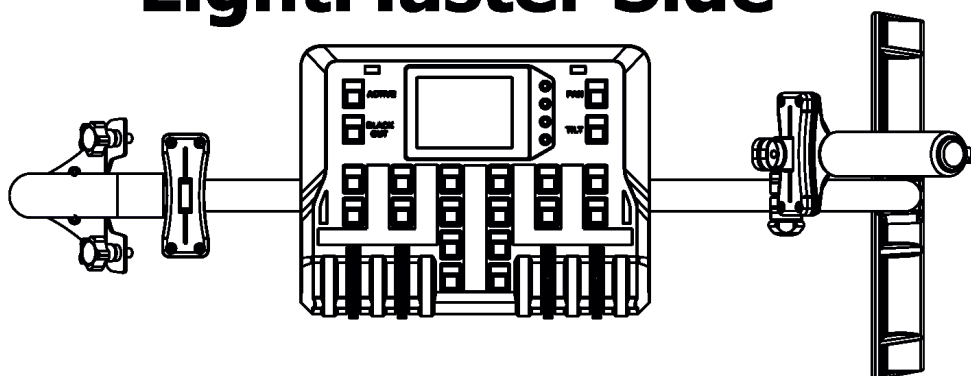


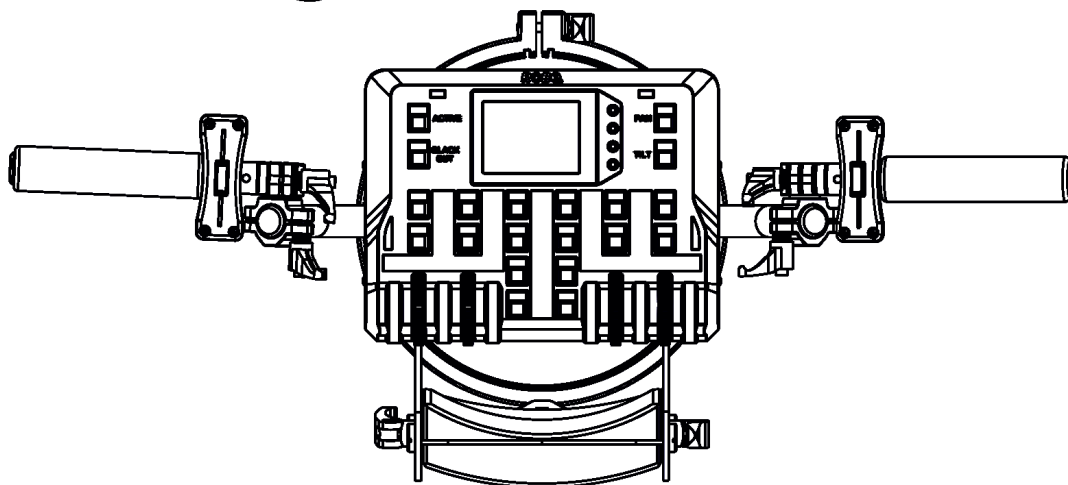
ROBE

ROBIN[®] BMFL

LightMaster Side



LightMaster Rear



 **ROBIN[®]**
Innovative Technology

USER MANUAL

Version 1.7

ROBE[®] lighting s.r.o. • Czech Republic • www.robe.cz

Table of contents

1. Safety instructions	3
2. Description of the Robin BMFL LightMaster	4
2.1 Control elements of the FollowSpot controller	5
3. Installation	6
3.1 Installation of the BMFL fixture on the tripod	11
4. Operation	12
4.1 Functions mapping	12
4.2 Saving and recalling FollowSpot controller presets	14
5. Control menu	16
5.1 Menu Functions Mapping	17
5.2 Menu Show library	19
5.3 Menu All Lamps On/Off	22
5.4 Menu Product IDs	22
5.5 Menu Software Version	22
5.6 Menu Settings	22
6. Software update	23
7. Technical specifications	24
8. Cleaning and maintenance	25
8.1 Disposing of the product	25

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOU INSTALL THE PRODUCT .**

1. Safety instructions

CAUTION!

***The ROBIN BMFL LightMaster was designed for indoor use only.
The product is for professional use only, it is not for household use.***

This product has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warnings written in this manual.

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the product.

If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.

Refer servicing to qualified service personnel.

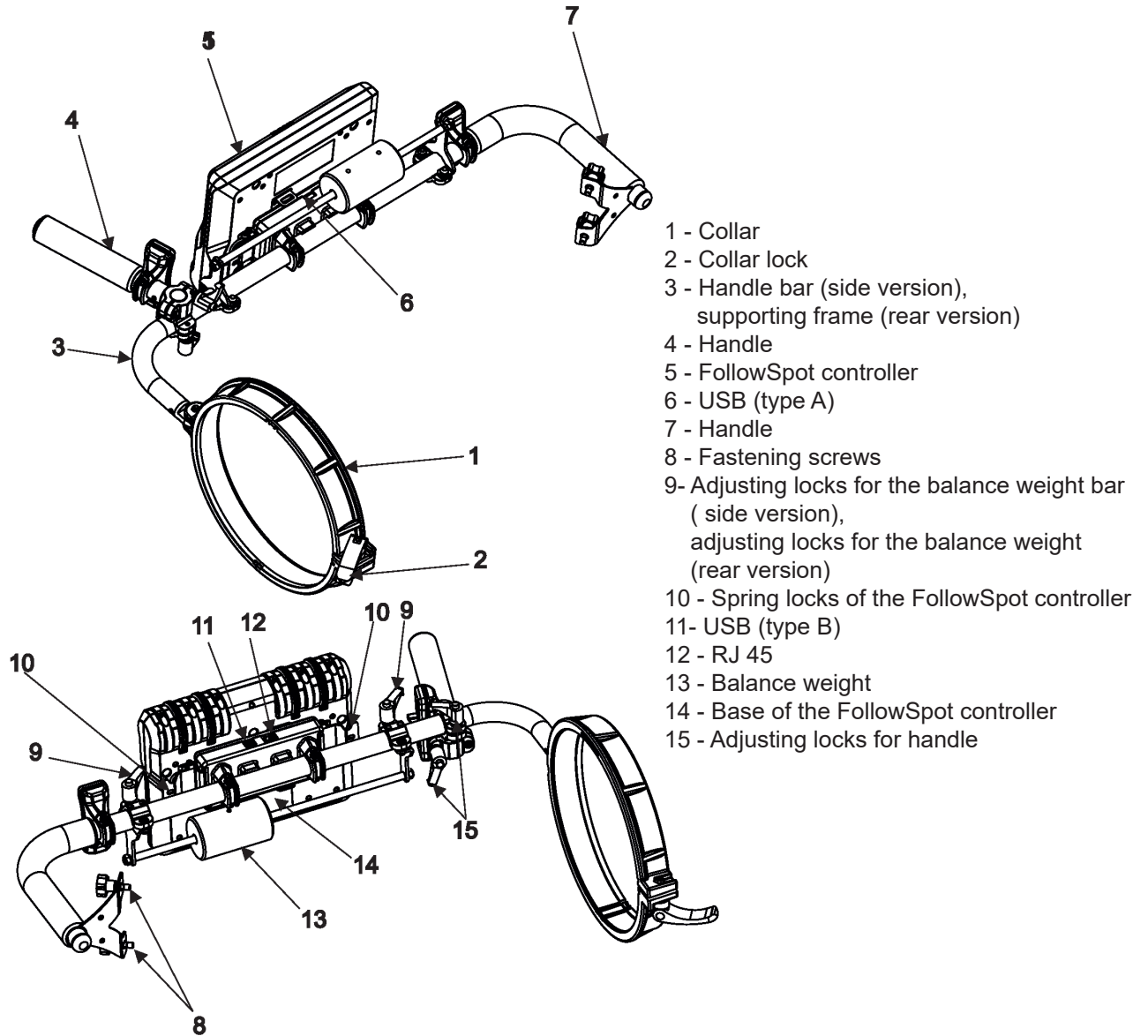
Operate the ROBIN BMFL LightMaster only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the ROBIN BMFL LightMaster. Most damages are the result of unprofessional operation!

Please use the original packaging if the ROBIN BMFL LightMaster is to be transported.

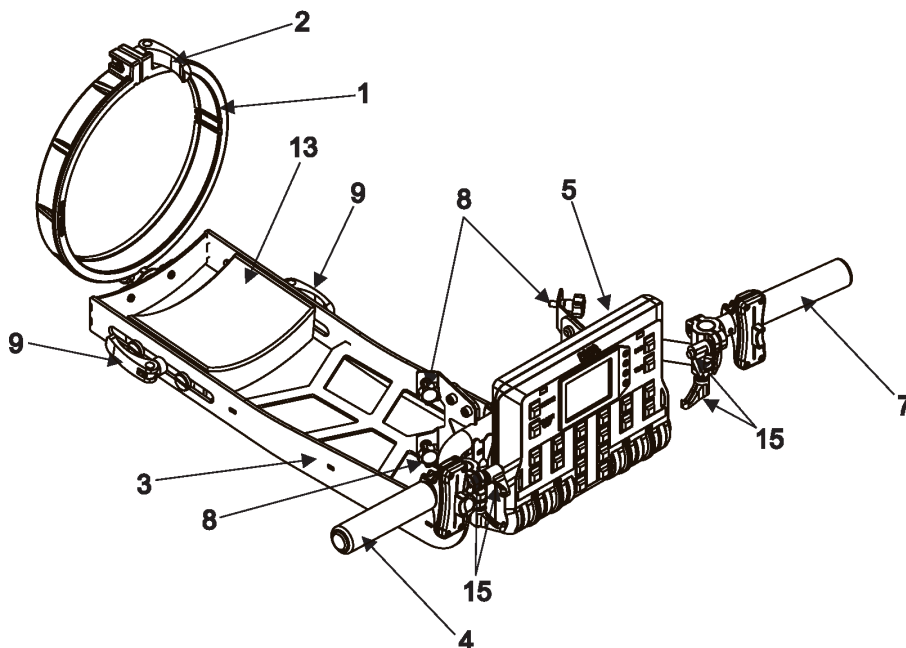
Please consider that unauthorized modifications on the fixture are forbidden due to safety reasons!

