OBELUX
AVIATION LIGHTS

Obelux Control Panel Web Server

User and Installation Manual

With software version 5.x

Last modified: 12.05.2013 (RJä)

CONTENTS

SUMMARY OF CHANGES

Date:	Description:	By:
8.10.2012	First draft	MHe
12.05.2013	Total operating time counter added	RJä

1 ABOUT THIS DOCUMENT

This document describes the Web Server of the Obelux Control Panel (CP) and its operation for the end-user.

1.1 Scope

This document covers the installation and setup of the Web server unit, use of browser based graphical user interface and operation of the unit on a practical level.

1.2 Audience

This document is intended for everyone who needs to install and setup a Web server unit for operation.

1.3 Acronyms and Abbreviations

LHC	The LHC Light Head Controller Unit is referred only as LHC in this document.
COM	Controller Module of the CP
CP	Control Panel
GUI	Graphical User Interface
WS	Web server
LH	Light head

2 SAFETY INSTRUCTIONS

In this section you will find general safety instruction for the Obelux WS. Please read the instructions carefully before installing or using the WS to avoid any personal, environmental or material damages.

2.1 General considerations

Install device observing manufactures installation guide.

Use only cables and connectors specified by the manufacture.

Keep your device away from heat sources, dust, smoke or other harmful substances.

Do not add or remove any components inside the device unless otherwise approved by the manufacture.

Do not spill food or other liquids on device.

If you have any error situation with the device, do not try to fix it by yourself, contact your reseller.

2.2 Environmental considerations

The device includes harmful substances and should be disposed with electric waste to enable recovery and recycling

More information about how to recycle this device in your country, please visit www.recycling-guide.org.

2.3 Personal considerations

HIGH VOLTAGE! Device contains high voltage which is very dangerous to human beings. Any direct contact to high voltage could lead to serious injury, worst case even death.

3 CONNECTORS & STATUS LEDS

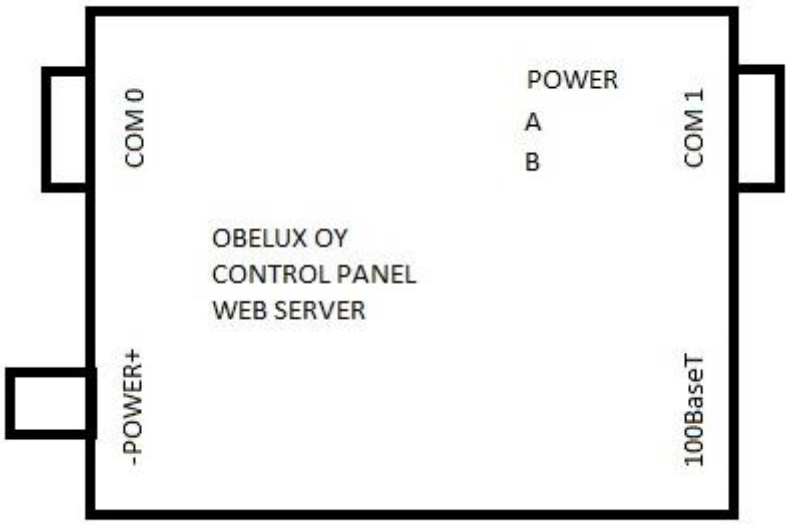


Figure 1: Web server

1. Power 24 VDC, 0.06 A
2. COM 0, RS232, DSUB9
3. COM 1, RS232/RS485, DSUB9
4. 100BaseT, 10/100BaseT, RJ-45
5. Power status led
6. A COM 0 status led
7. B COM 1 status led

4 OPERATION OF THE WS

WS communicates to LHCs via Ethernet to monitor LHCs functionality. Status reporting is done with email and SMS alarms. More detailed description about each operation in next chapters.

4.1 Start-up

The WS software makes series of start-up initialisations when system is powered on. Start-up takes few seconds.

4.2 Configuration

WS configuration is done via normal web browser. All settings are saved to internal memory.

4.3 Status collection and reporting

The WS unit collects LHCs statuses and reports possible errors via emails and SMS messages. Web browser UI can be used to see more detail information about the alarm and reason for it. Status collection is done with 60 seconds interval via Ethernet.

