





## **Operating Manual** LiNA Connect / LiNA



Programming the Blu2Light System

Using LiNA Connect

## Operating the Blu2Light System

Using LiNA Touch

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

Standort Schorndorf
 Stuttgarter Straße 61/1, 73614 Schorndorf
 Telefon: 07181/8002-0
 Fax: 07181/8002-122

▼ **Standort Ettlingen** Hertzstraße 14–22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37 ▼ Büro Rheinberg Rheinberger Straße 82, 47495 Rheinberg Telefon: 02842/980-0 Fax: 02842/980-255 1



## TABLE OF CONTENTS

1	Ge	en	eral Notes	.4
1	1.1		Legal notice	.4
1	1.2		Downloading the APP	.4
1	1.3		Version note	.5
2	Pre	ер	paration	.6
3	Нc	SW	to create a simple system	.6
4	Bc	acł	<pre>kup/Restore of a system</pre>	17
4	4.1		Backup	17
4	4.2		Restore	19
	4.2	2.1	Normal Restore/Import of a backup file	19
	4.2	2.2	2 Full Restore	21
5	Сс	ор	y device configuration	21
6	Us	sing	g Auto mode	24
7	Se	etti	ng up the tunable white function	26
8	Im	npl	ementing a DigiLED (186839) + manual configuration	28
9	Do	ayl	light control explained	31
10		Lię	ght-Threshold-Function explained	33
11		Ho	ow to use motion detection	36
12		Us	sing Sequences	38
13		A	dd and use Timers	41
14		Us	sing the Air Sensor	44
15		Us	sing the Blu2Light Relais	46
16		Us	sing the B2L Connect PB4	52
17		In	cluding an Blu2Light Repeater	54
18		In	cluding the Blu2Light Connect DMX Controller	55
1	8.1		Receiver Mode	55
1	8.2		Master Mode	58
1	8.3		Using Receiver and Master Mode in combination	61
1	8.4		Master Follower Mode	63
19		D	o's and don'ts	66
1	9.1		Do's	66
1	9.2		Don'ts	67

 $\textbf{Vossloh-Schwabe Deutschland GmbH} \cdot www.vossloh-schwabe.com$ 



19.3	Info	ormal	7
19.3	5.1	Description of Symbols	3



## 1 GENERAL NOTES

Thank you for choosing the Vossloh-Schwabe Blu2Light system. Prior to using the product, please read this operating manual to familiarize yourself with the system's functions.

Any person tasked with system setup, commissioning, operation, maintenance, and repair must be:

- suitably qualified and
- closely observe the provisions of this operating manual.

#### 1.1 Legal notice

#### Trademarks

- The Vossloh-Schwabe and the Blu2Light logos are trademarks of Vossloh-Schwabe Deutschland GmbH.
- Other products and company names mentioned in this manual may be trademarks of other companies.

#### Copyright

© Copyright 2022 by Vossloh-Schwabe. All rights reserved. Without the prior written consent of Vossloh-Schwabe, no part of this document may be reproduced or transmitted in any form or using any means, be they electronic or mechanical; nor may photocopies or any other kind of record be made, nor may any system for information storage or restoration purposes be used.

#### 1.2 DOWNLOADING THE APP

Both apps are available as iOS and Android versions in the respective app stores.



#### Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

**Standort Schorndorf** Stuttgarter Straße 61/1, 73614 Schorndorf Telefon: 07181/8002-0 Fax: 07181/8002-122 Standort Ettlingen Hertzstraße 14-22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37



#### 1.3 VERSION NOTE

Change log	9
Document	Changes
1.0	- Document created in English language.
	- Blu2Light Connect DMX Controller added.
2.0	- Blu2Light Relay – Function description revised.
2.1	- Version assignment and change log added.
	- Creation of sequences – Added reference to Auto Mode.
2.2	- Create backup/restore of a system.
	- Description of symbols added.
	- Threshold function added.



## 2 PREPARATION

Make sure that all your Blu2Light nodes are powered and that the QR codes of the nodes are ready, for example stuck on your floor plan!



#### Figure 1: Floor plan

## 3 HOW TO CREATE A SIMPLE SYSTEM

Open the LiNA Connect app and click on the button + in the lower right corner to create a project, then name your project and create a system with the same procedure. Now scan the desired QR code by pressing the button + again!



The following picture shows a successful scanning of a Blu2Light device in LiNA Connect – the QR-Code is shown in green color:



Figure 2: Scanning a Blu2Light device

Scanning of 2 Blu2Light device which has already been commissioned to another system on the tablet – the QR-Code is shown in orange color:



Figure 3: Scanning a Blu2Light device that is already in use

The text field below the scanned node shows you where it is already in use.



 System 1
 #21 + 1

 System 1
 #21 + 1

 Bluetooth Devices
 LIMA Touch

 Device 1 BYBKV
 Bluetooth Device

 Brack
 Brack

 Brack

 Brack

 Brack

 Brack

 Brack

 Brack

 Brack

 Brack

 Brack

 Brack

 Brack

 Brack

 Brack

 Brack

 Brack

 Brack

 Brack

 Brack

 Brack

 Brack
 </tr

Color selection of a Blu2Light device in the device settings:



A long press on the device symbol offers the device-overview. You have the options "Name", "Power On Behavior" and "Properties" furthermore you can choose the color for every node in which it should be displayed in the option "Power on behavior" will not be displayed for all Blu2Light devices and it will only be visible d for devices which support the "Power on behavior" (e.g. not for the Blu2Light LAN Gateway or the Blu2Light Connect PB4). This helps with the overview in big Projects and offers a better visualization.

Bluet	ooth Devices		
		Bluetooth Device	×
	Name	Power On behavior	Properties
	Mode	Auto	•
		Manual	
	Auto Invol	Auto	• • • • • • • • • • • • • • • • • • •
	Autorover	Switch on with last state	
	Scene	Scene 1	
		Save	ō

Figure 5: Selection of switch-on behavior

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

Standort Schorndorf
 Stuttgarter Straße 61/1, 73614 Schorndorf
 Telefon: 07181/8002-0
 Fax: 07181/8002-122

Standort Ettlingen Hertzstraße 14–22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37



Select "Switch on with last state" in the "Power On Behavior" tab.



Figure 6: Switch on with last state

Now the node uses the "last state" as "Power On behavior". Please be aware not to cut off the power for at least 30 seconds before a new "power on last state" is being saved after this mode has been configured. A counter in the "properties" shows the actual state of how many configuration changes have been done in a lifetime of the node. Only configuration changes that last longer than 30 seconds are being saved. If a counter state of 10 000 has been reached the VS guarantee is lost. The function remains available.

07:24 Tue 16. May		Device 1	вххмэ		
Luminaires	Scenes	Sequences	Sensor	Switches	Timers
DALI Devices			Functional Groups		
Identify	Express Setup	DALI Addressing		Refres	h status 🔶 🕂

Figure 7: Overview before automatic setup

Select a node and select "Express Setup" to start automatic setup.





Figure 8: Express setup with active DALI search

A rotating circle at "DALI addressing" indicates an active DALI search.

07:25 Tue 16. May		Device 1	вххмэ		≎ 36 %. ©
Luminaires	Scenes	Sequences	Sensor	Switches	Timers
DALI Devices	<u>dj</u>		Functional Groups		
DALI 1 Addr: 1 Standard	DALI 2 Addr: 2 Standard	DALI 3 Addr: 3 Standard	Functional Group 1 Single Batus menual, 0.0 % Devices: 3		
Identify	Express Setup	DALI Addressing	)	Refres	h status 🔶 🕂

Figure 9: Overview after successful DALI search

If the DALI search is completed, all DALI devices should be displayed, and a functional group should have been created.





Figure 10: Menu for creating scenes

Now you can create scenes according to your wishes, "50 %", "Off" and "On" are the most common ones. Now add a new scene by pressing the button +!



Figure 11: Creating a new scene

Here you can name the scene as you wish and select the type of luminaire module used.





Figure 12: Created "Off" scene

In most configurations, it is recommended to leave at least one channel switched on. The slider for the master dimmer should be set to zero for the "Off" scene.