2. Description of the Robin BMFL LightMaster

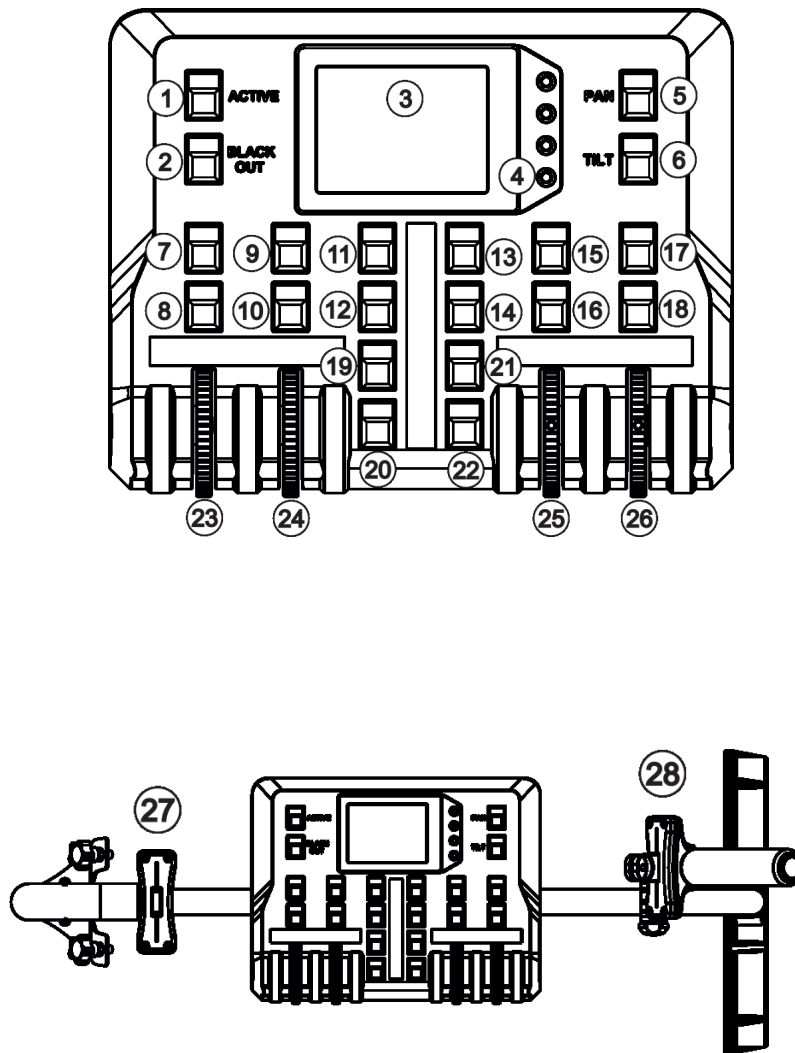
Side version



Rear version



2.1 Control elements of the FollowSpot controller



- 1 - Active button (activates the FollowSpot Controller)
- 2 - BlackOut button
- 3 - Graphic touch screen
- 4 - Switch On screen button
- 5 - Pan button (switches pan and tilt motors from soft mode to hard mode)
- 6 - Tilt button (switches pan and tilt motors from soft mode to hard mode)
- 7 - Preset button
- 8 - Activating button for jog-wheel (23)
- 9 - Preset button
- 10 - Activating button for rotary jog-wheel (24)
- 11 - Preset button
- 12 - Preset button
- 13 - Preset button
- 14 - Preset button
- 15 - Preset button
- 16 - Activating button for jog-wheel (25)
- 17 - Preset button
- 18 - Activating button for jog-wheel (26)
- 19 - Preset button
- 20 - Preset button
- 21 - Preset button
- 22 - Preset button
- 23 - Jog-wheel
- 24 - Jog-wheel
- 25 - Jog-wheel
- 26 - Jog-wheel
- 27 - Left fader
- 28 - Right fader

3. Installation

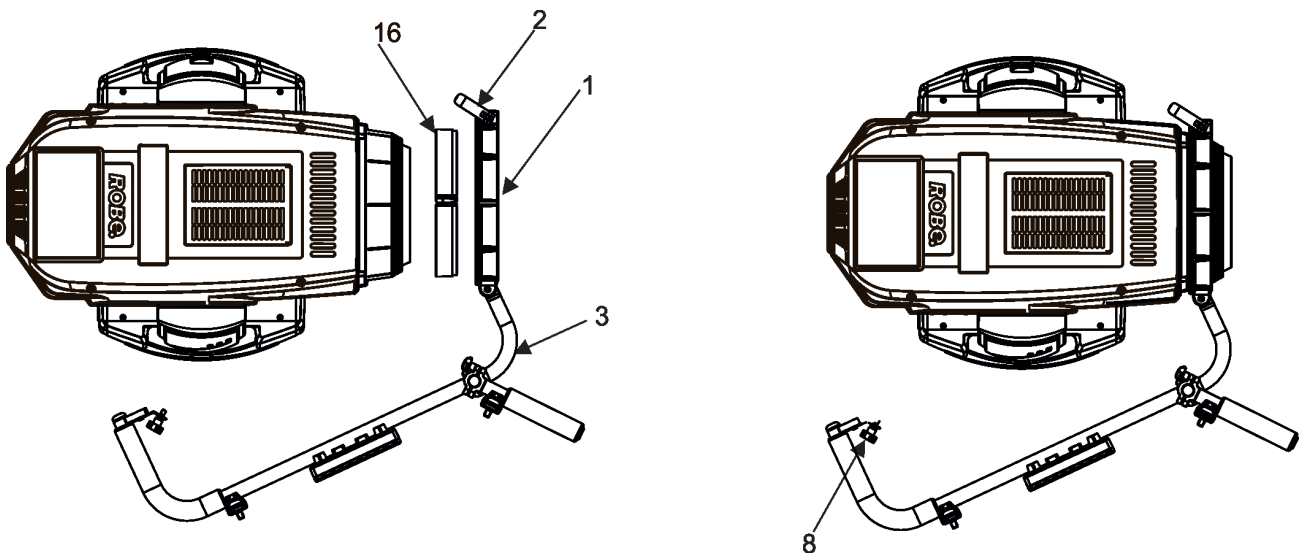
The Robin BMFL LightMaster has to be installed by a qualified worker on the following fixtures only: Robin BMFL FollowSpot, Robin BMFL Spot, Robin BMFL Blade, Robin BMFL WashBeam.

Important!

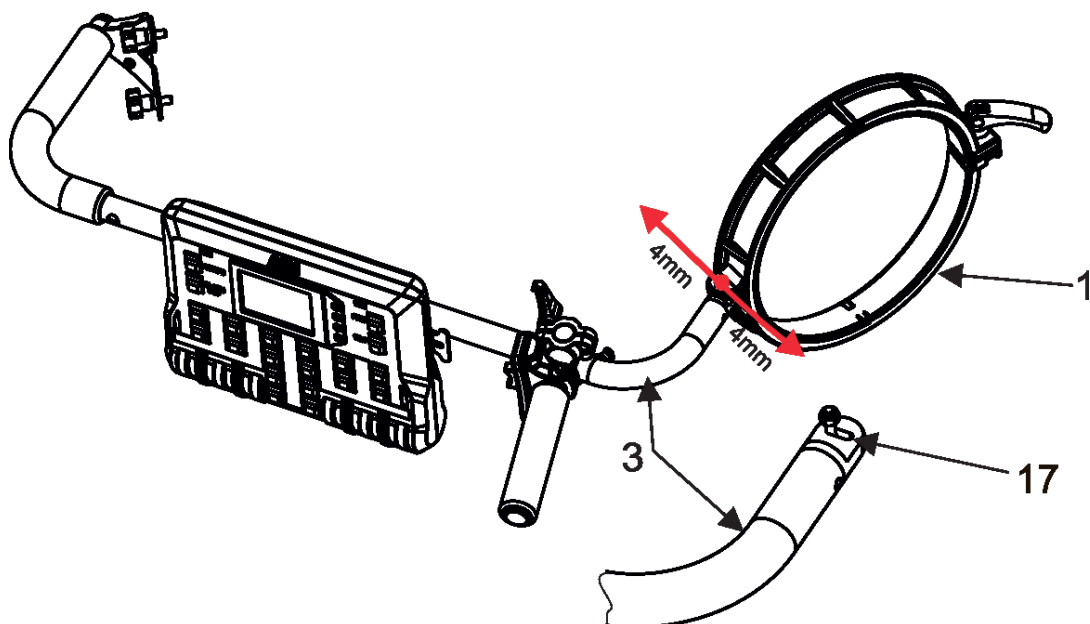
Switch the Robin BMFL fixture to the Follow Spot Mode (option Soft) before installing the Robin BMFL LightMaster.

