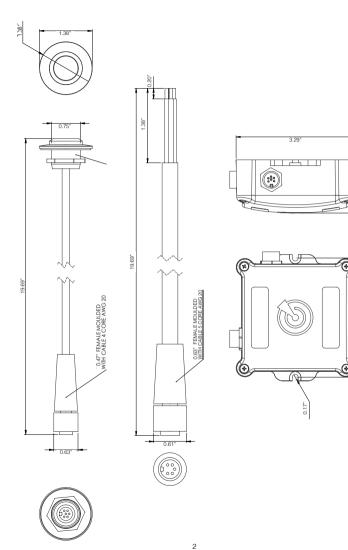
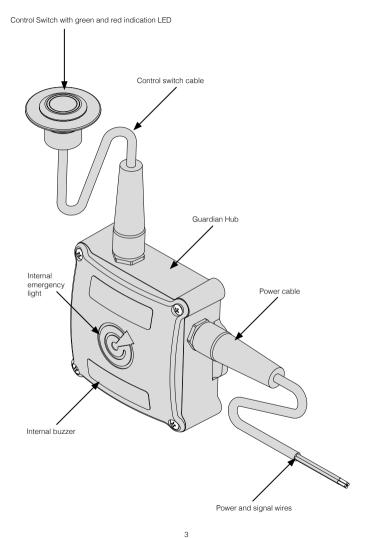


# GUARDIAN

WIRELESS SAFETY

- Engine Kill Switch
- Overboard Alarm
- Rescue App
- Scalable System





#### OLAS TRANSMITTERS

The OLAS T2, OLAS Tag and OLAS FLOAT-ON are considered OLAS transmitters. They emit a Bluetooth signal which is monitored by the OLAS receivers. The Guardian is supplied with the OLAS Tag transmitter.

#### **OLAS RECEIVERS**

The OLAS receivers track the OLAS transmitters. OLAS receivers are:

- GUARDIAN Wireless Engine Kill Switch and Man Overboard (MOB) Alarm System
- CORE Base Station for OLAS Transmitters and Man Overboard (MOB) Alarm System
- OLAS Mobile application
- 4. EXTENDER This operates as a repeater to increase the range of the GUARDIAN or CORE by 25ft

#### ACR OLAS MOBILE APPLICATION

The ACR OLAS mobile application allows the OLAS transmitters to be used as a MOB/proximity alarm if used solely with OLAS transmitters. When an OLAS transmitter goes out of range an alarm is set off and overboard screens are activated.

When the OLAS mobile application is connected to the Guardian or Core it allows greater control over the OLAS transmitters that are being tracked.

To download the app, enter "ACR OLAS" in the Apple App Store or Google Play

#### IMPORTANT INFORMATION

The Guardian has been designed for recreational marine use. The design conforms to appropriate Electromagnetic Compatibility (EMC) regulations but for optimal performance correct installation is required. For optimum performance the mobile device and the Guardian should be located at least 0.5 metres from any equipment transmitting radio signals including VHF Radios, antennas and cables.

- Extension cable set is, P/N: 2989

#### GUARDIAN INSTALLATION

WARNING: Do not attempt to install the Guardian until you know that the power supply is switched OFF.

Where required use the supplied wire connectors which are suitable for connecting wire dimension 20-18AWG. If wire extensions are required use 20AWG or thicker wire.

Ensure all wire connections are waterproof using marine specific connectors, such as heat shrinkable butt splices.

Always connect your power supply after the main power switch to avoid current drainage when the boat is not in use.

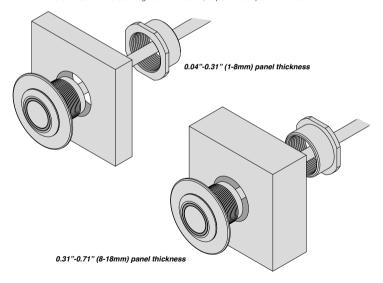
- 1. The control switch mounting location should be within 0.5 meters of the Guardian hub.
- For connection into the engine stop system the Guardian hub will need to be within 0.5 metres of the existing stop switch or associated wires. The wires from the Guardian engine cable can be extended with 20AWG or thicker wire. Ensure a watertight connection by using waterproof connectors.

