User Manual

Marine Watch S Series

S-ONE Alarm Panel S-ACE Annunciator Panel I/O Cabinet







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1 About this Manual

1.1 Intended Audience

This manual has been published primarily for professionals and qualified personnel. The user of this material is assumed to have basic knowledge of marine systems and must be able to carry out related electrical work.



Work on the low-voltage circuit should only be carried out by qualified and experienced personnel.

Installation or work on the shore power equipment *must only* be carried out by electricians authorised to work with such installations.

1.2 Responsibilities

It is the sole responsibility of the installer to ensure that the installation work is carried out in a satisfactory manner, that it is operationally in good order, that the approved material and accessories are used and that the installation meets all applicable rules and regulations.



Auto-Maskin continuously upgrades its products and reserves the right to make changes and improvements without prior notice.

All information in this manual is based upon information at the time of printing. For updated information, please contact your local distributor.



The crossed-out wheeled bin symbol indicates that the item should be disposed of separately. The item should be handed in for recycling in accordance with local environmental regulations for waste disposal.

By separating a marked item, you will help reduce the volume of waste sent to incinerators or landfills and minimise any potential negative impact on human health and the environment.

1.3 Revisions

This manual is valid for the latest software version of the Marine Watch S Series Alarm Panel.

1.3.1 Software revisions

- See this document for S-ONE Alarm Panel software revisions.
- See this document for S-ACE Annunciator Panel software revisions.



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1.3.2 User Manual Revision User manual revision: December 5, 2023

2 System Overview

2.1 Introduction to Marine Watch

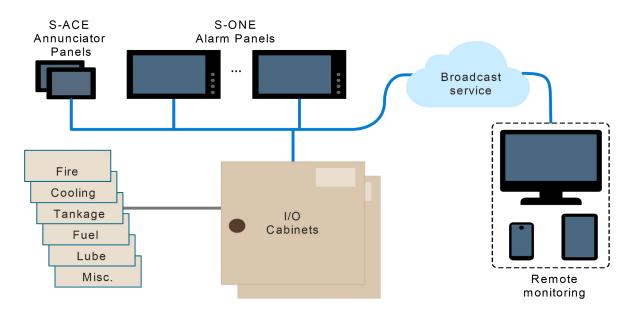
The Marine Watch S Series is a sophisticated and powerful alarm system, designed to be easy to set up and use.

The S-ONE Alarm Panel touchscreen displays binary events as rectangles, where each rectangle represents the status of a channel. Analog channels are represented with gauges.

In the event of a warning or an alarm, the corresponding rectangle indicates clearly with a flashing behaviour and the buzzer sounds. An operator can acknowledge the event by touching the rectangle.

Additional S-ONE Alarm Panels can be added to the network, and these are designated Subpanels. Finally, several S-ACE Annunciator Panels can be added to the network.

All I/O interfaces are built into a separate I/O Cabinet. The communication between the Alarm Panel and the I/O Cabinet is on standard Ethernet.



The optional Broadcast service provides remote monitoring of the system from shore.



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2.2 Typical Installation

The typical Marine Watch installation consists of one or several I/O Cabinets, one or several S-ONE Alarm Panels, and a few S-ACE Annunciator Panels. All units are connected to a standard Ethernet network.

Additional S-ONE and S-ACE panels can be added at any time and require no change in the overall configuration. One must only make sure there is no IP address conflict.

The S-ONE Alarm Panel can be used as either the Main Panel or a Subpanel.

2.3 Components and Default IP Address

All Marine Watch S Series components have a factory-default IP address. If more than one of each type of component is in use, then make sure to change the IP address of the extra component.

No two components in the network shall have the same IP address.

2.3.1 Main Panel

One of the S-ONE alarm panels shall, in the configuration, be designated the Main Panel. This is the default setting.

The Main Panel shall be configured and it holds the entire system configuration. The configuration is done in the Administration submenu.

Configuration can be done manually using the panel menu interface or by loading a predefined configuration file.

Note! Ethernet 1 default IP address: 192.168.0.151





Configuration changes are automatically applied to all networked Subpanels and Annunciator panels.



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2.3.2 Subpanels

Additional S-ONE alarm panels can be added to the network, and these are called Subpanels. It must be configured as such, under Panel Type in the Administration menu.

Each Subpanel replicates the Main Panel and optionally has specific use cases.

A Subpanel is automatically always in sync with the Main Panel configuration.

Note! Ethernet 1 default IP address: 192.168.0.1511

2.3.1 Annunciator Panels

Several S-ACE annunciator panels can be added to the network.

An annunciator panel is automatically always in sync with the S-ONE Main Panel configuration.

Note! Default IP address: 192.168.0.201²



The I/O Cabinet is the sensor hub. It collects all sensor data and makes it available to the Marine Watch Panels.

The I/O Cabinet is available in different sizes, I/O capacities, and I/O types.

There can be up to four I/O cabinets in the network.

Note! Default IP address: 192.168.0.11³

<u>9.46</u> 關	Harir	ne Watch					<u>ه</u>	Ċ
							OI Filter B	
							Fuel Pressure Low	
		Cooling Filter Cutlet	Caoling Temp Sea Chest	Cacing Temp Sited			Fuel Pump 2	
		Exhaust Temp High Stod 3	Exhaust Temp High Stad 4		Exhaust Temp High Stol 6	Exhaust Temp High Stol 7	Exhaust Temp High Stild B	Ĺ
					Exhaust Temp High Port 8		Exhaust Temp High Part II	đ
							Fire Sensor I	H
							Bige Port 1	2
	Bige Port 3	Pit. Door Open	Alt Door Open					





2.4 S-ONE Main Panel Emergency Switchover

In the unlikely event of a Main Panel failure, any Subpanel can act as a replacement panel, and quickly be reconfigured to be a Main Panel.

Make the system operative again:

¹ From the factory, the IP address on the Subpanel is the same as for the Main Panel. This must be changed so that all networked panels have a unique address.

² If several S-ACE Annunciator Panels are in use, then make sure all IP addresses are unique.

³ If several I/O Cabinets are in use, then make sure all IP addresses are unique.



- 1. Remove the Ethernet cable from the faulty Main Panel.
- In the Administration menu of the desired replacement panel, select This Panel > Panel Type: Select Main Panel.
- 3. On the same administrative page, take note of the **replacement panel** IP address.

Reconnect any other Subpanels and Annunciator Panels.

4. If the Marine Watch S system consists of additional S-ONE Subpanels or S-ACE Annunciator Panels, they need to be reconfigured. In the Administration menu, select I/O Cabinet > Network: Enter the replacement panel IP address.



Make sure there is only one panel configured as the **Main Panel** in the Marine Watch S system.



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2.5 S-ONE Alarm Panel

2.5.1 Connectivity and Interfaces

The rear underside of the S-ONE Alarm Panel has all the interfaces.



1	Power LED	54	HDMI
2	Power supply 1. +12/24 V 2. 0 V 3. Power on ⁵ 4. Gnd	6	USB-A (2.0 High-speed interface) • USB 1 • USB 2 • USB 3 Reserved for software update, event log extraction, and configuration file handling
3	Flexible I/O 5. I/O #1 6. I/O #2 7. I/O #3 8. I/O #4 9. I/O #5 10. I/O #6 11. I/O #7 12. I/O #8	7	Ethernet Ethernet 1, RJ45 Ethernet 2, RJ45 Ethernet 1 is preferred for networking.
4 ⁶	CAN bus, Relay, Modbus RTU 13. CAN L 14. CAN H 15. CAN 0V 16. Relay NC 17. Relay C 18. Relay NO 19. Modbus A 20. Modbus B 21. Modbus 0V	87	NMEA 2000 – isolated

⁴ Not in use

⁵ Not in use, connect to 24V for future use

⁶ Not in use

⁷ Not in use



Miscellaneous	
Buzzer	Activates for any new event.
Ambient Light Sensor	Automatic adjustment of screen brightness.
Proximity Sensor	Motion detection.

2.5.2 Operator Interface

In addition to the touch interface on the screen, there are buttons on the right-hand side of the panel. These are used to control different parts of the panel as described below:

	Interface	
	Power Indication	Lit when the panel is powered.
С	NFC Sensor	Not used in this software revision.
«[]»	Home Button	The Home button displays the Home page. When on the Home page, the home button displays the previous instrument page. A long press displays the Menu page.
	Alarm Button	 Silences the buzzer and displays the alarm list. When displaying the alarm list and pressing the Alarm button If the buzzer is sounding the buzzer will be silenced If no buzzer is sounding the previous page will be displayed
-\$.	Brightness Increase Button	Increase screen brightness.
	Brightness Decrease Button	Decrease screen brightness.

2.5.3 Communication Interface

Other systems can interface with the S-ONE Alarm Panel using the built-in Modbus TCP interface on Ethernet.



