SEARCHMASTER

INTELLIGENT AND LIFESAVING SEARCHLIGHT

OPERATIONAL QUICK GUIDE

Introduction

The following quick guide will provide you with the necessary information and instructions to effectively operate the searchlight. To obtain additional and more comprehensive information, we recommend referring to the SEARCHMASTER Installation and Operational Manual. You can access the latest version of the manual by visiting www.searchmaster.dk
Alternatively, if you have any specific enquiries or require further assistance, please feel free to reach out to SEARCHMASTER directly via email at info@searchmaster.dk.

OPERATIONAL

CONTROLLER LOADING SCREEN. During start-up, the controller screen will display ”Preparing SearchMaster to load...” and information screen displaying software version, searchlight serial numbers and joystick serial numbers amont other things. This provides visual and reassurance that the system is initializing correctly.

DISPLAY “ON-SCREEN” FUNCTIONS. To effectively operate the searchlight control, please follow the instructions below:
Use the joystick to click on the on-screen functions. Please note that the display is not touch screen, so use the joystick to navigate and select the required functions.

WORK MODES. The SEARCHMASTER offers different work modes, which can be accessed through the display screen. The work mode options are displayed in a green box located in the upper-right corner of the screen. Note, the searchlight can be operated in in two modes: MANUAL and AUTO

Operational

1. MANUAL MODE. In Manual Mode, the operator has complete control over the searchlights. movements. This can be achieved by using the joystick to adjust the searchlight's position according to requirements. The operator can move the joystick in the desired direction to control the searchlight's movement.

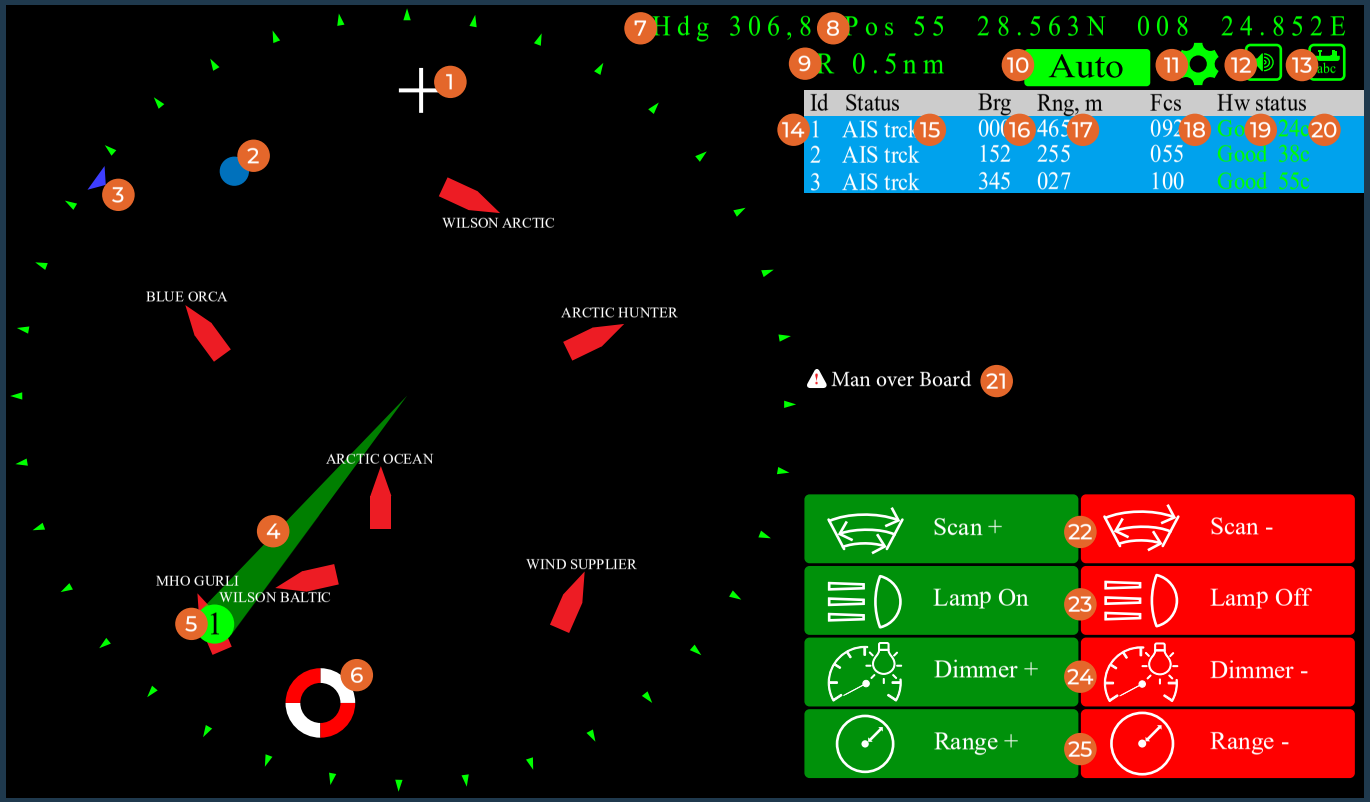
2. AUTO MODE. Auto Mode allows the operator to select a specific target on the display. To activate Auto Mode, simply choose the desired target on the display and press the joystick to lock onto it. Once locked, the searchlight will automatically maintain the beam on the selected target.

