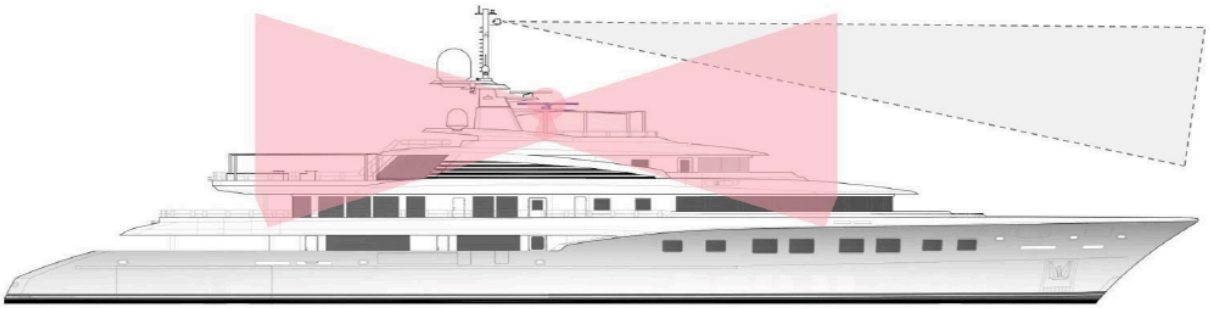




Free space for the movement: Ø 420 mm, 258 mm high, from the base.

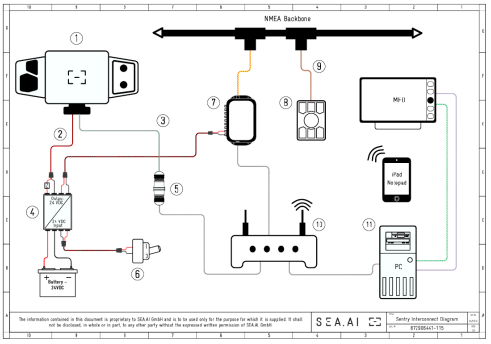
⚠ WARNING Hitting an obstacle while Sentry moves can break the mount. This can cause injury or death.

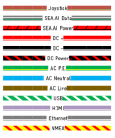
Distance to radar and radios



- 1 m from any S-band (or lower frequency) radar antenna.
- 2 m from the radar beam. The beam spreads 20° up and down.
- 1 m from radio antennas and their cables, for example VHF.

Strong interference can reduce the image quality. The app then shows a message. Move Sentry further away from the source.





BOM			
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	SENTRY UNIT	F06100
2	1	SENTRY POWER HARNESS	A02233
3	1	SENTRY DATA HARNESS	A02232
4	1	DC-DC CONVERTER 24/24-12	A02871
5	1	ETHERNET COUPLER	A00630
6	1	SENTRY POWER SWITCH	TBD
7	1	N2K ETHERNET GATEWAY	F07503
8	1	JOYSTICK	F06130
9	1	JOYSTICK HARNESS	A02875
10	1	WIFI ROUTER	N/A
11	1	FANLESS COMPUTER	N/A

The complete system. Items 10 (Wi-Fi router) and 11 (fanless PC) are not supplied by SEA.AI.