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The communication I/O list can be found here: <u>http://tiny.cc/zxxebz</u>

2.6 S-ACE Annunciator Panel

2.6.1 Hardware Connections



Connectivity			
Description	Connector		
Power Typical: 0.4 A @ 24 V	C1.11: +12/24 V C1.12: 0 V		
External Buzzer Max: 0.2 A	C1.1 0 V at C1.12 or other 0 V.		
Ethernet	RJ 45		
USB	USB-A		

For full information of the connectivity and interfaces, see the datasheet of the product. In order to achieve full IP-56 ingression support, the unused connectors must be populated with sealing plugs⁸.

2.6.2 Operator Interface

In addition to the touch interface on the screen, there are buttons on the right-hand side of the panel. These are used to control different parts of the panel as described below:

Symbol	Button	Action
	Home Button	Toggles between the Alarm list and Menu page.
€	Alarm Button	Silences the buzzer and displays the Alarm list.

⁸ SKU: 1006946 (extend with Buzzer connectivity if needed)



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2.7 I/O Cabinet

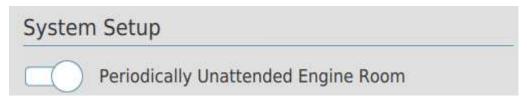
Marine Watch includes a standard set of signals in the I/O Cabinet. See the I/O Cabinet chapter for further details.



The I/O Cabinet can be extended with additional switch channels, analog channels or output channels.

2.8 Periodically Unattended Engine Room

The Marine Watch S Series system supports periodically unattended engine room installations.



The minimum setup for a periodically unattended engine room installation is the following

- S-ONE Main Panel in the engine room / engine control room
- S-ACE or S-ONE Subpanel on the bridge
- S-ACE or S-ONE Subpanel in the engineers cabin



When the engine room is unattended, any alarm condition in the main alarm system shall initiate an alarm in the duty engineers' cabin and in all public spaces the duty engineer may reside.

This can be accomplished by installing an S-ACE or S-ONE Subpanel in such locations.

2.8.1 Watch Responsibility and Watch Transfer

When the engine room is attended, the engineer in the engine room has the watch responsibility. The watch responsibility can be transferred to and from the bridge using the Marine Watch S Series panels.

When a successful watch transfer to the bridge has been executed, the bridge has the watch responsibility, and the engine room can be left unattended.



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Marine W	/atch	
×	Attendance	
	Engine Room	
Attendance	Attended	Unattended

Watch Responsibility Indication

The following symbol is shown in the panel header when the panel has watch responsibility.



If the engine room has watch responsibility, this is equivalent to an attended engine room. Likewise, if the bridge has watch responsibility, the engine room can be unattended.

In addition, engine room status (attended / unattended), as well as an on-duty engineer (in case of unattended engine room), can be inspected using the panel menu.

Attendance		
Engine Room		
Attended	Unattended	
On duty: Chief Engi	neer	

Watch Transfer to Bridge

When the engine room engineer is about to leave the engine room, the engineer must transfer watch responsibility to the bridge before leaving the engine room.



Alarm Al No Bridge panel in the system
X Select On Duty Engineer
Chief Engineer
X Watch Transfer Confirm unattended engine room. Chief Engineer on duty. No Yes
r 🗙 Watch Transfer
Watch Transfer successful. OK



If the bridge denies the transfer (or times out), no watch transfer has been performed and the engine room still has watch responsibility.		×	Watch Transfer
	1		Watch Transfer rejected or timed out.
			ОК

Watch Transfer to Engine Room

When the engine room engineer enters the engine room, the engineer takes watch responsibility, and the bridge panel is informed.

Request attended on the Engine Room panel or the Engine Control Room panel by pressing the Attended button.	Attendance Engine Room Attended Unattended On duty: Chief Engineer
Dialogue on all Bridge panels.	X Watch Transfer Engine room is now attended. OK

2.8.2 Buzzer and Acknowledge

Depending on the panel location, the buzzer activates according to the following table.

Location	Attended Engine Room	Unattended Engine Room
Bridge	Per group configuration	Activate buzzer
Engineers cabin [on duty]	Silent	Activate buzzer



Location	Attended Engine Room	Unattended Engine Room
Engineers cabin [off duty]	Silent	Silent ⁹
Other / Public spaces	Silent	Activate buzzer
Engine room	Activate buzzer	Activate buzzer
Engine control room	Activate buzzer	Activate buzzer

The Marine Watch S Series panels installed on the bridge can be configured to which channel groups shall activate the buzzer in an attended engine room situation.

This can be used to minimise the potential disturbance on the bridge when the engine room is attended.

Panel Location			
Bridge			
Buzzer when Atte	ended Engine Room		
Ungroupe	d		
Group 1	Group 2		
Group 3	Group 4		

Engine Room / Engine Control Room

The S-ONE Main Panel should be configured to acknowledge all events. If an S-ONE Subpanel is installed in the engine room, in addition to the S-ONE Main Panel, it can be configured to acknowledge events as well as perform a system-wide silence.

Silencing the buzzer on one of these panels will silence all buzzers in the Marine Watch S Series system.

Other Locations

Panels in other locations shall not be able to acknowledge events. The S-ACE panels can not acknowledge any events, whereas the S-ONE Subpanels can be configured to not acknowledge events.

⁹ Engineers Alarm will activate the buzzer on the off duty engineers cabin as well.



Silencing the buzzer on one of these panels only silences the local buzzer. The buzzer in all other locations is not affected by a local silence.

2.8.3 Engineers Alarm

The Engineers Alarm can be configured on the Main Panel.

Engineers Alarm		
Timeout (minutes)	3	

If an event is not acknowledged within the configured time (1 - 10 minutes), the Engineers Alarm will activate. The Engineers Alarm will activate all panel buzzers (including any panel in the off-duty engineers cabin).

2.9 Cyber Security

In order to comply with the cyber security regulations by IACS, this chapter describes the configuration required and any input to a potential Cyber Security Management System.

2.9.1 Configuration

Required Configuration

• SSH shall be disabled, which is the default for factory-produced units.

Recommended Configuration

• Change the PIN code to something which is not the default.

Inspect Configuration

The configuration can be inspected in the Administrative part of the menu.

Ma	aintenance	
Sec	curity	
	Change PIN Code	
С	SSH Server	
	Save Security Log	



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2.9.2 Integration to Cyber Security Management System

	S-ONE	S-ACE
Backup	Take note of the software version	Take note of the software version
	Extract configuration file to USB and store it	Take note of the following from the Administrative settings - IP Address - Panel Buzzer - Alarm Groups - Main Panel IP address - Panel Location - Buzzer when Attended Engine Room
Recovery	Remove Ethernet cable(s)	Remove Ethernet cable
	Perform a software update to the version in the backup	Perform a software update to the version in the backup
	Perform factory reset	Perform factory reset
	Change PIN code	Change PIN code
	Restore the backed up configuration by loading configuration from USB	Restore configuration manually
	Insert Ethernet cable(s)	Insert Ethernet cable

Backup and Recovery of System

Periodical Functionality Audit

For S-ONE and S-ACE, at a minimum, perform the following periodically to verify security functionality.

- 1. Attempt to log in to the Administrative menu with an incorrect PIN.
- 2. Login to the Administrative menu with the correct PIN.
- 3. Insert a USB memory stick, and extract the security log from the Maintenance section of the Administrative menu.
- 4. On a PC, verify the two latest records are "admin unsuccessful log in" and "admin log in" in the 'security_log.csv' file on USB.



3 The S-ONE User Interface

3.1 Header Information

Marine Watch	Coolant Temperature High Lube Oil Pressure
--------------	---

The header consists of the following information.

- The logotype, if any. This can be changed in the configuration.
- The default panel name is **Marine Watch**. The name can be changed in the configuration.
- A common warning/alarm banner; flashing for new unacknowledged events.
- When the buzzer is active, the buzzer symbol is indicated in the centre of the banner.
- The two most recent unacknowledged events, if any, are displayed next to the event indicator.
- Various status symbols.
- The Time can be displayed as an option.

3.1.1 Header Status Symbols

These symbols may appear in the header bar.

At least one channel indicates Alarm	At least one channel indicates Warning	At least one Alarm and at least one Warning
At least one alarm, one warning and one disabled channel	One or more channels are disabled by the operator	At least one new Alarm or Warning ¹⁰
\bigcirc	$\leq))$	
Watch responsible	The buzzer is sounding	

¹⁰ The red alarm banner takes precedence over the yellow warning banner



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3.2 The Home Page

The Home Page indicates an overview of all the configured pages. Access to any page can be done by selecting that page.

Any active event on a page is indicated with the corresponding warning- or alarm triangle symbol, and a counter. Also, any disabled channels are indicated with a grey triangle.

The main menu can be accessed by selecting the \equiv symbol.