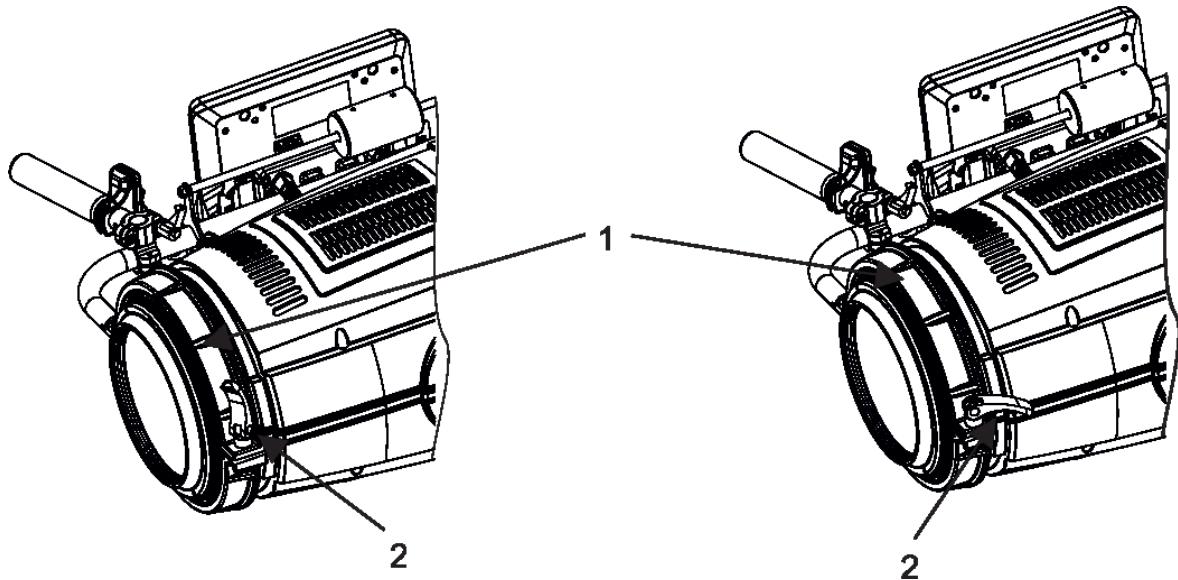
Robin BMFL LightMaster Side

1. Switch the BMFL fixture to the Soft option of the Follow Spot Mode (Personality-->Follow Spot Mode -->Soft).
2. Disconnect the fixture from mains and place it on a flat surface (e.g. table). Move the head to a horizontal position and lock the tilt movement.
3. Place the collar (1) of the handle (2) on the front part of the fixture head.
4. If you install the Robin BMFL LightMaster on the Robin BMFL WashBeam, remove the rubber ring (16) from the collar (1).
5. Fasten the second side of the handle bar (2) to the head by means of two screws (8).
6. Secure the collar (1) on the head by means of the collar lock (2).



Note: There is a groove (17) in the handle bar (3). The groove allows movement of the collar (1) in the range of 8 mm in order to place the collar on the fixture head correctly (especially on the BMFL Spot/FollowSpot head).

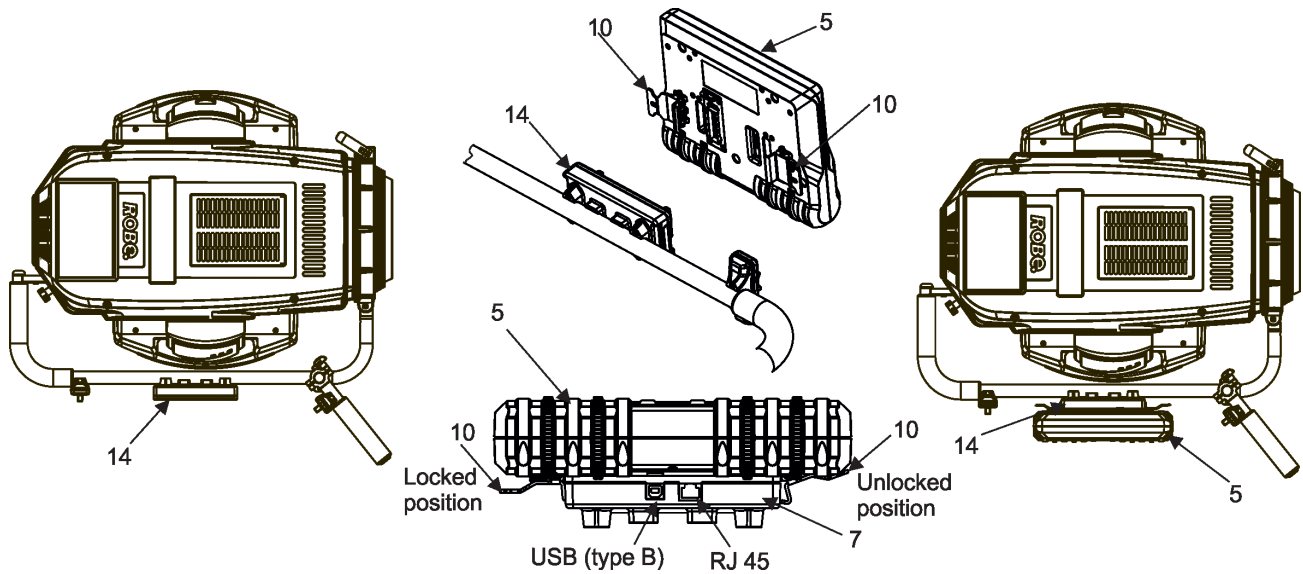




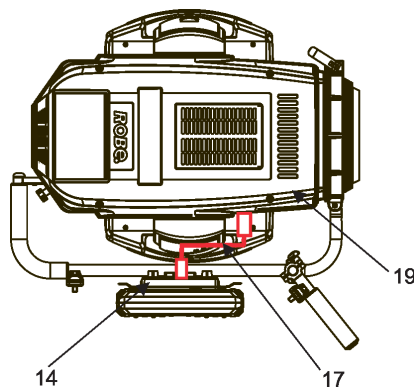
Collar lock (2) in the unlocked position.
By turning the lock (2) clockwise you will tighten the collar (1). Do not use brute force!

Collar lock (2) in the locked position.

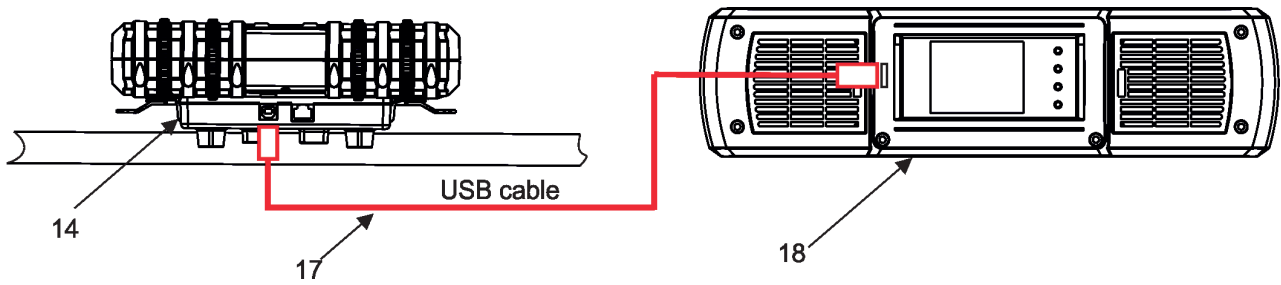
6. Attach the FollowSpot Controller (5) to the FollowSpot Controller base (14). During attaching, both spring locks (10) have to be in an unlocked position (pressed towards the Follow Spot Controller).



7. Connect the FollowSpot Controller base (14) with the fixture head (19) by means of the USB cable (17).

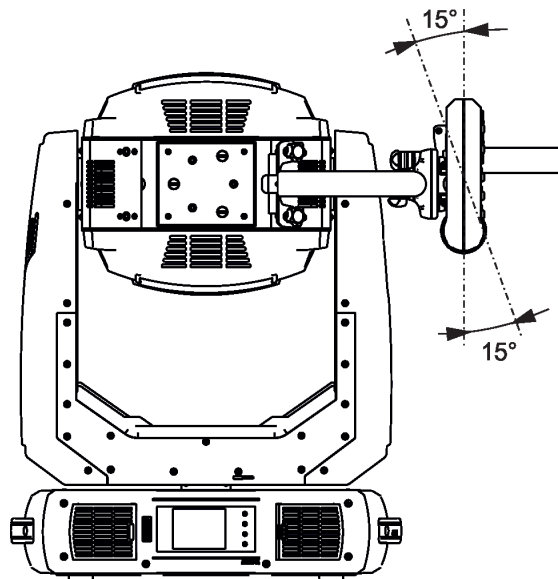


This USB connection with fixture head is possible for the Robin BMFL FollowSpot only.
If you use the Robin BMFL Spot, Robin BMFL Blade or Robin BMFL WashBeam, connect the FollowSpot Controller base (14) with the fixture base (18) by means of the USB cable (17).



8. Use the balance weight (13) to balance the head in a horizontal position.

Note: The FollowSpot Controller with its base can be tilted $\pm 15^\circ$ (from a vertical axis) on the handle bar.



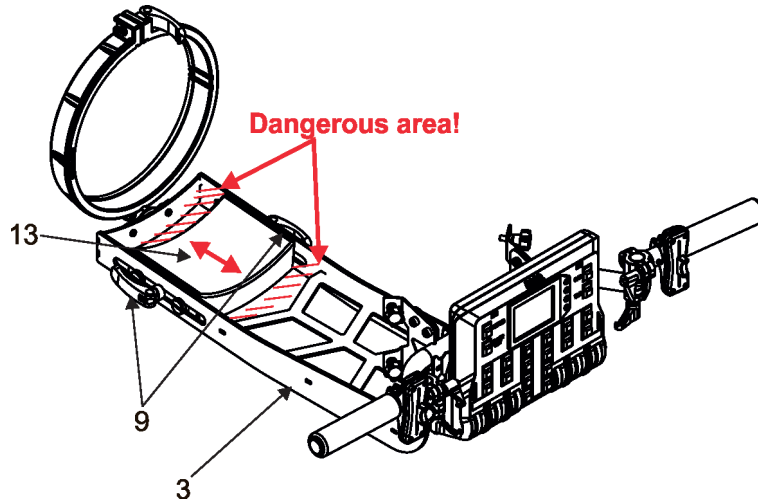
Robin BMFL LightMaster Rear

The installation should do two workers as the supporting frame is heavy.