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#### CONNECTING THE CONTROL SWITCH

- If connecting the Guardian into the vessels existing kill switch system, it is advised to mount the control switch near to the existing kill switch.
- 2. Drill a 0.8" (21mm) diameter hole.
  - Tip: If using a hole saw, placing masking tape over the area to be cut can help produce a smooth edge.
- Ensure the control switch is mounted securely. If the panel thickness is greater than 0.70" a longer nut is available for panel thickness up to 1.18". P/N:2994
- Connect the control switch to the Guardian hub.

Switch the orientation of the securing nut shown below, dependent on panel thickness:



#### **CONNECTING THE POWER WIRES (10-32VDC)**

Connect power cable to Guardian hub.

Ensure Power supply is switched OFF.

- 1. Connect the white (+ or positive) wire to the positive voltage terminal
- 2. Connect the black (- or ground) wire to the negative voltage terminal
- Install a 1-3 A fuse in line with the positive connection

The Guardian uses a double throw relay enabling it to open or close any circuit. It can be connected in place or alongside your existing kill switch as it can be installed to perform the same function.

#### CONNECTING THE SIGNAL WIRES ALONGSIDE YOUR EXISTING KILL SWITCH

- Check with your engine manufacture if the kill switch is operated by closing the circuit or opening the
  circuit. Most engines operate by closing the circuit to stop the engine.
  - Close to stop systems should connect in parallel to your existing kill switch.

    Open to stop systems should connect in series to your existing kill switch.
- 2. There are 3 signal wires: Grey= COMMON Brown = CLOSE TO STOP Purple = OPEN TO STOP
- 3. Connect the grey wire to the existing kill switches common wire
- 4. Connect the brown wire to the remaining kill switch wire if your system uses the close to stop system
- Connect the purple wire to the remaining kill switch wire if your system uses the open to stop system
   *NOTE:* ONLY two signal wire should be connected
- Close off the remaining wire with the supplied end cap

#### SECURE THE GUARDIAN HUB

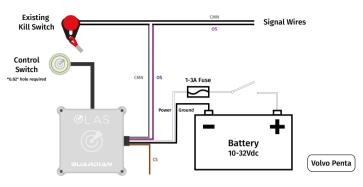
- Find a location where the hub can be securely attached, and the power and switch wires can remain securely attached to the hub.
- The attachment screws provided are self-tapping for plastic / wood so can be screwed directly into the center console. Ensure the attachment point is thicker than the attachment screws to avoid screwing through the panel.

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3. Secure the hub firmly into the center console. Wiring diagram on page 7.

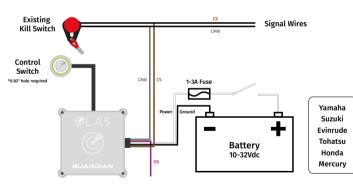
For connection of up to 3 x outboard motors the accessory P/N: 2990 can be used.

### **OPEN TO STOP**



Input: 10-32Vdc =: 13~17mA

## **CLOSE TO STOP**



Input: 10-32Vdc == 13~17mA

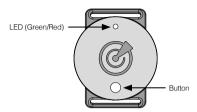
White — Power
Black — Ground

Purple — Open to stop (OS)

Brown — Close to stop (CS)

Grey — Common (CMN)

#### OLAS TAG OPERATION



#### Switch ON:

Press the button for 4 seconds until the light flashes Green

#### Switch OFF:

Press the button for 4 seconds until the light flashes Red

#### Replacing the battery

DO NOT dispose of batteries in fire. Batteries should be recycled or disposed of as per your local guidelines.

Replace the lid ensuring the silicone insert is not damaged and the screws go through the holes correctly. DO NOT overtighten the screws.

Do NOT remove the screws from the base



# **MARNING**

#### This product contains a button battery

If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours.

Keep batteries out of reach of children.

If you think batteries may have been swallowed or placed inside any part of the body, seek immediate medical attention.

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#### **GUARDIAN QUICK START GUIDE**

- Check the OLAS Tag is switched OFF.
- 2. Ensure the Guardian is connected to the control switch and the power cable.
- 3. Switch the vessels batteries ON, powering the Guardian.
- The Guardian will beep once to indicate switching ON.
- If there are no OLAS transmitters in range the Guardian hub will beep every minute and the control switch will flash red/green.
  - Note: if the control switch illuminates green and the Guardian hub beeps once it means the OLAS Tag is still switched ON and has been automatically tracked, skip to point 8.
- Switch the OLAS Tag ON by pressing its button for 4 seconds. Hold the OLAS Tag close to the Guardian. The Guardian hub will beep twice and the control switch will flash red twice to indicate the tag has been tracked. If you do not hear the double beep move the OLAS Tag closer to the Guardian.
- After the double beep on the Guardian the control switch will illuminate green. The system is now operational and the OLAS Tag is being tracked.