DIMMER adjusts the screen brightness. When the button is held down, the brightness dims to the lowest possible brightness. The high brightness level is reached again using the same procedure.

MANUAL AND AUTO options switches between the two modes

SEARCHLIGHT ON/OFF button. NOTE! Also cancel MOB/ PAB/SART alarm

ENTER is used to confirm your choice by pressing the button.
NOTE! Also cancels audible alarms.



1 | Target selector
2 | Radar target position
3 | North indicator
4 | Searchlight direction
5 | AIS target position
6 | MOB position
7 | Own vessel heading
8 | Own vessel position
9 | Display range
10 | Manual / Auto indicator
11 | Settings
12 | Alarm audio On / Off
13 | AIS name On / Off
14 | Searchlight ID
15 | Searchlight status
16 | Target bearing
17 | Target range
18 | Searchlight focus pct.
19 | Hardware status
20 | Searchlight temperature
21 | MOB alarm message
22 | Start scan 40° - 90° - 180°
23 | Searchlight On / Off
24 | Adjust display brightness
25 | Range adjustment

Operational

SCAN MODE. To activate the scan mode, press the SCAN ON button using the joystick cursor. The SEARCHMASTER will initiate a scanning pattern within a range of 40° based on the current lamps heading. Pressing the SCAN ON again will increase the scanning pattern range to 90°. Pressing the SCAN ON for the third time will expand the scanning pattern to 180°. To deactivate the scan mode, press the SCAN OFF button using the joystick cursor.

LAMP ON / OFF. The LAMP ON and LAMP OFF buttons are used to activate and deactivate the searchlight. However, please note that the PAB/SART alarm will override this function and automatically turn on the searchlight if it has been turned off.

DIMMER CONTROL. The DIMMER buttons allow you to adjust the brightness level on the display. The adjustment is stepless, and it will stop when the maximum or minimum brightness level is reached.

RANGE ADJUSTMENT. The RANGE buttons are used to adjust the range displayed on the controller. The minimum and maximum range values are 0,25nm and 2.00nm. respectively. When adjusting the range, the interval doubles: 0,25nm, 0,50nm, 1.00nm, 2.00nm
Automatic RANGE adjustment, when tracking a target, the range will automatically change if the target range increases beyond the currently set change.

Position & Heading

This section provides important information regarding the position and heading details displayed on the SEARCHMASTER controller:

THE POSITION of the vessel equipped with the SEARCHMASTER searchlight onboard is indicated by the coordinates 55 28.563N 008 24.852E. coordinates represent the latitude and longitude of the vessels current position.

THE HEADING of the vessel is displayed as 235.8, indicating the direction in degrees that the vessel is currently facing.

THE PRESENT RANGE is displayed in nautical miles, in this case R 0,5nm. This information helps in determining the distance at which the searchlight is currently operating.

