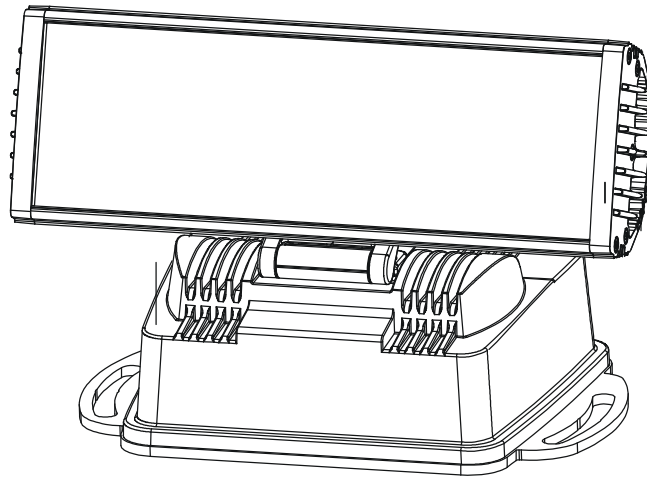




ArcPad 48 Integral /W (Single colour)



USER MANUAL

Version 1.7

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**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE POWERING OR INSTALLING YOUR ArcPad 48 Integral/W !
Save it for future reference.**

This device 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 warning notes 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 device.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

1. Safety instructions

DANGEROUS VOLTAGE CONSTITUTING A RISK OF ELECTRIC SHOCK IS PRESENT WITHIN THIS UNIT!

Make sure that the available voltage is not higher than stated on the rear panel of the fixture.
This fixture should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied, consult your authorized distributor or local power company.

Always disconnect the fixture from AC power before cleaning, removing or installing the fuses, or any part.

Do not overload wall outlets and extension cords as this can result in fire or electric shock.

Make sure that the power cord is never crimped or damaged by sharp edges. Check the fixture and the power cord from time to time.

Do not install the unit near naked flames.

During the operation the housing becomes hot (up to 80°C)

Refer servicing to qualified service personnel.

This fixture falls under protection class I. Therefore this fixture has to be connected to a mains socket outlet with a protective earthing connection.

Do not connect this fixture to a dimmer pack.

LED light emission. Risk of eye injury.

Do not look straight at the fixture's LEDs during operation. The intense light beam may damage your eyes.

Keep combustible materials at least 20 cm away from the fixture.

If the fixture 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.

Avoid brute force when installing or operating the fixture.

The fixture was designed for outdoor use. This fixture must not be used for underwater installation.

ArcPad 48 Integral/Wireless DMX (Single colour)

When choosing the installation spot, please make sure that the fixture is not exposed to extreme heat or dust.

Avoid using the unit in locations subject to possible impacts.

The fixture body never must be covered with cloth or other materials.

Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.

Make sure that the area below the installation place is blocked when rigging, derigging or servicing the fixture.

Do not block the front objective LEDs with any object when the fixture is under operation.

The fixture becomes very hot during operation. Allow the fixture to cool approximately 30 minutes prior to manipulate with it.

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

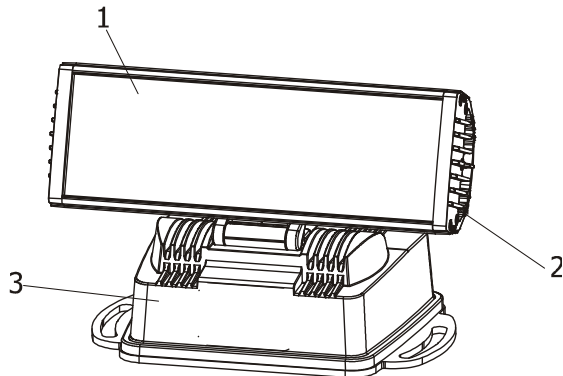
Do not attempt to dismantle or modify the unit.

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

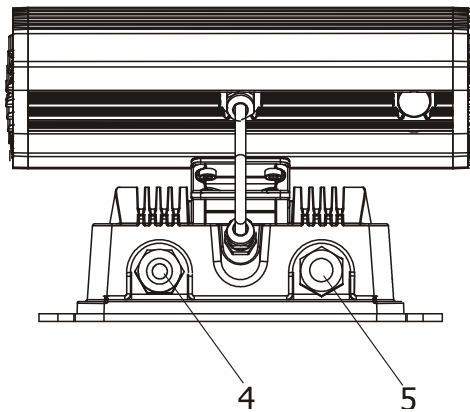
Please use the original packaging if the fixture is to be transported.

If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock etc.

