

Mechanical Installation

All instructions contained in the separate installation manual must be observed with regard to mechanical installation and electrical connection of the Light Controller IP.



Network-based Commissioning

■ OPTION 1: VS LIGHTBOX

First Steps

 **NOTE** The LightBox is already prepared for the operating and configuration requirements of a Light Controller network system. The LightBox is available in two variants, including a plug-and-play solution.

LightBox (Ref. No.: 186512)
Internet-capable network solution

LightBox DHCP (Ref. No.: 186513)
Standalone solution

Both satisfy all system requirements. All necessary services are pre-installed. The LightBox DHCP (Ref. No.: 186513) is already configured with a virtual DHCP server to enable direct connection to and use with the Light Controller.

 **IMPORTANT** Only **one** DHCP server may be installed in the network at any time.

Pre-configuration

To facilitate rapid commissioning of the system and optimum performance during long-term operation, all key settings have already been pre-configured.

The user simply needs to activate the LightBox once via the Windows 8.1 N operating system.

- Assign a user name and password for the Windows account. Please make a note of these access data to quote should you require service.
- Windows activation. For the LightBox DHCP (Ref. No.: 186513), this must be carried out by telephone since the device cannot be used to establish a connection to the internet.

 **NOTE** This step can already be carried out prior to the actual installation without the Light Controller, for which purpose it is not necessary to connect a monitor at the installation location (see Operating Option 2).

Operating Option 1: Server-based Installation (LightBox)

- Connect a monitor via HDMI.
- We recommend setting the pre-installed Mozilla Firefox browser as your default browser.
- Open browser and enter the following URL: <http://127.0.0.1>

Operating Option 2: Client-based Installation (e.g. tablet or PC)

For LightBox (Ref. No.: 186512)

- Make a note of the IP address (to be found under: Network/ Sharing Center -> LAN Connection -> Details -> IPV4)
- Open the client's browser and enter the server's IP address.

 **NOTE** Under certain circumstances and depending on the network configuration, this IP address can be subject to dynamic change.

For LightBox DHCP (Ref. No.: 186513)

- Open the client's browser and enter the following static IP address: 192.168.123.1

 **NOTE** Optional: wireless commissioning (e.g. tablet) by integrating an external access point (not included in the scope of delivery). This external access point will require the static IP address 192.168.123.2 and must not be used to operate a DHCP server. The access point can either be integrated into the network as a short-term measure for commissioning purposes or be left integrated over the long term for control purposes.

Number of Light Controllers

Max. number of Light Controller per LightBox: 5

Network-based Commissioning

OPTION 2: SEPARATE NETWORK



We recommend setting up a separate network for the light management system. Integration in a company network only on special request.

First Steps

You will need a computer to act as a central unit. The system must satisfy the following minimum requirements:

Minimum server requirements:

- Operating system: Window 7 or higher
- Recommended browser: Mozilla Firefox (latest version)
- 4GB RAM
- 250 MB HDD
- Min. DualCore
- Min. ~1.6GHz
- We recommend enabling the "Restart after power failure" option.
- Suitability for permanent operation

Network requirements (minimum):

- Permanent connection between the Light Controller IP and the server
- A DHCP server must be installed



Only **one** DHCP server may be installed in the network at any time.

Optional:

- Mail server (e.g. to send error reports)

1. Software Installation (VS Service)

Please download the latest version of the software for the Light Controller system from <https://www.vossloh-schwabe.com/en/home/products/light-management-systems-for-indoor-applications/light-controller.html> and follow the installation instructions.



Installing the software requires administrative rights, to which end a Windows service will be set up.

2. Test after Successful Installation

The Light Controller IP is listed in the "Task Manager" under "Processes/Services". This completes successful installation of the VS service.



IMPORTANT

If the Light Controllers do not function properly despite correct network installation, the server's firewall, network adapter and energy options should be checked.