#### OLAS MOBILE APP SETUP



Apple App Store

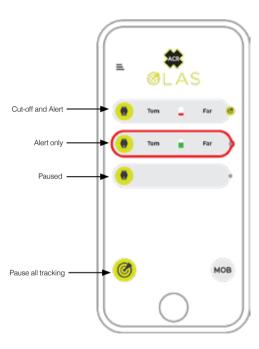
Google Play Store

- Download the ACR OLAS mobile app from the Apple App Store or Google Play.
- Open the App and move to device selection page.
- 10. Click on the Guardian icon.
- 11. Follow the instruction pages and move to the home screen.
- You are now connected to the Guardian and the home screen is displaying the OLAS Tag information.

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#### OLAS TRANSMITTER OPERATING STATES

There are 3 operating states which can be applied to the OLAS Tag (and any other tracked OLAS Transmitters) using the OLAS mobile app. The operating state will be stored on the Guardian until it is changed using the OLAS mobile application.



#### 1. Cut-off and Alert (DEFAULT)

When an OLAS transmitter goes out of range, within 2 seconds the Guardian will cut-off the engine (if connected), sound its internal alert and trigger the MOB alert on the OLAS app. After 5 seconds the engine can be restarted by anyone remaining on the vessel.

#### Alert only

When an OLAS transmitter goes out of range, within 2 seconds the Guardian will sound its internal alert and trigger the MOB alert on the OLAS mobile app. The engine will NOT cut-off and a rescue can be performed immediately. This mode should only be used for passengers.

#### Pause

Pause state should be used when the user knows an OLAS transmitter will go out of range and they do not want the Guardian to react i.e. leaving the boat for an extended period or swimming. If using an OLAS T2 it can be switched OFF. This will remove it from the home screen without activating the alarm.

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#### OPERATION MANUAL

#### Index

- Start up or returning to the vessel
- 2. No OLAS transmitter Warning
- Tracking a new OLAS transmitter
- 4. Tracking a previously tracked OLAS transmitter
- Tracking an OLAS transmitter using the OLAS mobile app
- 6. Checking logged OLAS transmitters (without the OLAS mobile app)
- 7. Checking logged OLAS transmitters (with the OLAS mobile app)
- 8. OLAS Mobile app features (basic)
- Pause Tracking
- 10. Switching OFF the Guardian
- 11. Stop tracking an OLAS transmitter (without the OLAS mobile app)
- 12. Stop tracking an OLAS transmitter (with the OLAS mobile app)
- Low battery alert
- 14. Default recovery mode
- OLAS Mobile app features (advanced)
  - a. Detection timing
  - b. Alert delay
  - c. Solo Mode
  - d. Overboard recovery aids
- OLAS Smart Lock
- 17. Limitations

#### 1. START UP OR RETURNING TO THE VESSEL

- Switch the vessels batteries ON, or press the control switch once.
- The Guardian will beep once to indicate switching ON.

#### 2. NO OLAS TRANSMITTER WARNING

- If there are no OLAS transmitters in range the Guardian hub will beep every minute and the control switch will flash red/green.
- After the first minute it will beep eight times. Thereafter every minute the number of beeps will
  increase by two until the Guardian is beeping continuously.
- To move to tracking state an OLAS transmitter needs to be switched on and moved into range.

#### 3. TRACKING A NEW OLAS TRANSMITTER

- To track a new OLAS transmitter it needs to be switched on and brought into 'Close' range of the Guardian hub. This is around 0.5 metres. If it is not automatically tracked move it closer to the Guardian hub.
- Once the OLAS transmitter is automatically tracked the Guardian hub will beep twice.

#### 4. TRACKING A PREVIOUSLY TRACKED OLAS TRANSMITTER

- To track a previously tracked OLAS transmitter it needs to be switched on and brought into 'Near' proximity which is around 3 metres away. If it is not automatically tracked move it closer to the Guardian hub.
- When the OLAS transmitter is automatically tracked the Guardian hub will beep twice.

