

Navigation Light Controller and Graphical interface

Software Manual

Rev. 1.22
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Touch panel(s)



Navigation Light Controller (NLC)

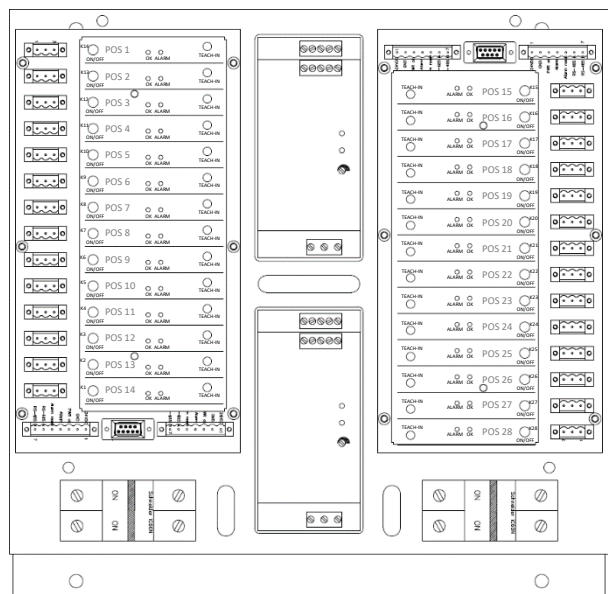


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1.0 Main Screen

The main screen is used for normal operation of the system. If any light groups are created, buttons for these will be displayed below the ship image. You can create light indicators, like green/red for sidelights and place the indicators in any requested position on the ship image. The top menu bar is shown regardless of which page is shown.

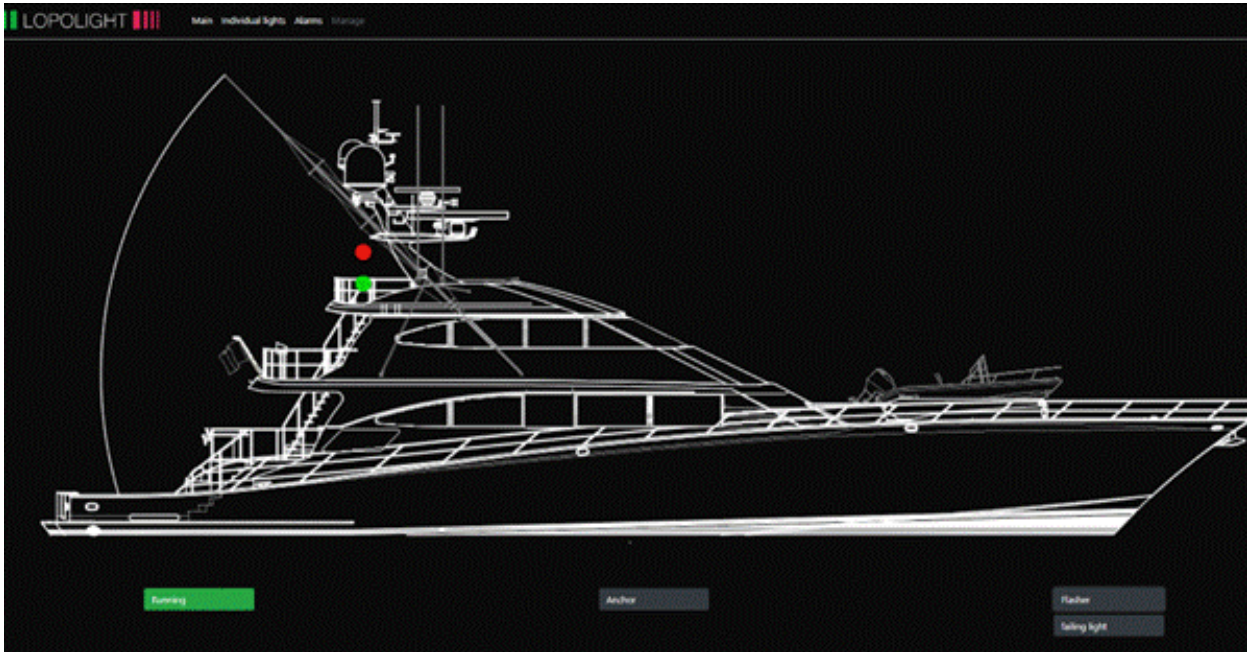


Figure 1 - Main page

1.1 Individual lights

By accessing the Individual Lights page, you access a page where you can manually turn any individual light on or off.