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

▼ **Standort Ettlingen** Hertzstraße 14-22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37



15:10 Wed 8 May									<b>A</b> 43 %
<					Gerät 1 BZBBG				
Luminaires	Scenes		Sequ	ences	Sensor	Switches		imers	Debug
50%	[			50.5	50.5 %	50.5 %	50.5 %	50.5 %	50.5 %
Off		Digital		%	۰	•	•	•	۰
-		1		3					
Power On		4		6					
		7		9					
				c					
		Master Dimmer		Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6
		ade Time						_	
	+	00:00:00		<u> </u>					Test

Figure 13: Setting the brightness level

The brightness can be set using the slider or by pressing the brightness value displayed above (allows digital or percentage values to be entered).

If all scenes are configured as desired, the only thing left is to generate a user interface in the LiNA Touch App, for that, switch to the tab "LiNA Touch".



Figure 14: Creating a LiNA Touch user interface

Here you can use the + button on the left-hand side to create a new touch profile and name it accordingly. Use the + button on the right-hand side to select a touch surface, depending on the scope of the desired functions. Unused touch panels will not be displayed in the LiNA Touch app. If more touch panels are needed more fields can always be added.





Figure 15: Assigning a function

Each control panel must now be assigned a function that can later be used in the Touch App. It is advisable to name the control surface according to the scene to be controlled.



Figure 16: LiNA Touch user interface created

Once this has been achieved, your user interface should look like this.



07:58 Tue 16. May				
<	Event c	onfiguration		🙆 🕻
Q Filter		Set filter →	Q Filter	
Page 1			Device 1 BXXM9	
On (Button)			Functional Group 1 (Single Devices: 3	e)
50% (Button)			Device 2 BXWTM	
	₽₽		Functional Group 1 (Single	e)
Off (Button)				

Figure 17: Event configuration

Now the control panels are assigned to the respective functional groups and (Figure 18) to the respective scenes via the event configuration using drag & drop.

07:58 Tue 16. May				
<		Event configuration		😡
Q Filter				
Page 1			Device 1 BXXM9	
On (Button)		Select Action	l Group 1 (Single)	
50% (Button)	Source	On (Button) (Page 1)		
	Luminaire	Functional Group 1 (Device 1 I	il Group 1 (Single) 3XXM9)	
Off (Button)				
	Туре	Scene	•	
	Scene	Scene 1		
		50%		
	Mode	Mi off		
		Scene 1	<b>H</b>	
		Continue		

Figure 18: Assignment of the scenes

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

▼ **Standort Ettlingen** Hertzstraße 14–22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37





Figure 19: Export the desired LiNA Touch profile

In the last step, press and hold the respective touch profile you want to export in the main window of the Connect app and select "Export". Now you are free to scan the generated QR code with another device using the LiNA Touch app or to export it in another way by pressing "Share".

To scan the QR code, press the QR code symbol in the upper right corner of the LiNA Touch App and scan the respective QR code.



Figure 20: Scanning the profile to be imported

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

▼ **Standort Ettlingen** Hertzstraße 14–22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37





Figure 21: Importing the profile

#### **Congratulations!**

Your basic system is now fully operational and can be operated via the LiNA Touch App!

## 4 BACKUP/RESTORE OF A SYSTEM

To avoid data loss, it is generally recommended that you make regular backups of your data.

#### 4.1 BACKUP

A Blu2Light system backup prevents loss of access to the system. As already mentioned, the best time to create a backup is after a system has been successfully commissioned.

Standard functions of the operating system of mobile devices (such as iCloud) can be used to securely store a backup file.

Backups have a second raison d'être in addition to data backup in the event of a damaged mobile device: transferring the system from one mobile device to another.

In both cases, it is important that only one device is connected to the system and that the backup is transferred back to the other device after a change has been made to the system.

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

Standort Ettlingen Hertzstraße 14-22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37



11:12 Sun 2 Feb			🗢 100 % 🔲
<	Luminaire Office PM		
₩ Luminaire Office PM		Luminaire Office PM ZIP + 3 KB	
		AirDrop Messages Mail	Notes T
4 Devices		Сору	¢
		Save to Files	
		Print with HP Smart	-
		Edit Actions	
			+

Figure 22: Backup as zip file

It is recommended to select 'Save to Files'. You can then save the backup file in the cloud or on the tablet. The file name contains the name of the project and the current date and time stamp.

11:17 Sun 2 Feb					<b>奈</b> 100	36 🚍
<	Lur	minaire Office PM				N
Bluetoc	oth Devices			Network Information		
DigiLED BY8P9	Multisensor Air BYKGH	XS links BYDJP	AS recircs BYBO			
BY8P9 1 Functional Group	вүкөн	BYDJP 1 DALI Device 1 Functional Group	BYBGZ 1 DALI Device 1 Functional Grou			
					۱	
		Follo	owMe configuration	Event configuration		+
			_			

Figure 23: Backup of a system configuration

Select 'Backup / Restore', then 'Create new backup / Export current configuration' and then 'Export of system configuration'.



In the following window, the system configuration to be exported can be described and protected with a password.



Figure 24: Backup of system configuration

It is recommended that you select 'Save to Files'. You can then save the backup file in the cloud or on the tablet. The file name contains the name of the system and the current date and time stamp.

**WARNING:** Accessing a Blu2Light system with two mobile devices (simultaneously or alternately) leads to uncorrectable data corruption and may require a complete restart of the system. If two mobile devices are accidentally used and the system does not behave as intended, a restore - full restore - may help.

## 4.2 RESTORE

An existing backup can be restored in various ways:

#### 4.2.1 NORMAL RESTORE/IMPORT OF A BACKUP FILE

A 'normal' restore loads a configuration from an existing backup into the LiNA Connect app. This can be used to transfer a system from one mobile device to another. In this case,



it is recommended to delete the system on the old device to prevent accidental access to the same system from multiple devices.

It is recommended to always save a backup file on the tablet or in the cloud before importing it into the app. A zip file is automatically unpacked into the corresponding B2L system file after selection. Select the system configuration to be imported in your own files or in the cloud. Share this with the LiNA Connect app.



Figure 25: Sending the system configuration to the LiNA Connect App

If the system already exists, this is recognized by the LiNA Connect app and the corresponding project is selected. If it is a new system, the project into which the system is to be imported must first be selected.



Figure 26: Importing the system configuration

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

Standort Schorndorf Stuttgarter Straße 61/1, 73614 Schorndorf Telefon: 07181/8002-0 Fax: 07181/8002-122 Standort Ettlingen Hertzstraße 14-22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37



# System configuration was successfully imported.

Please remember to delete this system on other tablets. Configuration access from multiple tablets is not allowed! A window informs you when the system configuration has been successfully imported.

**NOTE:** There is no synchronization with the nodes.

#### Ok

**WARNING:** If an old configuration is loaded and there is a wireless connection to the system, changing parameters can lead to unpredictable behaviour.

## 4.2.2 FULL RESTORE

During a full restore, the backup is loaded onto the mobile device in the LiNA Connect app. Then the nodes are (re)commissioned and finally each node is programmed with the required configuration. This ensures consistency between the application and all nodes in a system.

#### Full restore incl. overwrite of device configuration

**NOTE:** During a full restore, it will take some time for all actions to be completed. During this time, the connection to the mesh nodes must not be interrupted. An existing daylight control system must be stopped and restarted.

## 5 COPY DEVICE CONFIGURATION

Within LiNA Connect, it is possible to speed up the setup process of one or more nodes by using the "Copy device configuration" option. With this option, it is possible to copy the settings of a node that has already been configured with LiNA Connect to one or more other nodes that are integrated in the same system. This option is useful, for example, if equivalent scenes are required on several nodes within the same system. The "Copy device configuration" option can be found in the open system in the menu in the top right-hand corner by clicking on the "3 dots".

