ArcPower 24 MC (24V)

Version 2.0

ArcPower 24 MC (24V)

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1. Introduction

The ArcPower 24 MC (24V) serves for power and control of the ArcSource 24MC Submersible.
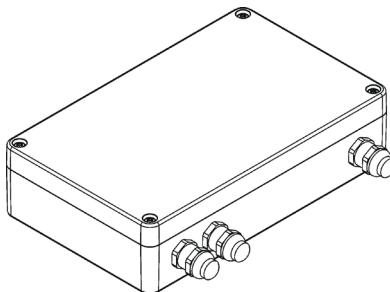
2. Safety information

FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE POWERING OR INSTALLING YOUR ARCPOWER 24 MC (24V) !
Save it for future reference.

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 fixture.

Always disconnect the fixture from AC power before removing its cover.

Do not install the fixture near an open flame.

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.

Keep combustible materials at least 10 cm away from the fixture.

Do not cover the fixture with cloth or other materials.

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.

The fixture was designed for outdoor use and it is intended for professional application only. It is not for house-hold use.

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

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

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!

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.

Immunity of the equipment is designed for electromagnetic environments E1, E2, E3 according to
the standard EN55103-2 ed.2 Electromagnetic compatibility. Product family standard for audio, video,

audiovisual and entertainment lighting control apparatus for professional use. Part 2: Immunity.
The installation company should check levels of possible interferences above the tested levels E1,E2,E3 given by this standard (e.g. transmitters in surrounding area) before installing the equipment.
Emission of the equipment complies with the standard EN55032 Electromagnetic compatibility of multimedia equipment – Emission Requirements according to class B.

3. Mounting

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

Maximum distance between the ArcPower 24 MC (24V) and the ArcSource 24 MC Submersible depends on the operating mode:
Minimum mode: 75 m
Medium mode: 50 m
Maximum mode: 25 m

1. Unscrew four fastening screws on the top cover of the ArcPower 24 MC (24V) to get access to the display and connection blocks.
2. Fasten the ArcPower 24 MC (24V) on a non-flammable flat surface via four mounting holes (1) of a diameter of 7 mm in the housing.
3. Remove end caps (2) from cable glands M20 before passing cables into the ArcPower 24 MC (24V).
   The three cable glands M20 with standard seals serve for cable of diameter of 6-12mm, for smaller diameter of cable (4-8mm), you have to remove the original sealing from the cable gland and use the enclosed reducing seal instead it. Three reducing seals for diameter of cable 4-8mm (P/N 13051388) are enclosed.
   The enclosed reducing seal (P/N 17030908) serves for two DMX cables of diameter 4.8-6.5mm (IN/OUT.
   To use the reducing seal, you have to remove the original sealing from the cable gland.
   Note:both holes in the reducing seal have to be used for cables, no hole can stay empty (unused).
   We recommend to apply an adequate layer of the paste LOCTITE 5331 on the plastic holder of the cable gland before inserting it into the body of the gland and an adequate layer of the paste LOCTITE 577 on the thread of the gland body.
4. Fully tighten cable gland nuts and check that cables are properly fastened in the cable glands.
Note: To keep declared IP rating, every cable gland has to be covered with the end cap if this cable gland is not used for cable passing.
5. Connect cables according to the tables below, check their connection and after that connect the fixture to mains.

This device falls under protection class I.Therefore the ArcPower 24 MC (24V) has to be connected to a mains socket outlet with a protective earthing connection

Power connection

	L	N	⏚
EU	Braun	Blue	Green/yellow
US	Black	White	Green

DMX connection

+	-	GND
Data +	Data -	Data ground (shielding)

ArcSource 24 MC Submersible connection

+	COM	-
+24V	Communication	Ground

6. Set desired parameters in the fixture menu (DMX address, operating mode, etc).
7. Screw the top cover back. Check that all bushings and screws are firmly screwed.