3.2.1 History Widget

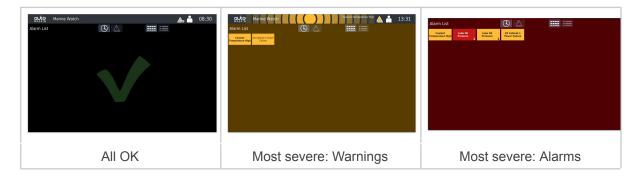
The history widget displays the alarm status for the last 24 hours. Recurring alarms are indicated with a count. Select a time interval to see more detailed information.



3.3 The Alarm List

The Alarm List displays all events in a grid or list view. If no events are present, the Alarm List displays a green all OK symbol. In case of the worst event is a warning, the background is coloured with warning colours.

Likewise, if the worst event is an alarm, the background is coloured with alarm colours.



The events can be acknowledged from the panel if allowed in the configuration.

MASKIN	Marine Watch		Coolant Temperature High Lube Oil Pressure	12:53
Alarm List				
Coolant Temperature High	Lube Oil Pressure	I/O Cabinet 1 Power Failure		



3.3.1 Symbols in the Alarm List

Symbols in the Alarm List		
	The events are sorted chronologically, with the most recent event first.	
	The events are sorted by severity, with the most severe event category first.	
	The events are displayed in a grid view.	
	The events are displayed in a list view.	

3.3.2 Alarm list colour coding

Alarm List Colour Coding			
Warning text	Bold black text on yellow background	Active, unacknowledged warning	
Warning text	Normal black text on yellow background	Active, acknowledged warning	
Warning text	Bold yellow text on grey background	Inactive, unacknowledged warning	
Alarm text	Bold white text on red background	Active, unacknowledged alarm	
Alarm text	Normal white text on red background	Active, acknowledged alarm	
Alarm text	Bold red text on grey background	Inactive, unacknowledged alarm	



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3.4 The Switch Channel Page

There will be one or several pages with rectangles. This is dependent on the configuration, the number of connected I/O Cabinets, and the type of I/O in each Cabinet.

Each rectangle represents the status of one switch input channel, and each page can display status from up to 60 channels.

	Marine Wat	ch	(◀))		Switch Chann Switch Chann	el 48 👫 🦰	08:29
Group 1 Switch Channel 1	Group 2 Switch Channel 2	Group 3 Switch Channel 3	Group 4 Switch Channel 4	Switch Channel 5	Switch Channel 6	Switch Channel 7	Switch Channel 8
Swiirre 9 english	Switch Channel 10	Switch Channel 11	Switch Channel 12	Switch Channel 13	Switch Channel 14	Switch Channel 15	Switch Channel 16
Switch Channel 17	Switch Channel 18	Switch Channel 19	Switch Channel 20	Switch Channel 21	Switch Channel 22	Switch Channel 23	Switch Channel 24
Switch Channel 25	Switch Channel 26	Switch Channel 27	Switch Channel 28	Switch Channel 29	Switch Channel 30	Switch Channel 31	Switch Channel 32
Switch Channel 33	Switch Channel 34	Switch Channel 35	Switch Channel 36	Switch Channel 37	Switch Channel 38	Switch Channel 39	Switch Channel 40
Switch Channel 41	Switch Channel 42	Switch Channel 43	Switch Channel 44	Switch Channel 45	Switch Channel 46	Switch Channel 47	Switch Channel 48
Switch Channel 49	Switch Channel 50	Switch Channel 51	Switch Channel 52	Switch Channel 53	Switch Channel 54	Switch Channel 55	Switch Channel 56
Switch Channel 57	Switch Channel 58	Switch Channel 59	Switch Channel 60				

Channels can optionally be assigned to one of three different groups, and the group can be given a name and assigned a group colour.

Different alarm panels can be configured to indicate and allow acknowledgement for select groups of channels only.



Note that channel OK can be indicated as a green or white rectangle, and this can be changed in the menu.



3.4.1 Channel Status

Each rectangle represents the status of a binary channel as follows.

Status	Description	Sample Graphic Representation
Normal	The channel is not alarming.	Switch Channel 1
Active and not acknowledged	The channel is alarming, following its persistence timer. Text in bold, flashing.	Switch Channel 1 1 1
Active and acknowledged	The channel is acknowledged by an operator and will clear when the alarm clears. Regular text.	Switch Channel 1 Switch Channel 1
Inactive and not acknowledged	The channel has been activated but is not active now. It will clear when acknowledged. Grey background, bold flashing text in yellow/red.	Switch Channel Switch Channel
Disabled	The channel has been disabled by an operator. The rectangle is reduced in size and grey.	Cool>nt <emp< td=""></emp<>
Disabled, but active event	The channel has been disabled by an operator. Border in severity colour if the channel is active.	Tempr + High Cool> (emp

(!)



3.5 The Analog Channel Page

The analog page can display up to eight channels in a 4 x 2 grid. Each channel is represented as a circular gauge or as a bar graph widget. An optional Sparkline can be displayed.

A maximum of two analog pages can be displayed, holding a maximum of 16 analog channels.



Analog channels are an option. If the I/O Cabinet does not include the analog option, then these pages are not displayed.

Widget Properties		
Name	The analog signal description.	
Value	Real-time value scaled between the sensor Min-Max value in the configuration. An out-of-limit value is indicated with "".	
Unit	The signal unit.	
Min/Max Range	Instrument Min/Max values.	



Widget Properties		
Alarm Limits LL • L • H • HH		
Sparkline	Optional sparkline for up to 1 hour of operation.	

3.5.1 Channel Status

Status	Description	Sample Graphic Representation
Normal	The channel is not alarming.	40.6 %
Active and not acknowledged	The channel is alarming, following its persistence timer. Instrument text in bold, flashing.	50 25 Instrument 2 75 17.5 0 100 %
Active and acknowledged	The channel is acknowledged by an operator and will clear when the alarm clears. Regular instrument text.	25 Instrument 2 75 17.5 0 100 %



Status	Description	Sample Graphic Representation
Inactive and not acknowledged	The channel has been activated but is not active now. It will clear when acknowledged.	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Disabled	The channel has been disabled by an operator.	25 Instrument 2 75 40.8 0 100 %
Disabled, but active event	The channel has been disabled by an operator and is indicating an event.	25 Inscriment 2 75 0 96



3.6 The Output Channel Page

The panel can be configured to display up to 16 operator switches on one page.

Note that the I/O Cabinet must have the optional expansion output modules. The output channels can be configured to either toggle or momentary. Only the Main Panel can control the outputs.

AULC Marine Watch	1		👗 🌥 07:53
Output Channel 1	Output Channel 2	Output Channel 3	Output Channel 4
0 1	0 1	0 1	0
Output Channel 5	Output Channel 6		
0 1	0		

3.7 Screen Navigation

This is how to operate and navigate the panel.

Action	Do this	
Acknowledge an event	 Tap the event in the Alarm List. Tap the event widget. The event widget is the rectangle – for binary/switch channels the circular gauge or bar graph – for analog channels 	
Disable Channel	Push and hold the corresponding widget for one second.	
Next Screen	Screen Swipe left on the screen.	



Action	Do this
Previous Screen	Swipe right on the screen.



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4 The S-ONE Main Menu

The Main Menu is always available to the operator. It is divided into several sections as follows.

4.1 Attendance

The Attendance menu is available only if any of the following has been configured.

- Periodically Unattended Engine Room (enables the Engine Room section)
- Location is engine room or engine control room (enables the Dead Man Alarm and the Engineers Call section)

Marin	e Watch			Coolant Temp	13:40
×	Attendance				
	Engine Room				
Attendance	Attended Unattended				
C Controls					
/// Display	Dead Man Alarm				
📰 Event Log	Alarm After (minutes)	3]		
🙊 Troubleshooting	Remind Below (minutes)	1			
Administration	Reset				
	Engineers Call				
	Request Assistance Can	icel Request			

4.1.1 Engine Room

Select Attended or Unattended to perform a watch transfer. See the chapter Periodically Unattended Engine Room for further information.



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4.1.2 Dead Man Alarm

This function can be enabled to sound the alarm if the engineer has not reset the timer in time. A notification dialog is indicated on the Engine Room panels and Engine Control Room panels before the alarm sounds. The alarm, however, is broadcasted to all panels.

A panel I/O output can be configured to indicate dead man reminder, and a panel I/O input can be configured to reset the dead man alarm timer.

4.1.3 Engineers Call

The engineer in the engine room or engine control room can request assistance from any other panel in the Marine Watch S system. The request can be either directed to a specific panel or broadcasted to all panels.

4.2 Controls

These settings are possibly used frequently.