2. Fixture exterior view



- 1. Lens array
- 2. Radiator
- 3. Base

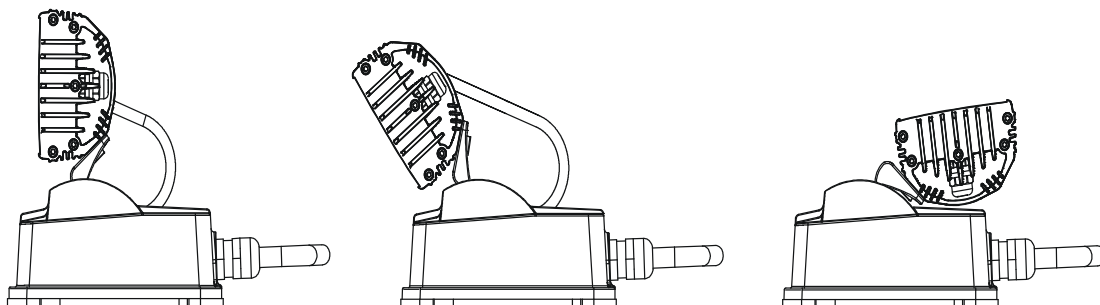


- 4. Data/Power cord
- 5. Antenna

3. Installation

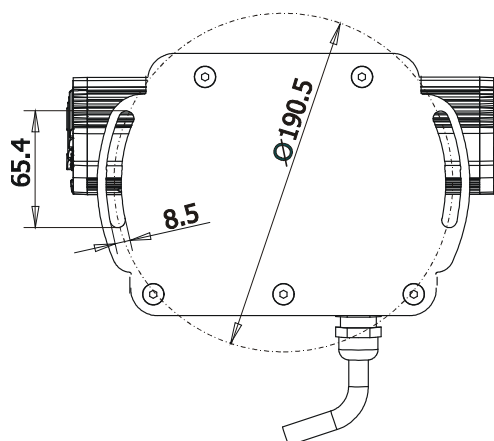
3.1 Mounting the fixture

The ArcPad 48 Integral/W can be arranged in any position orientation. The ArcPad 48 Integral's radiator with LEDs is mounted on an adjustable bracket for "tilt" adjustment into many positions:



Two slots (8.5mm wide) in the fixture base serve for mounting on the non-flammable flat surface:

ArcPad 48 Integral/Wireless DMX (Single colour)



Ensure that the structure to which you are attaching the fixture is secure

Caution: Overhead installation requires experience. Fixtures may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do not install the device and consult installation with an expert.


Warning!
The antenna must be installed on the fixture to keep declared IP rating of the fixture!

3.2 Connection to the mains

Fixtures must be installed by a qualified electrician in accordance with all national and local electrical and construction codes and regulation.

The ArcPad 48 Integral/W is equipped with a 5-cored power/data cable. The 3 cores serve for the power supply and next 2 shielded cores are intended for DMX connection.

The power cores are coloured according to the following table.

Core	Connection	Plug Terminal Marking
Brown	Live	L
Light blue	Neutral	N
Yellow/Green	Earth	

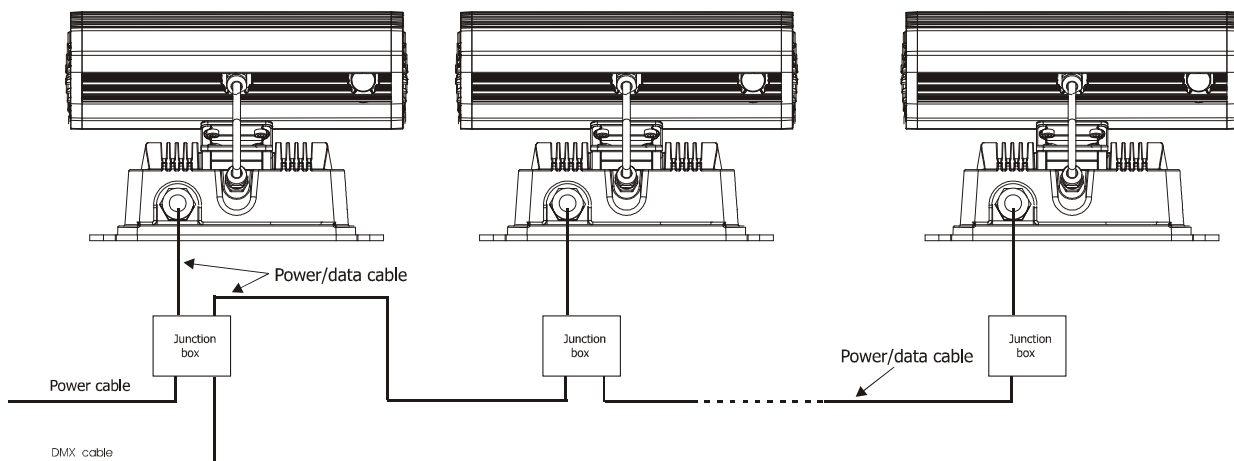
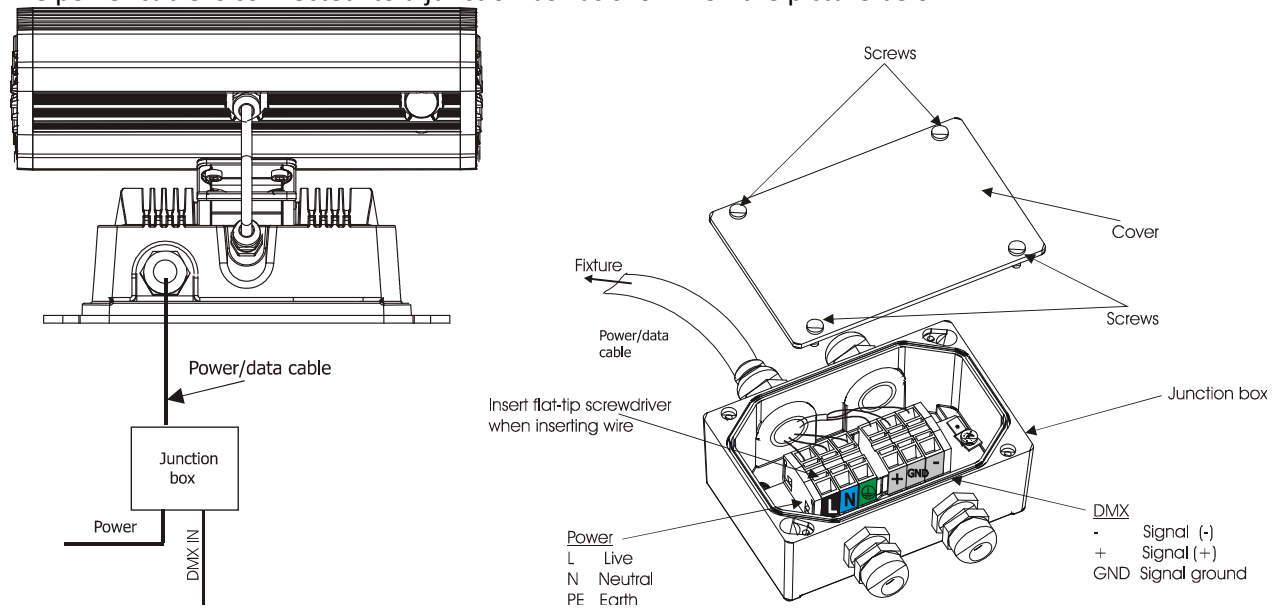
This device falls under class one and must be grounded!