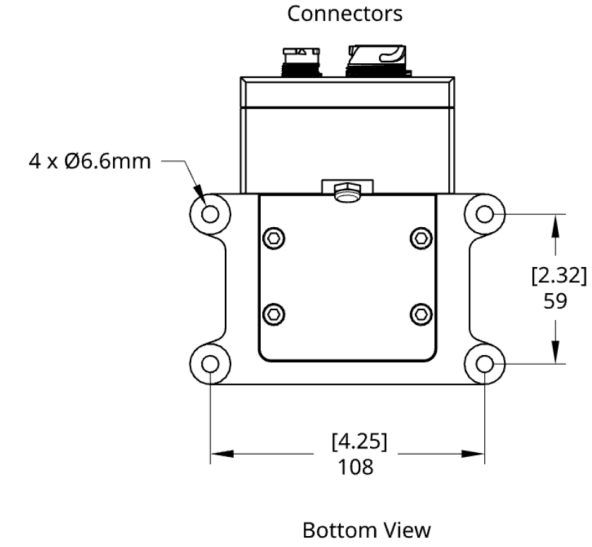
What is in the box

PART NO.	PART	BASIC KIT F06123	PROFESSIONAL KIT F06124
F06100	Sentry unit	✓	✓
A02871	DC-DC converter 24/24-12 (Victron Orion-Tr) with remote switch	✓	✓
A02233	Power cable, 10 m	✓	✓
A02232	Data cable, 10 m	✓	✓
A02873	Spare fuse	✓	✓
A00630	Ethernet coupler	✓	✓
F07503	NMEA 2000 Ethernet gateway (ShipModul MiniPlex-3E-N2K)	–	✓
F06130	Joystick	–	✓
A03040 to A03044	NMEA backbone (4 drops), terminators, power cable with fuse, drop cable 3 m	–	✓

You also need: 4 mounting screws, drill, pen, tape measure, level, a computer and an Ethernet router.

FOR INSTALLERS

12
Mount and wire



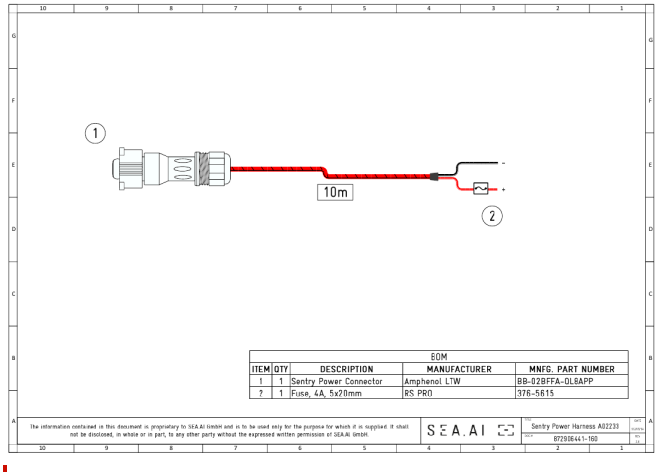
Hole pattern, bottom view. Holes are not tapped.

1. Drill 4 holes as shown: 108 × 59 mm.
2. Use all 4 screws (Ø 6.6 mm holes).
3. The mount must carry 6.2 kg plus the forces of the movement and the sea.
4. Point the connectors so the cables have room and no water runs into them.

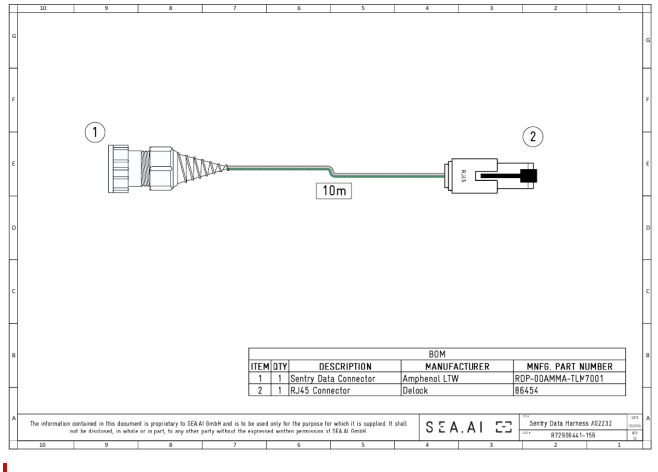
Wire it

⚠ CAUTION Wrong polarity damages the system. Switch off the power before you start.

- **Power:** 24 V DC, minimum 4 A, with a dedicated breaker and fuse.
- **On/off:** Sentry has no switch. Use the remote switch of the DC-DC converter (A02871). It needs only a small low-power switch.
- **Power cable (A02233):** 10 m. Do not extend it. Extend the line between battery and DC-DC converter instead. Mind the voltage drop.
- **Data cable (A02232):** 10 m to the router. Extend with the Ethernet coupler (A00630) and Cat 5e or better. Maximum 100 m in total. At least 100 Mbit/s.