Marir	ne Watch	Coolant Temp 🎇 📥 13:42
×	Controls	
	Panel Language	Grouped Channels
Attendance	English Norsk	Show Groups
Controls	Date & Time	Buzzer ①
Controls		Panel Buzzer Pattern
Display	Show Time in Header	Normal Annoying
	Time Format	
Event Log	24 h 12 h	Touch Feedback
🙊 Troubleshooting	Date Format	Off Low Normal
0	yyyy-mm-dd dd.mm.yyyy mm/dd/yyyy	Event Count in Header
Administration		
	Home Page	
	Enabled	
	Background	
	Horizon Black	

4.2.1 Panel Language

Select the preferred panel language.



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4.2.2 Date & Time

Date and time formatting can be selected, together with the option of displaying the time in the header.

4.2.3 Home Page

The Home Page is a default but optional overview of all the pages and makes it easy to navigate to any page.

4.2.4 Grouped Channels

If a channel is assigned to a group, it can be indicated with a coloured rectangle and an optional group name. It is possible to assign each channel to one of three different groups.



By default, a channel does not belong to any group.

4.2.5 Buzzer

The panel buzzer volume can be configured in the administrative part of the menu.

Panel Buzzer Pattern			
Standard	Standard on / off pattern.		
Annoying	Four quick beeps.		
Touch Feedback	Touch Feedback		
Off	Silenced.		
Low	50 % volume.		
Normal	100 % volume.		



Event Count in Header

The event count per severity can be configured to be displayed in the header. Also, any disabled channels are indicated.



4.3 Display

Various display settings are controlled from here.

Marin Maskin Marin	ne Watch	'' 13:5	1
×	Display Brightness	Sparkline ①	
Attendance	Auto Mode	Off 30 min. 60 min.	
Display	Day Night Auto	Screensaver ① Screensaver Timeout (minutes) 5	
 Troubleshooting Administration 	Day Mode Kinda White Just Green Night Mode Very Orange Quite Dark	Clean Screen	
	Disabled Channels in Black & White		

4.3.1 Brightness

Brightness		
Brightness slider	Manually adjust the backlight brightness (0-100%).	
Auto	The backlight brightness is adjusted automatically. Note! Using the physical buttons to change the brightness will set Auto to Off.	



4.3.2 Mode

Mode		
Day	Colours optimised for daylight.	
Night	Colours are optimised for use in dark environments.	
Auto	Switch automatically between Day and Night modes.	

4.3.3 Theme

Theme		
Day Mode	Choose a colour representation for use in Day mode	
Night Mode	Choose a colour representation for use in Night mode	

Disabled channels can be configured to be displayed in black & white.

4.3.4 Sparkline

A Sparkline is a miniature chart contained within the circular gauge and bar graph. Choose between 30 or 60 minutes of history and a line or area representation.





4.3.5 Screensaver

Screensaver		
Screensaver	Enables the screensaver. The screensaver will activate when there are no events.	
Timeout (minutes)	Set the inactivity time in the number of minutes until the screensaver activates. Any active or new event will deactivate the screensaver.	

4.3.6 Clean Screen

Clean Screen		
Clean Screen	Displays the screen in all black so fingerprints are clearly visible and can be wiped off with a clean soft cloth. Press the button on the screen to exit.	

4.4 Event Log

The event log is displayed in chronological order.

Maskin Mari	ne Watch	I		1 3:54
×	Event L	og 🕛		Top Export
	Туре	e	Description	Timestamp
Attendance		Cabinet 1 Ich Channel 2	Coolant Temp Alarm - Acknowledged	13:45:24 2023-11-24
Controls		Cabinet 1 cch Channel 2	Coolant Temp Enabled by operator	13:40:10 2023-11-24
Display	🗘 Mari	ine Watch	Header event config: Event Count	13:40:04 2023-11-24
Loop and the second sec		Cabinet 1 Ich Channel 4	Coolant Temperature High Disabled by operator	13:31:58 2023-11-24
Event Log	🛕 Mari	ine Wat <mark>ch</mark>	I/O Cabinet 1 Power Failure Warning - Acknowledged	13:31:08 2023-11-24
Troubleshooting		Cabinet 1 log Channel 1	Lube Oil Pressure Disabled by operator	13:30:31 2023-11-24
ddministration		Cabinet 1 log Channel 1	Lube Oil Pressure LoLo - Acknowledged	13:30:09 2023-11-24
		Cabinet 1 Ich Channel 4	Coolant Temperature High Enabled by operator	12:42:22 2023-11-24
		Cabinet 1 log Channel 1	Lube Oil Pressure LoLo - Active	12:42:07 2023-11-24
		Cabinet 1 log Channel 1	Lube Oil Pressure Lo - Active	12:42:07 2023-11-24



The Event Log holds the last 1000 events and can be exported as a CSV file to a USB storage device.

It is possible to filter the Event Log further by pressing and holding the event Type, or the event symbol, eg. the warning triangle.



If the Event Log is filtered, a "Show All" button will appear at the top, making it possible to reset the filtering.

Legend		
Indication	A	An Alarm event.
		A Warning event.
	0	Configuration change.
	i	Information.



4.5 Troubleshooting

The Troubleshooting menu can be used to help to diagnose faults.

Marir	ne Watch		• 4	👫 🌥 13:55
×	Troubleshooting			
	This Panel		I/O Cabinet ①	
	Supply voltage 24.0 V			
Attendance			Status	
	Buzzer Test	Button Test	Switch 1-60	Analog 1-8
Controls			Switch 61-120	Analog 9-16
// Display	System Status ①		 Steller Middlawe 2001, Magneton 	
Display	I/O Cabinet 1 Power Failure	A Asimourlandara	Communication	
Event Log	I/O Cabinet 1 Power Failure	Acknowledge	Connection status Connection attempts	Connected 1
			Successful connections	1
1 Troubleshooting			Modbus transmitted packets	26460
			Modbus received packets	26460
Administration			Subpanel	
			Communication	
			Subpanels 0	
			Transmitted packets 0	
			Received packets 0	
			Broadcast	
			Connection status Not con	nected

4.5.1 This Panel

Troubleshooting this panel.

Indication		
Supply Voltage The panel supply voltage is displayed.		
Buttons		
Buzzer Test	Press and hold the button to activate the buzzer.	
Button Test	The button brings up a dialogue for testing of the panel's physical buttons.	

4.5.2 System Status

The active internal events, if any, are listed here.

Unacknowledged events are listed in bold. Press the corresponding Acknowledge button to acknowledge the event.





The following internal events are defined.

System Status	
I/O Cabinet Communication Failure	Communication with the I/O Cabinet is lost.
Main Panel Communication Failure	Communication to the Main Panel is lost.
Lost Contact to <location name=""> Panel</location>	Communication lost to any Subpanel or Annunciator Panel configured to be in the Marine Watch system.
Main Panel Low Voltage	Main Panel voltage below 21 V for 30 seconds.
Dead Man Alarm	The dead man alarm timer has expired.
Engineers Alarm ¹¹	An event has not been acknowledged within the configured time.
Diagnostic Failure	I/O data bus failure.
UPS Failure	UPS battery failure.
Power Failure	Power is below the limit for the 12V (9.6V) or 24V (19.2V) supply.
Circuit Breaker Tripped	I/O Cabinet circuit breaker tripped.

¹¹ Only for Periodically Unattended Engine Room configurations.



4.5.3 I/O Cabinet

Troubleshooting of the selected I/O Cabinet.

Status	
Switch 1-60 ¹²	See the status of the binary channel at the I/O Cabinet.
Analog 1-8 ¹³	See the status of the analog channel at the I/O Cabinet.
Communication	
Connection state	Connectivity status between the Main Panel and the I/O Cabinet.
Connection attempts	Connection attempts since the last restart of this panel.
Successful connections	Number of successful connections since the last restart.
Transmitted packets	Data packets transmitted.
Received packets	Data packets received.

4.5.4 Subpanel

Troubleshooting of any connected Subpanel.

Communication	
Subpanels	Number of connected Subpanels
Transmitted packets	Data packets transmitted
Received packets	Data packets received

4.5.5 Broadcast

If the Marine Watch Broadcast functionality is enabled, connection status to the cloud server is indicated here.

¹² Additional buttons may be displayed depending on the I/O Cabinet capacity.

¹³ Displayed only if supported by the I/O Cabinet.



4.6 Administration

This is the login page for the Administration menu. It also displays some data as follows.

MASKIN Marin	e Watch			4	\mathbf{r}	0	7:50
×	Administration						
	This Panel		I/O Cabinet				
 Attendance Controls Display Event Log Troubleshooting Administration 	Serial number Software version Ethernet 1 IP address Ethernet 1 MAC address Ethernet 2 IP address Ethernet 2 MAC address Panel type Panel location Channel disable Allow acknowledge Acknowledge button press & hold System-wide buzzer silence Engineers alarm	7725dfc225d14958a625 2.00 Patch 2 192.168.5.216 00:00:00:00:00 192.168.1.151 00:00:00:00:00 Main Panel Engine Control Room Allowed Ungrouped, Group: 1, 2, Ack. Page Yes 3 minute(s)	I/O Cabinet 1	IP Address 192.168.5.71	₽ 120	16	16
			Administratio	n Menu			
			Ente	er	Lo	g Out	

4.6.1 This Panel

This section lists the panel settings.