The data cores (DMX) are coloured according to the table:

Core	Connection
Red	Data +
White	Data -
Shielding	Data ground

ArcPad 48 Integral/Wireless DMX (Single colour)

The power cable is connected to a junction box as shown on the picture below.



The junction box allows to connect several fixtures in a daisy chain of the power/data cable. Use the $3 \times 1.5\text{mm}^2$ power cable to connect the first junction box with the mains and the power/data cable for connecting fixtures each other. Do not overload the supply line and the connecting leads.

The max. number of connected fixtures in a daisy chain depends on the input voltage:

29 fixtures at power supply= 230V (for power cable $3 \times 1.5\text{mm}^2$)

14 fixtures at power supply= 120V (for power cable $3 \times 1.5\text{mm}^2$)

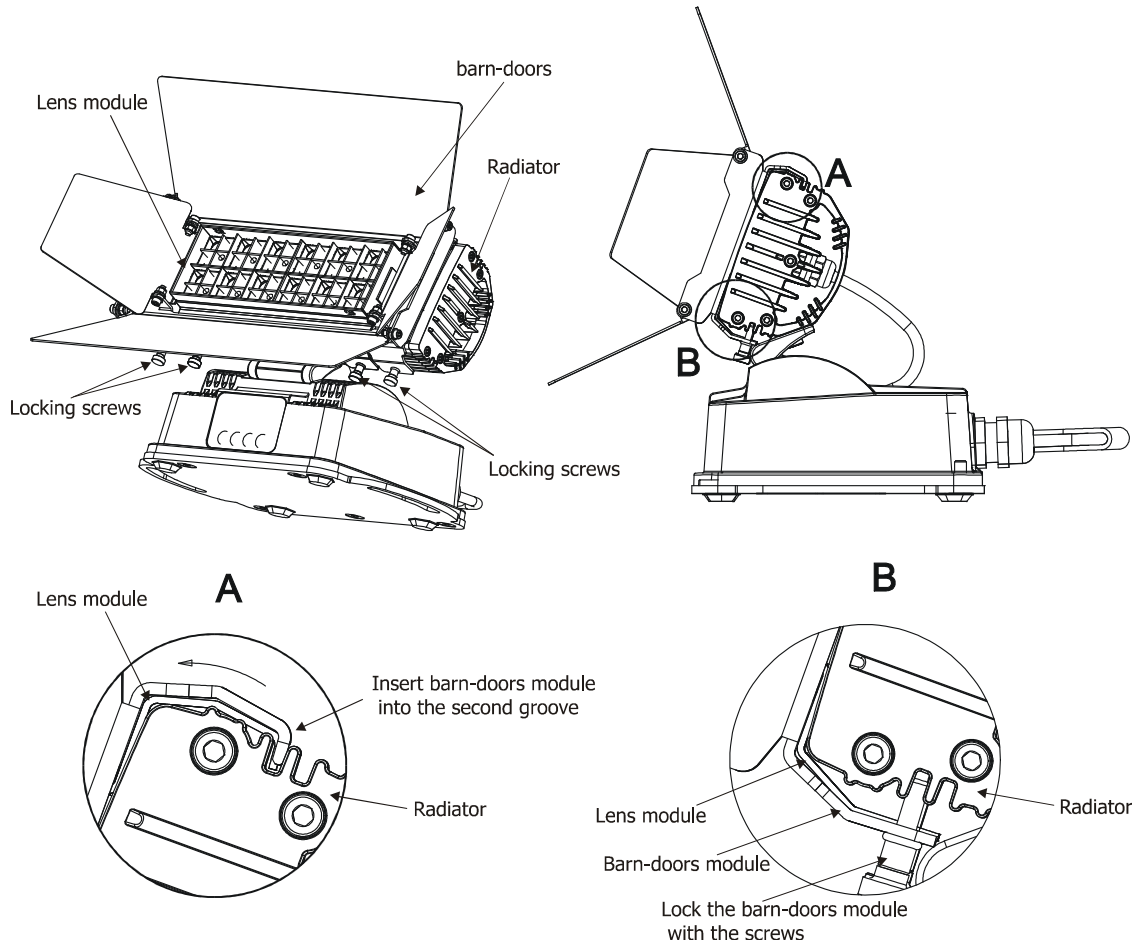
You have to take into account the the length of power/data cable, circuit breaker etc. at projecting of the fixtures installation.

3.3 Installation of the barn-doors

You can install the barn-doors to better define illuminated surface.

To install the barn-door module:

1. Disconnect the fixture from the mains.
2. Put the top edge of the barn-doors module into the second groove on the top side of the radiator (detail A) and the bottom edge into the second groove on the bottom side of the radiator and tighten four locking screws M2 to secure this barn-doors module on the radiator.