#### 5. TRACKING AN OLAS TRANSMITTER USING THE OLAS MOBILE APP

- Connect the OLAS mobile app to the Guardian.
- Navigate to the home screen.
- Any non-tracked OLAS transmitters within range of the Guardian will appear on the home screen greyed out.
- Click on the right-hand side of the tag and select track.
- The Guardian hub will beep twice to indicate a tag has been tracked.

#### 6. CHECKING LOGGED OLAS TRANSMITTERS (without the OLAS mobile app)

- Press the control switch once.
- The number of tracked OLAS transmitters is indicated with a single beep sound signal and one
  green flash per transmitter. Up to 25 transmitters can be tracked.

#### 7. CHECKING LOGGED OLAS TRANSMITTERS (with the OLAS mobile app)

- Open the OLAS mobile app.
- Select the Guardian from the device selection page.
- All OLAS transmitters that are being tracked will be indicated on the home page.
- Use the homepage to check the battery life of the OLAS transmitters.

#### 8. OLAS MOBILE APP FEATURES (basic)

- Customise the OLAS transmitters name.
- Check OLAS tags battery status.
- Enable/disable cut-off switch for individual OLAS transmitters.
- Pause OLAS transmitters.
- Pause all tracking.

#### 9. PAUSE TRACKING

- Press the control switch for 2 seconds, release the control switch after a single been.
- When in Paused state the control switch will flash green for 3 seconds ON/3 seconds OFF followed by a single beep sound signal.
- Press the control switch once to restart tracking.

NOTE: if you have removed an OLAS transmitter whilst the Guardian is in paused state it will beep 3 times and remain in the Paused state.

#### 10. SWITCHING OFF THE GUARDIAN

- The Guardian can be switched off at any point by pressing the control switch for 4 seconds.
- The control switch will illuminate red with a long beep before switching off.

#### 11. STOP TRACKING AN OLAS TRANSMITTER (without the OLAS mobile app)

 The OLAS T2 can be adjusted using the OLAS mobile app so that it either cuts the engine and triggers the alarm when it is switched off (default) or it disconnects silently.

NOTE: if the OLAS T2 is allocated as a Smart Key it will cut the engine and activate Smart Lock.

- To remove any OLAS transmitter without using the OLAS app the Guardian will need to be switched
  off
- Once the Guardian is switched off, switch off the transmitters you wish to stop tracking. The
  Guardian will 'forget' these devices.
- Switch the Guardian back on and it will track those OLAS transmitters that are still switched on and within range.

#### 12. STOP TRACKING OLAS TRANSMITTER (with the OLAS mobile app)

- Open the OLAS mobile app.
- Select the Guardian from the device selection page.
- All OLAS transmitters that are being tracked will be indicated on the home page.
- Click on the right hand of the OLAS transmitter box to cycle it though the different operating states.
   Once it is in Paused state and it appears greyed out then the OLAS transmitter can be switched off and it will be removed from Tracking without activating an alert.

#### 13. LOW BATTERY ALERT

- A low battery alert will be initiated by the Guardian when an OLAS tag's battery level goes below 20%.
- The alert is indicated by a red flash every 10 seconds on the control switch and the Guardian Hub.
- The alert will remain until the battery is charged (OLAS T2) or changed (OLAS Tag).
- You can check which OLAS tag has low battery using the OLAS app.
- Once you have located the tag you can:
  - a. Pause the Guardian, charge or change the battery and restart tracking.
  - b. If the OLAS tags battery is below 10% the Guardian hub will start to beep once every 5 minutes.
  - c. Switch off the Guardian, switch off the OLAS tag and then restart the Guardian.
  - d. Pause the OLAS tag in the OLAS mobile app and then switch off the OLAS tag.

#### 14. DEFAULT RECOVERY MODE

- When an OLAS transmitter goes out of range an alert will sound on the Guardian.
- The Guardian control switch will go red and if connected to the vessel's stop system the stop switch will be activated for 7 seconds (default). This is normally sufficient time for the engine to stop.
- After 7 seconds the stop switch is deactivated, and the engine can be started again allowing a rescue to be performed.
- Press the control switch once to acknowledge the alarm and the Guardian will revert to Paused sate.
   Tracking is now paused until the OLAS transmitter is recovered.
- Once the OLAS transmitter is back on the vessel and within 1 metre of the Guardian tracking will automatically start after 1 minute.
- Alternatively, to manually activate tracking again press the control switch once and tracking will start
  again, if the OLAS transmitter is within 1 metre of the Guardian.