4.6.2 I/O Cabinet

This section lists the I/O Cabinets in use. Each I/O Cabinet lists the IP address and the I/O Cabinet capacity.

4.6.3 Administration Menu

This login button is the entrance to the Administration Menu.

To log in, press the **Log In** button, then add the following info into the dialogue.

- User: admin
- PIN code: 1234

(!)



<	Administrati	on Log In	
admin			
PIN code			ø
Ca	ncel	Log In	

Three failed PIN code attempts will result in a PIN code lockout for 5 minutes, and also an encrypted PIN code.

×	PIN Code Lockout
	Encrypted PIN: 70844
	ОК

If the PIN Code is lost, then your distributor can source the PIN code using the encrypted PIN code.

The following buttons can appear.

Buttons	
Log In	Press the Log In button to access the login dialogue.
Enter	Already logged in. Press the Enter button to access the Administration menu.
Log Out	Log Out the active user to remove access to the Administration menu.



5 The S-ONE Administration Menu

All the configuration is performed in the varying sub-sections of the Administration Menu. Any configuration change is saved in the Alarm Panel as soon as it is entered.

5.1 This Panel

(!)

This section holds the top-level configuration of this panel.

The page is scrollable. Scroll down to see all configurations of This Panel.

Maskin Marin	e Watch	🎇 🌥 14:01
×	This Panel	
Administration	Panel Name ①	Network ①
	Marine Watch	Ethernet 1 IP address 192.168.5.216
Hannel This Panel	Panel Type ①	Ethernet 2 IP address 192.168.1.151
🔅 System	Main Panel Subpanel	Gateway 192.168.0.1
Switch Channels	Panel Location	Disable & Acknowledge
Analog Channels	Engine Control Room	Channel Disable Disallowed
Cutput Channels	Panel Buzzer ①	Allow Acknowledge
Cutput Channels	Off Low Normal	Ungrouped
Group Channels		Group 1 Group 2
Conditions		Group 3 Group 4
⅔ Maintenance		Press and Hold of the Acknowledge Button
		Nothing Ack. Page Ack. All
<⊡ Return	Panel I/O ①	

5.1.1 Panel Name

The Panel Name is displayed in the header bar, just after the logo displayed top-left.

5.1.2 Panel Type

Choose between Main Panel and Subpanel.



If this is the only Alarm Panel in the network, then it shall be a Main Panel. Other panels in the network shall be of type Subpanel.



There shall be only one Main Panel in a network. Having multiple Main Panels connected to the same I/O Cabinet can cause unpredictable behaviour.

5.1.3 Panel Location

Select a location for this panel. The panel location is used for the following functions

- Watch Transfer (see chapter <u>Periodically Unattended Engine Room</u> for more information)
- Dead Man Alarm and Engineers Call (functions are enabled for the engine room and engine control room)

The panel location can be selected to any of the following.

Panel Location	
Engine room	The panel is located in the engine room.
Engine control room	The panel is located in the engine control room.
Bridge	The panel is located on the bridge.
Engineers cabin	The panel is located in an engineers cabin.
Other / Public spaces	The panel is located in any other location.

Buzzer when Attended Engine Room

If the **Bridge** panel location is selected, and **Periodically Unattended Engine Room** is enabled, the panel can be configured for which groups the buzzer shall be enabled for new events.

5.1.4 Panel Buzzer

Select the panel buzzer volume for new events.

Panel Buzzer	
Off	Silenced.
Low	50 % volume.



Panel Buzzer	
Normal	100 % volume.



It is possible to connect an external buzzer to the I/O Cabinet or to the panel I/O itself.

This is required to fulfil sound requirements in a type-approved installation.

5.1.5 Network

Set the IP address of this Alarm Panel. The default IP address of Ethernet 1 is 192.168.0.**151**. Ethernet 1 is the preferred port for network communication.



The IP addresses of the S-ONE Alarm Panel can not be configured to the same subnet. For instance, Ethernet 1 set to 192.168.0.151 and Ethernet 2 set to 192.168.0.161 is not allowed.

Make sure that all IP addresses in use on the network are unique.

The Gateway setting is required if using the Broadcast functionality. The Gateway shall then be set to the default gateway of the network.



Contact the network administrator if unsure about the gateway setting.

5.1.6 Disable & Acknowledge

Channel Disable

Select if this panel shall have the possibility to disable and enable channels.

Allow Acknowledge

Select which channel group(s) this panel shall have the authority to acknowledge.

Press and Hold of the Acknowledge Button

Configures the behaviour of a long-press on the acknowledge button.

Acknowledge Button	
Nothing	No action.



Acknowledge Button		
Ack. Page	Acknowledge all events visible on this page.	
Ack. All	Acknowledge all events.	

System-wide Buzzer Silence

Configures the behaviour of the buzzer in the entire system.

(!)

This setting is only present for Subpanels.

System-wide Buzzer Silence		
Enabled Silences the buzzer on all panels in the system.		
Disabled	Silences the buzzer locally on this panel only.	



5.1.7 Panel I/O

First select Input or Output for the desired panel I/O. Then select the function to be used.

OULC Marine W	Vatch				nication Failure	09:51
×	This Panel					
Administration	Internal	External		Group 3	Group 4	
				Press and Hold of	the Acknowledge Bu	itton
This Panel				Nothing	Ack. Page	Ack. All
	Panel I/O ①					
🔅 System	# Туре		Function			
Switch Channels	1 Input	Output	Silence Buzzer			•
Analog Channels	2 Input	Output	Reset Dead Man A	larm		•
Output Channels	3 Input	Output	None			•
Output Channels	4 Input	Output	None			•
Group Channels	5 Input	Output	Unacknowledged B	Events		· •
Conditions	6 Input	Output	Buzzer Active			*
💥 Maintenance	7 Input	Output	None			•
00	8 Input	Output	None			•
S Return						

Input Functions ¹⁴			
Silence Buzzer	Silences the panel buzzer.		
Reset Dead Man Alarm	Resets the Dead Man Alarm timer.		

Output Functions					
Buzzer Active	Active when the panel buzzer is active. Note that the panel buzzer can be disabled, but this does not affect this function.				
Unacknowledged Events	Active for any unacknowledged events.				
Active or Unacknowledged Events	Active for any active or unacknowledged events.				

¹⁴ All input functions are edge triggered, meaning they activate on a 0V to 24 V transition.



Output Functions			
Watch Responsible	Active when the panel is watch responsible.		
Dead Man Alarm Reminder	Active when the dead man alarm timer is below the configured reminder time.		

5.2 System

System settings for the Marine Watch S system.

OULC MASKIN Marine V	Vatch		()		nication Failure	09:53
×	System					
Administration	I/O Cabinet		2 🛃 3 🐳 4	System Setup	y Unattended Engine Roo	
This Panel	Network ①	192.168.5	.66	Engineers Alarm Tin		
🔅 System	I/O Cabinet 2	192.168.0	.12	Broadcast		
Switch Channels	I/O Cabinet 3	192.168.0	.13	Add Offline Pa		¥
Analog Channels	I/O Cabinet 4	192.168.5	.71	Location	Name	In Use
Output Channels	Туре !		Detect	Bridge	Bridge	
Group Channels	60 Switch 1	20 Switch				
Conditions	0 Analog	8 Analog	16 Analog			
💥 Maintenance	0 Output	8 Output	16 Output			
<⇒ Return						

If the panel is configured as a Subpanel, the Main Panel IP address shall be configured, and not the I/O Cabinet IP address.

(!)	System		
\odot	Main Panel		
	Network ①		
	IP address	192.168.5 .93	



5.2.1 I/O Cabinet

Network

Set the IP address of the I/O Cabinet in the network. The default IP address for an I/O cabinet is 192.168.0.11.

The Marine Watch system currently supports connection with up to four I/O Cabinets. In each I/O Cabinet, locate the bus coupler and set the rotary switches S1 and S2 as follows:

I/O Cabinet	S1	S2	IP address
I/O Cabinet 1 (default)	1	1	192.168.0.11
I/O Cabinet 2	1	2	192.168.0.12
I/O Cabinet 3	1	3	192.168.0.13
I/O Cabinet 4	1	4	192.168.0.14



Make sure to reboot the I/O Cabinet after any changes to the S1 or S2 rotary switches.

Туре

Select the correct I/O Cabinet type from the range of supported I/O Cabinets. This menu option is available only if the panel is configured to be the Main Panel.



Make sure the selected I/O Cabinet type is matching the actual I/O in the I/O Cabinet. Otherwise, unpredictable behaviour can occur.

It is possible to auto-detect the I/O Cabinet type by pressing the Detect button. If the detection is successful, a confirmation dialogue will appear before committing the I/O Cabinet type.