Power harness A02233.

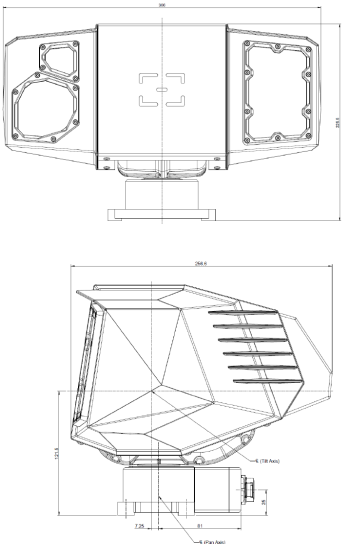


Data harness A02232.

Good cabling

- No kinks, no sharp edges. Use strain relief.
- Drip loops and service loops. Water must not run to the connectors.
- Marine-grade, sealed connections. Away from heat and moving parts.
- Check cables and connectors regularly, especially where it vibrates.

Dimensions and clearances



Dimensions. 2D and 3D files: ask SEA.AI service.

FOR INSTALLERS

13 Connect to the boat

Sentry works in your local network (LAN). Connect the data cable to the router. Your PC, tablet, phone or MFD mini PC must be in the same network.

ITEM	VALUE
Address (DHCP)	`http://sentry.local/`
Fixed IP address	`192.168.1.191` · open `http://192.168.1.191/`
Gateway	`192.168.1.1`
Bandwidth	At least 100 Mbit/s (100BASE-T)

Devices and apps

DEVICE	MINIMUM
Browser	Latest Chrome or Safari
Android app	Android 6.0
iOS app	iOS 17.4
Windows, macOS app	Windows 10, macOS 10.15

Sentry on an MFD

The SEA.AI app runs directly on these MFDs. You get the full app: live image, detections, alarms, all views and Settings. The MFD sounds the alarm.

BRAND	MODELS WITH THE SEA.AI APP
Raymarine	Axiom+, Axiom Pro, Axiom 2 Pro, Axiom XL, Axiom 2 XL
Simrad (Navico)	NSX series, NSO 4

Other MFDs can show the camera image as a network camera (RTSP, see below).

SEA.AI cannot guarantee that every new MFD software version stays compatible.

NMEA 2000

A gateway gives Sentry boat data such as speed, position and heading. It also drives buzzers. Sentry works without it. Supported: ShipModul MiniPlex-3E-N2K (F07503).

1. **Settings › Setup › NMEA Setup.** Model: ShipModul.

2. Enter the gateway IP (for example `192.168.1.120`) and port (for example `10110`).
3. Select **Check Connection**.

Video on other systems (RTSP)

Sentry sends each camera as an RTSP stream (H.264). Bridge systems, video recorders and security systems can show it. Open the address in any RTSP player. Replace `{IP}` with the IP address of Sentry.

CAMERA	RTSP ADDRESS
Thermal, wide	`rtsp://{IP}:8555/twfov`
Thermal, narrow	`rtsp://{IP}:8555/tnfov`
Color, wide	`rtsp://{IP}:8555/rgbwfov`
Color, narrow	`rtsp://{IP}:8555/rgbnfov`

Resolution, frame rate and detection boxes in the stream: **Settings** › **Advanced** › **RTSP** (switch on **Advanced Settings** in **Settings** › **Personalization** first). For other integrations, contact `service@sea.ai`.