NOTE: Pause will remain active if the OLAS transmitter that was lost is not back within 1 metre of the control switch.

#### 15. OLAS MOBILE APP FEATURES (advanced)

- a. Detection Time (seconds) adjusting the Detection Time allows a period of time where an OLAS transmitter can reconnect silently, preventing any alert from occurring. This may be preferable on larger vessels with multiple cabins where there is an increased chance of signal being blocked.
- b. Alert Delay (seconds) adjusting the alert delay time changes the amount of time the operator has before the MOB alert and relay is activated. This may be preferable on larger vessels where there is increased chance of signal being blocked. During the 'Alert Delay' period an alert will sound to indicate signal has been lost. During this period if the control switch is pressed it manually overrides the cut-off for 30 seconds allowing the OLAS transmitter to be brought back into range.
  - i. Select the menu tab in the top left-hand corner of the home screen (3 lines).
  - ii. Select 'Alert Settings'.
  - iii. Use the slider to select the 'Alert Delay' period.
- c. Solo Mode (minimum 2G connection required) designed for boaters operating on inshore waters or on connected vessels. The OLAS mobile app inputs the vessel information manually entered during setup and sends a distress SMS with the vessel name, time, location, and contact number.
  - i. Select the menu tab in the top left-hand corner of the home screen (3 lines).
  - ii. Select 'Solo Mode'
  - Enter in 'Your Number', this will be sent to your emergency contact so that they can try to make contact after receiving an alert.
  - iv. Enter in your 'Emergency Number', this number will receive your MOB alert and location.
     You must use your country code prefix e.g. US(+1) UK(+44).
  - Select your 'Message Delay' period, this is the amount of time before the MOB alert SMS is sent. A longer period allows more time for self-rescue. A minimum of 1 minute is advised.
  - vi. If a MOB alert message has been sent and the alarm is then manually cancelled an alert cancellation message will be sent.

- Overboard recovery aids The GPS location was stored on the OLAS mobile app when the MOB alert occurred.
  - i. Once the vessel is 20 metres away from the MOB alert location an arrow directs back.
  - The second screen shows easy to read GPS coordinates for the alert location and the vessel's current location. This information is requested by the emergency services if a Mayday call is made.
  - On the third screen selecting the phone icon directs the user to call their previously input emergency services number.
  - iv. On the third screen selecting the VHF icon displays the VHF script for a MOB Mayday call with the custom vessel information and alert location automatically input.

#### 16. OLAS SMART LOCK

OLAS Smart Lock is a theft deterrent and secondary locking system.

When OLAS Smart Lock is enabled, if the Guardian is switched off and back on it will lock the vessels emergency stop system, preventing the engine from being started.

OLAS Smart Lock can be unlocked using the OLAS mobile app or an allocated Smart Key.

OLAS Smart Lock is to be used in conjunction with the engine connection cable and can only be used if the Guardian has been wired into the vessels engine stop system.

OLAS Smart Lock is designed for use on Outboard engines only.

Do not use OLAS Smart Lock with inboard diesel engines or Volvo Penta engines.

Ultimate Sports Engineering Ltd and affiliated resellers cannot be held responsible if a theft occurs whilst OLAS Smart Lock is being used.

#### **OLAS Smart Lock Setup.**

- Connect the OLAS mobile app to the Guardian as normal.
- Enable OLAS Smart Lock this means the vessels emergency stop system will activate automatically when the Guardian is switched OFF and ON.
  - i. Select the menu tab in the top left-hand corner of the home screen (3 lines).
  - ii. Select 'Smart Lock'.
  - iii. Select 'Enable Smart Lock'.
  - iv. Set your new Pin Code.
  - v. Confirm your Pin Code.
  - vi. Email your pin code so that it can be found later if the code is forgotten.
  - vii. Press the back arrow at the top left of the screen to return to the home page.
  - viii. You will see an unlocked gold padlock in the top right corner. This indicates that Smart Lock is enabled but unlocked.