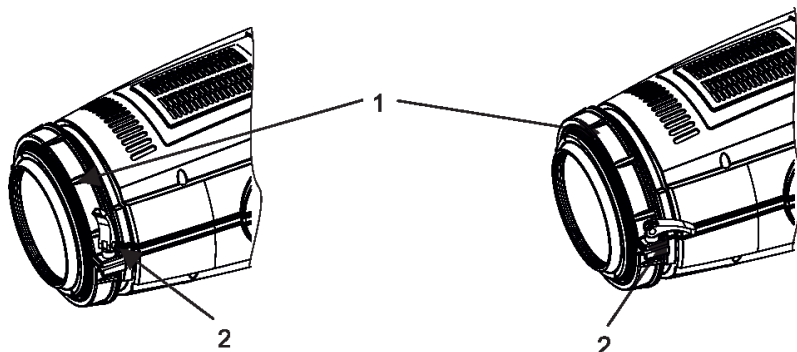
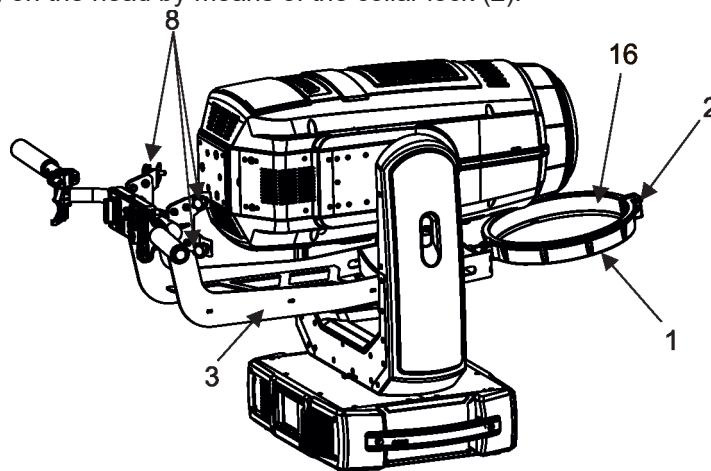
Danger!

Never put fingers between the balance weight (13) and the supporting frame (3) when you adjust the position of the balance weight. There is a danger of injury of your fingers by the heavy balance weight.

Always secure adjusted position of the balance weight by means of two locks (9).



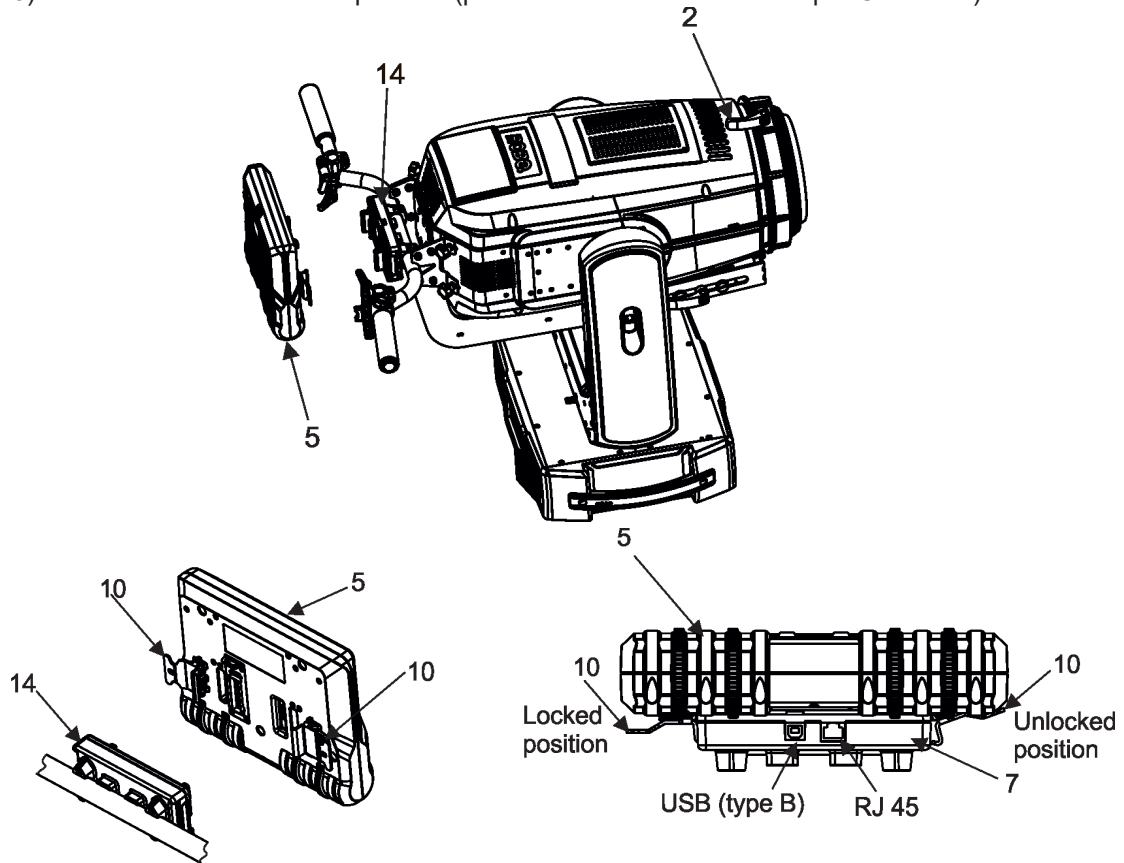
1. Switch the BMFL fixture to the Soft option of the Follow Spot Mode (Personality-->Follow Spot Mode -->Soft).
2. Disconnect the fixture from mains and place it on a flat surface (e.g. table). Move the head to a horizontal position and lock the tilt movement.
3. Place the collar (1) of the supporting frame (3) on the front part of the fixture head.
If you install the Robin BMFL LightMaster on the Robin BMFL WashBeam, remove the rubber ring (16) from the collar (1).
4. Fasten the second side of the supporting frame (3) to the head by means of four screws (8).
5. Secure the collar (1) on the head by means of the collar lock (2).



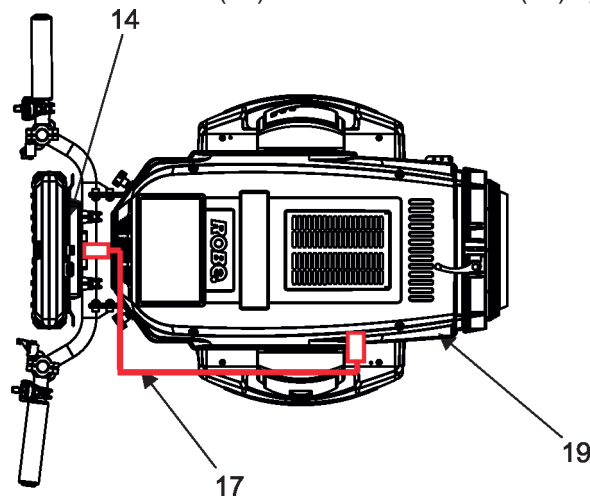
Collar lock (2) in the unlocked position.
By turning the lock (2) clockwise you will tighten the collar (1). Do not use brute force!

Collar lock (2) in the locked position.

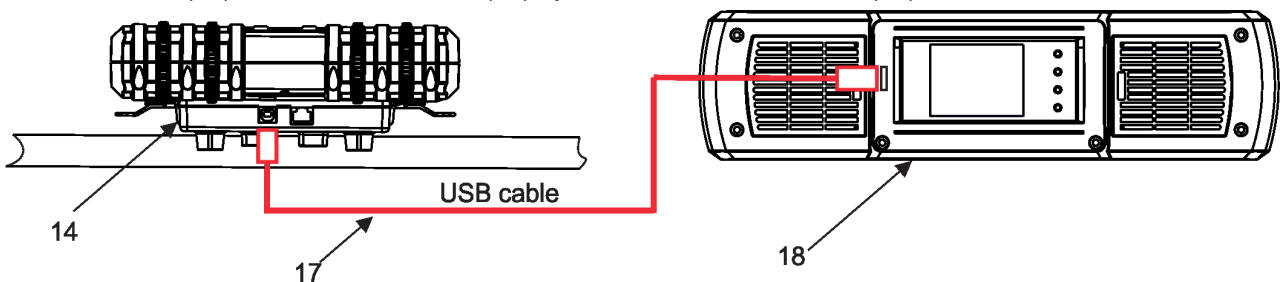
6. Attach the FollowSpot Controller (5) to the FollowSpot Controller base (14). During attaching, both spring locks (10) have to be in an unlocked position (pressed towards the Follow Spot Controller).



7. Connect the FollowSpot Controller base (14) with the fixture head (19) by means of the USB cable (17).



This USB connection with fixture head is possible for the Robin BMFL FollowSpot only. If you use the Robin BMFL Spot, Robin BMFL Blade or Robin BMFL WashBeam, connect the FollowSpot Controller base (14) with the fixture base (18) by means of the USB cable (17).