FOR INSTALLERS

14 Commission the system

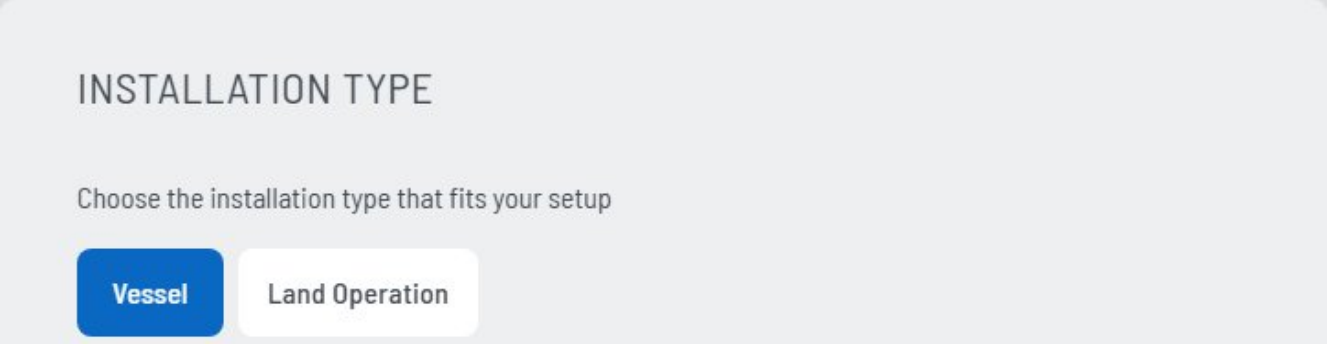
1. Make sure Sentry can turn and tilt freely. Then switch on. Wait up to 3 minutes.
2. Open the app (see Connect and get started).
3. Log in as installer, or activate with the Product Key.
4. Choose the installation type: **Vessel** or **Land Operation**.
5. Enter the vessel parameters. On land: the position parameters and the Home Heading.
6. Create the obstruction mask, if parts of the vessel are in view.
7. Vessel only: set up the NMEA 2000 gateway (see Connect to the boat).

Log in as installer

Settings › Setup › Service & Installation Access › Login As Installer. SEA.AI service gives you the password: `service@sea.ai` . The app then shows **SERVICE MODE**.

Installation type

The installer chooses it once in **Settings › Setup › Installation Type**. **Vessel** gives the modes Collision Avoidance and Surveillance. **Land Operation** gives Sector Watch and Area Surveillance.

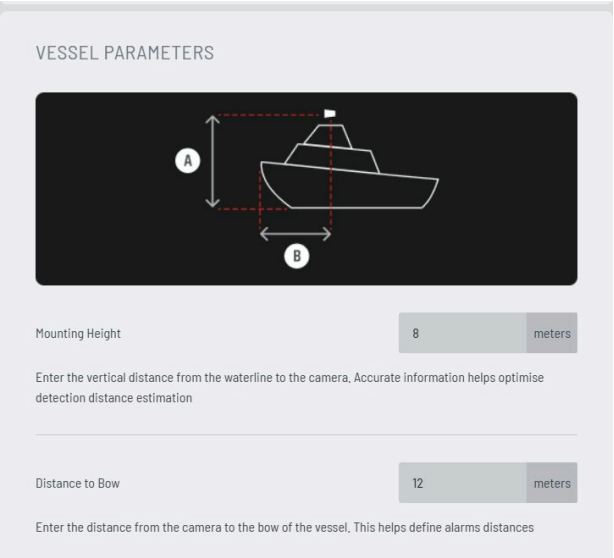


Settings › Setup in Service Mode.

Vessel parameters

- **Mounting Height (A):** from the waterline to the camera, in meters.
- **Distance to Bow (B):** from the camera to the bow, in meters.

Both values are needed for correct distances and alarms.



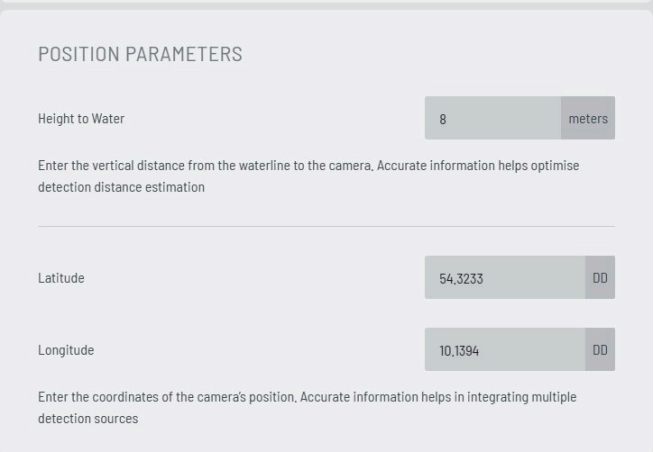
Vessel parameters.