4.4 Alarms

Alarms are generated from many different sources. The main alarm sources are error in LHC communication and error in LHC functionality i.e. power supplies and light heads. Alarms are generated to configured email addresses and phone numbers via email and SMS respectively. The alarm will be cleared automatically if the alarm condition disappears.

5 CONFIGURATION

This chapter describes the configuration of the WS. The configuration is carried out with normal web browser.

To log in to system, first make sure your computer and WS are in same network and access to WS is possible. Then open computer's web browser and type WS address to the browser address field. Default communication settings for WS are:

IP address: 10.0.0.2

Netmask: 255.255.255.0

Gateway: 10.0.0.1

HTTP port: 80

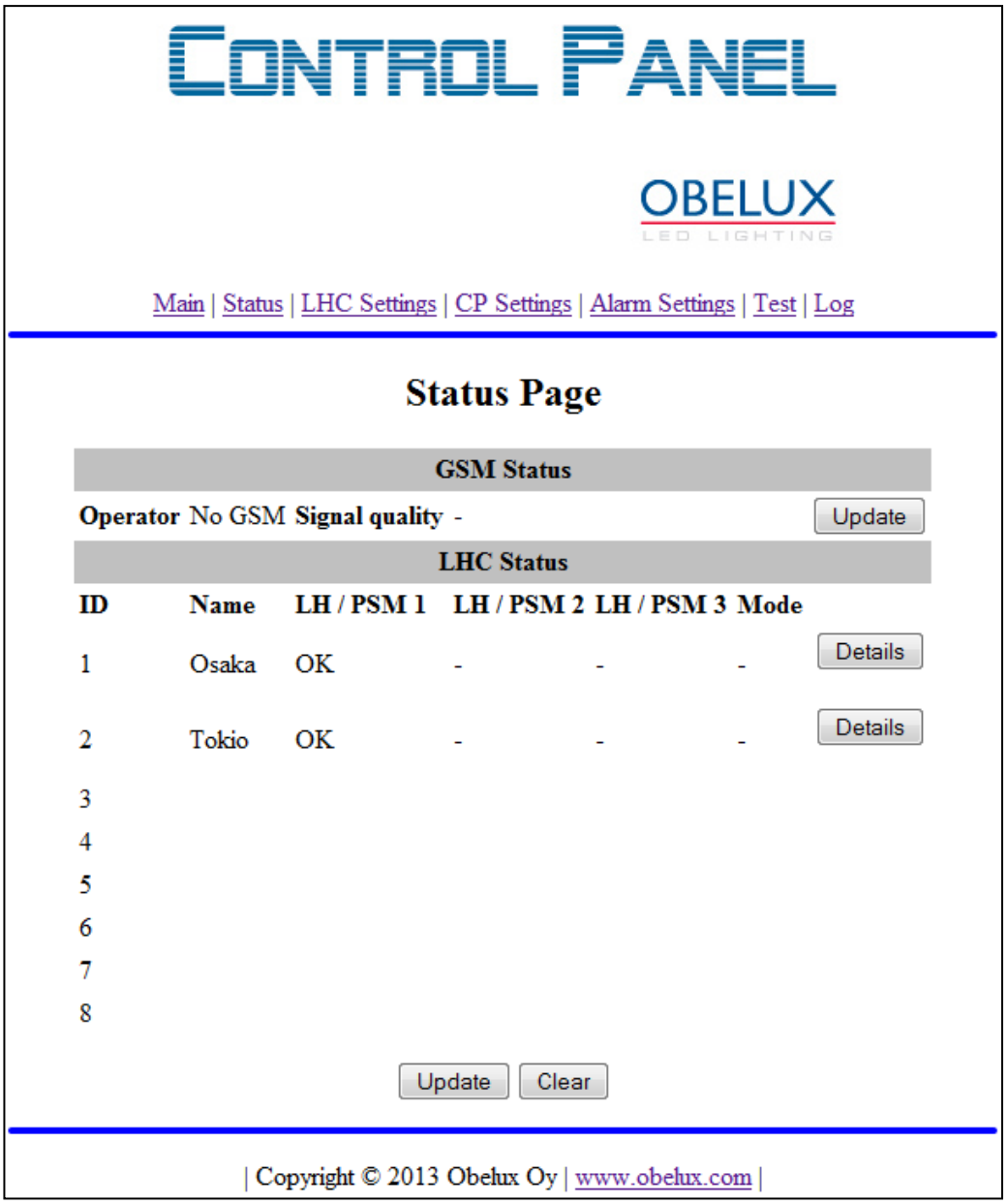
Username: admin

Password: password

5.1 Main page

After logged in to system, WS main page is opened. In main page, there is information about the software version and current system time.