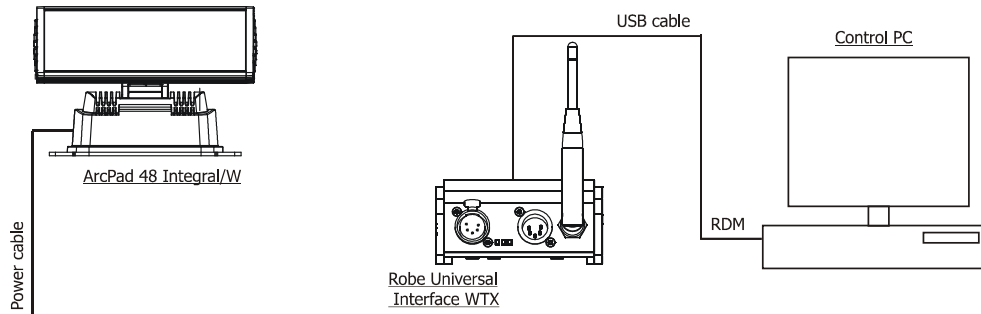


Never close the barn-doors during fixture operation

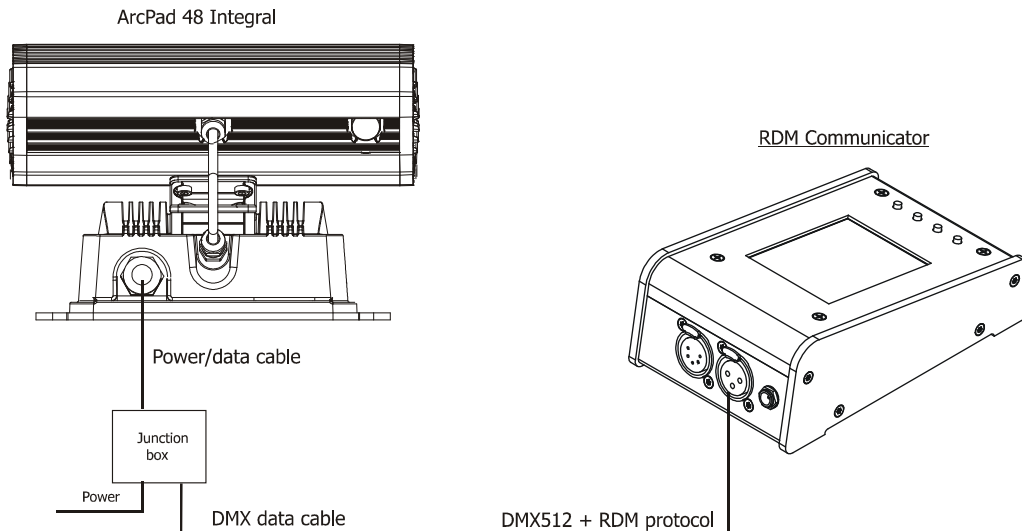
3.4 Setting and control

For setting DMX address, selecting DMX mode and for another settings you need either Robe Universal Interface WTX or the RDM Communicator. Please see the Robe Universal Interface WTX or RDM Communicator user manuals to get more information about this products. The way, how to connect these interfaces to the DMX data link is figured below.

1. Robe Universal Interface



2. RDM Communicator



The fixture is equipped with the Lumen Radio CRMX module and antenna for receiving DMX signal. CRMX module operates on the 2.4 GHz band.

To link the fixture with DMX transmitter.

The fixture can be only linked with the transmitter by running the link procedure at DMX transmitter . After linking , the level of DMX signal (0-100 %) is displayed in the menu item “**r.InF**” (SPEC-->rAdI.--> r.InF.)

To unlink the fixture from DMX transmitter.

The fixture can be unlinked from receiver via the menu item “ **r.UnL.**” (SPEC-->rAdI.--> r.UnL.).

NOTE: After connecting the fixture to the mains, the fixture always receives “wired” DMX signal for first 6 seconds of its operation though the wireless DMX is active.

4. ArcPad 48 Integral (Single colour) - DMX protocol

Version 1.0

Mode/Channel		Value	Function	Type of control
1	2			
-	1	0-31 32-63 64-95 96-127 128-143 144-159 160-191 192-223 224-255	<u>Strobe</u> Shutter closed Shutter open Strobe-effect from slow to fast Shutter open Opening pulses in sequences slow--> fast Closing pulses in sequences fast --> slow Shutter open Random strobe-effects from slow to fast Shutter open	step step proportional step proportional proportional step proportional step
1	2	0 - 255	<u>Dimmer</u> Dimmer intensity from 0% to 100%	proportional
-	3	0 - 255	<u>Dimmer fine</u> Fine dimmer intensity from low to high	proportional

5. Control menu map

Default settings=Bold print

Menu Level 1	Menu Level 2	Menu Level 3	Menu Level 4	Menu Level 5	Menu Level 6
A001	dM.Ad.	001-512			
	MA.SL.	d.AbL			
		MASt.			
		SLA			
InFo	Poti.	FuLL	totL		
			rSEt		
		EcO	totL		
			rSEt		
	DM.In.	Stro	0-255		
		:			
		F.dim	0-255		
	tEMP.	Cur.t.			
		Hi.tE.			
		rSEt			
	VErS.	IC1			
PErS	dM.Pr.	Mod.1			
		Mod.2			
	dMH. I.	dMH			
		rAd. I.			
		rAd. O.			
	dISP.	d.On	On, Off		
		d.Int.	3,60,100		
		turn			
	tEM.U.	°C, °F			
	LOAd	FuLL			
		EcO			

ArcPad 48 Integral/Wireless DMX (Single colour)

Menu Level 1	Menu Level 2	Menu Level 3	Menu Level 4	Menu Level 5	Menu Level 6
	In.Po.	Stro.	0-255		
		:			
		F.dim	0-255		
		Stor.			
	rAd.t.	OFF, 1-255 min.			
		60min.			
	dFSE				
MAn.M.	PrE.C.	Stro	St.01..St.03		
		dimr	di.01...di.06		
	Man.C.	Stro	0-255		
		dimr	0-255		
		F.dim	0-255		
tESt					
St.AL.	Auto	Off			
		tESt			
		PrG.1			
		:			
		PrG.3			
	PLAY	tESt			
		PrG.1			
		:			
		PrG.3			
	Edit	PrG.1	St.01	P.End	1-68
		:	:	Stro.	0-255
		PrG.3	St.68	:	:
				S.tim.	0-25.5 sec
				CoPY	