Land parameters

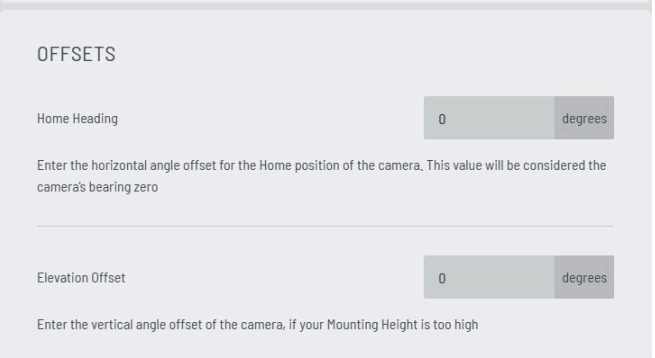
For **Land Operation**. Sentry has no boat data on land, so the installer enters its position and orientation.

- **Height to Water:** from the waterline to the camera, in meters.
- **Latitude and Longitude:** the GPS position of Sentry in decimal degrees (DD), for example `54.3233` and `10.1394`.
- **Home Heading:** the horizontal angle of the camera home position, in degrees. Sentry uses it as bearing 0.
- **Elevation Offset:** the vertical angle of the camera, in degrees. Only if Sentry is mounted very high.

Enter the position in **Settings › Setup › Position Parameters**. Set **Home Heading** and **Elevation Offset** in **Settings › Setup › Offsets**.
Then run the camera diagnostic (see Obstruction mask below). Area Surveillance needs the panorama it takes.
Only the installer can switch between **Vessel** and **Land Operation**. After the switch, Sentry starts in Camera Control.
Without a correct position and Home Heading, bearings, the map and the sectors are wrong. See Land Operation.



Settings › Setup › Position Parameters.



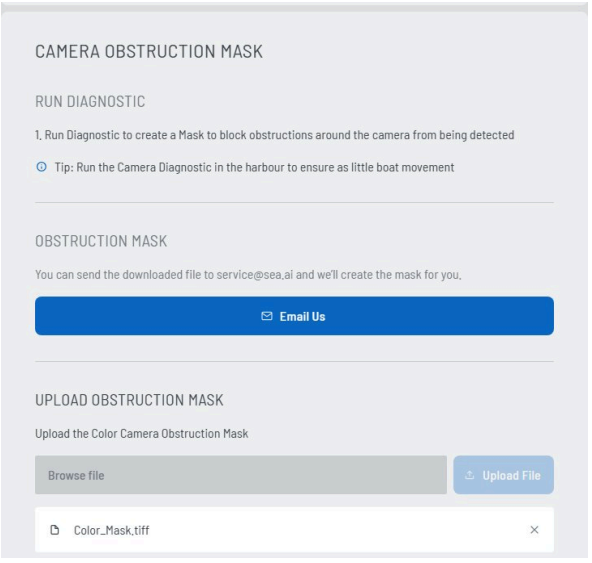
Settings › Setup › Offsets.

Obstruction mask

Masts, antennas or buildings in view can cause false alarms. A mask hides them from the AI. Run the diagnostic in calm water, for example in the harbour, so that Sentry moves as little as possible.

> ⚠ **WARNING** During the diagnostic Sentry turns 360° and tilts. Keep the space around it free.