5.2 Status page



On status page, GSM and LHC statuses can be read.

On GSM status, operator name and signal quality is displayed. If GSM-module is not connected to server, operator name reads “No GSM”. If GSM-module is connected, but SIM card is not inserted, operator name reads “Insert SIM”.

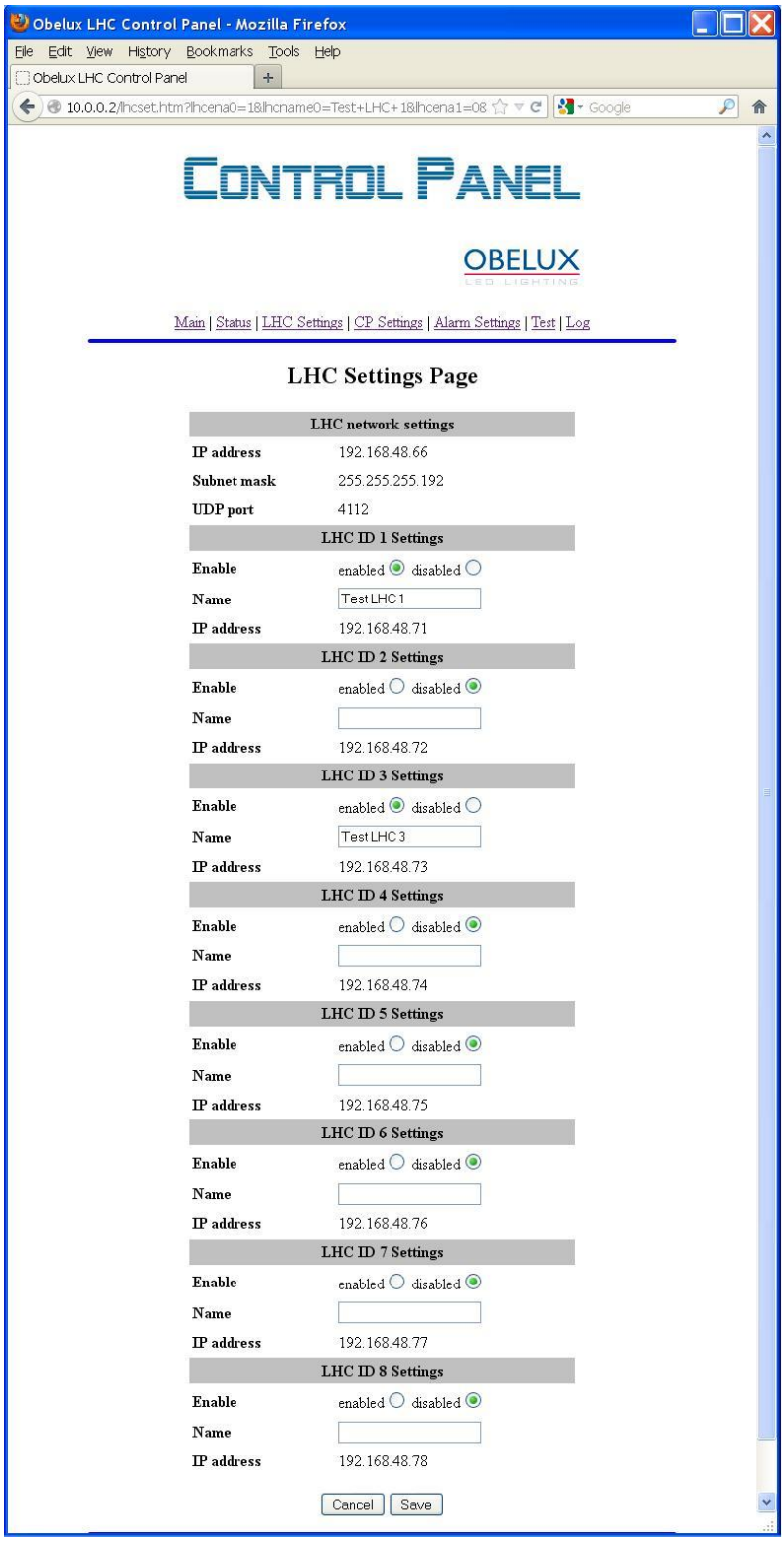
Signal quality displays the received signal strength in five steps; very good, good, average, poor and very poor. Update button in GSM status reads the operator and signal quality from the GSM-module and updates the status page.