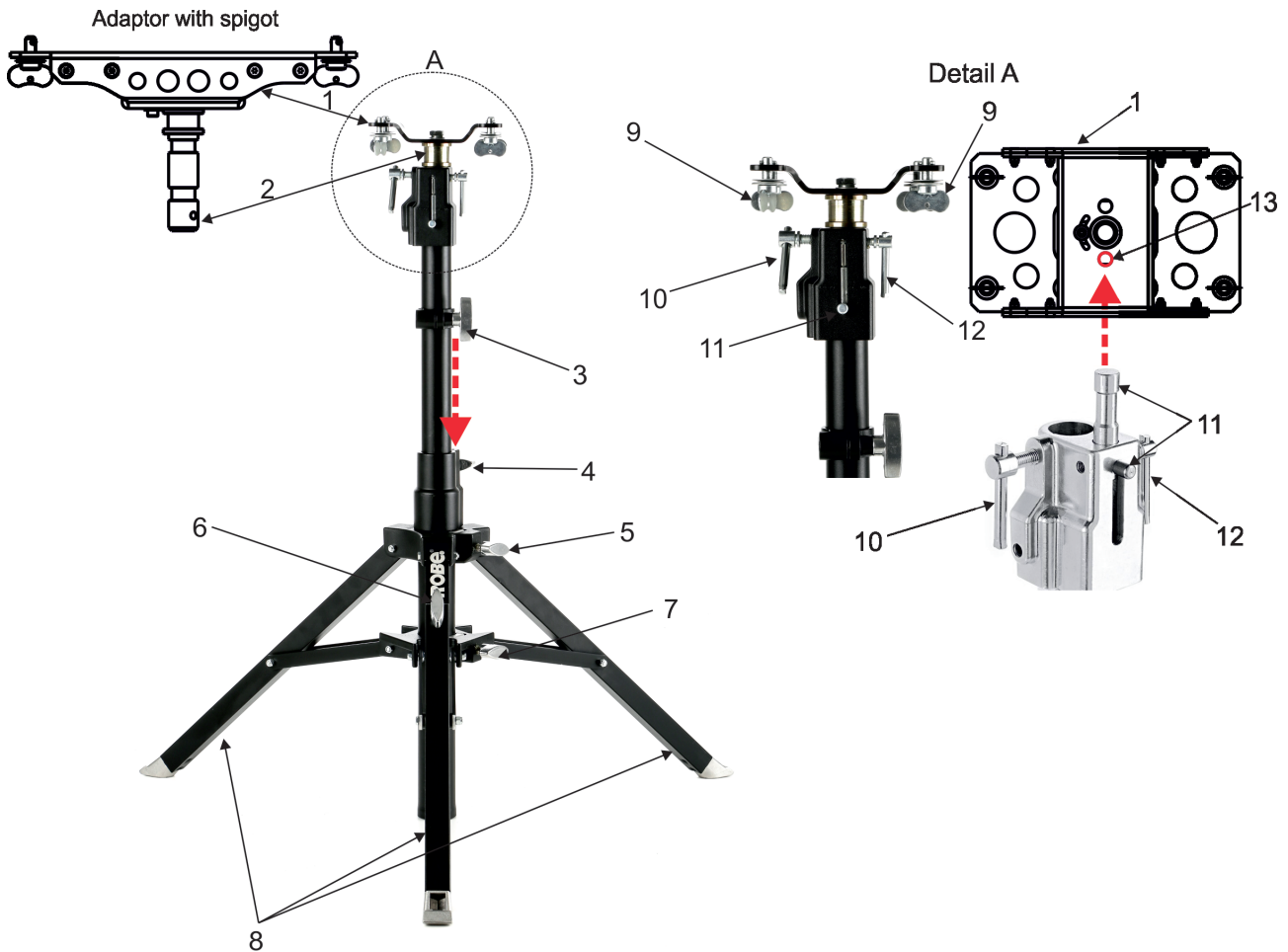


8. Use the balance weight (13) to balance the head in a horizontal position. Always secure the balance weight in adjusted position by means of the balance locks (9).

3.1 Installation of the BMFL fixture on the tripod

1. Unfold and adjust height of the tripod and distance of legs (8) by means of adjusting locks (4,5,6,7).
The lock (3) has to be in a lower position (as shows arrow on picture below).
2. After inserting the adaptor (1) with spigot (2) to the tripod, the spigot (2) has to be secured by means of the lock (10) and the adaptor (1) by means of the pin (11) which is inserted to the hole (13) of the adaptor (1) as shows arrow on picture below. Position of the pin(11) has to be secured by means of the lock (12).
3. The four quarter -turn locks (9) of the adaptor serve for fastening the BMFL fixture with installed LightMaster on the tripod with adaptor. Two workers should install the BMFL fixture on the assebled tripod with the adaptor.
Check all quarter -turn locks (9) are fully tightened before operating the BMFL fixture.

Check that all locks (3, 4, 5,6,7, 10,12) are fully tightened before placing the BMFL fixture with installed LightMaster on the tripod with adaptor.



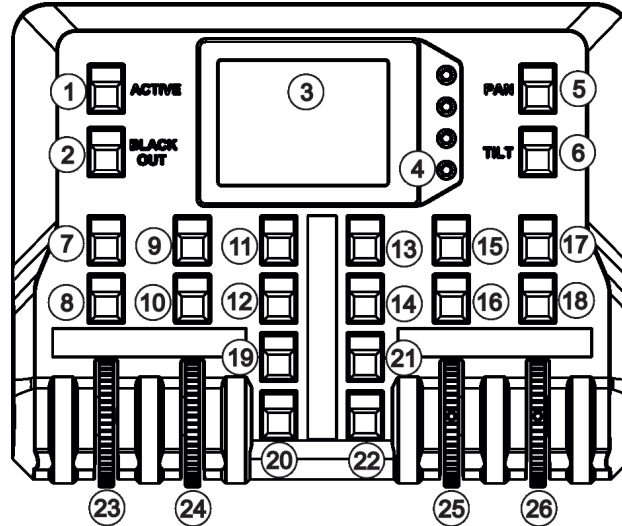
4. Operation

After installing the ROBIN BMFL LightMaster on the fixture and connecting with the fixture via USB cable, connect the fixture to mains and leave it to perform resets (except pan/tilt reset).

After finishing resets, the fixture is in the FollowSpot mode with pan/tilt motors in the Soft mode.

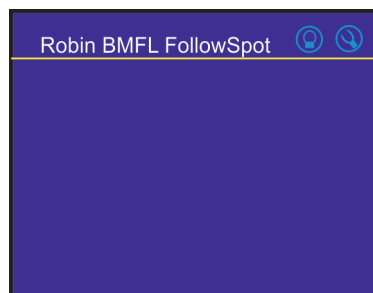
Press the button ACTIVE (1) in order to activate the FollowSpot Controller. By pressing either the PAN button (5) or the TILT button (6) you will switch both pan and tilt motors of the fixture to the Hard mode of the FollowSpot mode.

The button BLACK OUT (2) closes light output of the fixture.




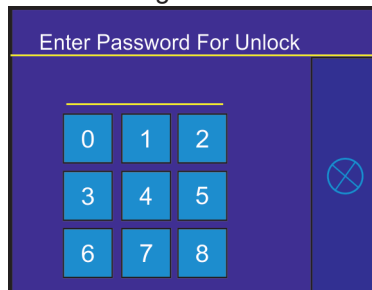
4.1 Functions mapping

After switching the fixture on, the touch screen of the FollowSpot Controller shows the initial screen:



Note: the message "Waiting for controller" means the FollowSpot Controller is not connected with the fixture via USB cable.

Touch the icon  to display the password entering screen:



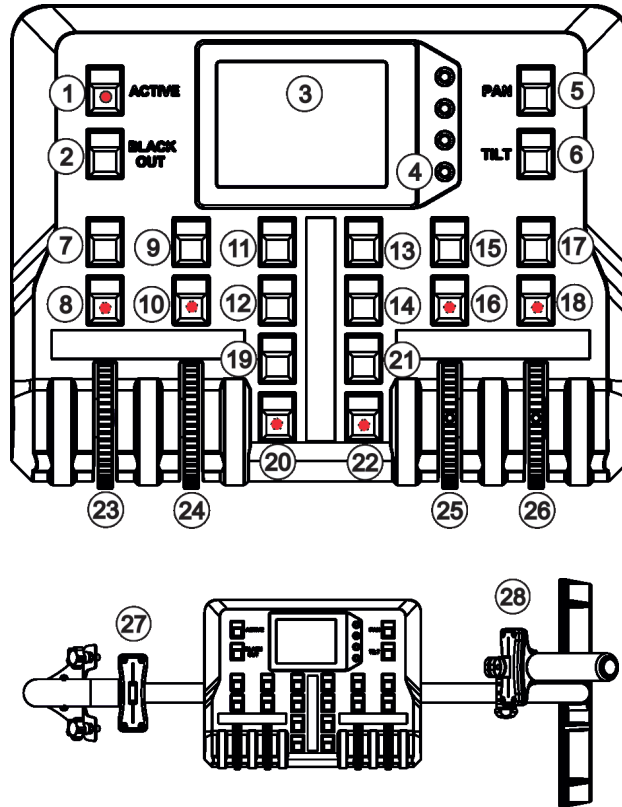
Enter the password (default password is 5242) to enter the main menu of the FollowSpot Controller. The password prevents unauthorized person from changing setting of the FollowSpot Controller.

Enter the menu "Functions Mapping". The list of available effects will appear:

If the message "Please Activate FollowSpot Controller!" will appear, press the ACTIVE button (1) on the Follow Spot Controller.

To assign an effect to the Jog-wheels and faders

1.Touch desired effect. Buttons (8/10/16/18) which activate jog-wheels (23/24/25/26) and buttons (20/22), which matches faders (27/28) will start to flash.



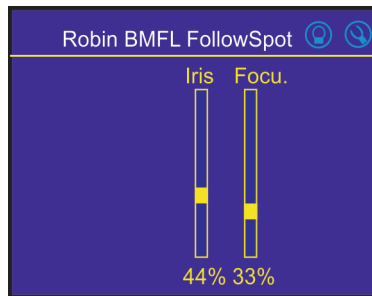
2.Press desired button and selected effect will be assigned to its jog-wheel (fader).

Assigned effect is displayed in a yellow colour, free effects stay in a white colour.

3.Repeat steps 1 and 2 for needed effects.

4.Touch the [cancel] icon and than [back arrow] icon. The screen with effect faders will appear.