Operating Option 1: Server-based Installation

- Open the browser and enter the following URL:
`http://127.0.0.1`

Operating Option 2: Client-based Installation (e.g. tablet or PC)

- Please make a note of the server's IP address (to be found under: Network/Sharing Center -> LAN connection -> Details -> IPV4)
- Open the client's browser and enter the server's IP address.

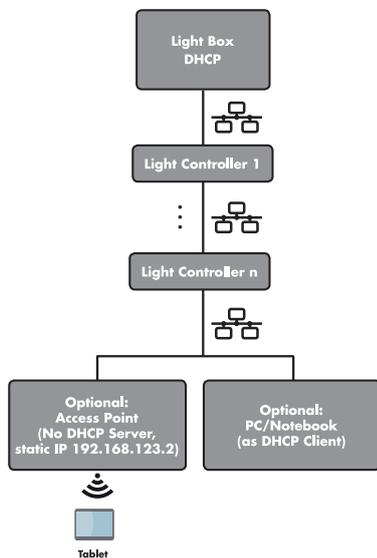


NOTE

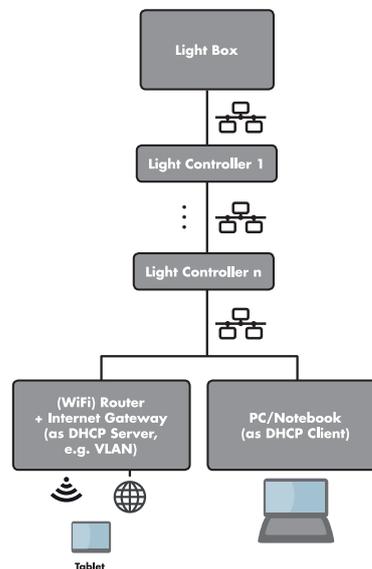
Under certain circumstances and depending on the specific network solution, this IP address can be subject to dynamic change.

Network Architecture

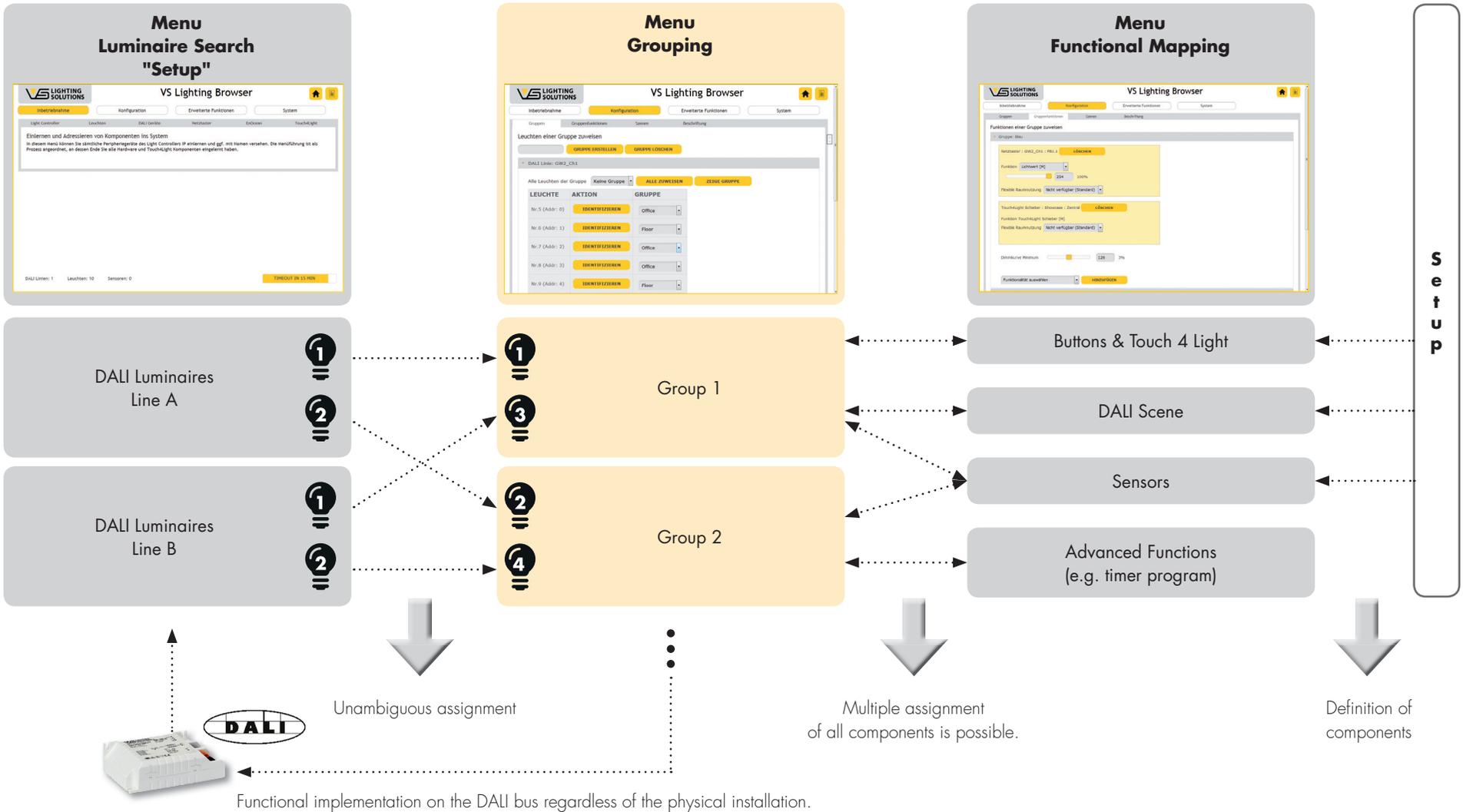
LIGHTBOX DHCP (REF. NO.: 186513)