1.2 Alarms

The Alarms page will display a list of previous alarms, along with active alarm conditions which can be muted or reset.

1.3 Manage

On the Manage page you can access the systems setup part, which is password protected. (Default password: 1234).

NOTE!

It is recommended that any setup or editing of the system should be performed from a PC/Laptop connected to the TCP/IP Server's Ethernet port with an ethernet cable.

Setup or edit your system:

Access the software, by opening a web browser on the connected PC and navigate to the address <https://api.nlc.local>.

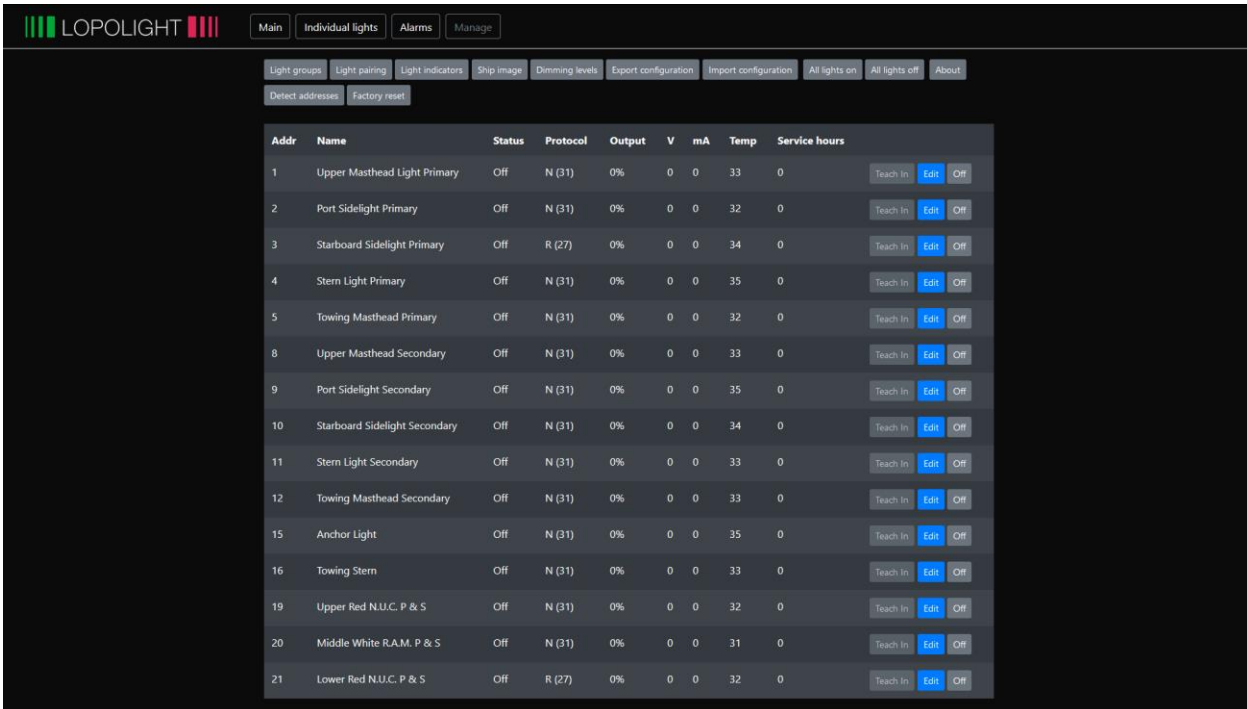
2.0 Manage Functions

A guide for the different functions found under the “Manage” menu.