PLN - 100 - 24

Power

GND — DMX
GND — OUT
DMX IN

LED module

+ COM −

8888

1

2

Power

DMX

2

LED module
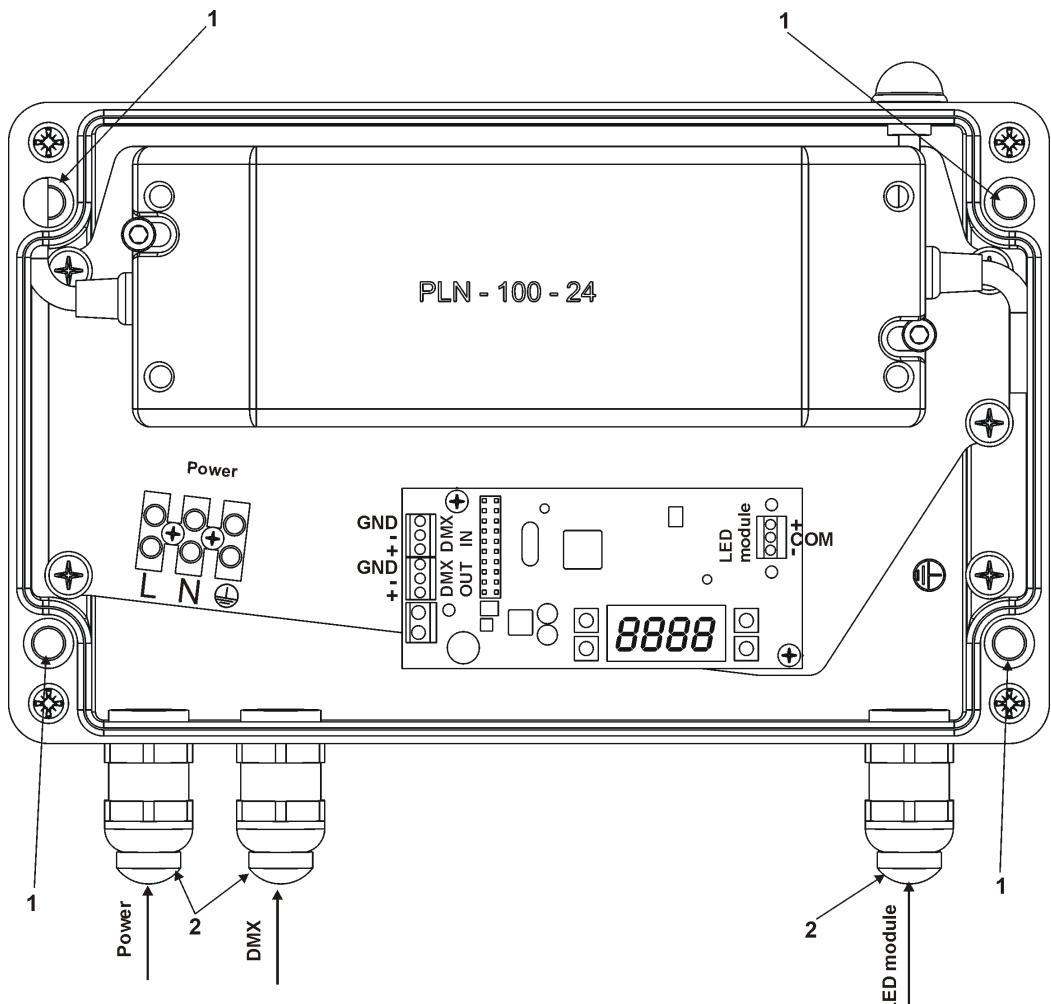
Cable gland M20 MS (P/N 13051206)

LOCTITE 577   LOCTITE 5331

End cap

Terminal
block
cover

Body of gland

Plastic holder

Rubber
seal

Metal
nut
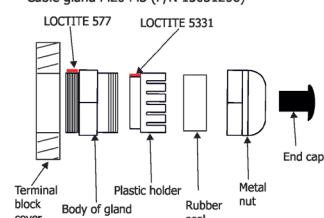
3 x Standard seal - part of cable gland M20 MS
(for diameter of cable: 6-12mm)