LIGHTBOX (REF. NO.: 186512)



Functional Schematic



Software-based Commissioning

- Open browser
- Enter IP address (see Network-based Commissioning)
- Enter user name/password
- Accept the licence agreement

IMPORTANT The Light Controller IP is delivered with the following user name and password: "admin". This should be changed following commissioning.

Starting the Setup Procedure for the Light Controller IP

1. LANGUAGE SELECTION

System -> Settings -> select desired language.



2. SETUP



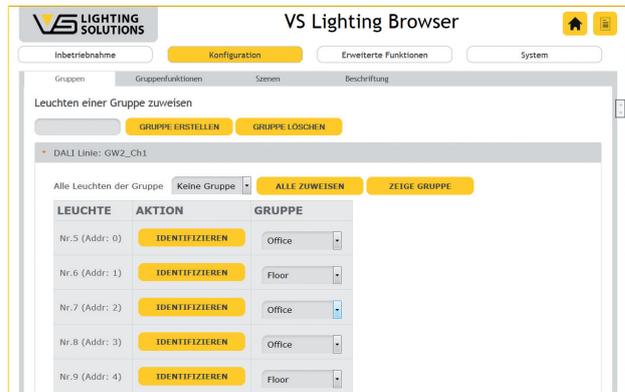
Recognition and integration of system components

- Select the Light Controllers and then integrate them into the system via "Search", followed by confirmation with "Connect".
- Integrate luminaires (DALI control gear) and DALI input (input devices: DALI push button and sensors) into the system by individual lines and allocating names.
- Mains buttons are integrated into the system by allocating names to the connected wired buttons.
- EnOcean components (wireless push buttons, door/window contacts) must be pressed to be identified by the Light Controller. System integration follows name allocation.
- Touch4Light
This lets you create your own switches and switch functions for lighting control purposes as well as to activate or deactivate certain components. The provided push-button and sliding controls also let you use – a tablet PC or a smartphone to – switch light on or off, dim lighting, call up lighting scenes and activate time-controlled light sequences.
- **IMPORTANT:** Integrating VS Extenders will limit the entire system to its basic control and adjustment functions. Please observe the information provided on page 5.