The following illustration shows the "Menu" and the "Express Setup" option in the LiNA Connect menu with the yellow arrows:



04 Sun 2 Feb					P 98 % 💻
< li		Luminaire Office PM			··· >>
Blu	etooth Devices		1	Network Information	
	N 🗸 🔹	M 🗢 M	♦		
DigiLED BY8P9	Multisensor Air BYKGH	XS links BYDJP	XS rechts BYBG		
BY8P9	вүксн	BYDJP 1 DALI Device	BYBGZ 1 DALI Device		
T Functional Group		1 Punctional Group	TPunctional Grout	Copy device configuration	
					-
Q Filter		Foll	owMe configuration	Event configuration	4

Figure 27: "Copy device configuration"-Option in the Menu of LiNA Connect App

It is important to know that not all functions of a Blu2Light node are copied. Only the following options are copied:

- Scenes,
- sequences,
- Motion settings,

- Brightness settings (there is no active light control on the target node, even if one is running on the "source" node),

- timers,
- LiNA Touch event configuration shortcuts.

The next window shows all the nodes present in the system. The "source" node with all the settings to be copied from must now be selected from the existing nodes in the system:



Figure 28: Selection of the "source device", indicated by the yellow arrow

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

Standort Schorndorf Stuttgarter Straße 61/1, 73614 Schorndorf Telefon: 07181/8002-0 Fax: 07181/8002-122 ▼ Standort Ettlingen Hertzstraße 14–22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37 Büro Rheinberg
 Rheinberger Straße 82, 47495 Rheinberg
 Telefon: 02842/980-0
 Fax: 02842/980-255



In the next step, the destination node(s) is/are selected after you have clicked on "Continue":



Figure 29: Selection of the "destination device", indicated by the yellow arrow

When the selection of the destination node (one or more nodes) has been successfully completed, a further options menu appears in which you can decide whether LiNA Connect should wait until a device is "online" and whether some possible profile options in LiNA Touch should also be updated with the current copy process:

12:55 Sun 2 Feb		🗢 96 % 🔲
<		
В	Sjustooth Devices	
	Copy device configuration ×	
✓ DigiLED BY8P9	Wait until device reachable	
	Include Touch4Light profile connections	
BY8P9		
1 Functional Group		
	Continue	
Q Filter	FollowMe configuration Even	nt configuration +

Figure 30: Options menu with additional options for the copy process

In most cases, it is advisable to leave both actions activated, as any LiNA Touch connections should be updated. It also makes sense to wait until a node is available and online or in range before starting the copy process.

The following illustration shows a successful copy of the settings from one node to another:



2:59 Sun 2 Feb ≮	Luminaire Office PM		÷96%∎ ≬
Riu	etosth Devices	LINA Touch	
	Copy device configuration	×	
DigiLED BY8P9	Copy device 'XS rechts BYBGZ' to		
BY8P9			
1 Functional Group			
	♥ XS links BYDJP		
	BYD_F 1 DAL Device 1 Functional Group		
	Finished		

Figure 31: Successful copying of settings from one node to another node

After clicking on "Finished", the copied options can be used on the target node.

## 6 USING AUTO MODE

To set up an automatic setup, return to the overview shown in Figure 9. Now press and hold the control panel, Functional Group.

A window called "Setting/Parameters"	appears, offering the following choices:

Sets the dimming speed of	Dimming speed	0
the stored scene in a DALI value fixed (0-254)	Active light level	100.0 %
Here the light level for the "Active" state is selected.	Time, active	00:09:57
Here you can define how long the "active level" is held.	Passive light level	0.4 %
Here the light level for the "passive" state is selected.		00.0010
Here you define how long the "passive level" is held.		

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

Standort Schorndorf Stuttgarter Straße 61/1, 73614 Schorndorf Telefon: 07181/8002-0 Fax: 07181/8002-122 ▼ **Standort Ettlingen** Hertzstraße 14-22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37



Once you have made all the settings, press "Save", now the configuration should have been applied to the active system.



## 7 SETTING UP THE TUNABLE WHITE FUNCTION

The following steps describe the "Tunable White" function:

10:47 Fri 16. Jun			🗢 70 % 🚮
<		wz	
(+) Couch Flex-ROBW hinter Couch	(H) Luminaire TW		
1 Device	1 Device		
			+

Figure 32: Overview of existing systems

Add your node to the system and enter the configuration.



Figure 33: Overview after successful DALI search

Now set it up as you did in the basic configuration.



10:39 Fri 16. Jun			🗢 64 % 🕵
<	Funktionale Gruppe 1:TC		Θ
Q Filter		Channel 1 (W)	
		DALI 1, DT8-TC 🕥	
(Funktionale Gruppe 1:TC / Channel 0 🕲)		Channel 2 (WW)	

Figure 34: Channel assignment within the functional group

Connect the DALI device to the channels (W=white, WW=warm white) per drag and drop.



Figure 35: Create the desired scenes

In the next step you can configure the scenes you need. And prepare your touch overlay as you did in the Figures 14 - 21.



## 8 IMPLEMENTING A DIGILED (186839) + MANUAL CONFIGURATION

For scanning in the Digi LED 4CH please refer to the 3. Step of the manual until you reach figure 7 of the manual.



Figure 36: View of the available channels

After that you will see that channel 1-4 have already been recognized by the LiNA Connect App.

<			1 BYBKV		
Luminaires					
CH-1 CI	1-2	New Fund	tional Group	×	
Standard St	andard Type	RGBW		•	
CH-4		Single			
Standard	Name	RGB	,		
		Co	ontinue		

Figure 37: Create a new functional group

As you probably already have mentioned, you can't do an express setup here. Therefore you must create a Functional Group by yourself! To do this, press the + button. Here you must select how many channels your modules have. In this case it is RGBW.



13:39 Thu 25. May		Functional Group 1		₹ 88 <b>%</b> ()
Q Filter			Channel 1 (R)	
Сн-1				
#1/Standard	<u></u>		Channel 2 (G)	
CH-2 # 2 / Standard	Q \$			
CH-3			Channel 3 (B)	
# 3 / Standard	Ŷ		Channel 4 (W)	
CH-4 # 4 / Standard	Q ()			

Figure 38: Assigning the channels

In the next step you must connect every channel of the DigiLED (R, G, B, W) to every channel of the Functional Group (also applicable for other systems).



Figure 39: Create the desired scenes

Now we configure our scenes as we did for a simple configuration (Figure 10-12).



For DigiLED you have the option to either use the channel overview or change the type of scene and use RGBW directly, this could make the selection of colors easier. Which should look like this:



Figure 40: Scene creation with direct color selection

If you have configured every scene you like, go back to Figure 14 and onward to move on.



## 9 DAYLIGHT CONTROL EXPLAINED

🗢 63 % 🖝 Go to the tab " Sensor" Gerät 1 BZBBG ((-)) to see the possible Sequences Sensor Switches Timers Debug settings. Sensor settings Activate the sensor by Activate senso using this switch. automatic (currently off) Send always to mesh or automatic Before you can start the light regulation you have to connect a internal functional group! If using a normal gateway or one in bridge mode, you must led 8 Ma activate "send always < Event configuration to mesh" to track or Gerät 1 BZBBG Set filter → forward sensor Brightness Gerät 1 BZBBG Information. Funktionale Gruppe 1 (Single) 1 Entry 🛞 Gerät 2 BY8KV If clicking on event Funktionale Gruppe 1 (RGBW)  $\bigcirc$ configuration, you can add the light regulation to the Functional groups in your system.

Before you can adjust the light regulation, you must connect an internal functional group.

You can use the slider for the light intensity to try out how bright the light control will be.

Using a lux meter, you can adjust the setpoint lux value in-between 0 -9999 digits.

#### $\textbf{Vossloh-Schwabe Deutschland GmbH} \cdot www.vossloh-schwabe.com$

Light level

Manual sensor value

Standort Schorndorf
 Stuttgarter Straße 61/1, 73614 Schorndorf
 Telefon: 07181/8002-0
 Fax: 07181/8002-122

Standort Ettlingen Hertzstraße 14–22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37 ▼ **Büro Rheinberg** Rheinberger Straße 82, 47495 Rheinberg Telefon: 02842/980-0 Fax: 02842/980-255 50.5 %

Start

100



The actual sensor value shows the automatic measured sensor value.