7 mm   70 mm   5 mm
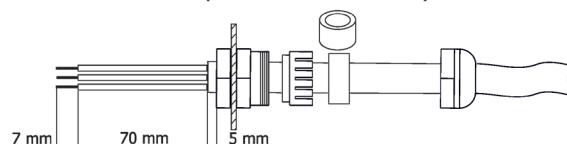
3 x Reducing seal (P/N 13051388) - enclosed, standard seal
has to be removed before installing this seal
(for diameter of cable: 4-8mm)

7 mm   70 mm   5 mm
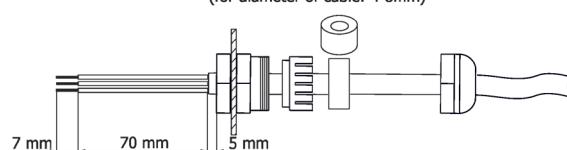
1 x Reducing seal (P/N 17030908) - enclosed, standard seal
has to be removed before installing this seal
(for diameter of cable: 4.8-6.5mm)

7 mm   70 mm   5 mm
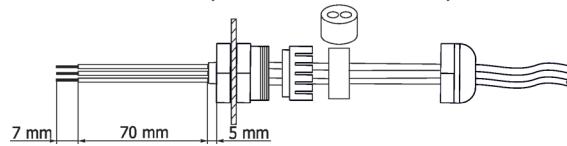
4. ArcPower 24 MC (24V) menu

The 4-digit display with four buttons serves for setting the fixture to desired operating mode ,setting DMX address and mode, software update etc.

Escape ⦿   **8888**   ⦿ Up   Note: If DMX signal has been disconnected,
Enter ⦿   ⦿ Down   DMX address blinks.

The four control buttons on the front have the following functions:
  - ESCAPE button-leaves menu without saving changes.
  - ENTER button- enters menu, confirms adjusted values and leaves menu.
  - UP and - DOWN buttons - move between menu items on the same level, sets values.

4.1 Fixture Address ("A001")

Use this menu to set the DMX address of the fixture.

"E. dMH" --- Set DMX address. Select this submenu to set a DMX start address.
To set a DMX address.
1. Use the UP/DOWN buttons to find " E.dMH" item.
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.

Note: After switching the fixture on, the ArcPower 24 MC (24V) will 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.

4.2 Fixture information ("InFo")

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.
"P.O.ti" ---Power On time. Use the menu item to read the number of operation hours of the Control unit and a connected LED module.

  "P.O.t.b." - the function shows the total number of operation hours of the Control unit since
   the Control unit has been fabricated.
  "P.t.b.r." - the function shows the number of operation hours of the Control unit 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.
  "P.O.t.L." - the function shows the total number of operation hours of the connected LED module
   since this module has been fabricated.
  "P.t.L.r." - the function shows the number of operation hours the connected LED module 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 at the same time press the ENTER button.

"dM In" ---DMX input values. Select this function to read DMX values of each channel received by the fixture.

"tEMP" ---LED module temperature. Select this menu to read temperature of a connected LED module:
  "Cur.t." --- the current temperature of the LED module.
  "Hi.tE." --- the maximmum temperature of the LED module since the LED module has been
   fabricated.
  "rSEt" --- the maximum temperature of the LED module 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.
The temperature can be displayed in either °C or °F - see option "tEM.U" in the menu "PErS".

"Ver.S." ---Software Versions. Select this function to read the software version of the Control unit and a connected LED module.

> **"VEr.l"** --- version of the Control unit.
> **"VEr.2"** --- version of the connected LED module.

4.3 Personality ("PErS")

Use this menu to modify the Control unit operating behaviour.