3. CONFIGURATION OF SYSTEM COMPONENTS

Creation of Luminaire Groups

Configuration -> Groups



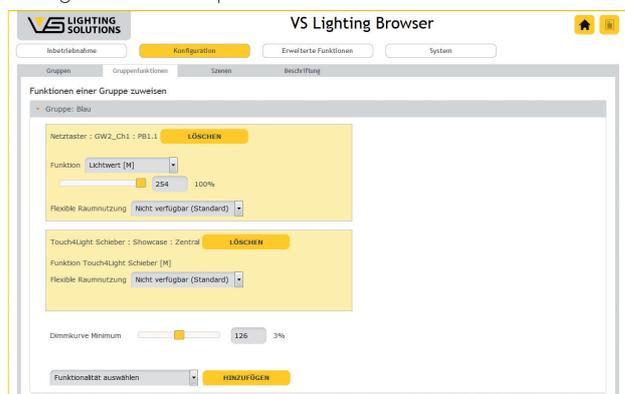
- Allocate group name (e.g. office, kitchen, hallway, etc.)
- Assign luminaires to the groups

IMPORTANT It is not possible to integrate luminaires into more than one group. For that reason, it is recommended to create logical, functional groups. Functions that apply to multiple groups can be set in the "Group Functions" menu.

- Option 1: Assign all luminaires to one group. All luminaires of all DALI lines can be assigned to a single group.
- Option 2: Individually assign luminaires to a specific group.
- Time-saving assignment: in addition, it is possible to use a webcam (e.g. tablet PC) to identify a luminaire and thus assign it to a group.

Definition of Group Functions

Configuration -> Group Functions



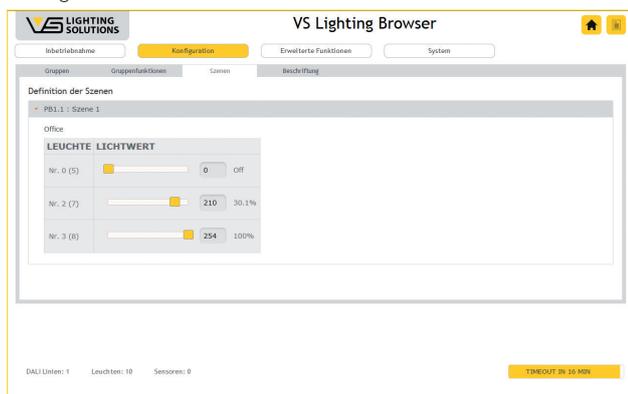
- Select the group whose functions you wish to configure. Groups are listed alphabetically.
- Default setting of the minimum dimming level: 126 = 3% (recommended for commonly available DALI control gear). This value can be changed using the slider.

Quick Start Guide Light Controller IP

- Select and add input devices (e.g. buttons). Should you already have installed Touch4Light functions, these can be selected here as well.
- Once an input device has been selected, diverse parameters can be defined for the functions performed by the input device. These settings then apply to the selected group.
ADVANTAGE: Input devices can be used with various functions and parameters in different groups.
- If input devices are to be used to activate a light scene, the "Scene [M]" function must be assigned to the respective input devices.

Definition of Light Scenes

Configuration -> Scenes



- Up to 16 different light scenes can be defined per group.
- All scenes assigned in the "Group Functions" menu item are displayed in the "Scene" menu item.
- Within a scene, all the luminaires in the respective group are listed and individual light values can be adjusted.
- Individual scenes can thus be created for each group.

ADVANCED FUNCTIONS



The "Advanced Functions" menu item contains useful additional functions with which luminaire groups can be controlled, system architecture can be displayed or maintenance functions can be optimised. These must subsequently be integrated into the "Group Functions" menu.

- Daily Schedule -> Weekly Schedule*
- Astronomical control*
- Room plan
- Component replacement
- Flexible room usage (EnOcean)
- Night-guard*
- Group dynamics
- Random RGB behavior

*  This is dependent on the correct system time being set in the LightBox.
IMPORTANT

NOTES ON USING VS EXTENDERS

VS Extenders provide an affordable option for simultaneously addressing (bundling) up to 64 DALI control gear units with only one DALI address. Integrating a VS Extender into a light management system that includes a VS Light Controller will limit the entire system to its basic control and adjustment functions. Sensors can nevertheless be integrated via the primary DALI line. However, all functions that are based on luminaire feedback will no longer function properly as long as the VS Extender is connected. These limitations are particularly relevant with regard to Vossloh-Schwabe's Light Controller IP DALI since functions such as individual addressing, component exchange and automatic error detection and many others will no longer be available for use.