The "reference sensor value" shows what is used for the Light regulation (automatic filled, if using the automation)



When you are finished with the configuration, press either the upper start button for control according to the manually set sensor value or the lower button for control according to the currently determined sensor value. The reference sensor value will take over the selected sensor value after starting light control. In our case, this is either 100 or 73.



Daylight control can only be started if an event configuration has been conducted beforehand.

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

▼ Standort Schorndorf Stuttgarter Straße 61/1, 73614 Schorndorf Telefon: 07181/8002-0 Fax: 07181/8002-122 Standort Ettlingen Hertzstraße 14-22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37 ▼ Büro Rheinberg Rheinberger Straße 82, 47495 Rheinberg Telefon: 02842/980-0 Fax: 02842/980-255



## 10 LIGHT-THRESHOLD-FUNCTION EXPLAINED

If the current light value falls below the set (manual or current) threshold value, the motion event is triggered, otherwise not. Negation is also possible, i.e. if the current light value exceeds the set threshold value, the movement event is triggered, otherwise not. If the threshold value function is active, the light control reference group is no longer active. The function is only available if a node has a light sensor and a motion detector.

If the threshold value function is switched off, the light control reference group is available, and the threshold value reference groups cannot be set (grayed out). The "Negation" is then also not available and grayed out.

First activate the sensor and "Send always to mesh or automatic" under the Sensor/brightness menu item.

13:09 Sun 2 Feb						🗢 95 % 🚍	
<		XS left BYDJP				N	
	Sequences	Sensor				Debug	
	Sensor settings						
Brightness	Activate sensor						
	Send always to mesh	or automatic				always 🌔	
	Before you can start t	the light regulation you	have to connect a inter	nal functional g	roup!		
					50	50.5 %	
				10	00	Start	
						Start	
	Reference sensor val				-	-	
	Light regulation refer	ence group					
			Event configuration				

Figure 41: Activating the brightness sensor

Secondly, under the menu item Sensor/Motion, activate the sensor and "Send always to mesh or automatic".



Figure 42: Activating the motion sensor

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

Standort Ettlingen
 Hertzstraße 14–22, 76275 Ettlingen
 Telefon: 07243/7284-0
 Fax: 07243/7284-37



The threshold function can now be activated. When this is activated, daylight control is no longer possible.



Figure 43: Activating the threshold function

**Attention!** Before the threshold function can be started, an internal functional group must be linked! To do this, press the "Event configuration" button.



Figure 44: Creating the link to the functional group

After creating the link to the functional group, a selection window opens where you have the option of selecting the desired action.



Source	Motion (XS left BYDJP)			
Luminaire	Functional Group 1 (XS left BYDJP)			
Туре	Scene	•		
	Scene			
Scene	Light control			
ocene	Start/Stop Sequence			
Mode	Manual	•		

Figure 45: Selection menu for the desired action

Then return to the Sensor/Motion menu. The sensor values can now be set. Select a manual sensor value or the sensor value currently measured by the sensor. After starting the threshold function, the selected sensor value is transferred as the reference value and the function is active.

08:32 Mon 3 Feb					🗢 91 % 🔲
<		XS left BYDJP			Θ
Luminaires	Sequences	Sensor	Switches		Debug
Motion	Sensor settings				
Brightness	Activate sensor				
	Send always to mesh	or automatic			always
	Threshold function				
	Negation				
	Manual sensor value			100	Start
	Actual sensor value				Start
	Reference sensor value				- Passive state
	Light threshold refere	nce group			
	Sensor Test Mo	de			
			Event configuration		

Figure 46: Setting the sensor values is active

▼ **Standort Ettlingen** Hertzstraße 14-22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37



## 11 HOW TO USE MOTION DETECTION

07:49 Wed 31. May						奈 51 % 🔲 े
<			Device 1 BXXM9			
Luminaires	Scenes	Sequences	Sensor	Switches	Timers	Debug
Motion		Sensor settings				
Brightness		Activate sensor				
		Send always to mes	h or automatic		au (cur	tomatic rently off)
		Sensor Test	Mode			
				Event configuration		

Figure 47: Motion detection menu

Go to the tab "Sensor" and switch on motion detection, if using a normal gateway or one in Bridge mode, you must activate "send always to mesh" to track or forward Sensor Information.

07:39 Wed 31. May				🗢 53 % 🔳
<		Device 1 BXXM9		
Luminaires		Sensor		
Motion				
Brightness	Activate sensor			
	Send always to mes	h or automatic		always 🌔 C
	Se	Sensor Test Mode	×	
		LED Feedback active		
		*		

Figure 48: Sensor Test Mode

With the "Sensor Test Mode" you can check your sensor before installing. While active, the sensor indication LED blinks when detecting movement and the circle in "Figure 48" gets filled, it resets every time movement is being detected.





Figure 49: Event configuration Movement

The only thing left to do is to couple the "Motion" function to the "Functional Group" you want it, in the event configuration of the sensor.

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

▼ **Standort Ettlingen** Hertzstraße 14–22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37



## 12 USING SEQUENCES

12:55 Thu 16. May				হ 48 % 🔳
<		Gerät 1 BZBBG		\$-\$
Luminaires	Sequences			Debug
		Now Sequence	×	
		New Sequence	^	
	Name	Sequence 1		
		Create Sequence		
				+

Figure 50: Creating a sequence

Go to the Tab "Sequences" press the (+) on the lower right corner and name your sequence as you wish.

09:33 Wed 31. May		奈 49 % ∎_>
<	Sequence Configuration	0
10%	Sequence 1	
20%		
30%		
Off		
<b>On</b> Power On		
		<b>E</b>

Figure 51: Overview of previously created scenes

On the left side you can see the scenes you have created before.



09:33 Wed 31. May		奈 49 % ∎)
<	Sequence Configuration	•
10%	Sequence 1	
20%	10%	00:00:00.4
30%		
Off		
<b>On</b> Power On		
		(=

Figure 52: Configuration of a sequence

You can simply add each scene by drag and drop in the desired order. Multiple scenes can also be added. You have the possibility to move scenes within the created sequence.

09:34 Wed 31. May		<b>?</b> 49 % 💼
<	Sequence Configuration	60
10%	Sequence 1	
20%	10%	00:00:56
20%	20%	
30%	30%	00:00:00.4
Off	Off	00:00:00.4
On Power On	On	00:00:00.4
		(=)

Figure 53: Setting the duration for a scene within a sequence

▼ **Standort Ettlingen** Hertzstraße 14–22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37



If you have added every Scene you need/want, you can configure how long every scene will be used until the next scene starts.

09:34 Wed 31. May		🗢 49 % 💶 🤇
<	Sequence Configuration	
10%	Sequence 1	
20%	10%	00:00:56
2014	20%	00:00:00.4
30%	30%	00:00:00.4
Off	Off	00:00:00.4
<b>On</b> Power On		
		3

Figure 54: Starting the sequence in a loop

By clicking on the button , the sequence will run in a loop forever. This is indicated by the button , highlighted in blue.

Create the corresponding touch surface as described in figures 14 to 17. You must assign the desired sequence instead of the scene.

	Select Reaction	×		Select Reaction	×
Source	Sequence Start (Button) (Page 1)		Source	Sequence Start (Button) (Page 1)	
Luminaire	Functional group 1 (Device 2 BZBBG)		Luminaire	Functional group 1 (Device 2 BZBBG)	
Туре	Start/Stop Sequence	•	Туре	Start/Stop Sequence	•
	Scene				
Sequence	Dim up down brightness Se Start/Stop Sequence		Sequence	Sequence TW	•
				Sequence TW	
	Save	Ô		Stop running sequence	

A started sequence is displayed in the function group tile.



**Functional group** 

1

TW



## 13 ADD AND USE TIMERS



Figure 55: Menu for creating timers

Go to the tab "Timers" and add a new timer by clicking on the button + in the left lower corner.



Figure 56: Configuration of timer

Now you have a couple of settings to choose from, "once, weekly, daily", with different sub menus.



11:53 Wed 31. May									€ 41%	•
<										
Luminaires								Timers		
Timer 1										
	Tyr	on Doce		•						
	р	SELECT DATE	May							
		wed, May 31								
								0		
								0		
					31					
								12:00		
							Δ.	12		

Figure 57: One-time timer

For **once**, you can select a date and time when it shall work.