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

"M. F.ti." --- Max. fade time. Select this menu item to set a desired max. fade time (0-25.5 sec.). This adjusted fade time influences fade of red, green, blue, white and dimmer during DMX operation:
If time between two receiving DMX values is > than fade time set in the item "M.F.ti.", the entire adjusted fade time will be used.
If time between two receiving DMX values is < than fade time set in the item "M.F.ti.", the adjusted fade time will be reduced to fill entire time between the two receiving DMX values.
e.g "M.F.ti." = 2sec. and fixture has received Red=0 DMX, after 5 seconds will receive red=255 DMX. It means, that red will go to full intensity during 2 seconds.
"M.F.ti." = 8 sec. and fixture has received Red=0 DMX, after 5 seconds will receive red=255 DMX. It means, that red will go to full intensity during 5 seconds. (Max, fade time is reduced from 8 sec. to 5 sec.).
Value "OFF" means, that this function is disabled.

"rGb.C." --- White counting. If this function is On, a white channel uses red, green and blue channels in a proportion to the intensity of the white channel in order to maximize white output of the LED module.
If you wish to light only with white LEDs at white channel, switch this function to OFF.

"tEM.U" --- Temperature Unit. Use this menu in order to display the LED module temperature in desired units: °C or °F.

"LoAd" --- Load. Use this menu to set a desired power to the connected LED module.
> **"Min."** - Minimum mode (35W).
> **"MEd."** - Medium mode (70W).
> **"MAX."** - Maximum mode (80W). If the option "MAX" is selected, the ArcSource 24 MC Submersible should be immersed into water otherwise the power to the LED module may be redused due to fixture overheating.

"In.Po." --- Init effect positions. Use this function to set effects to desired positions to which they will move after switching the fixture on without receiving DMX.

"dF.SE" --- Default Setting .The menu item sets certain fixture parameters to the default (factory) values:
> "M. F.ti." = 0.1
> "rGb.C." = On
> "tEM.U" = °C
> "LoAd" =MEd
> "HoLd" = OFF

4.4 Manual mode ("Man.C.")

Use this menu for control the fixture without connected DMX console.
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:
"rEd" - a red LEDs saturation
"GrEn" - a green LEDs saturation
"bLuE" - a blue LEDs saturation
"Vhit" - a white LEDs saturation
"AMbr" - a amber LEDs saturation
"CtO" - a colour temperature correction

"V.C.Vh" - a virtual colour wheel
"Stro"- a strobe, shutter
"dinn"- a dimmer
"din.F" a fine dimmer
4.Press the ENTER button and use the UP/DOWN buttons to set value , press the ENTER button to confirm it.

4.5 Test sequences ("tESt")

Use this menu to run test sequences without an external controller, which will show you some possibilities of using the ArcSource 24 MC Submersible.

4.6 Stand-alone setting ("St.AL")

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.

"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 ite "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. Use the menu to run desired program.
1. Use the UP/DOWN buttons to find "PLAy" 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 program. The fixture offers 3 freely editable programs (PrG.1-Prog.3) each up to 40 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 fade time=5 second and step time =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.1" - "St. 40") 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 program steps (value 1-40). This value should be set before start
       programming (e.g. if you want to create program with 10 steps, set P.End=10).
      "rEd" - a red LEDs saturation
      "GrEn" - a green LEDs saturation
      "bLuE" - a blue LEDs saturation
      "Vhit" - a white LEDs saturation
      "AMbr" - an amber LEDs saturation
      "CtO" - a colour temperature correction
      "V.C.Vh" - a virtual colour wheel
      "Stro"- a strobe, shutter
      "dinn"- a dimmer
      "din.F" 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 if you stay in a last program step.
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 ESCAPE button to go by one menu level back and select another program step.

8

4.7 Special functions ("SPEC")

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

"rdMH" --- RDM Code. This menu item shows the second part of the RDM identification code.
"L. tyP." --- LED colour variant. This menu allows to set desired colour variant according to connected LED module.

   "rGbV" – RGBW variant.
   "Si. Co."– Single colour variant.
   "SM.Wh.– Smart white variant.
   "rGbA" - RGBA variant.
Note: The menu items and DMX chart will be changed according to set colour variant!