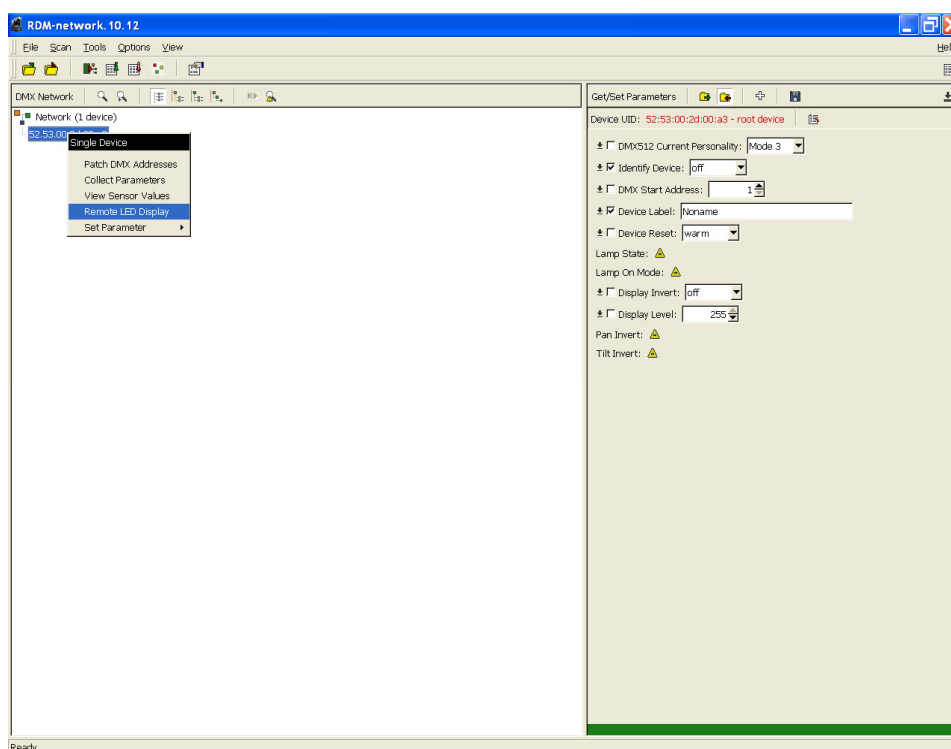
ArcPad 48 Integral/Wireless DMX (Single colour)

Menu Level 1	Menu Level 2	Menu Level 3	Menu Level 4	Menu Level 5	Menu Level 6
SPEC.	rdML				
	rdMH				
	rAdl	r.InF.			
		r.UnL.			
	Adj.	DMH	Stro.		
			dimr		
		CaL.U.	Col.1		
			:		
			Col.4		
			Stor.		
	uPd.M.				

6. Fixture menu

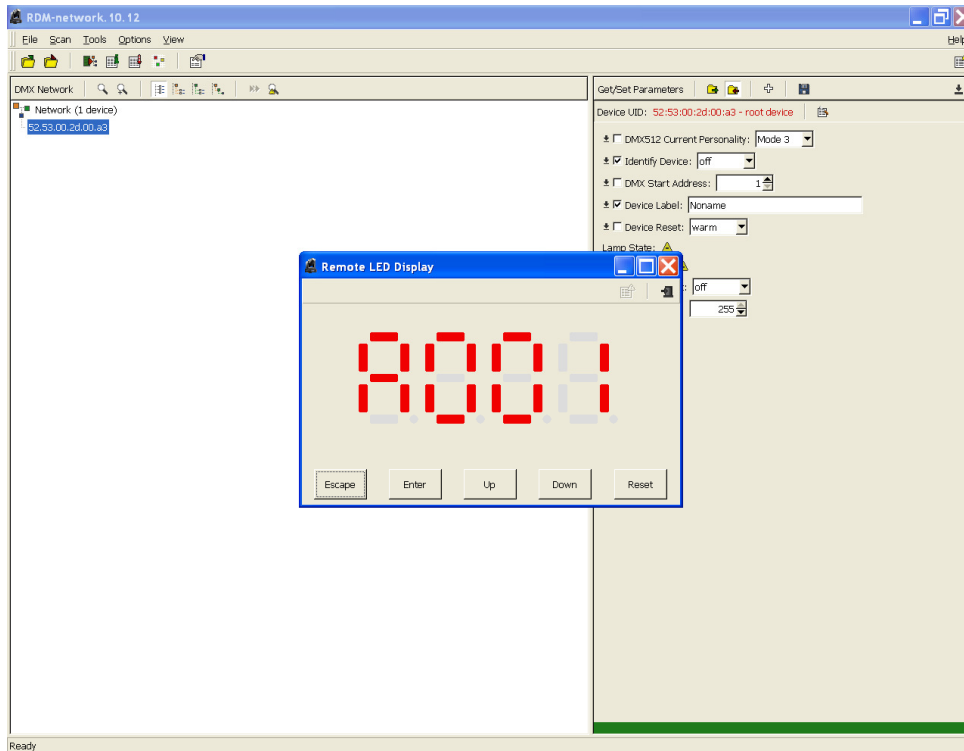
To browse the fixture menu, use the Robe Universal Interface WTX (RUNIT VTX):

Run the RDM-network on your computer and click with the right button of the mouse on the fixture and select the **Remote LED display** option from the menu list as shown below.



The Remote LED Display window will appear. Now you can fully control the fixture using the **UP**, **Down**, **Enter**, **Escape** and **Reset** buttons.

ArcPad 48 Integral/Wireless DMX (Single colour)



6.1 Fixture Address



Use this menu to set the DMX address of the fixture or set the fixture as a Master (Slave).

dM.Ad. --- **DMX addressing.** Select this submenu to set a DMX start address.