11:53 Wed 31. May						
<			Device 1 BXXM9			
Luminaires	Scenes	Sequences	Sensor	Switches	Timers	Debug
Timer 1	Activ	ate timer				
	Туре	Weekly	-			
	Day o	fweek 🗌 Monday				
		🔲 Tuesday				
		🗌 Wednes	day		0	
		🗌 Thursda	y			
		🗌 Friday			0	
		🗌 Saturda	1			
		🗌 Sunday		45 18	12:00	6 15
					12	
					30	
	+		Ev	ent configuration		

Figure 58: Weekly timer

For weekly, you can select between days and time.





Figure 59: Daily timer

For **daily**, you can select only time for daily use.

10:26 Thu 1. Jun			🗢 42 % 💕
<	Event configuration		😡
Device 1 BXXM9	Set filter →	Q Filter	
Device 1 BXXM9	Sot filter →	C Filter Device 1 EXXM9 Devices. 3 Comp 1 (Single) Devices. 3 Comp 0	

Figure 60: Event configuration Timer

After setting and selecting the Timer the only thing left is to connect the timer to the Functional Group in the event configuration.

Timers are deactivated when the switching action has taken place, and no repetition is assigned. If a node is without power when a timer event occurs, it is repeated when time information is available again. The repetition can take place daily and weekly.

#### **Remarks:**

- Make sure that a time reference is available in the system. This can be a device with a GPS receiver, a gateway or a tablet that regularly connects to the system.
- If all nodes in a system lose power, the time reference is lost and is not automatically saved again.



- If a time of a single time event has elapsed during switch-off, the entry is deleted without any action.
- If a time of a repeated time event has elapsed during switch-off, the entry is repeated as if the device had never been switched off.
- When combining timers and power off and on, the power is switched on first and then the timers that need to be repeated are executed.

## 14 USING THE AIR SENSOR

10:18 Fri 2. Jun			奈 56 % ∎_}
<		Device 2 BYKK9	
Sensor		Switches	Debug
Mation	Sensor	settings	
Brightness	Activ	vate sensor	
Air	Send	always to mesh or automatic	automatic (currently off)
Digital input 1 · Opening contact		Sensor Test Mode	
Digital input 1 - Closing contact			
Digital input 2 · Opening contact			
Digital input 2 · Closing contact			
		Event config	uration

Figure 61: Menu of Multisensor Air

Our air sensor has the options to be used as a motion or brightness sensor which can be configured same, as described in chapter 9 to 11.

10:18 Fri 2. Jun					ę	56 % 💷
<		Device 2 BYKK9				
Sensor			Switches		Debug	
Motion	Actual ser	nsor value				
Brightness	CO₂ in ;	opm			711	
Air	Humidi	ty in %RH			42.8	
Digital input 1 - Opening contact	Temper	atur in °C			23.5	
Digital input 1 - Closing contact						
Digital input 2 · Opening contact						
Digital input 2 · Closing contact						
			Refresh status	Air sensor se	ttings	

Figure 62: Current sensor values

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

Standort Schorndorf Stuttgarter Straße 61/1, 73614 Schorndorf Telefon: 07181/8002-0 Fax: 07181/8002-122 Standort Ettlingen Hertzstraße 14-22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37 ▼ Büro Rheinberg Rheinberger Straße 82, 47495 Rheinberg Telefon: 02842/980-0 Fax: 02842/980-255



You can see the values of CO<sub>2</sub>, humidity in %RH and temperature in °C in the Tab "Air".

Air sensor sett	×	
Brightness refresh interval (sec)	0	•
Brightness low threshold	0	•
Brightness high threshold	0	•
CO2 refresh interval (sec)	0	•
CO2 low threshold (ppm)	0	•
CO2 high threshold (ppm)	0	•
Temperature refresh interval (sec)	0	•
Figure 63: Settings c	of sensor	

Temperature high threshold (°C)	0	×
Humidity refresh interval (sec)	0	•
Humidity low threshold (%RH)	0	Ŧ
Humidity high threshold (%RH)	0	•
Air quality indicator on/off		
Orange threshold	800	•
	1100	

Figure 64: Air quality indicator

For the CO<sub>2</sub> Level, temperature and Humidity, there is an option to change the threshold as well as the refreshing interval of all of those. Underneath you have the option to switch on and off the air quality indicator and define the orange and red threshold, the LED is turned on in default.

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

Standort Schorndorf Stuttgarter Straße 61/1, 73614 Schorndorf Telefon: 07181/8002-0 Fax: 07181/8002-122 ▼ **Standort Ettlingen** Hertzstraße 14-22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37 **Büro Rheinberg** Rheinberger Straße 82, 47495 Rheinberg Telefon: 02842/980-0 Fax: 02842/980-255



10:18 Fri 2. Jun			🗢 55 % 🔲
<		Device 2 BYKK9	•
Sensor		Switches	Debug
Motion	Digital i	nput settings	
Brightness	Activ	ate digital input	
Air	Send	always to mesh or automatic	automatic (currently off)
Digital input 1 - Opening contact	Activ	ate periodic status transmission	
Digital input 1 - Closing contact			
Digital input 2 · Opening contact			
Digital input 2 · Closing contact			
		Event configur	ration

Figure 65: Setting the digital inputs

For switching on and of air conditioning, we have 2 digital inputs where we can detect openings and closings of a window. This function can only be used in a cloud solution, as well as the usage of the air sensor values (CO<sub>2</sub>, humidity etc.).

Bluetooth f	Devices			
	<	Import Bluetooth device	×	
	Serial	BY81X		
	Туре	Blu2Light Relais (187236)		
	Name	Device 1 BY81X		
	Operating mode	Relay		
	operating mode	Relay		
		Blind		
		Jalousie		

Figure 66: Selection of operating mode

Start scanning in your node and go into the settings as in "Figure 2". Now you can either use the relay mode, roller shutter mode or the blinds mode by changing the wiring on the relay itself and set the mode to the function you need. **Have in mind that this is only a relay, meaning that all scenes you configure over 0 % are on state "on"!** 

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

**15 USING THE BLU2LIGHT RELAIS** 

Standort Schorndorf Stuttgarter Straße 61/1, 73614 Schorndorf Telefon: 07181/8002-0 Fax: 07181/8002-122 Standort Ettlingen Hertzstraße 14-22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37 ▼ Büro Rheinberg Rheinberger Straße 82, 47495 Rheinberg Telefon: 02842/980-0 Fax: 02842/980-255



11:17 Thu 16. May			Device 1 BY81X			<del>?</del> 49 % ■
Luminaires	Relay	Scenes	Sequences	Switches	Timers	Debug
Operating mode	Jalousie					
Runtime (Jalousie)		001:00.0 +				
Runtime (Angle of in	-	0:02.0 +				
Calibration run		50 +				omatically?)
Start calibratio	on run					
			Identify			

Figure 67: Jalousie mode

The set running time must correspond to the time that the blind needs to move from one end point to the other. You can also change the time manually using a slider (see Figure 51). The time that has been set must be equal to the time the blind including the slats do need to achieve position from one endpoint to another.



You can use the scene settings for channel 1 (blind) and the channel 2 (slats) to specify the percentage of the distance the blind shall move as well as for the working angle of the slats. You can use common or different scenes for the 2 channels. The equivalent of light is used here, assuming that it is not night. This means 100% is open, 0% is closed.

Errors of a few cm can occur if intermediate positions are approached several times (e.g. from 30% to 60%). However, this can be rectified by moving to an end point. A reference movement is always carried out in the direction in which the desired end position is reached more quickly. This can therefore be up or down.

The number of incomplete journeys after which automatic calibration should take place if the end point is not reached can also be set. There is also the option to start the calibration manually by pressing the "Start calibration run" button. This moves the blind to the nearest end point and back to the current position.

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

▼ Standort Ettlingen Hertzstraße 14–22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37





Figure 68: Blind mode

The set running time must match the time that the roller shutter needs to move from one end point to the other. You can also change the time manually using a slider (see Figure 68).