"HoLd" --- Holding DMX values. If the function is on, the last received DMX values are stay in the fixture in case, that data receiving was interrupted (e.g. disconnected DMX controller).

"AdJ" --- Adjustment. The menu allows adjustment of white colours.
    "MAn.C."- Use the menu to set DMX values of fixture´s channels.
    "CaL. C." - A calibration of white colours by means of an automatic calibration with
     a factory equipment.
      "rEd" - a red LEDs calibration (0-255)
      "GrEn" - a green LEDs calibration (0-255)
      "bLuE" - a blue LEDs calibration (0-255)
      "Vhit" - a white LEDs calibration (0-255)
    "CAL.t." – Selection of colour temperatures for manual calibration: 2700K, 3200K, 4200K,
     5600K, 8000K.

Manual colour calibration:
1. Connect the fixture to the mains , go to the "MAn.C." menu and set the shutter,dimmer, red, green, blue
 and white channel at 255DMX and let the LED module heat up (cca 1 hour).
2. Go to the "CAL.t." menu, select "2700K" item and by means of the "rEd", "GrEn" ,"bLuE" , "Vhit"
 items adjust the 2700K colour temperature as exactly as possible ($\Delta u´v´= 0$).
 After calibration, select and confirm item "SAVE" to save adjusted values.
3. Go to the "CAL.t." menu, select "3200K" item and by means of the "rEd", "GrEn" ,"bLuE" , "Vhit" items
 adjust the 3200K colour temperature as exactly as possible ($\Delta u´v´= 0$).
 After calibration, select and confirm item "SAVE" to save adjusted values..
4. Repeat this procedure for rest of colour temperatures (4200K, 5600K, 8000K).

uPd.b. --- Software update. The menu item allows you to update software in the Control unit and connected LED module via either serial or USB port of PC.
The following items are required in order to update software:
- PC running Windows or Linux or macOS
- DSU file
- Flash cable RS232/DMX, P/N13050624 (if you want to use a serial port of PC)
- Robe Universal Interface or Robe Universal interface WTX (if you want to use an USB port of PC)
After the software update the fixture will be set to default values.

To update software in the fixture:
1. DSU file is available from Robe web site at WWW.robe.cz.
 File with extension zip is intended for Windows (used and tested from XP to W10 on 32/64bit systems).
 File with extension tbz is intended for Linux (used and tested on Debian and Ubuntu 32/64bit).
 File with extension dmg is intended for macOS (used and tested on OSX up to Sierra) XQuartz required,
 install it from https://www.xquartz.org/
 Save the download file to a folder on your computer.
 In case that you use windows, extract files in the zip file (e.g. DSU_ArcPower24MC_3.zip)
2. Disconnect the fixture from DMX controller.
3. If you use the flash cable RS232/DMX, connect a serial port of your computer with DMX input of the fixture
 by means of the cable.
 If you use the Robe Universal Interface, connect a USB port of your computer with the Robe Universal Interface
 by means of the USB cable and DMX input of the fixture with the DMX output of the Robe Universal Interface
 via a DMX cable.
4. Switch the fixture to the update mode (tab "SPEC" --> "uPd.b."--> "yES.").
 Note: If you do not want to continue in the software update, you have to switch off and on the fixture
 to escape from the updating mode.