On LHC status, statuses of each enabled LHCs are displayed. That includes LHC name, LH / PSM x status and operation mode. If there is a connection error to LHC, and "connection error" message is displayed. Also if there is an error in one light head or power supply, LH or PSM error is displayed with red background. Detail button of each LHC opens another page with detail information of the specific LHC.

Update and Clear buttons, updates and clears the current statuses respectively.

Detail Status Page shows technical information.

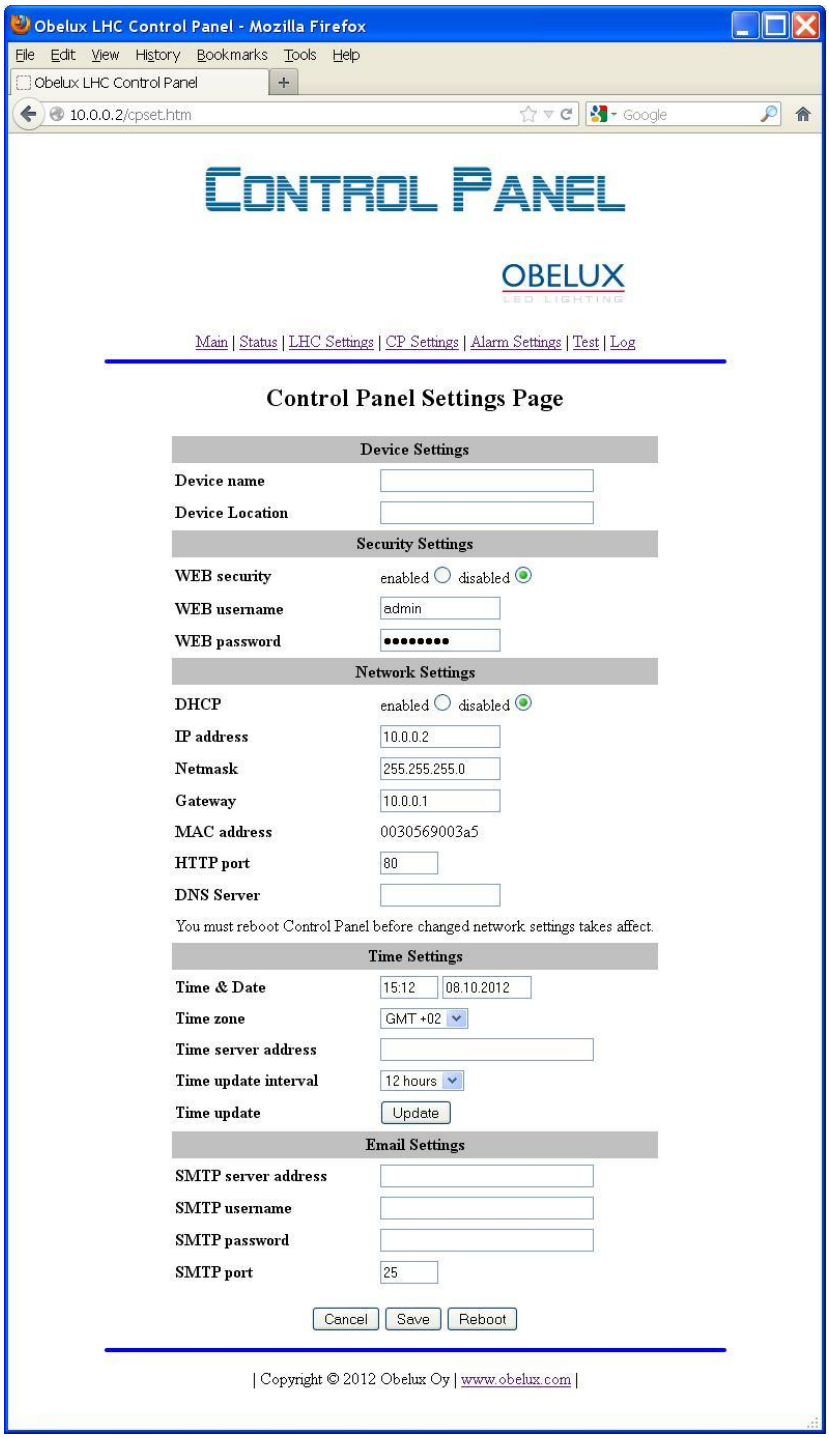
5.3 LHC settings



On LHC settings page, LHCs connected to system are enabled/disabled and user defined name can be given for each LHC. If LHC is enabled, WS starts to monitor that LHC and it appears to LHC status list. If it is disabled, no monitoring is done. IP address of each LHC is static and is only displayed here for information.