To set a DMX address.

1. Use the UP/DOWN buttons to find “**A001**” menu.
2. Press the ENTER button.
3. Use the UP/DOWN buttons to select desired start address.
4. Press the ENTER button to confirm the choice.

MA.SL. --- **Master/slave addressing.** Select this submenu to set the fixture as a master or slave. Option “**d.Abl**” deactivates master/slave setting. This option does not function at wireless operation.

To set a fixture as a master or slave.

1. Use the UP/DOWN buttons to find “A001” menu.
2. Press the ENTER button.
3. Use the UP/DOWN buttons to select “**MA.SL.**” item.
4. Press the ENTER button.
5. Use the UP/DOWN buttons to select either master (MASt) or slave (SLA)
6. Press the ENTER button to confirm the choice.

Note: After switching on, the ArcPad 48 Integral/Wwill automatically detect whether DMX 512 data is received or not.

If there is no data received at the DMX input, the display will start to flash with actually set address.

6.2 Fixture information



Use this menu to read useful information about the fixture status.

To display desired information.

1. Use the UP/DOWN buttons to find the "InFo" menu.
2. Press the ENTER button.
3. Use the UP/DOWN buttons to select the required menu item.
4. Press the ENTER button to confirm the choice.

Po.ti. --- **Power On Time.** Use the menu item to read the number of operation hours for each LEDs operating mode.

FuLL---Max light output from the fixture.

totL - the function shows the total number of the operation hours in the "FuLL" mode since the ArcPad 48 Integral/W has been fabricated.

rESet - the function shows the number of the operation hours that the ArcPad 48 Integral/W has been powered on in the "FuLL" mode since the counter was last reset. In order to reset this counter to 0 you have to press and hold the UP and DOWN buttons and at the same time press the ENTER button.

EcO---Economical mode.

totL - the function shows the total number of the operation hours in the "EcO" mode since the ArcPad 48 Integral/W has been fabricated.

rESet - the function shows the number of the operation hours that the ArcPad 48 Integral/W has been powered on in the "EcO" mode since the counter was last reset. In order to reset this counter to 0 you have to press and hold the UP and DOWN buttons and at the same time press the ENTER button.

DM.In.---**DMX values.** Select this function to read DMX values of each channel received by the fixture.

tEMP --- **Fixture Temperatures.** Select this menu to read the temperatures of the fixture:

Cur.t. --- the current temperature of the fixture inside.

Hi.tE. - the menu item shows the max. temperatures of the fixture inside since the ArcPad 48 Integral/W has been fabricated.

rSEt --- the menu item shows the maximum temperatures of the fixture inside since the counter was last reset. In order to reset this counter to 0 you have to press and hold the UP and DOWN buttons and at the same time press the ENTER button.

Note: The ambient temperature should not exceed 40°C.

The temperatures can be displayed in either °C or °F units - see option "tEM.U" in the menu "Pers".

VErS.---**Software Versions.** Select this function to read the software version of the fixture processor.

6.3 Personality



Use this menu to modify the ArcPad 48 Integral/Woperating behaviour.

DM.Pr. --- **DMX preset.** Select this menu item to set a desired DMX mode. Please refer to the chapter "DMX protocol" for detail description of each DMX mode.

DMH.I. --- **DMX input.** Use the menu to select mode of receiving DMX signal.

DMH - DMX signal is received by means of the standard DMX cable.

rAd. I. - DMX signal is received by means of the inbuilt wireless module.

rAd.o. - the fixture receives wireless DMX and sends the signal to its wired DMX output.

The fixture behaves as " Wireless/Wired" adapter.

Note: the option „DMH.I.“ is available in fixtures with new electronics and a software version 2.0 and higher.

DiSP. --- **Display adjusting.** This function allows you to change the display settings.

d.On --- this function allows you to keep the display on or to turn off automatically 2 minutes after last pressing any button on the control panel.

d.Int. --- select this function to adjust the display intensity (30-min.,100-max.).

turn --- select this function to turn the display by 180°.

tEM.U. --- **Temperature Unit.** Use this menu in order to display the fixture temperatures in desired units: °C or °F.

LoAd --- **Load of LEDs.** The menu allows to choose 2 different operating modes for fixture.

FuLL --- Maximum light output

EcO. --- The light output is decreased by 25%.

In.Po. --- **Init effect positions.** Use this function to set all effects to the desired positions to which they will move after switching the fixture on (if DMX is not being received).

Note. If DMX mode 1 is selected, only values set at items "MACr" (macro) and dinr (dimmer) will be accepted.

rAd.t. --- **Unlink time.** Use this menu to set time after that the linked fixture will be unlinked from the transmitter, if the transmitter does not transmit DMX signal.

OFF --- Fixture is permanently linked.

1-255. --- Time from 1-255 minutes.

dF.SE. --- **Default Settings** .The menu item sets all fixture parameters to the default (factory) values.

6.4 Manual mode



Use this menu for control the fixture without connected DMX console.

PrE.C. --- Preset effects control. Select this menu to call up preset positions of the channel effects.

Man.C. --- Manual effect control. Select this menu to control all channels via buttons of the control board.
To control fixture channels.

1. Use the UP/DOWN buttons to find " Man.C" menu.
2. Press the ENTER button.
3. Use the UP/DOWN buttons to select desired effect (channel).
List of control channels:
"Stro" – a shutter/strobe function
"dimr" - a dimmer
"F.dim" - a fine dimmer
4. Press the ENTER button and use the UP/DOWN buttons to set value , press the ENTER button to confirm it.

6.5 Test sequences



Use this menu to run demo-test sequences without an external controller, which will show you some possibilities of using the ArcPad 48 Integral/W.