2.1 Light detect and setup

If you are running the system for the first time, or you have added or removed lights to the system, start by pressing the “Detect addresses” button. A process bar will appear, wait until the process has finished.

All connected lights should now appear on your screen, sorted by the logical addresses of the individual LMR/Q cards mounted in the NLC. Refer to separate manual for details.



The screenshot shows the LOPOLIGHT web interface with a navigation menu at the top. The 'Manage' tab is active, and the 'Detect addresses' button is highlighted. Below the navigation, there is a table of connected lights with the following columns: Addr, Name, Status, Protocol, Output, V, mA, Temp, Service hours, and a set of control buttons (Teach In, Edit, Off).

Addr	Name	Status	Protocol	Output	V	mA	Temp	Service hours	Teach In	Edit	Off
1	Upper Masthead Light Primary	Off	N (31)	0%	0	0	33	0	Teach In	Edit	Off
2	Port Sidelight Primary	Off	N (31)	0%	0	0	32	0	Teach In	Edit	Off
3	Starboard Sidelight Primary	Off	R (27)	0%	0	0	34	0	Teach In	Edit	Off
4	Stern Light Primary	Off	N (31)	0%	0	0	35	0	Teach In	Edit	Off
5	Towing Masthead Primary	Off	N (31)	0%	0	0	32	0	Teach In	Edit	Off
8	Upper Masthead Secondary	Off	N (31)	0%	0	0	33	0	Teach In	Edit	Off
9	Port Sidelight Secondary	Off	N (31)	0%	0	0	35	0	Teach In	Edit	Off
10	Starboard Sidelight Secondary	Off	N (31)	0%	0	0	34	0	Teach In	Edit	Off
11	Stern Light Secondary	Off	N (31)	0%	0	0	33	0	Teach In	Edit	Off
12	Towing Masthead Secondary	Off	N (31)	0%	0	0	33	0	Teach In	Edit	Off
15	Anchor Light	Off	N (31)	0%	0	0	35	0	Teach In	Edit	Off
16	Towing Stern	Off	N (31)	0%	0	0	33	0	Teach In	Edit	Off
19	Upper Red N.U.C. P & S	Off	N (31)	0%	0	0	32	0	Teach In	Edit	Off
20	Middle White R.A.M. P & S	Off	N (31)	0%	0	0	31	0	Teach In	Edit	Off
21	Lower Red N.U.C. P & S	Off	R (27)	0%	0	0	32	0	Teach In	Edit	Off

2.2 Configuration of lights connected

Configuration of lights connected to the NLC will require a few steps:

- Press the “On” button (will go green). Wait for 15 seconds until the connected light has passed the initiation phase.
- Press the “Teach-in” button. The “Status” will change to “teach-in”. Wait until the status returns to “On”
- Press “Edit” and assign: “Name”, “Monitor mode (LpL/basic)”, “X pos”, “Y pos”, “Light indicator”

Mode: The NLC system has two different modes: “LPL” or “basic”. In “LPL” mode the system will monitor the lights for all types of possible errors. In “basic” mode no alarms will be given at all.

Position: To position the light indicator on the ship image on the main page you need to enter an X-position and a Y-position. These positions have coordinates in the range of 0 to 1000.

Primary and secondary icons should be positioned at the same coordinates.

- Repeat process for all lights connected as stated above.

2.3 Creating or managing Light Groups

Under the “Light Groups” menu, it is possible to create, edit and delete Light Groups. Light Groups creates buttons on the Main page, which allows the user to toggle multiple lights on/off in the same action.

Group names are typically the lights function, such as: running light, anchor lights, fishing light etc.

Category decides which column the group buttons are displayed in on the main page.