Save and Cancel buttons either saves the LHC settings or cancels done modifications respectively.

5.4 CP settings



On CP settings page system configuration settings can be made.

Device settings information is used to identify the system for example in error emails.

WEB security settings are for the authenticate user when user tries to log in the system. By default, WEB security is disabled but it is recommended that it will be enabled and username and password are defined when system is taken into use.

Network settings are used to set up different communication settings. If any of the network settings are changed, system needs to be restarted before changed settings takes effect. Network settings are:

DHCP:	System dynamic IP address selection
IP address:	System IP address, static or dynamic
Netmask:	System subnet mask
Gateway:	System default gateway for outgoing traffig
MAC address:	System physical layer 2 address
HTTP port:	System web server port
DNS server:	System domain server address for DNS query

Time settings are for the system time configurations. System clock can be configured manually or automatically from network time server. Time settings are:

Time & Date:	System time and date, manually configurable
Time zone:	System time zone, GMT
Time server:	NTP time server address, domain or IP
Time interval:	NTP time update interval

Email settings are for the system email alarm outgoing email server (SMTP) configurations. Email settings are:

SMTP server:	Outgoing email server (SMTP) address, domain or IP
SMTP username:	For servers which need authentication
SMTP password:	For servers which need authentication
SMTP port:	SMTP server port, default is 25

Cancel, Save and Reboot buttons are for the cancellation or saving modified settings or Reboot WS respectively.

5.5 Alarm settings page

On alarm settings page different alarm settings can be made. Alarm enable settings configure different alarm sources from which needs to generate an alarm. Following sources are possible:

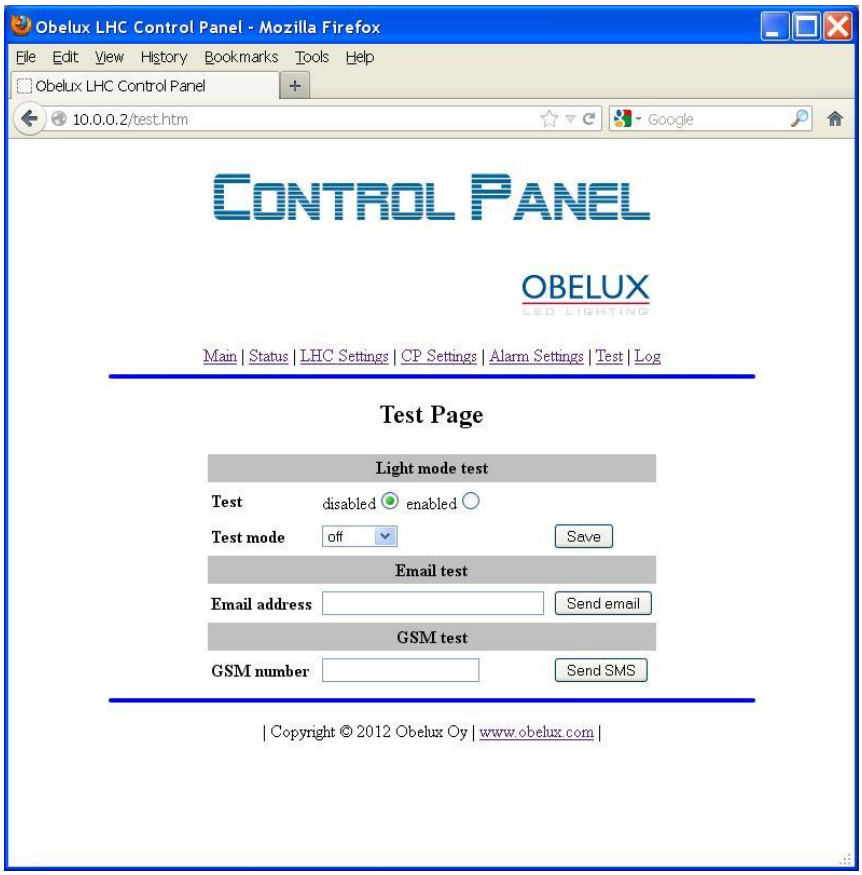
Light head alarm:	Light head or PSM malfunctions
Communication alarm:	Communication error between WS and LHC

Alarm email addresses are recipients' addresses to where email alarms are sent.