5.2.2 System Setup

Periodically Unattended Engine Room

If the Marine Watch S system shall support periodically unattended engine room installations, this needs to be enabled. By enabling this setting, the following functions are enabled

• Watch Responsible Indication



Managing Energy

- Watch Transfer
- Engineers Alarm

See the chapter <u>Periodically Unattended Engine Room</u> for more information.

Engineers Alarm Timeout

Select the time before the Engineers Alarm will activate. The Engineers Alarm will activate if an event has not been acknowledged within the configured time in an unattended engine room situation.

Broadcast

By enabling this setting, the S-ONE will transmit alarm information to a cloud server, making it available from shore.



The S-ONE needs to have Internet access, and the Gateway setting under This Panel must be correctly configured.

For more information on the Broadcast, please see the Marine Watch Broadcast User Manual.

5.2.3 Panels in the System

Select the panels to be monitored in the Marine Watch S system. Selected panels can be named, and the system will issue warnings if the communication to the panel is lost.

If all panels are installed and configured correctly, the list will automatically populate, and the configurator only needs to select which panels to be included, typically all. In addition, there is a possibility to add off-line panels by IP address.



5.3 Switch Channels

All switch channels are configured here. To edit, the panel must be a Main Panel.

AULO Marine Marine M	Vatc	h		oinet 1 Comm t Contact to E				0:14
×	Swit	ch Channels 🕛				1	2	3 🛃 4
Administration	#	Channel Description	Condition	Туре		Switch 1	уре	Delay
	1	Switch Channel 1	Engine Running 🔹	Warning	Alarm	NO	NC	1
This Panel	2	Switch Channel 2	None 💌	Warning	Alarm	NO	NC	1
🔅 System	3	Switch Channel 3	None 🔻	Warning	Alarm	NO	NC	1
	4	Switch Channel 4	None	Warning	Alarm	NO	NC	1
Switch Channels	5	Switch Channel 5	None 💌	Warning	Alarm	NO	NC	1
Analog Channels	6	Switch Channel 6	None 💌	Warning	Alarm	NO	NC	1
📫 Output Channels	7	Switch Channel 7	None 💌	Warning	Alarm	NO	NC	1
Group Channels	8	Switch Channel 8	None 🔻	Warning	Alarm	NO	NC	1
	9	Swiirre 9 english	None 💌	Warning	Alarm	NO	NC	1
Conditions	10	Switch Channel 10	None 💌	Warning	Alarm	NO	NC	1
💥 Maintenance	11	Switch Channel 11	None 💌	Warning	Alarm	NO	NC	1
숙 Return	12	Switch Channel 12	None 💌	Warning	Alarm	NO	NC	1

The configuration for each switch channel is as follows.

Туре	Туре				
#	Press the channel number to enable or disable that channel.				
Channel Description	The text displayed in the rectangle. Maximum 45 characters and four lines of text; word wrapping is performed automatically.				
Condition	Any condition which must be fulfilled in order for this channel to issue an event.				
Туре	Choose Warning or Alarm, depending on the required event type.				
Switch Type	A Normally Open (NO) channel activates when the switch is closed. A Normally Closed (NC) channel activates when the switch opens. The latter is preferred.				



Туре	
Delay	Select a suitable persistence delay time in seconds before the event is triggered.

5.4 Analog Channels

All analog channels are configured here. To edit, the panel must be a Main Panel.

OULC Marine W	Vatc	h				I/C	O Cabinet	1 Commu	inication	Failure 🊹	1	5:24
×	Ana	log Channe	els 🕛						Ĩ	1	2	3 ≢ 4
Administration		Sensor				Instrum	ent					
	#	Туре	Min	Max	Unit	Min	Max	LoLo	Lo	Hi	HiHi	Delay
특물 This Panel		Analog englis	h channel or	ne		None	e	•		Value Band	Circ.	Bar
🔅 System	1	0V - 10V	• 0	100) %	0	100	20	30	70	80	1
		Analog Chann	el 2			In Ge	ear			Value Band	Circ.	Bar
Switch Channels	2	0V - 5V	• 0	100	%	0	100	20	30	70	80	1
Analog Channels		Analog Chann	el 3			None	e	•		Value Band	Circ.	Bar
Output Channels	3	4mA - 20mA	• 0	100	%	0	100	20	30	70	80	1
Group Channels	4	Analog Chann	el 4			None	9	Ŧ		Value Band	Circ.	Bar
Conditions		0V - 10V	• 0	100	%	0	100	20	30	70	80	1
💥 Maintenance	5	Analog Chann	el 5			None	9	•		Value Band	Circ.	Bar
0.0 Humbertunee	5	0V - 10V	• 0	100	%	0	100	20	30	70	80	1
<→ Return												

The configuration for each analog channel is as follows.

Туре	
#	Press the channel number to enable or disable that channel.
Description	The text that is displayed in the circular gauge or bar graph. Maximum 45 characters and four lines of text; word wrapping is performed automatically.
Condition	Any condition which must be fulfilled in order for this channel to issue an event.



Туре	
Value Band	The Value Band toggles the visibility of the gauge value band.
Circ. / Bar	Select a circular gauge or a bar graph.
Sensor Type	Select the sensor type connected to the I/O Cabinet.
Sensor Min	Analog sensor low range.
Sensor Max	Analog sensor high range.
Unit	Sensor unit, eg. Bar, PSI, %, etc.
Instrument Min	Displayed low range.
Instrument Max	Displayed high range.
LoLo / Lo / Hi / HiHi	Warning/Alarm limits. Note! Leaving the field empty indicates no event.
Delay	Select a suitable persistence delay time in seconds before the event is triggered.



Make sure the connected analog sensors match the input channels in the I/O Cabinet. The input channels accept 4-20mA and 0-10V signals. The Sensor Min and Sensor Max configuration shall match the actual sensor min and max



5.5 Output Channels

The Standard Output Channels are always included in the Marine Watch I/O Cabinet. The Expansion Output Channels are optional modules.

5.5.1 Standard Output Channels

Select the required function on the standard output module. The function for the first three standard output channels is locked.

OULC Marine V	Vatc	h		I/O Cabinet 1 Communication Failure 10:29		
×	Out	out Channel	5 ①			
Administration		Standard	Expansion			
	#	Description				
This Panel	1	Buzzer Active				
🔅 System	2	Unacknowledge	l Events	Y		
Switch Channels	3	3 Active or Unacknowledged Events				
	4	Buzzer Active				
Analog Channels	5	Unacknowledge	d Events in Group 1	•		
Cutput Channels	6	None		·		
Group Channels	7	None		•		
	8	None		•		
Conditions						
💥 Maintenance						
A Return						

Available Functions						
Buzzer Active	Activates on any new events. Deactivates on – acknowledge of event, OR – press the Alarm button					
Unacknowledged Events	Active if at least one unacknowledged event is present.					



Available Functions	
Active or Unacknowledged Events	Active if at least one active OR at least one unacknowledged event is present.
Active or Unacknowledged Events in Group 1	Active if at least one active OR at least one unacknowledged event in group 1.
Active or Unacknowledged Events in Group 2	Active if at least one active OR at least one unacknowledged event in group 2.
Active or Unacknowledged Events in Group 3	Active if at least one active OR at least one unacknowledged event in group 3.
Active or Unacknowledged Events in Group 4	Active if at least one active OR at least one unacknowledged event in group 4.
Unacknowledged Events in Group 1	Active if at least one unacknowledged event in group 1.
Unacknowledged Events in Group 2	Active if at least one unacknowledged event in group 2.
Unacknowledged Events in Group 3	Active if at least one unacknowledged event in group 3.
Unacknowledged Events in Group 4	Active if at least one unacknowledged event in group 4.



5.5.2 Expansion Output Channels

Expansion output channels are reserved for operator commands that are displayed on a separate page.

OULC Marine W	Vatch	I/O Cabinet 1 Communic Lost Contact to	ation Failure	10:30
×	Outp	ut Channels ①		2 🗰 3 🐳 4
Administration		Standard Expansion		
	#	Channel Description	Туре	
This Panel	1	Output Channel 1	Toggle	Momentary
🛟 System	2	Output Channel 2	Toggle	Momentary
Switch Channels	3	Output Channel 3	Toggle	Momentary
-> Switch channels	4	Output Channel 4	Toggle	Momentary
Analog Channels	5	Output Channel 5	Toggle	Momentary
Output Channels	6	Output Channel 6	Toggle	Momentary
Group Channels	7	Output Channel 7	Toggle	Momentary
mit Caralitizara	8	Output Channel 8	Toggle	Momentary
Conditions	9	Output Channel 9	Toggle	Momentary
💥 Maintenance	10	Output Channel 10	Toggle	Momentary
<∽ Return	11	Output Channel 11	Toggle	Momentary

Туре	
#	Press the channel number to enable or disable that channel.
Description	The text that is displayed in the circular gauge or bar graph. Maximum 45 characters and four lines of text; word wrapping is performed automatically. Choose a consistent style for all the channel descriptions.
Туре	A Toggle type output channel remains in its last selected state, while a Momentary type will reset automatically.