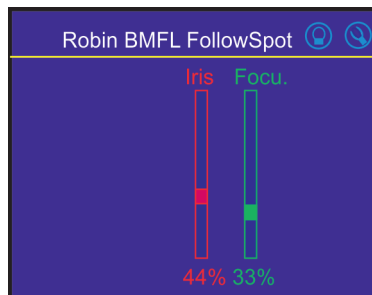
E.g.



Only effects assigned to the jog-wheels will appear on this screen. Effects assigned to faders (27/28) will not be shown.

Sensitivity of the jog-wheels assigned to the effects can be set at three levels: low, medium and high. The levels of the sensitivity are marked in colour on the screen:

- low level - green slider
- medium level -yellow slider
- high level- red slider



In order to switch a jog-wheel to desired level of sensitivity, press and hold its activating button (8/10/16/18) until the colour of fader is changed.

Effects assigned to the four jog-wheels and two faders have a priority over DMX values coming from a DMX controller.

Functionality of the BMFL LightMaster can be restricted by means of commands on the channel Power/Special Functions of the Robin BMFL fixtures as follows:

240-244 DMX -LightMaster enabled

245-249 DMX - LightMaster disabled (except two faders on its handle bar and pan/tilt)

250-255 DMX - LightMaster disabled (except pan/tilt)

To control desired effect

1. Use its fader on the screen or press the activating button for its jog-wheel and use this jog wheel or use a corresponding fader.

The FollowSpot Controller overwrites fixture channels which are mapped to its jog-wheels or faders, excepting a dimmer. The dimmer value is a combination of value coming from DMX console and a value on the FollowSpot Controller (e.g. DMX console sends 180 DMX, jog-wheels shows 50%, real DMX value coming to fixture is 90 DMX).

In case that the DMX console does not send DMX data, the FollowSpot Controller allows full range (0-255 DMX) of dimmer control.

To release an effect from the jog-wheel (fader)

1. Touch desired effect from the list of effects in the menu "Functions Mapping".

2. Touch the option "Unlink".

3. The effect will be displayed in a white colour.

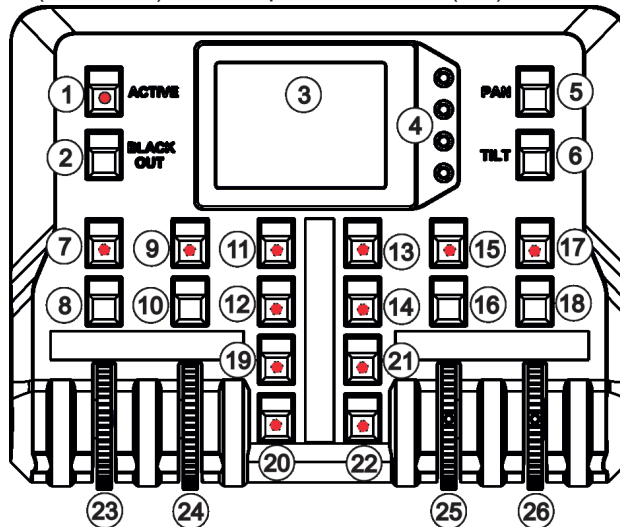
The item "All" allows to release all assigned effects at one go.

4.2 Saving and recalling FollowSpot controller presets

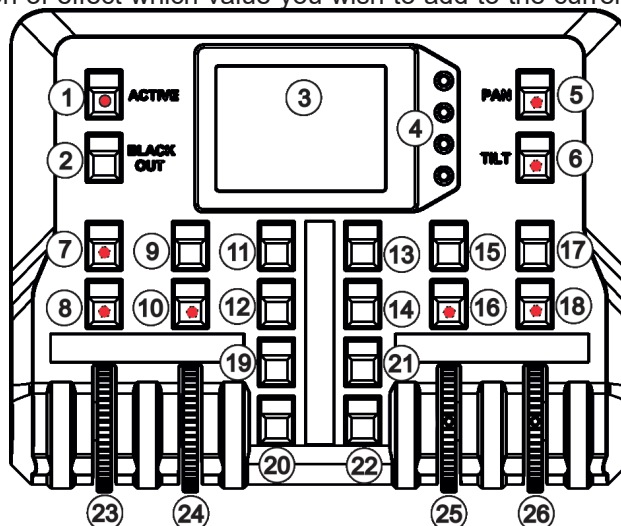
The FollowSpot Controller offers to save up to 12 presets.

To save a preset

1. Press and hold one of the preset buttons (7/9/11/12/13/14/15/17/19/20/21/22) e.g. button (7) until the jog-wheels activating buttons (8/9/16/18) and the pan/tilt buttons (5/6) start to flash.



2. Press flashing button of effect which value you wish to add to the current preset (the button will start light continually).



Note: values on faders cannot be included to presets.

3. Press and hold selected preset button until jog-wheels activating buttons stop to flash.

Note: the FollowSpot controller presets are common for all user show and cannot be saved on the USB flash drive.

If you use the FollowSpot Controller in the RoboSpot, the FollowSpot controller presets will be overwritten by presets from RoboSpot.

To recall the FollowSpot controller preset

Press a button with stored FollowSpot Controller preset.

To delete the FollowSpot controller preset

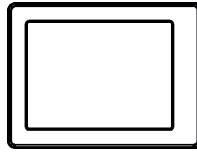
1. Press and hold desired preset button until the jog-wheel activating buttons (8/10/16/18) and the pan/tilt buttons (5/6) start to flash.

2. Press and hold selected preset button until the jog-wheels activating buttons stop to flash. Do not press any jog-wheels activating button. The preset button will stop to light.








Note: you can write notes on the white fields of the FollowSpot Controller, use a marker on an alcohol base and a suitable cleaning liquid (on alcohol base) for removing the notes. Never use solvents!

5. Control menu


The FollowSpot Controller is equipped with the QVGA Robe touch screen with battery backup which allows to set the device behaviour according to your needs.

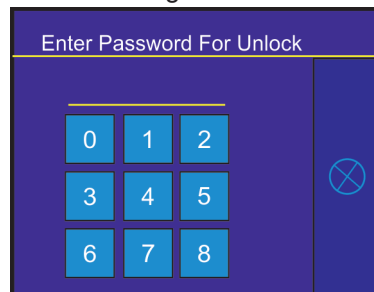


Icons used in the touch screen menu:

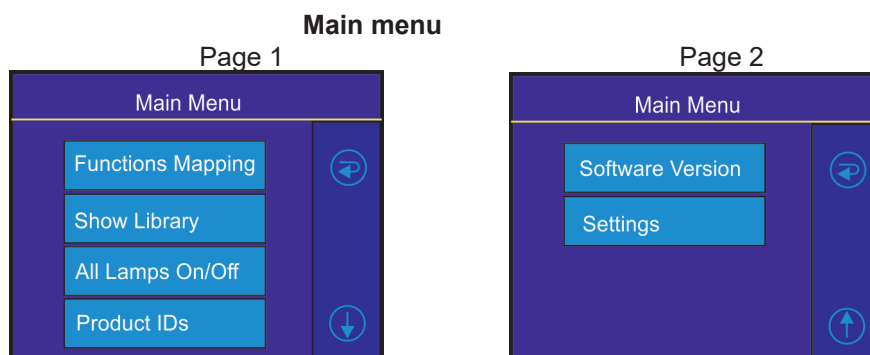
-  - [back arrow] used to move back to the previous screen (or menu level).
-  - [up arrow] used to move up on the previous page.
-  - [down arrow] used to move down on the next page.
-  - [confirm] used to save adjusted values and leave menu or to perform desired action.
-  - [cancel] used to leave menu without saving changes.
-  - [display on/off] used to switch on/off the display.
-  - [menu enter] used to enter fixture menu.

Note: buttons are not functional yet.

Touch the icon  to display the password entering screen:



Enter the password (5242) to enter the main menu of the FollowSpot Controller. The password prevents unauthorized person from changing setting of the FollowSpot Controller.



5.1 Menu Functions Mapping

By entering the menu you can assign effects from the list of available effects to the jog-wheels and faders. The item **All** - releases all assigned effects at one go.

List of available effect channels depends of used moving head:

Fixture	Effect	Available DMX values
Robin BMFL FollowSpot	Dimmer	0-255
	Iris	0-179
	Focus	0-255
	Zoom	0-255
	L Frost	0-254
	M Frost	0-254
	H Frost	0-254
	Color 1	0,130-189
	Color 2	0,130-189
	Cyan	0-255
	Magenta	0-255
	Yellow	0-255
	CTO	0-255

Fixture	Effect	Available DMX values
Robin BMFL Spot	Dimmer	0-255
	Iris	0-179
	Focus	0-255
	Zoom	0-255
	L Frost	0,1-50
	M Frost	0,87-136
	H Frost	0,173-222
	Color 1	0,130-189
	Color 2	0,130-189
	Cyan	0-255
	Magenta	0-255
	Yellow	0-255
	CTO	0-255
	DgW. pos	0-127
	DgW. r1	0-255
	DgW. r2	0-255
	RGW 1	0,32-59
	RGWr 1	0-255
	RGW 2	0,32-59
	RGWr 2	0-255
	Prism	0-127
Pris r	0-255	

Fixture	Effect	Available DMX values
Robin BMFL Blade	Dimmer	0-255
	Iris	0-191
	Focus	0-255
	Zoom	0-255
	L Frost	0,1-50
	M Frost	0,87-136
	H Frost	0,173-222
	Color 1	0,130-189
	Color 2	0,130-189
	Cyan	0-255
	Magenta	0-255
	Yellow	0-255
	CTO	0-255
	Efw. pos	0-127
	Efw. rot	0-255
	SGW	0, 8-103
	RGW 1	0,32-59
	RGW r1	0-255
	Prism	0-127
	Pris r	0-255
	FS rot	0-255
	FS 1 m	0-255
	FS 1 s	0-255
	FS 2 m	0-255
	FS 2 s	0-255
	FS 3 m	0-255
	FS 3 s	0-255
	FS 4 m	0-255
FS 4 s	0-255	