6.6 Stand-alone setting



The fixtures on a data link are not connected to the controller but can execute pre-set programs which can be different for every fixture. "Stand-alone operation" can be applied to the single fixture or to multiple fixtures operating synchronously.

Synchronous operation of multiple fixtures requires that they must be connected on a data link and one of them is set as a master ("MASt") and the rest as the slaves ("SLA"). Up to 32 fixtures can be connected in a master/slave chain. Only one fixture can be set as the master. This option does not function at wireless operation.

Note: Disconnect the fixtures from the DMX controller before master/slave operating, otherwise data collisions can occur and the fixtures will not work properly. See the chapters "Stand-alone operation" and "Master/slave connection".

Auto. --- Automatic playback. This function allows you to select the program which will be played after switching the fixture on. Selected program will be played continuously in a loop.

1. Use the UP/DOWN buttons to find "St.AL." menu.
2. Press the ENTER button.
3. Use the UP/DOWN buttons to select "Auto" item.
4. Press the ENTER button.
5. Use the UP/DOWN buttons to select desired program.
6. Press the ENTER button to confirm the choice.

PLAY --- Playing program. By enter to this menu a complete overview of all programs is offered, from which the program to be run can be selected.

1. Use the UP/DOWN buttons to find "St.AL." menu.
2. Press the ENTER button.
3. Use the UP/DOWN buttons to select desired program.
4. Press the ENTER button. The selected program runs in a loop.

Edit --- Editing a program. The fixture offers 3 freely editable programs (EPG.1-EPG.3) each up to 68 steps. Every program step includes a fade time-the time taken by the step's channel status to reach the desired level and a step time-the total time occupied by the step in the program.

E.g. If "F.tim."=5 second and "S.tim."=20 second, effects will go to the desired position during 5 seconds and after that they will stay in this position for 15 seconds before going to the next prog. step

1. Use the UP/DOWN buttons to find "St.AL." menu and press the ENTER button.
2. Use the UP/DOWN buttons to select "Edit" menu and press the ENTER button.
3. Use the UP/DOWN buttons to select a program you want to edit (PrG.1-PrG.3 and press ENTER button.
4. Use the UP/DOWN buttons to select a desired program step ("St.01" - "St.68") and press ENTER button.
5. Use the UP/DOWN buttons to select a channel you want to edit and press the ENTER button.

List of editable items:

"P.End" - a total number of the program steps (value 1-68). This value should be set before start

Programming (e.g. if you want to create program with 10 steps, set P.End=10).

"Stro" - a shutter/strobe function (0-255)

"dimr" - a dimmer (0-255)

"F.dim" - a fine dimmer

"F.tim." - a fade time, (0-25.5) seconds

“S.tim.”- step time, value (0-25.5) seconds

“COPY”. – this item duplicates the current prog. step to the next prog. step. The item “P.End” is increased automatically.

6. Use the UP/DOWN buttons to set a DMX value of the channel and then press the ENTER button.
7. Use the UP/DOWN buttons to select next channel and press the ENTER button.
8. After having set all channels in the current program step, press the MODE button to go by one menu level back and select another program step.

6.7 Special functions



rdML --- **Code.** This menu item shows the first part of the RDM identification code.

rdMH --- **Code.** This menu item shows the second part of the RDM identification code.

rAdI --- **Wireless DMX.** The menu serves for reading of the wireless operation status.

r.InF. --- **Wireless DMX information.** The menu item shows level of received signal in %. If the fixture is not linked to the transmitter, “no.LI” is displayed.

r.UnL. --- **Wireless DMX unlink.** The item serves for unlinking the fixture from transmitter.

AdJ --- **Effect Adjustment.** The menu allows calibration of each LEDs array.

dMH --- **DMX Values.** The menu item enables to control all LEDs before calibrating each LEDs array.

CAL.U --- **Calibrating unit.** The menu serves for fine current calibration of LEDs during fixture burn-in at a factory. Users should not change the setting.

uPd.M. --- **Updating mode.** The menu item allows you to update software in the fixture via either serial or USB port of PC.

7. RDM

This fixture is ready for RDM operation. RDM (Remote Device Management) is a bi-directional communications protocol for use in DMX512 control systems, it is the new open standard for DMX512 device configuration and status monitoring.

The RDM protocol allows data packets to be inserted into a DMX512 data stream without adversely affecting existing non-RDM equipment. By using a special „Start Code,“ and by complying with the timing specifications for DMX512, the RDM protocol allows a console or dedicated RDM controller to send commands to and receive messages from specific moving lights.

RDM allows explicit commands to be sent to a device and responses to be received from it.

The list of commands for ArcPad 48 Integral/Wis the following.

Parameter ID	Discovery command	SET command	GET command
DISC_UNIQUE_BRANCH	*		
DISC_MUTE	*		
DISC_UN_MUTE	*		
DEVICE_INFO			*

SUPPORTED_PARAMETERS			*
SOFTWARE_VERSION_LABEL			*
DMX_START_ADDRESS		*	*
IDENTIFY_DEVICE		*	*
DEVICE_MODEL_DESCRIPTION			*
MANUFACTURER_LABEL			*
DEVICE_LABEL		*	*
SENSOR_DEFINITION			*
SENSOR_VALUE			*
DISPLAY_LEVEL		*	*
DEVICE_RESET		*	
DMX_PERSONALITY		*	*
DMX_PERSONALITY_DESCRIPTION			*
STATUS_MESSAGES			*
STATUS_ID_DESCRIPTION			*
DEVICE_HOURS			*

Please, see the Robe Universal Interface user manual for detail description of RDM operation.

8. Error and information messages

t.M.Er.(Temperature measuring error)

The message informs you that the LED module temperature sensor is defective.

MA.Er. (Master error)

The fixture is set as a master and DMX console is connected to the fixture.