We recommend to cancel all running programs on your computer before starting the software update.
5. Double-click the software uploader file (e.g. DSU_ArcPower24MC_3.exe) in
   the extracted files. The Software Uploader program will start running.
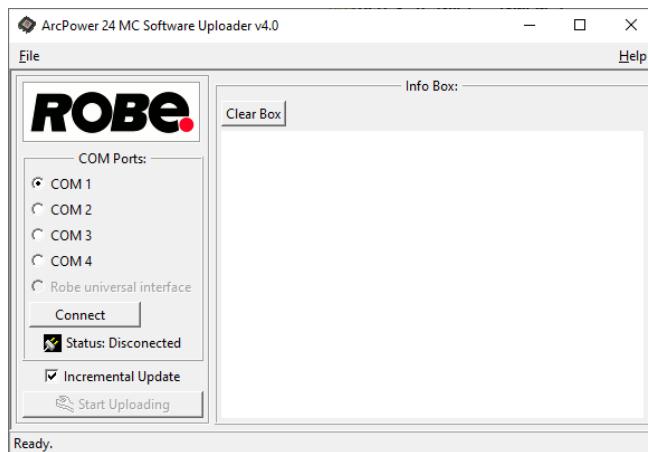
6. Select correct "COM " number if you use a Flash cable RS232/DMX or select "Robe Universal Interface "
   if you use the Robe Universal Interface/Robe Universal Interface WTX and then click on the "Connect" button.
7. If the connection is OK, click the "Start Uploading" button to start software uploading. It will take several
   minutes to perform software update.
   If the option "Incremental Update" is not checked, all processors will be updated (including processors with
   the same software version).
   If you wish to update only processors with new version of software, check the "Incremental Update box".
   Avoid interrupting the process. Update status is displayed in the "Info Box" window.
   When the update is finished, the line with the text "Fixture is successfully updated" will appear in
   this window.

In case upload process is interrupted (e.g. power loss), the fixture stays in "Updating mode" and you will have
to repeat the software update again.

Another way, how to update software in the fixtures (especially large installation of fixtures) is to use the ROBE
Uploader. It is a software for automatized software update of Robe fixtures. It takes advantage of RDM
 support).
For more information please see https://www.robe.cz/robe-uploader/.

5. ArcPower 24 MC (24V) - DMX chart (RGBW variant)

Version 1.0

Mode/Channel				Value	Function	Type of control
1	2	3	4			
-	1	1	1	0-255	**Red** Red LEDs saturation control (0-100%)	proportional
-	2	2	2	0-255	**Green** Green LEDs saturation control (0-100%)	proportional
-	3	3	3	0-255	**Blue** Blue LEDs saturation control (0-100%)	proportional
-	-	4	4	0-255	**White** White LEDs saturation control (0-100%)	proportional
-	-	-	5	0 1-255	**CTO** No function Colour temperature correction (0-100%) "	 proportional
1	-	-	6	0 1-2 3 4-5 6 7-9 10-12 13-15 16 17-55 56 57 - 95 96 97 – 134 135 136 - 174 175 176 -214 215 216 - 246 247 248-251 252-255	**Virtual Colour Wheel** No function (for DMX mode 4) White (R+G+B+W=full for DMX mode 1) White 2700 K White 2700 K (Halogen lamp mode) White 3200 K White 3200 K (Halogen lamp mode) White 4200 K White 5600 K White 8000 K Blue (Blue=full, Red+Green+White=0) Red=0, Green->up,Blue =full, White=0 Light Blue (Red=0, Green=full, Blue =full, White=0) Red=0, Green=full, Blue->down, White=0 Green (Red=0, Green=full, Blue =0, White=0) Red->up, Green=full, Blue=0, White=0 Yellow (Red=full, Green=full, Blue=0, White=0) Red=full, Green->down, Blue=0, White=0 Red(Red=full, Green=0, Blue=0, White=0) Red=full, Green=0, Blue->up, White=0 Magenta (Red=full, Green=0, Blue=full, White=0) Red -> down, Green=0, Blue=full, White=0 Blue (Red=0, Green=0, Blue=full, White=0) Rainbow effect with fade time (from fast to slow) Rainbow effect without fade time (from fast to slow)	step step step step step step step step step proportional step proportional step proportional step proportional step proportional step proportional step proportional proportional
-	-	-	7	0-31 32-63 64-95 96-127 128-143 144-159 160-191 192-223 224-255	**Shutter/Strobe** Shutter closed Shutter open Strobe effect from slow--> fast Shutter open Opening pulses in sequences from slow--> fast Closing pulses in sequences from fast--> slow Shutter open Random strobe effect from slow--> fast Shutter open	step step proportional step proportional proportional step proportional step
2	-	-	8	0-255	**Dimmer (coarse)** Dimmer intensity from 0% to 100%	proportional
-	-	-	9	0-255	**Dimmer (fine)** Fine dimming	proportional