Fixture	Effect	Available DMX values
Robin BMFL WashBeam	Dimmer	0-255
	Iris	0-179
	Focus	0-255
	Zoom	0-255
	L Frost	0-254
	M Frost	0-254
	H Frost	0-254
	Color 1	0,130-189
	Color 2	0,130-189
	Cyan	0-255
	Magenta	0-255
	Yellow	0-255
	CTO	0-255
	Efw. pos	0-127
	Efw. rot	0-255

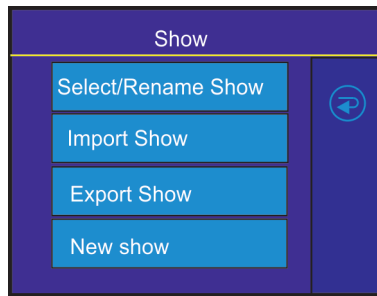
Fixture (continuing)	Effect	Available DMX values
Robin BMFL WashBeam	RGW 1	0,32-59
	RGWr 1	0-255
	FS rot	0-255
	FS 1 m	0-255
	FS 1 s	0-255
	FS 2 m	0-255
	FS 2 s	0-255
	FS 3 m	0-255
	FS 3 s	0-255
	FS 4 m	0-255
	FS 4 s	0-255

5.2 Menu Show library

The menu item offers 10 user shows. In the show is saved:

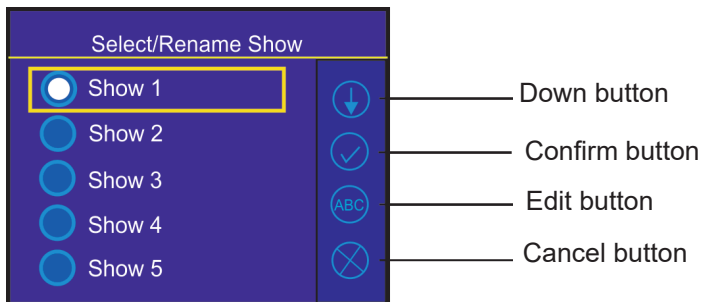
- Functions mapping of the FollowSpot Controller
- Sensitivity of jog-wheels
- Faders switching and inversion

The show can be saved on a USB flash drive and load to the FollowSpot Controller if need.



To select a show

1. Enter the menu "Select/rename Show"



2. Select desired show and confirm it.

To rename a show

1. Select a show and touch the Edit button.



2. Edit the name of selected show by means of the alphanumerical keyboard.

Function keys has the following meaning:

ALT key- switches among keyboards:



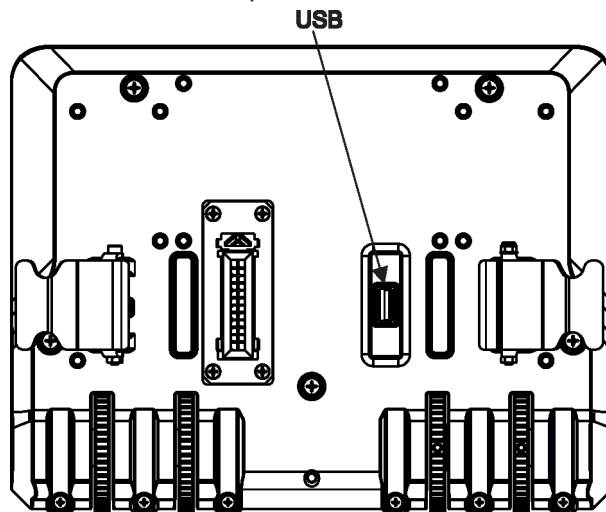
DEL key - deletes a character

Sh key - shift key, changes order of displayed characters aA ----> Aa.

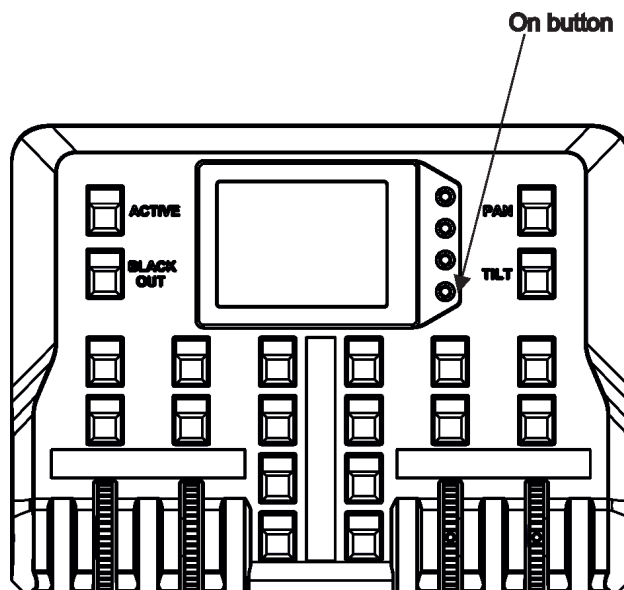
The key 0_ serves as a space bar.

To export a show

1. Disconnect the FollowSpot Controller from the FollowSpot Controller base and connect a USB flash drive to the USB port on the bottom side of the FollowSpot Controller.



2. Press and hold the On button until the graphic touch screen will light (the screen lights about 20 sec and after that will be switched off unless you touch any icon).



3. Select option "Export Show"



4. Select show and confirm it.



Wait until the message "Show Saved" appears on the screen. Touch the Cancel button.

Default name of saved show file on the USB flash drive has the following sentence structure

e.g. lightmaster-1-0031.cfg

lightmaster-2-0031.cfg

where the number 1 (2,3,...10) represents a number of show, the number 0031 represents last four numbers of RDM UID of the FollowSpot Controller.

Note: if you save some show more than once, original file is not overwritten, files are differentiated by a number after underscore character e.g:

lightmaster-2-0031.cfg

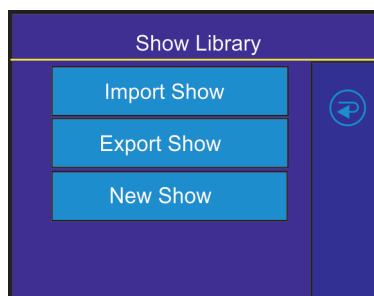
lightmaster-2-0031_1.cfg

lightmaster-2-0031_2.cfg

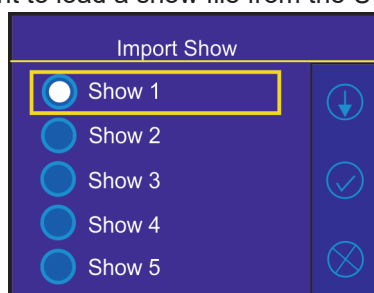
To import a show

1. Disconnect the FollowSpot Controller from the FollowSpot Controller base and connect a USB flash drive to the FollowSpot Controller and switch the graphic touch screen on as described above in article To export a show.

2. Select option "Import Show"



3. Select show to which you want to load a show file from the USB flash drive and confirm it.



4. Select desired show file to load it.



After loading, the message " Show Loaded" will appear on the screen: Touch the Cancel button.

5.3 Menu All Lamps On/Off

The menu item allows to switch on/off lamp in the Robin BMFL FollowSpot.

5.4 Menu Product IDs

Select this menu item to read a MAC Address , RDM UID, and RDM Label.

5.5 Menu Software Version

Select this item to read the software version of the fixture modules:

Display System - a display processor

Module C - a control panel processor

5.6 Menu Settings

System Test - the menu allows you to test jog-wheels and faders.

Ethernet Settings - The menu allows to set the FollowSpot Controller for Ethernet operation.

Ethernet Mode

Artnet - Fixture receives Artnet protocol

gMAI - Fixture receives MANet I protocol

gMA2 - Fixture receives MANet 2 protocol

sACN - Fixture receives sACN protocol

IP Address/Net Mask - Select this menu to set IP address. IP address is the Internet protocol address. The IP uniquely identifies any node (fixture) on a network.

There cannot be 2 fixtures with the same IP address on the network!

Default IP Address -Preset IP address, you can set up only first byte of IP address (2 or 10) e.g. **002**.019.052.086.

Custom IP Address - The option enables to set up all bytes of IP address.

Net Mask - The option enables to set up all bytes of Net Mask.

ArtNet Universe - Use this item to set a Universe (0-255). The Universe is a single DMX 512 frame of 512 channels.

MANet Settings - Use this menu to set parameters for MANet operation.

MANet Universe I/II - The value of this item can be set in range 1-256.

MANet Session ID - The value of this item can be set in range 1-32.

sACN Settings - Use this menu to set parameters for sACN operation.

sACN Universe - The value of this item can be set in range 1-32000.

sACN Priority - The value of this item can be set in range 0-255.

Controls invert - the menu item allows you to invert faders of the Light Master.

Default settings of faders: fader down-minimum (0 DMX), fader up-maximum (255 DMX).

Faders Switch - swaps functions of faders.

Password Settings - the menu item allows you to change the password or switch it on/off at entry the FollowSpot Controller menu.

Change password - use this option to change password. Default (factory) password is 5242.

Protect with Password - If this function is on, the password is required at entry the FollowSpot Controller menu.

Note: both menu items stated above require inserting of password to enter them even the password is set off ! You have to remember last set password!

In case you have forgotten your password, use the master password 4678.

Recalibrate Touchscreen - The item starts calibration of the touchscreen. Follow instructions on the screen.

Default Settings - The menu item allows you to set the items stated above (except Ethernet Settings) to default values.