5.6 Group Channels

Channels are by default not assigned to any group but can be assigned to any of the four available groups.

To edit this, the panel must be a Main Panel.

Marine V	Vatc	h)) //0		mmunication F Itact to Bridge		10:31
×	Grou	up Channels 🕛				:	₽ 1 ₽ 2	3 🗱 4
Administration	0	Show Groups	Switch 1-60	Analog				
	#	Description		No Group	Group 1	Group 2	Group 3	Group 4
This Panel	1	Switch Channel 1]		
👸 System	2	Switch Channel 2						
	3	Switch Channel 3						
Switch Channels	4	Switch Channel 4						
Analog Channels	5	Switch Channel 5						
	6	Switch Channel 6						
Output Channels	7	Switch Channel 7						
Group Channels	8	Switch Channel 8						
	9	Swiirre 9 english						
Conditions	10	Switch Channel 10						
💥 Maintenance	11	Switch Channel 11						
	12	Switch Channel 12						
A Return	10	Cultob Channel 10						7

A panel can have the authority to acknowledge all channels or a select group of channels only. This is selected in the Administration menu under <u>This Panel</u>.

Channels that are assigned to a group can only be acknowledged on panels that have selected this group. They are in a way "protected" from acknowledging, which can be done from select panels only.

Furthermore, if a channel is assigned to a group, then the group belonging can be visualised in the grid/gauge view. The operator can switch this visualisation on/off.

Status	
Groups	Select which group the channel shall be assigned to. By default, all channels are unassigned. Note! Press the group name to change the name of that group.



5.7 Conditions

Configure up to 10 conditions which can be used in the channel configuration. If used in a channel configuration, the condition must be fulfilled for the channel to issue an event.

<	Con	ditions ①			
Administration	#	Condition Description	Switch Channel	Must be	
	1	Engine Running	I/O Cabinet 1, Switch Channel 17	Low	High
😤 This Panel	2	In Gear	I/O Cabinet 1, Switch Channel 18	Low	High
System	3	Cond 3 eng	I/O Cabinet 2, Switch Channel 19	Low	High
	4	Cond 4 English aa	I/O Cabinet 4, Switch Channel 88	Low	High
Switch Channels	5	Condition 5	I/O Cabinet 1, Switch Channel 1	Low	High
Analog Channels	6	Condition 6	I/O Cabinet 1, Switch Channel 1	Low	High
🚰 Output Channels	7	Condition 7	I/O Cabinet 1, Switch Channel 1	Low	High
Group Channels	8	Condition 8	I/O Cabinet 1, Switch Channel 1	Low	High
	9	Condition 9	I/O Cabinet 1, Switch Channel 1	Low	High
Conditions	10	Condition 10	I/O Cabinet 1, Switch Channel 1	Low	High
🕻 Maintenance					



5.8 Maintenance

AULC Marine V	Vatch	Lost Contact	t to Lilla panelen Panel Analog Channel 12	🏝 🃰 🌥	12:57
×	Maintenance				
Administration	Security		Logo		
	Change PIN Code		Standard	Custom	None
물 This Panel	SSH Server		Upload Cus	tom Logo	
🔅 System	Save Security Log		~		
Switch Channels	Panel Maintenance				
Analog Channels	Date & Time				
Output Channels	Factory Reset	Software Update			
Group Channels	Configuration Data				
Conditions	Load	Save			
💥 Maintenance					
Return					

5.8.1 Security

Change PIN Code

Dialogue for changing the active PIN code for logging in to the Administration menu.

×	Change PIN	
Current PIN	PIN code	
New PIN	New PIN code	
Verify New PIN	New PIN code	ø
Car	ncel OK	



SSH Server

Enables a debug SSH server for this panel. A power cycle will disable the SSH server again.

Security Log

The security log contains events related to cyber security. In order to extract the security log, a USB stick needs to be inserted into the unit.

5.8.2 Panel Maintenance

Date & Time

Sets the date and time of the panel.

×				Date	& Time				
Date	20	20 -	+] [-	- Ju	ıly	+			
Mon	Tue	Wed	Thu 2	Fri 3	Sat 4	Sun 5	Time	+	AM
6 13	7	8	9	10	11	12	9	56	PM
20	14 21	15 22	16 23	17 24	18 25	19 26		_	
27	28	29	30	31					
		Cancel					OK		

Factory Reset

A Factory Reset will remove and reset the following

- Configuration
- Event log
- User PIN code
- Security log



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Software Update

Updates the software of the Alarm Panel.

Using any of the three available USB-A ports, insert a USB storage device with a software update file, <filename>.mender, and press the Software Update button to select the desired update file.



The software update process takes several minutes. Do not unplug the power supply during the update.

5.8.3 Configuration Data

Load a configuration file named **config.ini** into the panel from a USB storage device, or save the current configuration to a USB storage device.

Make sure the USB storage device is inserted first.

A saved configuration file will be named config.ini and overwrite any current file on the USB storage device.

5.8.4 Logo

Select which logo, if any, should be presented in the header.

Logo	
Standard	The default logo.
Custom	The custom logo; can be changed.
None	No logo in the header.

Upload Custom Logo

Insert a USB storage device with one or several logos, in the png file format. Select the Upload Custom Logo to select the desired logo to be used.

The **png** file should preferably be 64px height and less than 240px width. Any larger logo will be shrunk to fit.



6 The S-ACE Annunciator Panel

The S-ACE Annunciator Panel displays the events from the S-ONE Main Panel in an Alarm View. No configuration is required, other than the network configuration.



The S-ACE can be configured to show all events, or a subset of the events available in the S-ONE Main Panel, based on group settings.

In addition, the S-ACE indicates the channel groups as defined in the S-ONE Main Panel. This is indicated with a coloured square in the top-right of the warning/alarm rectangles.

6.1 Buttons

In addition to the touch-screen interface there are two buttons on the right-hand side of the panel. These are used to command the panel as described below:

Symbol	Button	Action
	Home Button	Toggle between the Alarm and Menu page.
₽	Alarm Button	Silence the buzzer locally on this panel only, and display the Alarm View.

6.2 Header Information



The header consists of the following information.

- The Panel is named **Marine Watch**.
- A common warning/alarm banner. The entire centre of the header is flashing for new unacknowledged events.





- Event status symbols.
- Time, optionally displayed. The displayed time is inherited from the S-ONE Main Panel.

6.3 Header Status Symbols

These symbols may appear in the header bar.

<u>/!</u>			
At least one channel indicates Alarm	At least one channel indicates Warning	At least one Alarm and at least one Warning	At least one new Alarm or Warning ¹⁵
	\bigcirc		
The buzzer is sounding	Watch responsible		

6.4 Alarm View

The Alarm View is the main view of the S-ACE Annunciator Panel. All events are shown here in a grid format.



The Annunciator Panel can be configured to show individual groups only. This is selected in the administrative part of the Panel menu.

The events are listed in chronological order, with the newest event in the top left position. If the number of events exceeds one page, a scrollbar will automatically show.

The S-ACE Annunciator Panel indicates channel groups as defined in the S-ONE Main Panel. This is indicated with a coloured square in the top-right of the warning/alarm rectangles.



There is no option to change the group setting on the Annunciator Panel. It inherits the setting made in the S-ONE Main Panel.

¹⁵ The red alarm banner takes precedence over the yellow warning banner



If the Annunciator Panel is not operated for one minute, the Annunciator Panel will automatically default to show the Alarm View.



Channel Status

Each rectangle represents the status of a channel as follows.

Status	Description	Sample Graphi	c Representation
Active and not acknowledged	The channel is alarming, following its persistence timer. Text in bold, flashing.	Switch Channel 1	Switch Channel 1
Active and acknowledged	The channel is acknowledged by an operator and will clear when the alarm clears. Regular text.	Switch Channel 1	Switch Channel 1
Inactive and not acknowledged	The channel has been activated but is not active now. It will clear when acknowledged. Grey background, bold flashing text.	Switch Channel	Switch Channel

6.5 Menu

The menu system of the S-ACE Annunciator Panel is divided into a user menu area and an administrative menu area.



The user menu is open for the operator, and the administrative menu is locked by a selectable PIN code.

6.5.1 Main Menu

Controls

Whenever the Main Menu is accessed, it always displays the Controls section.

Marine Watch	
×	Controls
	Time
	Show Time
Controls	Time Format
🕖 Display	24 h 12 h Buzzer
Attendance	Touch Feedback
Administration	

Time					
Show Time	Select whether the time shall be shown in the header.				
Time Format	Time Format				
24 h	Select the 24 h presentation of time, for instance, 18.42				
12 h	Select the 12 h presentation of time, for instance, 6.42 PM.				
Buzzer					
Touch Feedback	Select whether audible feedback is given upon touch and key button presses.				