1. Log in as installer.
2. **Settings › Setup › Camera Obstruction Mask › Run Diagnostic**. Sentry turns all around. This takes up to 20 minutes.
3. Select **Download Camera Diagnostic**.
4. Select **Email Us** and send the file to `service@sea.ai` . SEA.AI sends you two masks: `Color_Mask.tiff` and `Thermal_Mask.tiff` .
5. In **Upload Obstruction Mask: Browse file › Upload File**, once for the color mask and once for the thermal mask.
6. Check it: switch on **Show Camera Mask**.



Camera Obstruction Mask.

PART 5

Help

Problems, updates, care and support.

15 Update the software
16 Clean and inspect
17 Troubleshooting
18 Warranty and support
19 Words and terms

HELP

15 Update the software

Updates improve detection. You update Sentry with the SEA.AI app on a phone, tablet or PC. MFDs cannot update.

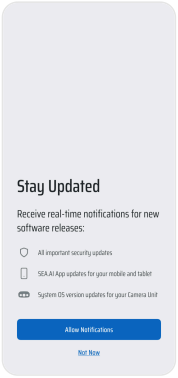
Ashore: get the update

You need an internet connection for these steps.

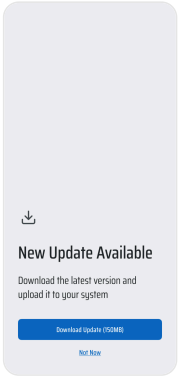
1. Update the SEA.AI app to the latest version (App Store, Google Play or PC app).
2. Open the app. Allow notifications. The app tells you when a new Sentry update is available.
3. Download the update file to your device.

On board: install the update

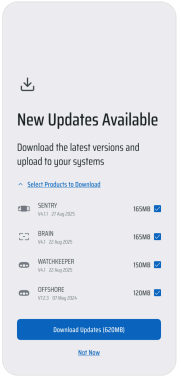
1. Connect your device to the network of Sentry.
2. Switch on Sentry. Wait up to 5 minutes.
3. Open the SEA.AI app. It connects to Sentry.
4. Choose your systems. Select install.
5. Check the new version in **Settings › System**.



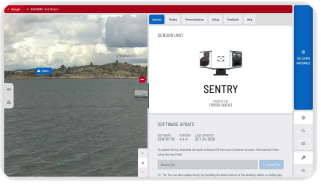
1. Allow notifications.



2. Download the update.



3. Choose your systems.



4. Check the version in Settings › System.

Update from a file

1. Download the update file (`.oscar`) from connect.sea.ai.
2. **Settings › System › Software Update › Browse file › Upload File.**
3. Wait until Sentry restarts. Check the new version.

Selected file is incompatible: the file is not for this model.

HELP

16 Clean and inspect

1. Rinse with fresh water. This removes dirt and salt.
2. Wipe with a clean, soft cotton cloth. Mild detergent is fine. Let it dry.
3. Spots: microfiber cloth with isopropyl alcohol or mild detergent.

> ⚠ CAUTION The lens windows have a coating. No dry cloth, paper, brushes, acid, ammonia or pressure washer.

Check cables and connectors regularly, especially in areas with vibration.

HELP

17 Troubleshooting

YOU SEE	WHAT TO DO
Connecting to Sentry (does not end)	Wait up to 3 minutes after you switch on. Is your device in the same network? Check the data cable and the router.
sentry.local does not open	Some devices do not support .local addresses. Use `http://192.168.1.191/` or the SEA.AI app.
Pan/Tilt Malfunction	Restart Sentry. Check that nothing blocks the movement. Call support if it stays.
Message about reduced image quality	Electromagnetic interference. Move Sentry further away from radar and radio antennas. Call support.
No alarms	Camera Control has no alarms. Choose Collision Avoidance or Surveillance. Check Mute and the speaker.
No detections, no boxes	No active AI subscription. Contact your dealer.
Many false alarms	Masts or antennas in view: create the obstruction mask (Commission the system). Check the mounting height.
Distances wrong	Check Mounting Height and Distance to Bow in the vessel parameters (on land: Height to Water and Home Heading).
Sound Disabled on Start	Phones and browsers block sound until you touch the screen. Tap the screen once.
Product Key lost	Log in at connect.sea.ai. Your Product Key is in your account.
No Detection Available	Track ← →: there is no other detection on that side.
Reconnecting to NMEA2000	Check the gateway, its IP and port, and its network cable.