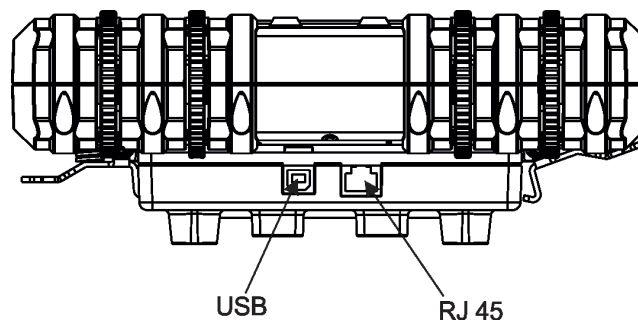
Note: the password will not be set to a default password (set password will remain without change) but the option "Protect with Password will be set to On".

6. Software update

The FollowSpot Controller software update is done via a network connection between a computer running a ROBE RDM Uploader software through the RJ45 input of the FollowSpot Controller base. It is important to note, that the FollowSpot Controller IPv4 address has to be set to 2.x.x.x network (for example 2.0.1.10) with netmask 255.0.0.0 . During the update, the FollowSpot Controller has to be attached to FollowSpot Controller base and this base has to be connected to the BMFL fixture by means of the USB cable. The BMFL fixture has to be connected to mains.

To update software in the FollowSpot Controller.

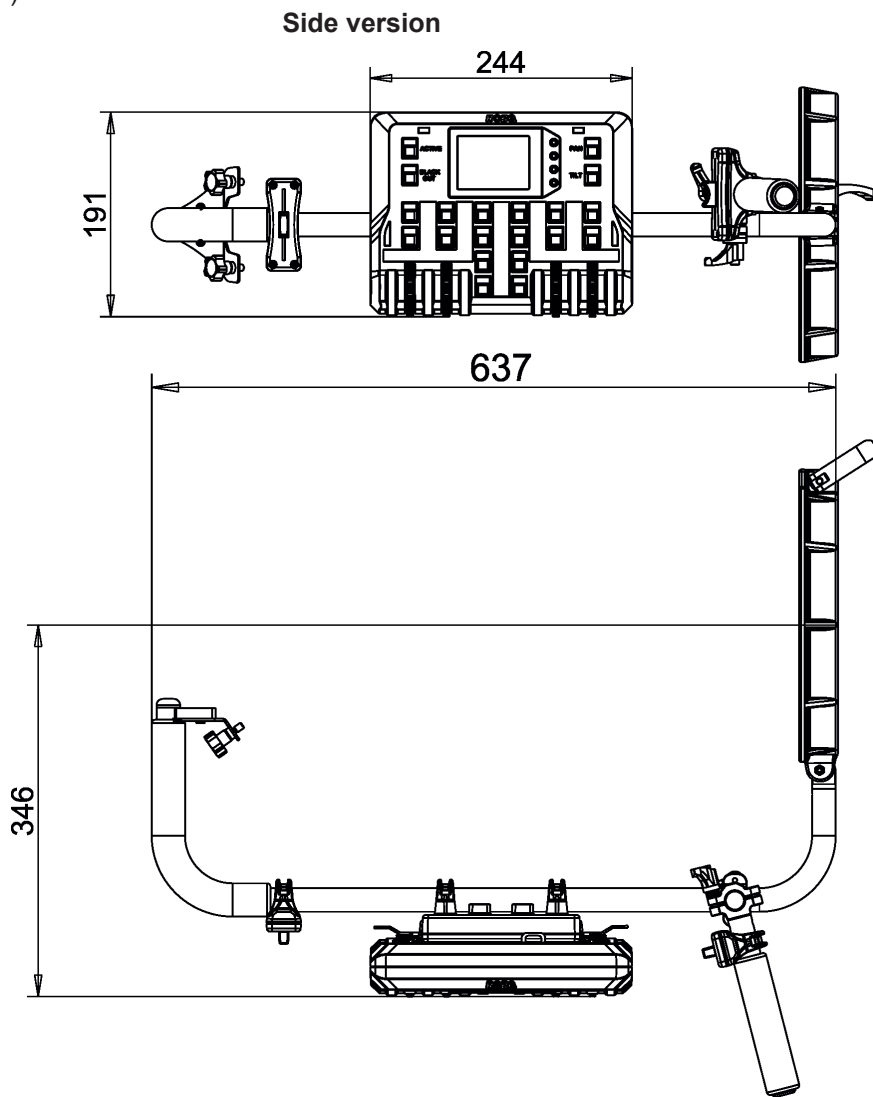
1. Connect a computer running ROBE RDM Uploader to the internet and update software libraries (Libraries → Update)
2. Connect the computer and the FollowSpot Controller base via Ethernet cable.
3. Set computer to address 2.x.x.x/255.0.0.0. Do not change any IP settings on the FollowSpot Controller.
4. Use the ROBE Uploader → Devices → Discovery and Devices → Update. This will update the FollowSpot Controller.



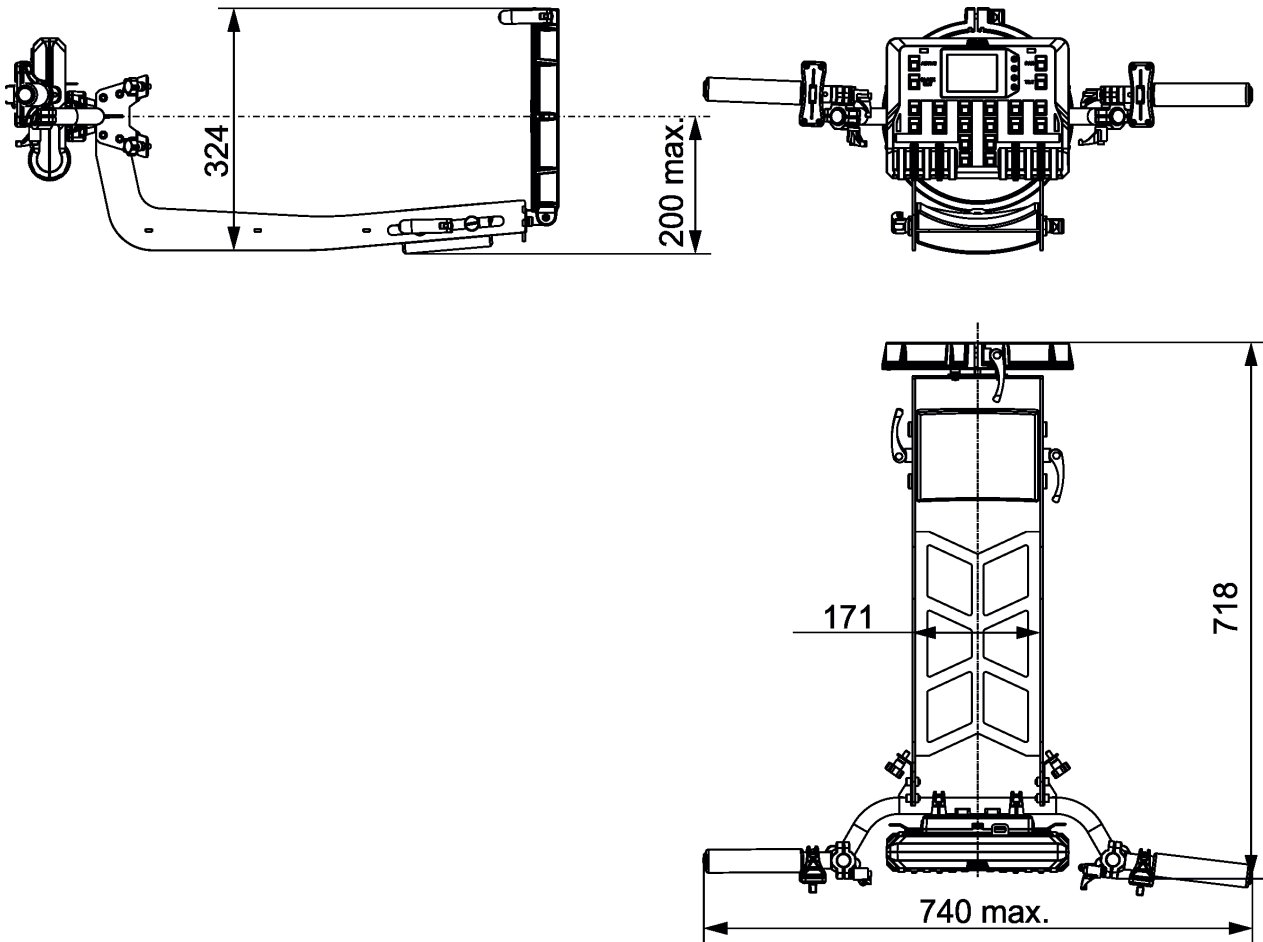
7. Technical specifications

Input voltage:	5V DC
Setting & Control:	graphic touch screen
Number of control elements:	20 buttons, 4 jog-wheels and 2 faders
Connection:	1 x USB A, 1x USB B, 1x RJ45
Fastening:	via 2 (4) screws and collar with lock
Weight:	4 kg (side version), 10.7kg (rear version)

Dimensions (mm)



Rear version



Included items

- 1 x Robin BMFL LightMaster (side or rear)
- 1 x BMFL Base adaptor for FollowSpot (P/N 10980365)
- 1 x Tripod for RoboSpot, FollowSpot, LightMaster (P/N 10980350)
- 1 x USB cable A-B, 1.8m length (P/N13050756)
- 1 x User manual

8. Cleaning and maintenance

A soft lint-free cloth moistened with suitable cleaning fluid is recommended, under no circumstances should solvents be used!

More complicated maintenance and service operations are only to be carried out by authorized distributors.

8.1 Disposing of the product

To preserve the environment please dispose or recycle this product at the end of its life according to the local regulations and codes.

Copyright © 2017-2018 Robe Lighting - All rights reserved

Specifications are subject to change without notice.

December 6, 2018

Made in CZECH REPUBLIC by ROBE LIGHTING s.r.o. Palackeho 416/20 CZ 75701 Valasske Mezirici

ERC