Alarm GSM numbers are recipients' numbers to where SMS alarms are sent.

Save and Cancel buttons either saves the LHC settings or cancels done modifications respectively.

5.6 Test page



On test page different system settings can be tested.

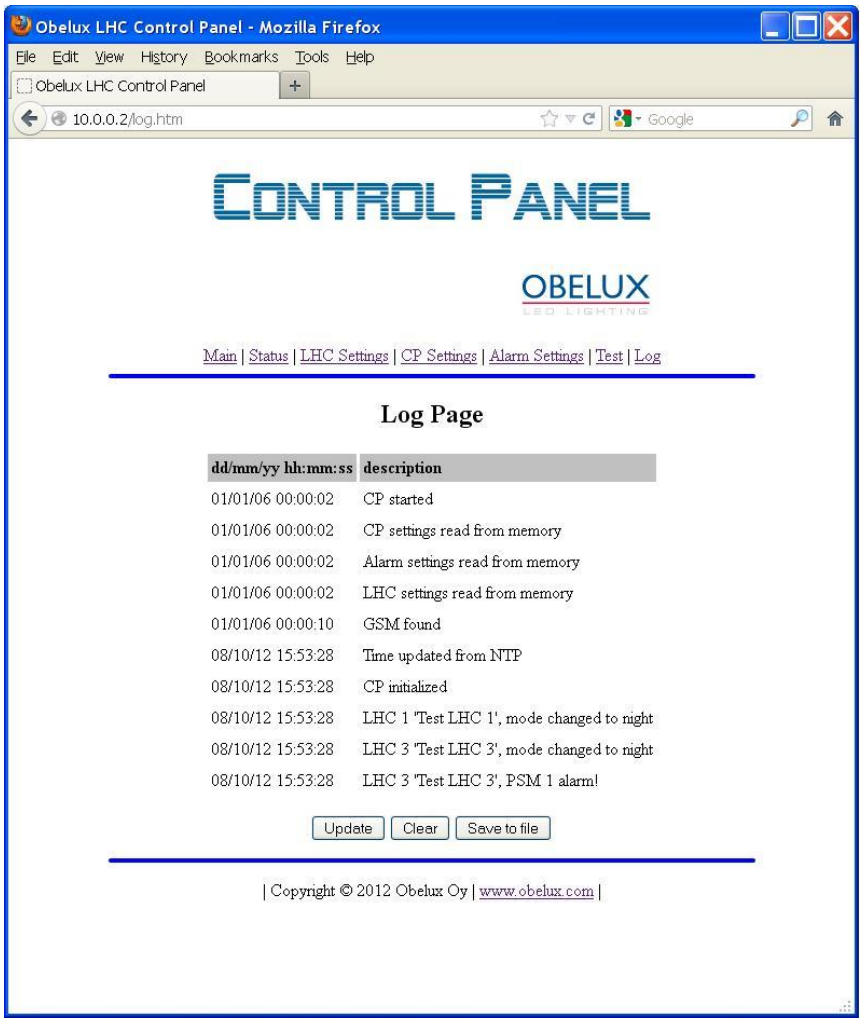
On light mode test, system light head (and LHCs) can be set to different states and check the light intensity for example. Following settings are possible:

Test:	Test mode can be disable/enable
Test mode:	Light modes are off, night, twilight and day

On email test, email communication can be tested. Email test uses the SMTP server settings for communication and test email is sent to address given in email address field.

On GSM test, GSM communication can be tested. A test SMS is sent to number given in GSM number field.

5.7 Log page



On log page, system log information is displayed. There can be maximum 200 log entries before it starts to write logs from the beginning i.e. over the old logs.

Update and Clear buttons updates or clears the entire log respectively. Save to file button saves the log to a file and it can be read or save to computer by clicking the "open txt file" link next to Save to file button after saving.