07:31 Thu 6. Jun				🗢 74 % 🔳
<				••• ••2
Bluetooth [	Devices			
	_			
	<	Import Bluetooth device	×	
	Serial	BY81X		
	Туре	Blu2Light Relais (187236)		
	Name	Device 1 BY81X		
	Operating mode	Relay	•	
		Relay Blind		
		Jalousie		
Q Filter		FollowMe config	uration Event configuration	on +

Figure 69: Relay mode

Non-dimmable lights or similar loads can be controlled in relay mode.

Please keep in mind that by changing the mode, you reset all the functional groups connected to your relay! You must choose the mode after scanning the Node!

After importing the device in relay operating mode, you will see the following view with 2 preset channels and functional groups.



07:35 Thu 6. Jun		Į	Device 1 BY81X			হ্ন 74 % 🖿 🙆
Luminaires	Relay			Switches		
Channels			Function	al Groups		
CH-1	CH-2		Func 1	tional Group Fu	nctional Group	
Standard	Standard		Sing Statu Deve	le Sir s: manual, 0.0 % Sta ces: 1 De	i <b>gle</b> tus: manual, 0.0 % vices: 1	
Identify					Refresh st	atus 🕂

Figure 70: Overview of channels and FGs in relay operating mode

When creating scenes, the on and off scenes are set with channel 1.



Figure 71: Menu for creating scenes

**Please note** that this is only a relay, i.e. all scenes that you configure above 0 % are in the "on" state!





Figure 72: Wiring diagram

We are looking at the colored wiring of the relay. Even if you wire the left relay contact instead of the right one, you must set channel 1 when creating the scene.



Figure 73: Creating the touch user interface

In the event configuration, you must note which relay contact you have wired. If you use the right-hand contact, the events must be linked to functional group 1 in the event configuration; if you use the left-hand contact, link the events to functional group 2.



17:42 Thu 6. Jun			<del>?</del> 73%
<	Event configuration		😔
Q Filter	Set filter →	Q Filter	
Page 1		Device 1 BY81X	
Control On (Button)		C Functional C Devices: 1	Group 1 (Single)
Control Off (Button)		Functional O Devices: 1	Group 2 (Single)
Select Act	ion		
Functional Group 1 (Device 1 BY81X) Scene: Scene On, Manual			
Functional Group 2 (Device 1 BY81X) Scene: Scene On, Manual			
Select Act	ion	×	
Functional Group 1 (Device 1 BY81X) Scene: Scene Off, Manual			
Functional Group 2 (Device 1 BY81X) Scene: Scene Off, Manual			

Figure 74: Event linking with both FGs

However, you also have the option of linking the events to both functional groups. This means that both contacts are switched.



## 16 USING THE B2L CONNECT PB4



Figure 75: Menu of Blu2Light Connect PB4

By scanning PB4 and clicking on the Node you will notice that you have the Option to add another En Ocean Switch. You can also add Timers.



Figure 76: View after scanning

If you don't need the options in "Figure 75" you can simply open your Event configuration. There you will now see the inputs of your Connect PB4.





Figure 77: Assignment of the push-button inputs

10:13 Wed 7. Jun					<b>?</b> 2	6 % 💭
<		Event configuration				
Device 1 BZGLV			Device 2 BXXM9			
Push button input 1		Select Action	×	I Group 1 (Single)		
Push button input 2	Source	Push button input 1 (Device 1 B2	ZGLV)			
	Luminaire	Functional Group 1 (Device 2 BX	(XM9)	l Group 1 (Single)		
Push button input 3	Туре	Scene	•	I Group 2 (Single)		
Push button input 4						
	Scene	Scene 1	•			
Device 2 BXXM9						
Brightness inactive	Mode	Manual	•			
		Continue				

Figure 78: Linking the button inputs with the desired action

By connecting the nodes to the desired functional group, you can decide which action shall be triggered by pressing the switches, connected to the output according to the scenes you configured in "Figure 10 to 12".



## 17 INCLUDING AN BLU2LIGHT REPEATER

For better connection between the nodes, you can use a repeater. The repeater can only be used to strengthen the mesh and is simply scanned in. The device can't be configured.



Figure 79: View after scanning

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

▼ **Standort Ettlingen** Hertzstraße 14-22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37



## 18 INCLUDING THE BLU2LIGHT CONNECT DMX CONTROLLER

Start scanning the node in your system and go into the settings as in "Figure 2". You can now select either receiver, master or master follower mode by setting the mode to the desired function. If you want to change the mode for a device, the corresponding device must be deleted from the system configuration and scanned in again.



Figure 80: Selection of operating mode

#### 18.1 RECEIVER MODE

This mode is used when the device is connected to a DMX controller. After scanning the Node, please select the "Receiver Mode" and press the button "Continue".



Figure 81: Receiver mode

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

Standort Schorndorf Stuttgarter Straße 61/1, 73614 Schorndorf Telefon: 07181/8002-0 Fax: 07181/8002-122 Standort Ettlingen Hertzstraße 14–22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37 ▼ Büro Rheinberg Rheinberger Straße 82, 47495 Rheinberg Telefon: 02842/980-0 Fax: 02842/980-255



By pushing the button for the commissioned device, you will come to the following overview.

< DMX Receiver Mode BZKZ5 Lumi Channels Figure 82: View of the configurable channels < DMX Receiver Mode BZKZ5 DMX iver mode Input channel 1 ctive Input channel 2 Input channel 3 Input channel 4

There are 32 configurable channels.

Figure 83: Menu for assigning the channels

Please select the tab "DMX" to access the input channels. In this view, the channels must be assigned according to the channels used by the DMX controller.



15:03       Thu 18. Apr       C         C       DMX Receiver Mode       inactive       CH 1         Luminaires       DMX       Scenes       CH 2       CH 3         Operating mode       Receiver mode       CH 3       CH 4       CH 4         Input channel 1       CC       CH 6       CH 6       CH 6         Input channel 2       CH 8       CH 9       CH 1       CH 1         Input channel 4       CH 1       CH 1       CH 1       CH 1         Input channel 4       CH 1       CH 1       CH 1       CH 1         Input channel 3       CH 1       CH 1       CH 1       CH 1         Input channel 4       CH 10       CH 11       CH 12       CH 13       CH 14         CH 15       CH 16       CH 10       CH 16       CH 10       CH 16       CH 10       CH 16       CH 10					
DMX Receiver Mode   Luminaires DMX   Scenes CH1   Ch2 CH3   Operating mode Receiver mode   Input channel 1 CH4   Input channel 2 Imi   Input channel 3 Imi   Input channel 4 CH8   CH9 CH10   CH10 CH13   CH13 CH13   CH13 CH14   CH13 CH14   CH15 CH16   CH16 CH17   CH18 CH18	15:03 Thu 18. Apr				
Luminaires         DMX         Scenes         CH1           Operating mode         Receiver mode         CH3         CH4           Input channel 1         CH5         CH6           Input channel 2         CH6         CH9           Input channel 4         CH10         CH10           CH1         CH10         CH11           CH1         CH10         CH11           CH10         CH11         CH11           CH11         CH10         CH11           CH12         CH11         CH12           CH13         CH11         CH12           CH14         CH12         CH13           CH15         CH16         CH16           CH15         CH16         CH17	<		DMX Receiver Mode E	inactive	
Luminaires         DMX         Scenes         CH 2           Operating mode         Receiver mode         CH 3         IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII			Marcola a	CH 1	
CH3           CH4           Input channel 1           CH5           Input channel 2           Input channel 3           Input channel 4           CH3           CH4           CH4           CH5           CH6           Input channel 3           CH3           CH9           CH10           CH12           CH13           CH13           CH14           CH15           CH16           CH16           CH17	Luminaires	DMX	Scenes	CH 2	
Operating mode         Receiver mode         CH 4           Input channel 1         CH 5         CH 6           Input channel 2         Init         CH 7           Input channel 3         CH 8         CH 9           Input channel 4         CH 10         CH 11           CH 12         CH 13         CH 13           CH 13         CH 14         CH 13           CH 14         CH 15         CH 16           CH 15         CH 16         CH 16           CH 16         CH 17         CH 18				CH 3	
Input channel 1       C       CH 5	Operating mode	Receiver mode		CH 4	
Input channel 1				CH 5	
Input channel 2       in       CH 7         Input channel 3       CH 8       CH 9         Input channel 4       CH 10       CH 11         CH 12       CH 13       CH 13         CH 14       CH 15       CH 16         CH 15       CH 16       CH 17         CH 16       CH 17       CH 18	Input channel 1		CH	CH 6	
Input channel 3       CH 8         Input channel 4       CH 9         CH 10       CH 10         CH 11       CH 12         CH 12       CH 13         CH 14       CH 12         CH 15       CH 10         CH 16       CH 10         CH 17       CH 10         CH 18       CH 10	Input channel 2		in:	CH 7	
CH9  Input channel 4	Input channel 3		in	CH 8	
hput channel 4	input chainer o			CH 9	
CH 11 CH 12 CH 12 CH 13 CH 14 CH 14 CH 14 CH 15 CH 16 CH 16 CH 17 CH 18	Input channel 4		ina	CH 10	
CH12				CH 11	
CH 13				CH 12	
CH 14				CH 13	
CH 15				CH 14	
CH 16				CH 15	
CH 17				CH 16	
сн 18				CH 17	
				CH 18	
СН 19				CH 19	
CH 20				CH 20	