Display

Marine Watch	
×	Display
	Brightness
	Low Medium High
C Controls	Mode
Display	Day Night
Attendance	Clean Screen
	Clean Screen
Administration	

Brightness				
Low, Medium, High	m, High Select the screen brightness			
Mode				
Day	Colours optimised for daylight.			
Night	Colours are optimised for use in dark environments.			
Clean Screen				
Clean Screen	Displays the screen in all black so fingerprints are clearly visible and can be wiped off with a soft cloth. Press the button on the screen to exit.			



Attendance

This menu page is only visible if the Main Panel is configured for periodically unattended engine room.

Marine Watch	
×	Attendance
	Engine Room
	Attended
Centrols ⊂	
📶 Display	
Attendance	
Administration	

This menu page displays engine room attendance status as well as on duty engineer.



Administration

This is the login page for the Administration menu. It also displays some data as follows.

Marine Watch		A
×	Administration	
	This Panel	
	IP address	192.168.0.201
Controls	MAC address	A4:5D:36:C0:D5:BE
Controls	Software version	2.00 Patch 1 Beta 1 Preliminary
📶 Display		
	Main Panel	
Attendance	IP address	192.168.5.93
🔒 Administration		
	Administration Menu	
	Enter	Log Out

This button is the entrance to the Administration Menu.

To log in, press the **Log In** button, then add the following info into the dialogue.

■ PIN code: **1234** (factory default)

If the PIN Code is lost, then your distributor can source the PIN code using the encrypted PIN code.



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6.5.2 Administration Menu

This Panel

Marine Watch	
×	This Panel
Administration	Network
	IP Address
무무 This Panel	192 168 0 201
룸뭄 Main Panel	Panel Buzzer
	Enabled
🔅 System	Alarm Groups
🗙 Maintenance	Ungrouped
	Group 1 Group 2
<⊃ Return	Group 3 Group 4

Network

Set the IP address of this S-ACE panel. Make sure all IP addresses in the network are unique.

Panel Buzzer

Enable / disable the panel buzzer for any new event.

It is possible to connect an external buzzer to the panel using connector C1.1. This is required to fulfil sound requirements in a type-approved installation.

Alarm Groups

Select which groups of events this S-ACE Annunciator Panel shall monitor.

(!)

Channels that are not assigned to any group will not be displayed if the Ungrouped switch is not selected.



If a group is not selected, this S-ACE Annunciator Panel will not issue events for channels assigned to that group.

Main Panel

Marine Watch	
×	Main Panel
Administration	Network
	IP Address
몸물 This Panel	192 168 5 93
툼금 Main Panel	
🔅 System	
🗙 Maintenance	
 ← Return	

Network

Set the IP address of the S-ONE Main Panel.



System

Marine Watch			🔌 🌥
×	System		
Administration	Panel Location		
	Bridge	Engineers Cabin	Other
뭄물 This Panel	Buzzer when	Attended Engine Room	
룸뭄 Main Panel	Ungrouped		
🔅 System	Gro Gro	up 1	
🗙 Maintenance	Gro Gro	up 2	
	Gro	up 3	
	Gro	up 4	
 ← Return			

Panel Location

Select the panel location.

Buzzer when Attended Engine Room

If the Bridge panel location is selected, and Periodically Unattended Engine Room is enabled for the Marine Watch S system, the panel can be configured for which groups the buzzer shall be enabled for new events.



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Maintenance

Marine Watch		
×	Maintenance	
Administration	Security	
	Change PIN	
뭄물 This Panel	SSH Server	
룸뭄 Main Panel	Save Security Log	
🛟 System		
💥 Maintenance	Maintenance	
0.0	Factory Reset	
	Software Update	
 ←❑ Return		

Change PIN

Dialogue for changing the active PIN code for logging in to the Administration menu.

SSH Server

Enable or disable the SSH server. This is a volatile setting and will be disabled upon the next power cycle for released software.

Save Security Log

Extracts the security log to USB. The log will be named "security_log.csv". A USB memory stick needs to be inserted.

Factory Reset

A Factory Reset will remove and reset the following

Configuration



G Managing IN Energy

User PIN code

Software Update

Updates the software of the Annunciator Panel.

Insert a USB storage device with a software update file, marinewatch_sace.tar.gz, and press the **Software Update** button to start the update.



The software update process takes several minutes. Do not unplug the power supply.



7 I/O Cabinet Connections

All references below are made to the I/O Cabinet wiring diagram.



Always refer to the supplied wiring diagram for details. In case of conflicting information in the wiring diagram and this manual, then follow the wiring diagram.

7.1 Power Supply

The I/O Cabinet supports dual power supplies. If only one supply is being used, then connect the two supply inputs together in parallel. Use a minimum of 14 AWG / 2.5 mm^2 wire.

Supply	Circuit breaker	12/24V	0V
Main source	4Q2	Terminal 2	Terminal 4
Backup source	4Q4	Terminal 2	Terminal 4

7.1.1 Ground Connection

Connect the I/O Cabinet to the ground using a cable connected to the ground bar.

7.2 Ethernet Communication

Connect a CAT5 Ethernet cable between any of the available ports on the Ethernet Switch and an alarm panel. Multiple alarm panels can be connected.

7.3 Switch Channels

All switch input channels shall be connected directly to the I/O module. From the wiring diagram, locate the correct I/O module and connect as follows.

Switch input channel	Connections
1	00 – 10
2	01 – 11
3	02 – 12
etc.	

Do prefer normally closed (NC) contacts, as then a broken wire also indicates an event.

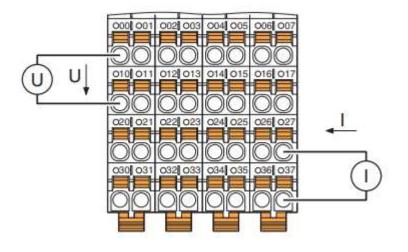


7.4 Analog Channels

All analog input channels shall be connected directly to the I/O module. Connect either a 4-20 mA signal or a 0-10 V signal per channel.

From the wiring diagram, locate the correct I/O module and connect as follows.

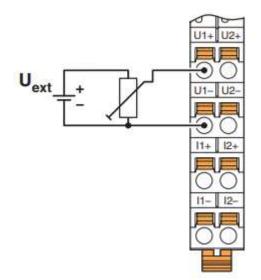
Analog channel	0-10 V connections	4-20 mA connections
1	00 – 10	20 – 30
2	01 – 11	21 – 31
3	02 – 12	22 – 32
8	07 – 17	27 – 37



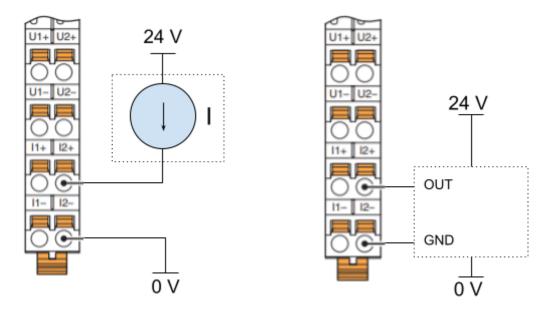


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7.4.1 Analog Channel, 0 - 10 V



7.4.2 Analog Channel, 4-20 mA



2-wire sensor





Energy

7.5 Output Channels

The I/O Cabinet comes with a set of standard output channels. In addition, optional output channels may be installed.

7.5.1 Standard Output Channels

The following output channels are always available in the I/O Cabinet.

#	Function	Connections	Description
1	Buzzer Active	00 - 10	Activates on new events.
			Deactivates on – acknowledge of event, OR – press the Alarm button
2	Common Unacknowledged Events	01 – 11	Active if at least one unacknowledged event is present.
3	Common Active OR Unacknowledged Events	02 – 12	Active if at least one active OR at least one unacknowledged event is present.
4	Configurable	03 – 13	
5	Configurable	04 – 14	
6	Configurable	05 – 15	
7	Configurable	06 – 16	
8	Configurable	07 – 17	

See the Output Channels chapter for available configurable functions.

7.5.2 Expansion Output Channels

All switch output channels shall be connected directly to the I/O module. From the wiring diagram, locate the correct I/O module and connect as follows.

Switch output channel	Connections
1	00 - 10
2	01 – 11
3	02 – 12
etc.	



One channel can source a maximum of 2 A. However, there is a maximum of 2 A in total for the I/O module including the standard output channels.

The optional two output I/O modules can source a maximum of 2 A in total.

7.6 Alarm Panel Supply

The I/O Cabinet has the circuit breaker 4Q35 reserved for 24 V / 2 A power to one external alarm panel.

Additional alarm panels need a separate power arrangement.