HELP

18 Warranty and support

2-year limited warranty on manufacturing defects. It starts when you register at connect.sea.ai. Terms: sea.ai/termsconditions.

Need help? Please contact your dealer first. Your dealer knows your installation best and can help you fastest. You can also write to `service@sea.ai` . Send the serial number, installation date and the problem. Find a dealer · FAQ.

New words? See Words and terms.

HELP

19 Words and terms

The words you see in the app and in this manual.

In the app

Collision Avoidance
Mode for underway. The camera pans ahead. Alarms by distance, bearing and size.

Surveillance
Mode for anchor, port or mooring. The camera pans 360°. Alarms by distance only.

Camera Control
Mode where you steer the camera yourself. Detections stay on. No alarms.

Sector Watch
Land operation mode. Watches only the bearings and distances you select.

Area Surveillance
Land operation mode. Watches only the areas you draw in the image.

Object · Warning · Danger
The three threat levels. Blue box: Sentry sees it. Yellow box: watch it. Red box: act now.

Alarm bar
The bar at the top of the screen. Grey: no alarm. Yellow: warning. Red: danger.

Mute
Switches the alarm sound off and on. The boxes and the bar stay.

Color view
Live image of the color camera. Day, dawn and dusk.

Thermal view
Live image of the thermal camera. Night and bad visibility.

Map
All detections from above, around your vessel. The cone shows where the camera looks.

Dual View
Two views side by side. For large screens.

Zoom
Changes from the wide to the narrow camera and enlarges the image.

Track
Sentry follows one detection with the camera.

AI Feedback
Records a short clip when Sentry missed an object or warned about nothing.

Voice Alarms
A voice says the threat level and the direction. When off, you hear beeps.

Installation type
Vessel or Land Operation. The installer sets it once. It decides which modes you get.

Service mode
Installer access to setup and diagnostics. Password from SEA.AI service.

Technical words

Pan/tilt unit
The motor base that turns the camera head 360° and tilts it ±20°.

Gyro stabilisation
Keeps the image steady when the vessel moves.

Wide and narrow camera
Each camera type comes twice: wide (about 33°) for the overview, narrow (8°) for far objects.

Detection
An object that the AI found in the image.

SEA.AI Connect
The SEA.AI web portal at connect.sea.ai. You register there and get updates.

AI subscription
The paid licence for the AI functions: detections, distances and alarms. Without it: camera only.

- **Product Key**
  A 6-character code. You get it by e-mail after registration. It activates the unit.
- **MFD**
  Multi-function display. The chart plotter screen at the helm.
- **AIS**
  Automatic Identification System. Ships send their position and name by radio.
- **thermal camera**
  Sees heat instead of light. Works at night and in bad visibility.
- **obstruction mask**
  Hides parts of your boat, for example a mast, from the AI. This prevents false alarms.
- **NMEA 2000**
  A standard data network on boats. It connects instruments, displays and buzzers.
- **DHCP**
  Gives each device on the network its address automatically. Only one device on the network may do this.
- **RTSP**
  Real Time Streaming Protocol. Sends live video over the network, like an IP camera.
- **RJ45**
  The standard network plug (Ethernet).
- **IP67**
  Dust-tight. Protected against immersion in water up to 1 m for 30 minutes.
- **LAN**
  Local area network. The network on board that connects Sentry, router and displays.

NOW YOU SEE.

SEA.AI

SUPPORT

Please contact your dealer first.

Your dealer knows your installation best.

You can also write to service@sea.ai

REGISTER AND PRODUCT KEY

connect.sea.ai

WEB

sea.ai

Sentry User and installation manual · Software 4.4-4 · 27 October 2026

Sentry is an aid to navigation. It does not replace a proper lookout. The person in charge of the vessel stays responsible.