Tips and Tricks

Topic	Answer
Software Updates	Software updates can be downloaded from www.vossloh-schwabe.com . Customer-specific versions can be made available by your VS sales representative.
DHCP, Clients and Servers	DHCP Server: network device (virtual server) that allocates IP addresses. DHCP Client: network device that is given an IP address (by the DHCP Server). Server: the PC, industrial server or VS LightBox used to run Light Controller services. Client: operating device (e.g. tablet, notebook) within the same network that calls up the user interface.
Time and Date	If time-dependent controls are to be used (e.g. weekly schedules, night-lights), the system time of the LightBox must be set correctly. Synchronisation only needs a connection to the internet to be established. For the LightBox DHCP (186513), the function "Receive server time from this client" can alternatively be used in the "System -> Settings" menu. This is dependent on the correct time being set in the client (e.g. tablet).
Documentation of System Information	We recommend you download and keep a report at regular intervals to give you an overview of key data concerning your lighting system at all times. This report contains details of the system state, the configuration of the system components and the created luminaire groups.
Direct Access via Touch4Light	The report contains QR codes that take you directly to the Touch4Light user interface. An IP address does not need to be entered. However, it is necessary for the client (e.g. tablet) to be in the same WiFi network as the LightBox.
Labelling	We recommend you call up the names allocated during commissioning under "Configuration -> Labelling", print these out and attach them to the installed devices. This lets you, for instance, use a documented floor plan for quick identification of components.
Adding luminaires at a later point in time	Luminaires can also be integrated into the system at a later point in time using the Luminaire Search function. CAUTION: Under certain circumstances, a DALI device that has already been addressed in another system can cause the luminaire address to be exchanged with an existing luminaire. This must be taken into consideration during group assignment.
Replacing luminaires	Components can be replaced specific to their position and function via the "Extended Functions" -> Replace Components menu.
Data Storage	System configuration settings can be saved under "System -> Settings -> Download Current Settings". We recommend this download step is performed after every relevant change of the configuration settings. This file should not be saved on the server, but at another storage location as a backup file.
Restore System	Saved system configuration settings can be restored (e.g. in the event of server failure or incorrect configuration). Given an unchanged DALI installation, simply load the file under: "System -> Settings -> Load system settings".
Mail Reporting	To receive email updates on events or system status, you will need a mail server, for which purpose http://www.hmailserver.com can be used, among others.
Firewall	The firewall is already preconfigured for the LightBox. Should you prefer to use your own server, at least the following ports must be approved for sharing: 80 (TCP incoming), 31459 (UDP outgoing), 31460 (UDP incoming), 31460 (TCP incoming), 31461 (TCP incoming)
Connection Problems affecting the Light Controller	Should the system develop problems, e.g. if the DALI bus is not recognised, a restart of the Light Controller can be forced by briefly disconnecting and reconnecting it from the mains. Attention: This procedure may only be carried out by authorised and fully qualified staff.
Disconnecting Coupled Devices	If a Light Controller is not recognised by the server or if a different server needs to be used, coupled devices will first need to be disconnected by pressing the "Disconnect" button on the Light Controller for approx. 10 seconds. The Light Controller can then be reintegrated into the system of your choice via the "Light Controller" commissioning menu.
Reset System	The system can be reset under "System -> Settings -> Reset to default settings". This process deletes all configuration settings. However, please note that performing this step will also render all data backups unusable. It is therefore recommended to carry out this step only if the system is to be fundamentally repurposed.

Contact:

please contact your VS representative or send an email to: lics-indoor@vsu.vossloh-schwabe.com