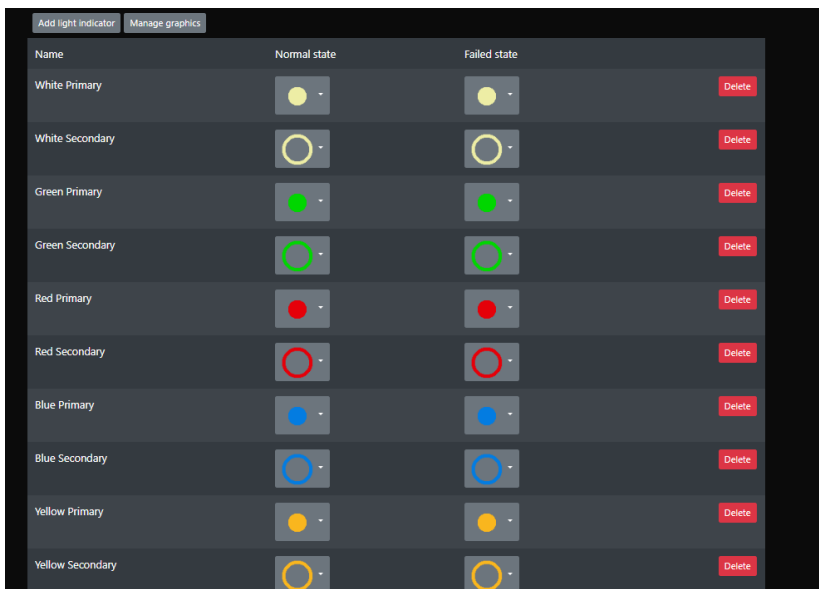
Warning: You will not be prompted with any warning when deleting a Group and the action can't be undone.

2.4 Light pairing

This function allows pairing lights together. Should the primary light of a pair fail, the secondary light will automatically activate.

2.5 Light indicators (icons)

This function allows you to choose from several standard indicator icons supplied with the NLC system, or to upload your own icon.



Creating your own icons

If you would like to create and use your own icon, these must be created in GIF format file. Upload your icons to the NLC by using the “Manage graphics” and “upload new graphics” buttons. Mark the files you want to upload and press the upload button.

2.6 Ship Image

To change the ship image, simply upload the new image to the NLC.

Note: Image files must be created as .PNG file format with a transparent background. As the system runs a black background, it is recommended to use white or other vibrant colours.

2.7 Dimming levels

When the system detects that one or more special **LMR/Q** cards are installed in the system, you can configure the main page to show a dimming function in two different ways: A slider or dimming buttons.

To activate the slider, simply uncheck all “enable” buttons on the list.

To activate the buttons, simply check the wanted dimming levels.

Note: The selected dimming level applies for all dimmable lights connected to the system.

2.8 De-Ice

If the system detects special De-icing enabled LMR/Q or LMR/Qd cards in the system, a “de-ice” button will appear on the main page

Any Ice-Class light from Lopolight has a built-in temperature control system. When the light is turned on, the system enables the de-icing function automatically if the ambient temperature decreases below a minimum set point and disables de-icing again when the temperatures increases over a maximum set point.

The “De-ice” button allows you to enable the built-in de-icing function, in lights that are turned **off**. Even though de-icing is turned on by the operator, the temperature control in the light will only start de-icing if the temperature set points described above, are reached.

2.9 Backups

Export configuration to PC.

To export a configuration file to the connected PC, simply press the “Export configuration” button and select a location for the saved file.

Import configuration from PC

You can import any saved configuration file to the system from a connected PC, via the “import configuration” button, choosing the correct file and press “Upload”.

3.0 Manual control:

Every navigational light is connected to an individual monitoring relay (LMR/Q) in the NLC. Each LMR/Q carries a manual/Emergency control button labelled “ON/OFF”, two status LEDs (Green = ON, red = alarm). Using the manual/emergency on/off button the lights can be controlled directly from the LMR/Qs, however if a touch panel is connected and active, an alarm will sound as the command was not sent through the system to operate the light in question after which the Mimic will shut off the light. To avoid this, simply click the “manual emergency control” switch to “on” position in order to disconnect the RS485 connection between the motherboard and the TCP/IP Server panel for manual override control.

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