Figure 84: Assignment of channels

15:05 Thu 18. Apr				
<		DMX Receiver M	Node BZKZ5	
Luminaires	DMX	Scenes		Timers
Operating mode	Receiver mode			
Input channel 1			CH 1	•
Input channel 2			CH 2	•
Input channel 3			СН 3	•
Input channel 4			CH 4	¥

Figure 85: Overview of the assigned channels

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

▼ **Standort Ettlingen** Hertzstraße 14-22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37



#### 18.2 MASTER MODE

This mode is used when the device is connected to a DMX spotlight. After scanning the Node, please select the "Master Mode" and press the button "Continue".

14:59 Thu 18. Apr				
<				N
Bluetooth I				
	<	Import Bluetooth device	×	
	Serial	BZKZ5		
	Туре	Blu2Light Connect DMX (187341/187342)		
	Name	DMX Master Mode BZKZ5		
	Operating mode	Master mode	•	
		Continuous import		
		Continue		
Q Filter		FollowMe configuration	Event configur	ation +

Figure 86: Master mode

By printing the button for the commissioned device, you will come to the following overview. There are 32 assignable channels available.

15:09 Thu 18.	Apr					হ 51 🍂 🗖
<			DMX Master	Mode BZK1Y		
Lumina	aires					
Channels			Functional Groups			
Сн-1		СН-2	СН-З			
Standar	d.	Standard	Standard			
CH-4		CH-5	СН-6			
Standar	d	Standard	Standard			
СН-7		СН-8	СН-9			
Standar	d	Standard	Standard			
CH-10		CH-11	04-12			
Identify					Refres	h status 🕂

Figure 87: View of the configurable channels



<			DMX M				
Luminaires	DM)						
	CH-2		New	/ Functior	nal Group	×	
	Standard	Type	RGBW Single TW RGB R, ROBW			•	
CH-4	CH-5						
	Standard	Name					
CH-7	Сн-8			6-CH-UNI			
	Standard		Standard				
CH-10	CH-11		CH-12				

Figure 88: Creating a functional group

You cannot perform an express setup. You must therefore create a function group yourself! Here you must select how many channels your spotlight has. In this case, it is RGBW.

15:1	2 Thu 18. Apr					
•	<		DMX Master M	lode BZK1Y		
	Luminaires					Timers
	Channels			Functional Groups		
	CH-1 Standard	CH-2 Standard	CH-3 Standard	Functional Group RGBW RGBW Status memaal, 50.5 % & No connected devices		
	CH-4 Standard	CH-5 Standard	CH-6 Standard			
	СН-7	СН-8	Сн-9			
	Standard	Standard	Standard			
	CH-10	CH-11	CH-12		_	
	Identify				Refres	h status

Figure 89: View with created functional group



Pressing the tile of the just created Functional Group takes you to the next step where you must connect every channel of the device (R, G, B, W) to every channel of the Functional Group (also applicable for other systems).



Figure 90: Assigning channels

15:15 Thu 18. Apr			
<	Functional Group RGBW		(co) <sup>74</sup>
Q Filter		Channel 1 (R)	
CH-1 #1/Standard			
Functionar Group RCBW / Channel 1 (8)		Channel 2 (G)	
CH-2			
# 2 / Standard Q		Channel 3 (B)	
Functional Group ROBW / Channel 2 🔕			
CH-3 # 3 / Standard		Channel 4 (W)	
Functional Group RGBW / Channel 3 🔕		(CH-4 (S)	
CH-4 # 4 / Standard			
Functional Group RGBW / Channel 4			
CH-5 # 5 / Standard			
<u> </u>			
CH-6 # 6 / Standard			
011.7			

Figure 91: View of the linked channels

Now we configure our scenes as we did for a simple configuration (Figure 10-12). In this case you have the option to either use the channel overview or change the type of the scene and use RGBW directly, this could make the selection of colors easier (see Figure 40).





Figure 92: View of created scenes

Once you have configured all the desired scenes, go back to Figure 13 to create a user interface for the LiNA Touch app.

#### 18.3 USING RECEIVER AND MASTER MODE IN COMBINATION

This combination is used when you want to control a spotlight via DMX controller. Please repeat the steps of configuration for Receiver and Master Mode (Figures 81 – 92).



Figure 93: Combination of Receiver and Master

Please open the Event configuration and assign the Push button inputs 1 to 4 of the DMX device in Receiver Mode to functional group of DMX device in Master Mode.





Figure 94: Assigning the button inputs

15:31 Thu 18. Apr			
			🞯
Q Filter			
DMX Master Mode BZK1Y			
Push button input 1		Select Action	Group RGBW (RGBW)
Push button input 2	Source	Push button input 1 (DMX Receiv	rer Mode BZKZ5) laster Mode BZK
Push button input 3	Туре	Scene	•
Push button input 4	Scene	Red	
DMX Receiver Mode BZKZ5		Blue	
Push button input 1	Mode	M: Green	
Push button input 2		Red	
Push button input 3	Þ¢	Scene 1 White	
Push button input 4	▶ ♦		

Figure 95: Linking the button inputs with the desired actions

Select the type of action and the desired scene. See the overview mentioned in figure 96.



		🧑
		DMX Master Mode BZK1Y
		Functional Group RGBW (RGBW)
	Select Action	×
	Push button input 1 (DMX Receiver Mode BZKZ5) Scene: Red, Manual	y
	Push button input 2 (DMX Receiver Mode BZKZ5) Scene: Green, Manual	
DMX Receiver Mode BZKZ5	Push button input 3 (DMX Receiver Mode BZKZ5)	
	Scene: Blue, Manual	
	Push button input 4 (DMX Receiver Mode BZKZ5) Scene: White, Manual	
		ō
	¢	
	Þ	

Figure 96: Overview of the links created

After completing the event configuration, you can control the connected DMX spotlight via the DMX control device. The control signals are transmitted from the DMX controller via the DMX device in receiver mode to the DMX device in master mode using a Bluetooth connection.

#### 18.4 MASTER FOLLOWER MODE

The Master Follower Mode allows the DMX light control commands to be passed on as dimming levels. After scanning the Node, please select the "Master Follower Mode" and press the button "Continue".



Figure 97: Master Follower mode

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

Standort Schorndorf Stuttgarter Straße 61/1, 73614 Schorndorf Telefon: 07181/8002-0 Fax: 07181/8002-122 Standort Ettlingen Hertzstraße 14–22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37 ▼ Büro Rheinberg Rheinberger Straße 82, 47495 Rheinberg Telefon: 02842/980-0 Fax: 02842/980-255



You cannot perform an express setup. You must therefore create a functional group by yourself! Here you must select how many channels your spotlight has. In this case, it is RGBW (Figure 88-91).