MANUAL & AUTO TRACKING mode is indicated in in the controller display. In Auto mode the controller will show “AUTO” to indicate that the searchlight is operation in automatic tracking mode. In Manual mode, the controller will display “MANUAL” to indicate that the searchlight is being manually controlled.

THE SPEAKER ICON is an optional feature that allows the user to disable the alarm when the ship is in port (Harbour mode). This can be useful to prevent unnecessary noise or disturbance.

THE VESSEL ICON is used to activate or deactivate target names. When activated the target names associated with the searchlights tracking will be displayed. Deactivating the vessel icon will hide the targets.

THE INSTALLATION ICON is used configure the software and used only during installation
(see page XX - Installation)

Navigation

THE TARGET DISPLAY is represented by small lines on the screen, accompanied by a North indicator. The North indicator always points towards the North, utilizing data received from the GPS. This feature ensures accurate orientation and tracking of the target.

THE TARGET SELECTOR is depicted as a cone with a circle at the end. The selected position is indicated by a ring, which highlights the area chosen by the user. The number (1) indicates the specific searchlight that the user Is currently controlling.

NAVIGATION DISPLAY. To navigate through the onscreen key options, use the joystick. Move the cursor icon to the desired option and press the joystick down to select it. This allows for easy and intuitive navigation within the system.

ALARM DETECTION. When an alarm PAB /SART is detected, the ACTIVE life ring icon and its position will be displayed on the screen. The light beam of the searchlight will automatically locate and maintain focus on the position or distress signal in the water, within the operation range (2nm miles) of the SEARCHMASTER system.

ALARM DETECTION: In case multiple alarms are triggered, the searchlight will
automatically prioritize tracking the first man overboard (MOB) alarm indicated
by an active red /white life ring.
Subsequent alarms will be displayed as INACTIVE grey / white life rings until the
first man overboard (MOB) is rescued.
Pressing Enter will automatically activate and move to the next MOB alarm.

Joystick

THE ANALOG JOYSTICK is a lever-like input device that provided continuous and proportional control over movement. It offers precise and nuanced control by allowing tilting or movement in various directions. To gain control of the searchlight, press and hold down the analog joystick. This action will activate the system and allow the user to operate the searchlight.

HOME POSITION. To move the searchlight to the home position, press the home button on the joystick. This will position the searchlight ahead with a tilted angle of 10° downward, providing a default starting position.

SEARCHLIGHT ON / OFF. Press the searchlight button on the joystick to turn the light on or off.

SEARCHLIGHT MOVEMENT. The movement of the searchlight is dependent on the force applied to the joystick. By moving the joystick to the right or left, the searchlight will continue to move in that direction until a target is determined by the user.

MULTIBLE SYSTEM CONTROL: The advantage of adding the analog joystick to the SEARCHMASTER system is that it enables users to take command of the searchlight and operate the searchlight from different places on deck. This flexibility ensures that the searchlight can be controlled conveniently and efficiently, regardless of the user's location.

Error codes

In the event of a heading or position loss, important information regarding the error will be displayed on the controller. This will be indicated by a red dot on the display. The details of the error will be provided, helping to identify the cause of the issue. If the cause cannot be determined or resolved, we recommend contacting SEARCHMASTER for further support. Contact details can be found on page XX or by sending an email to info@searchmaster.com

GOOD	No errors detected	The system is working properly
E	Elevation error	The searchlight cannot elevate due to an error on the motor or motor belt.
A	Azimuth error	The azimuth has encountered an error and is not working properly. Check motor and belt.
F	Focus error	The focus han encountered an error and is not working properly.
D	Daylight sensor error	The daylight sensor is active
T	Temperature	The searchlight temperature is too high.
NO LAMP	Lamp error	No communication to the searchlight due to a cable error. Check cable and cable connections.
Heading lost	No compass data accessible	Contact SEARCHMASTER ApS for consulting.
Position lost	No GPS data accessible	Contact SEARCHMASTER ApS for consulting.

Please do not attempt to dismantle the products. In any doubts, please contact SEARCHMASTER before any action is taken at info@searchmaster.dk

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Work SMART, Stay FOCUSED,
Save TIME and Be SAFE

Unique intelligent and
lifesaving searchlight

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