6. ArcPower 24 MC (24V) - DMX chart (SW variant)

Version 1.1

Mode/Channel			Value	Function	Type of control
1	2	3			
1	-	1	0-255	**Warm white** Warm white LEDs saturation control (0-100%)	proportional
2	-	2	0-255	**Cool white** Cool white LEDs saturation control (0-100%)	proportional
-	1	3	0 1-2 3-4 5-6 7-8 9-10 11-12 13-14 15-16 17-247 248 249 250-255	**Virtual Colour Wheel** No function White 2800 K White 3200 K White 3800 K White 4200 K White 4600 K White 5000 K White 5600 K White 6300 K Warm white --> Cool white Rainbow effect (with fade time) Rainbow effect Reserved	step step step step step step step step step proportional step step
-	-	4	0-31 32-63 64-95 96-127 128-143 144-159 160-191 192-223 224-255	**Shutter/Strobe** Shutter closed Shutter open Strobe effect from slow--> fast Shutter open Opening pulses in sequences from slow--> fast Closing pulses in sequences from fast--> slow Shutter open Random strobe effect from slow--> fast Shutter open	step step proportional step proportional proportional step proportional step
-	2	5	0-255	**Dimmer (coarse)** Dimmer intensity from 0% to 100%	proportional
-	-	6	0-255	**Dimmer (fine)** Fine dimming	proportional

7. ArcPower 24 MC (24V) - DMX chart (Single colour variant)

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	**Shutter/Strobe** Shutter closed Shutter open Strobe effect from slow--> fast Shutter open Opening pulses in sequences from slow--> fast Closing pulses in sequences from fast--> slow Shutter open Random strobe effect from slow--> fast Shutter open	step step proportional step proportional proportional step proportional step
1	2	0-255	**Dimmer (coarse)** Dimmer intensity from 0% to 100%	proportional
-	3	0-255	**Dimmer (fine)** Fine dimming	proportional

8. ArcPower 24 MC (24V) - DMX chart (RGBA variant)

Version 1.0

Mode/Channel			Value	Function	Type of control
1	2	3			
-	1	1	0-255	**Red** Red LEDs saturation control (0-100%)	proportional
-	2	2	0-255	**Green** Green LEDs saturation control (0-100%)	proportional
-	3	3	0-255	**Blue** Blue LEDs saturation control (0-100%)	proportional
-	4	4	0-255	**Amber** Amber LEDs saturation control (0-100%)	proportional
-	-	5	0 1-255	**CTO** No function Colour temperature correction (0-100%)	 proportional
1	-	6	0 1-2 3 4-5 6 7-9 10-12 13-15 16 17-55 56 57 - 95 96 97 – 134 135 136 - 174 175 176 -214 215 216 - 246 247 248-251 252-255	**Virtual Colour Wheel** No function (for DMX mode 3) White (R+G+B+A=full for DMX mode 1) White 2700 K White 2700 K (Halogen lamp mode) White 3200 K White 3200 K (Halogen lamp mode) White 4200 K White 5600 K White 8000 K Blue (Blue=full, Red+Green+Amber=0) Red=0, Green->up,Blue =full, Amber =0 Light Blue (Red=0, Green=full, Blue =full, Amber =0) Red=0, Green=full, Blue->down, Amber =0 Green (Red=0, Green=full, Blue =0, Amber =0) Red->up, Green=full, Blue=0, Amber =0 Yellow (Red=full, Green=full, Blue=0, Amber =0) Red=full, Green->down, Blue=0, Amber =0 Red(Red=full, Green=0, Blue=0, Amber =0) Red=full, Green=0, Blue->up, Amber =0 Magenta (Red=full, Green=0, Blue=full, Amber=0) Red -> down, Green=0, Blue=full, Amber =0 Blue (Red=0, Green=0, Blue=full, Amber =0) Rainbow effect with fade time (from fast to slow) Rainbow effect without fade time (from fast to slow)	step step step step step step step step step proportional step proportional step proportional step proportional step proportional step proportional step proportional proportional
-	-	7	0-31 32-63 64-95 96-127 128-143 144-159 160-191 192-223 224-255	**Shutter/Strobe** Shutter closed Shutter open Strobe effect from slow--> fast Shutter open Opening pulses in sequences from slow--> fast Closing pulses in sequences from fast--> slow Shutter open Random strobe effect from slow--> fast Shutter open	 step step proportional step proportional proportional step proportional step
2	-	8	0-255	**Dimmer (coarse)** Dimmer intensity from 0% to 100%	proportional
-	-	9	0-255	**Dimmer (fine)** Fine dimming	proportional