After that you can configure the scenes as we did for a simple configuration (Figure 10-12). In this case you have the option to either use the channel overview or change the type of scene and use RGBW directly, this could make the selection of colors easier (see Figure 40).

The second DMX Node must be configured as Master (Figure 86). Please create a functional group. In this case, it is RGBW (Figure 88-91).



Figure 98: Combination of Master Follower and Master

Please open the FollowMe configuration.



Figure 99: Linking the functional groups

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

Standort Schorndorf Stuttgarter Straße 61/1, 73614 Schorndorf Telefon: 07181/8002-0 Fax: 07181/8002-122 Standort Ettlingen Hertzstraße 14-22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37 **F Büro Rheinberg** Rheinberger Straße 82, 47495 Rheinberg Telefon: 02842/980-0 Fax: 02842/980-255



Assign the Functional Group of DMX Master Follower to the Functional Group of DMX Master.

After completing the event configuration, you can control the connected DMX spotlight via the DMX control device. The control signals are transmitted from the DMX controller via the DMX device in Master Follower Mode to the DMX device in Master Mode using a Bluetooth connection.

Switching on the channels on the DMX controller follows the position as dimming level. The mixing of colors is possible.

09:45 Tue 2	23. Apr					r 88 %
<			DMX			💽
	Bluetoot	th Devices			LiNA Touch	
	◆-© (++) DigiLED 4CH BY8KV	Construction (++) DMX Master Follower	DMX Mast	(iii) ter Mode		
		Mode BZKZ5	BZK1Y			
	вуяку	BZKZ5	BZK1Y			
	1 Functional Group	1 Functional Group	1 Function	al Group		
Q Filte				FollowMe configuration	Event configurat	ion +
-						

Figure 100: Combination of DMX device with a DigiLED

09:44 Tue 23. Apr	FollowMe configuration	≎ 88 %
×.		
Master FG		Follower FG
(Q Filter		Q Filter
DigiLED 4CH BY8KV		DigiLED 4CH BY8KV
Functional Group 1 (RGBW) Devices: 4 • +		Functional Group 1 (RGBW) Devices: 4 ● ←
DMX Master Follower Mode BZKZ5		(Master: Functional Group 1 🔇
Functional Group 1 (RGBW)		DMX Master Follower Mode BZKZ5
		O Functional Group 1 (RGBW) Devices: 4 ● →
DMX Master Mode BZK1Y		DMX Master Mode BZK1Y
Functional Group RGBW (RGBW)		Functional Group RGBW (RGBW)       Devices: 4 ● ←       Master Functional Group 1 ●

Figure 101: Linking the functional groups

Instead of a second DMX device in master mode, a DigiLED 4CH can also be integrated into the system. The linking is identical (Figure 101). The DigiLED 4CH can also be added to a system consisting of 2 DMX devices (Figure 100).

Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

Standort Schorndorf Stuttgarter Straße 61/1, 73614 Schorndorf Telefon: 07181/8002-0 Fax: 07181/8002-122 Standort Ettlingen Hertzstraße 14-22, 76275 Ettlingen Telefon: 07243/7284.0 Fax: 07243/7284.37 ▼ Büro Rheinberg Rheinberger Straße 82, 47495 Rheinberg Telefon: 02842/980-0 Fax: 02842/980-255



## 19 DO'S AND DON'TS

#### 19.1 DO'S

- Always use the latest provided app and firmware
- Read the documentation carefully.
- Always create a backup after configuration

• In buildings in construction, make sure you have a proper and uninterrupted mains supply.

- Steps to configure a system:
  - 1. Plan.
  - 2. Document the needed functions.
  - 3. Scan all QR codes.
  - 4. Make firmware update.
  - 5. Create all FGs.
  - 6. Assign channels to FGs.
  - 7. Configure power on values.
  - 8. Connect functions.
  - 9. Make backup.
  - 10. Import backup to Server.
- Set up light regulation reference with no (ideal) or minimal external light.
- If you have a technical request, include:
  - 1. Backup file.
  - 2. Exported network overview.
  - 3. Description of the system.
  - 4. Description of the issue as detailed as possible.
- Use "Follow Me" function wherever possible.
- Always delete a system if it was transferred via backup to another tablet.
- Make a DALI bus power calculation for every DALI bus.
- Place nodes with GPS receivers with open view to the sky.



• Blu2Light is designed to be always ON. To turn OFF the light, create a scene with luminance 0 %.

#### 19.2 DON'TS

• Do not configure all color values to zero for a scene.

• Do not add functional groups to a light regulation on a node that has no own FG and no physical driver connected.

• Do not use long RTA (return to auto) times. We recommend max. up to 2 minutes.

• Do not locate two or more light sensors feeding each a light regulation to close together. If they see the light from a different area this will cause unstable regulation when the other group changes their level.

• Do not change the room setup below the sensor when light regulation is active without reconfiguring the reference value (or expect changes in the reached target level).

- Never turn off the power during a firmware update.
- Never turn off the power directly after configuration changes. Wait at least 1 minute.
- Do not use any unknown power supply.
- Don't use weak radio connection between two nodes.
- •Never connect too much load on the DALI line.

• Don't Save nodes. Having too less nodes in a system decreases radio stability and reduces the possibility to configure the system for changed behaviors.

• Never use two tablets for configuration in parallel or alternating on one system.

• Using the LiNA Connect App on a finished configuration which already has a LiNA Touch interface is not recommended and can cause malfunctioning of the Touch system while programming on the Connect App in parallel.

• Do not Connect two (or more) Blu2Light controllers on one DALI line (therefore we have the Power Splitter, 187280).

#### 19.3 INFORMAL

- Each functional group has its own state.
  - Manual
  - Auto
  - Sequence



The "Auto" state has a sequence of steps, based on the configuration not all of them might be reached.

- Active
- Passive
- Basic
- Off
- Only the auto states "Active" and "Passive" can be used for light regulation.
- Movement only reacts in state "Auto".

• A sequence can end with a scene call either in active, manual mode or trigger another sequence.

## 19.3.1 DESCRIPTION OF SYMBOLS

The following graphic shows the symbols that can appear in a created system:



#### Vossloh-Schwabe Deutschland GmbH · www.vossloh-schwabe.com

Standort Schorndorf Stuttgarter Straße 61/1, 73614 Schorndorf Telefon: 07181/8002-0 Fax: 07181/8002-122 Standort Ettlingen Hertzstraße 14–22, 76275 Ettlingen Telefon: 07243/7284-0 Fax: 07243/7284-37 ▼ Büro Rheinberg Rheinberger Straße 82, 47495 Rheinberg Telefon: 02842/980-0 Fox: 02842/980-255



Number	Description
1	The Blu2Light device is directly reachable from the LiNA Connect.
2	Reception level at the tablet location [dBm].
3	Symbol for old firmware on the Blu2Light device. A firmware-update is
	necessary.
4	Motion has been detected within the last 7 seconds (only active if the
	motion sensor has been activated in the menu)
5	Light regulation on the Blu2Light device is active.
6	An EnOcean-Switch has been added to Blu2Light device.
7	A sequence has been created on the Blu2Light device.
8	A times has been created on the Blu2Light device.
9	LiNA Connect uses this node as an entry to the Mesh.
10	User defined device name for the Blu2Light device.
11	Blu2Light serial number.
12	Amount of found DALI devices.
13	The number of functional groups on the Blu2Light device.
14	User defined color of the tile. 9 colors can be selected. A black tile
	indicates that the node is not available or offline. If the selected color is
	shown, the Blu2Light device is available and in range.



The following graphic shows other symbols that can appear in a created system:



Nummer	Beschreibung
1	The Blu2Light device is not in range - no RSSI value (Received Signal
	Strength Indicator) available.
2	User-defined name for the Blu2Light device with serial number.
3	The Blu2Light device is out of range.
4	RSSI level available - sufficient quality.
5	The Blu2Light device (gateway) is a network bridge.
6	LiNA Connect is directly connected to this Blu2Light device.
7	The Blu2Light device is offline or cannot be reached within the mesh
	(tile = black). The Blu2Light device is available = tile appears in the
	selected color.
8	2 functional groups have been set up on the device.