- Manually activating OLAS Smart Lock with the OLAS mobile app.
  - i. Click on the unlocked gold padlock.
  - ii. Input your Pin Code.
  - iii. The Guardian will lock. If the engine is running it will be stopped.
  - iv. The OLAS mobile app will disconnect from the Guardian.
- Manually unlock OLAS Smart Lock with the OLAS mobile app.
  - Reconnect the OLAS mobile app to the Guardian.
  - ii. Enter your Pin Code.
  - iii. OLAS Smart Lock will unlock and the engine can be started.
- Smart Key allocation allocating a Smart Key means that if the OLAS Smart Lock is locked and a Smart Key is brought within 2 metres it will automatically unlock.
  - i. Connect the OLAS mobile app to the Guardian.
  - ii. When on the home screen click the icon on the left-hand side of the tag ID box.
  - iii. Confirm Smart Key allocation.
  - iv. A gold key icon will appear to indicate the OLAS transmitter has been allocated as a Smart Key
  - v. To unallocate the Smart Key click the key icon.
- OLAS T2 Smart Lock control if an OLAS T2 tag is allocated as a Smart Key it can be used to lock and unlock OLAS Smart Lock remotely.
  - i. Allocate an OLAS T2 tag as a Smart Key.
  - Triple click the OLAS T2 tag to switch it off. This will lock OLAS Smart Lock, stopping the engine if it is running.
  - iii. To unlock Smart Lock double press the OLAS T2 and bring it within 2 metres of the Guardian hub and it will automatically unlock.

#### 17. LIMITATIONS

The connection signal can be blocked by carbon and metal. Operation on carbon or metal boats will require the Guardian box to be mounted externally.

#### SPECIFICATION

Power/Current	10-32V/13~17mA
Vessel length	50ft
Tracked Transmitters	up to 25
Weight	100 grams
Size	92 x 90 x 38 mm
LED output	55lm
Buzzer output	85db

#### SOUND AND LIGHT INDICATIONS

OPERATION	ACTION/REACTION
Turning ON	Control switch: Green
	Box: Low red
	Buzzer: ON
No OLAS transmitters in range	Control switch: Green / Red alternating
	Buzzer: 8+ beeps incremental every minute up to 30 minutes
New transmitter tracked	Control switch: Red double flash
	Buzzer: Double Beep
Checking logged OLAS transmitters	Control switch: Red flash per tracked tag
	Buzzer: Single beep per tracked tag
Pre alert warning	Control switch: Green
	Buzzer: Rapid beep
MOB Alert	Control switch: Red constant
	Box: High red constant
	Buzzer: Beep every second
System paused	Control switch: Red 3 seconds, off 3 seconds continuous
	Buzzer: Beep every 6 seconds (if not muted)
Low battery alert <20%	Control switch: Red flash every 10 seconds
	Box: Red flash every 10 seconds
Low battery alert <10%	Buzzer: Beep every 5 minutes

#### CERTIFICATIONS AND DECLARATIONS (Guardian)

RoHS2 DIRECTIVE 2011/65/EU (RED) (2014/53/EU) EN 301 489-1 V2.1.1, EN 301 489-17 V3.1.1, EN 55032:2015 (CSPR 32:2015) and EN 55035: 2017 (CSPR 35: 2016) EN 300 328 V2.1.1

FCC part 15b CFR47 ICES-003:2012

Contains Transmitter module FCC ID: QOQBGM13P Contains Transmitter module IC: 5123A-BGM13P

#### CERTIFICATIONS AND DECLARATIONS (OLAS Tag)

RoHS2 DIRECTIVE 2011/65/EU compliant (RED) (2014/53/EU)

The full text of the EU declaration of conformity is available at the following internet address: www.acrartex.com/products/acr-olas-tag-wireless-man-overboard-wireless-crew-tracker/

#### WARNING & WARRANTY

Any change or modification to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio Communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and relocate the module.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Ensure your phone or tablet has maximum volume, charged battery, GPS ON and Bluetooth ON.

Exposure Lights / Ultimate Sports Engineering Ltd. accept no liability for any injuries or other damages arising from the use of their product in any circumstances.

We are here to help.

If you are experiencing any problems with your ACR product or accessories please contact our Technical Service Department at 954-981-3333 or service@acrartex.com

ACR Electronics, Inc. 5757 Ravenswood Rd. Fort Lauderdale, Florida 33312 - USA

Check web for additional product details and downloads: www.acrartex.com

#### **TERMS & CONDITIONS**

The OLAS systems are products from Ultimate Sports Engineering Ltd.