9. Technical specifications

Input voltage:	100-240V; 277V AC; 50-60Hz
LED output voltage:	24V DC
Maximum power consumption:	
Minimum mode	35 W
Medium mode	70 W
Maximum mode	80 W
Control:	4-digit LED display & 4 buttons
Editable programs:	3, each up to 40 steps
Connection:	DMX: connection block
	ArcSource 24 MC Submersible: connection block
	Power: connection block
Ambient working temperature:	-20/+40°C
Ingress protection:	for CE: IP66
	for cETLus: Suitable for wet locations
Weight:	2.85 kg

Dimensions (mm):
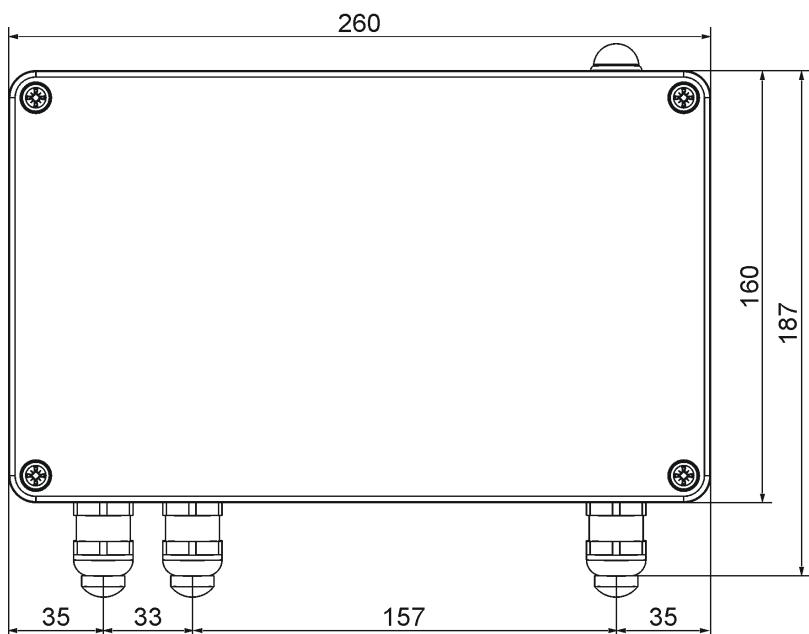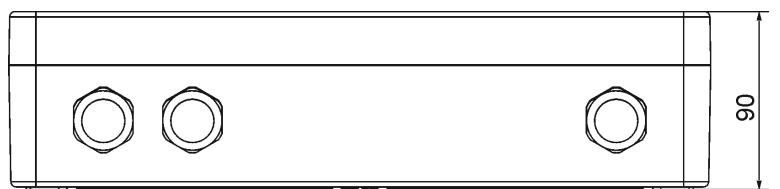
Included items

    1 x ArcPower 24 MC (24V)

    3 x Reducing seal P/N 13051388 (for cable of diameter 4-8mm)

    1 x Reducing seel P/N 17030908 (for two cables of diameter 4,8-6,5mm)