9. Technical specifications

Power supply

- Electronic auto-ranging
- Input voltage: 100 - 240V AC, 50-60 Hz
- Fuse: T 2.5A H
- Power consumption:

Power mode	Max. power consumption (All LED channels at full)	Ambient Temperature
Full mode	60W	25°C
Eco mode	40W	

Optic & Effects

- Light source: 48 Luxeon Rebel LEDs
- Available optical systems: 12°, 25°, 45° and 45°x 15°
- Adjustable strobe sequences
- Lumen maintenance:

Channels @ full intensity	Power mode	L ₇₀
All LED channels	Full mode	85,000
	Eco mode	96,000

L₇₀ = 70% maintenance of initial lumen output in hours

Electronics

- Control: USITT DMX 512, RDM
- DMX protocol modes: 2 (1, 3 control channels)
- Operations modes: DMX, Stand-alone
- Manual control of all effects via RUNIT WTX
- 3 user editable programs each up to 68 steps.

Wireless DMX/RDM module

- Compliance with USITT DMX-512 (1986 & 1990) and 512-A
- Full DMX fidelity and frame integrity
- Auto sensing of DMX frame rate and frame size
- <5ms DMX latency
- Operational frequency range of 2402-2480 MHz
- Producer: LumenRadio

Antenna

- Max. gain: 5dBi

Strobe

- Strobe effect with variable speed (max. 20 flashes per second)
- Pre-programmed random strobe pulse-effects

Dimmer

- Smooth 16-bit dimming from 0 - 100 %

Rigging

- Two slots in the fixture base

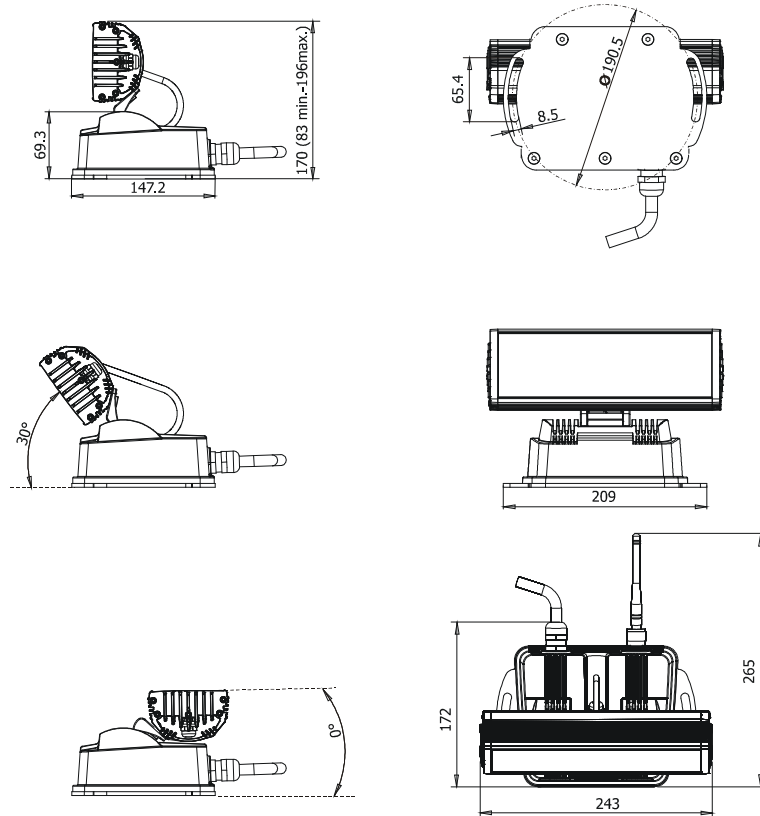
ArcPad 48 Integral/Wireless DMX (Single colour)

Temperatures

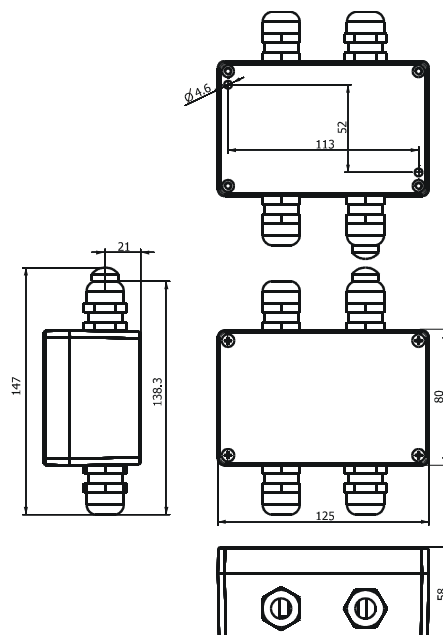
- Maximum ambient temperature: 40° C
- Maximum housing temperature: 80° C

Dimensions (mm)

ArcPad 48 Integral/W



Junction box



ArcPad 48 Integral/Wireless DMX (Single colour)

Weight

- 3 kg

Protection factor

- IP 67

Connection

- Data/Power cable
- junction box

Included items

- 1 x ArcPad 48 Integral/W
- 1 x Junction box
- 1 x User manual
- 1 x Gasket of cable grommet M20, PF ½ (P.N. 1305 1388)

Optional accessories

- 1 x Barn-doors module in silver colour (No. 10980090)
- Eggcrate top hat module without lenses (No. 10980091)

Note: By reason of the fast-moving development of LED technology, newer products may have better light parameters than previous products.

10. Cleaning and maintenance

DANGER !

Disconnect from the mains before starting any cleaning or maintenance work

Rinse off loose dirt with low pressure water spray. Wash the housing with a soft brush or sponge and a mild, non-abrasive washing detergent. Rinse it.

There are no serviceable parts inside the device.

Maintenance and service operations are only to be carried out by a qualified person.

Should you need any spare parts, please use genuine parts.

Specifications are subject to change without notice.

November 13, 2013