OLAS wireless systems utilize OLAS transmitters (OT) and OLAS receivers (OR).

OLAS transmitters consist of ACR OLAS TAG, ACR OLAS FLOAT-ON, ACR OLAS T2.

OLAS receivers include the ACR GUARDIAN, ACR CORE, ACR EXTENDER and the OLAS mobile application (OLAS app. Before using any OLAS wireless system it is imperative that you read the DISCLAIMER and the LIMITATION OF LIABILITY which follows. There is legal presumption that by using OLAS wireless systems you have read, understood and accepted the DISCLAIMER and the LIMITATION OF LIABILITY statement

#### Setup

Start and setup all OLAS systems before you leave the dock and ensure all OTs are connected. Connecting the OLAS app allows visual indication of connected OTs. Check the battery level of OLAS tags using the OLAS app. Check the battery level of OLAS Float-On's using the inbuilt colour coded battery indicator.

#### The OLAS App

Ensure GPS is running in the background on your mobile device. Keep your mobile device plugged in to a charger as GPS drains the battery. It is advised that the app is running in the foreground to enable maximum response time. It can take up to 30 seconds for the system to respond if the phone is in locked mode.

#### Test the Connection Whilst In Dock

Test the connection between the OR and the OT by leaving the OR in its planned location and walk the OT to the furthest point on the vessel. Check that all OTs being used are working correctly by submersing them in more than 4 inches of open water which will activate the alarm on the receiver.

#### Advice

As soon as a MOB situation occurs ensure a crew member keeps visual contact and points at the MOB. Contact the emergency services and give them the co-ordinates from your vessel's GPS navigation system and the time since the MOB occurred. Use OLAS Systems frequently as a practice aid for a MOB situation.

#### Disclaimer:

OLAS wireless systems are an aid only and should be used alongside existing safety products and procedures. They should not be used for navigation or lifesaving procedures. The OLAS app GPS coordinates cannot be relied upon to be accurate. Whist accuracy of between 10-30 metres can be achieved, many factors can cause larger variations. The OLAS app cannot and does not take the external environment into consideration. Wind, tide, current and other factors will affect the position of the MOB.

The OLAS app can only assist you in getting back to the position that the automatic alert was issued. The OLAS app is not warranted to be accurate. GPS reception is variable and cannot be relied on. The phone can take up to 40 seconds to get a good GPS lock even when GPS connectivity is available.

The OLAS app will be more accurate if already running for 1 minute before obtaining the GPS location. It is advised that the app is running in the foreground to enable maximum response time. It can take up to 30 seconds for the system to respond if the phone is in locked mode. The OLAS App should only be used to complement other MOB methods and procedures.

#### Limitation of Liability:

In no event shall Ultimate Sports Engineering Ltd or its members, representatives or suppliers be liable for any damages whatsoever (including, without limitation, loss of property, personal injury, lost revenue, lost profits, loss of goodwill, business interruption) arising from or related to the use or inability to use or reliance on any OLAS wireless system, even if Ultimate Sports Engineering Ltd or its representatives or agents have been advised of the possibility of such damages. Some jurisdictions prohibit the exclusion or limitation of liability for implied warranties or consequential damages or incidental damages, so the above limitation may not apply to you. You may have other legal rights that vary from jurisdiction to jurisdiction. To the extent any liability is found, in no event will the liability of Ultimate Sports Engineering Ltd, its members, representatives or suppliers exceed the amount paid for the OLAS wireless system inclusive of the OLAS transmitters and receivers.

#### Patent Notice:

The OLAS wireless systems and associated products may be covered by patents or patent pending applications.

Credits Product: Ultimate Sports Engineering Ltd

#### **OLAS GUARDIAN Declaration of Conformity:**

Hereby, Ultimate sports Engineering Ltd declares that this Bluetooth Alarm System with Engine Kill Switch is in compliance with Directive 2014/53/EU and Directive 2011/55/EU. The full lext of the EU declaration of conformity is available at the following internet address: www.acrartex.com/products/acr-olas-quardian/

ACR Electronics, Inc. 5757 Ravenswood Rd Fort Lauderdale, Florida 33312 - USA