

# Eminere 1 Eminere 2 Eminere 3 Eminere 4



Version 1.8

# **USER MANUAL**

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#### FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE POWERING OR INSTALLING YOUR Eminere ! Save it for future reference.

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure 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 device.

Unauthorized modification will void warranty.

# 1. Safety instructions

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

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, servicing or installing.

Make sure the data/power cable is not damaged by sharp edges. Check the fixture and the power cord from time to time.

Do not install the unit near an open flame.

During operation the housing becomes hot.

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 into the beam from a short distance without suitable protective eyewear. Do not look at LEDs with magnifiers or similar optical instruments that may concentrate the light output.

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

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 when the fixture is under operation.

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

The fixture becomes hot during operation. Allow the fixture to cool approximately 30 minutes prior to servicing or maintenance.

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

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 product (covers and cables) must not be exposed to a high frequency electromagnetic field higher than 3V/m.

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.

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 warranty becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock etc.

# 2. Fixture exterior view



- 1. Transparent glass cover
- 2. LED module
- 3. Output connector
- 4. Input connector
- 5. Mounting brackets
- 6. Aluminium base

# 3. Installation

# **3.1 Mounting the fixture**

The Eminere can be arranged in any orientation on a flat, non-flammable surface by means of two mounting brackets (5), the LED module (2) can be tilted (+95°/-95°) to get access to mounting brackets (5).



# 3.2 Connection to mains

The unit must be installed by a qualified electrician in accordance with all national and local electrical and construction codes and regulations. This device falls under class one and must be grounded!

The Eminere is equipped with auto-switching power supply that automatically adjusts to any 50/60Hz AC power source from 120-277 Volts.

The following wiring of the input/output connectors applies to the fixtures marked X on their labels only. Older versions of the Emineres have swapped D- and D+ and do not have mark X on their labels.



Fixture's Amphenol connectors are dust and water protected according to IP 67 by mating with related Amphenol connectors.

They cannot stay disconnected outdoor.

# The output panel connector at last fixture in the Eminere chain has to always be covered with the water-tight cap to keep declared IP rating.

The Eminere modules should be connected to the E-box which allows power supply of the Eminere modules and their control.

#### Do not connect (disconnect) Emineres to the E-box or Booster box and each other when they are under voltage!

# When you change any setting of the E-box, disconnect the E-box from power and connect it to power again to activate changes which you have made.

Examples of connection for various versions of the E-box.

Please read the E-box user manual for more information about its setting and connection to Eminere modules. Needed cables are stated in the chapter "Technical information".

#### E-box Daisy



#### E-box Pro



#### E-box Lite



Number of connected Emineres to one E-box output depends on a cable length, power voltage, type of Eminere and E-box and operation mode.

The tables below state max. theoretical number of Emineres connected to the one LED output of the E-box without Booster boxes. The following tables apply for the Standard mode of E-boxes.

EMINERE 1		Volta	age	
Cable length *	120V	190V	230V	277V
10 m	83	131	159	191
20 m	83	131	159	191
30 m	58	131	159	191
50 m	35	88	128	186
70 m	25	63	92	133
100 m	17	44	64	93
200 m	9	22	32	47

EMINERE 2		Volt	age	
Cable length *	120V	190V	230V	277V
10 m	41	64	78	94
20 m	41	64	78	94
30 m	28	64	78	94
50 m	17	43	63	91
70 m	12	31	45	65
100 m	9	21	31	46
200 m	4	11	16	23

EMINERE 3		Volt	age	
Cable length *	120V	190V	230V	277V
10 m	28	44	53	64
20 m	28	44	53	64
30 m	19	44	53	64
50 m	12	29	43	62
70 m	8	21	31	44
100 m	6	15	21	31
200 m	3	7	11	16

EMINERE 4		Volt	age	
Cable length *	120V	190V	230V	277V
10 m	21	33	40	48
20 m	21	33	40	48
30 m	15	33	40	48
50 m	9	22	32	47
70 m	6	16	23	38
100 m	4	11	16	23
200 m	2	5	8	12

\* Cable length is a total cable length between E-box and last connected Eminere.

Example: Total cable length=L1+L2+L3



**Notice for the E-box Star**: The tables above state max. total number of Emineres connected to 6 LED outputs of the E-box Star (or max. number of Emineres connected to one output if the rest of outputs is not connected). The E-box Star has only one power input!

# 3.3 The Booster box

To compensate a voltage drop in large installation, the Booster boxes have to be connected in the chain of Emineres at every LED output of the E-box.

The following tables give numbers of Emineres after which the Booster box has to be installed in the chain of Emineres (at one LED output of the E-box). The following tables apply for the Standard mode of E-boxes.

EMINERE 1	Max. number of Emineres 1= 191			
		Voltage		
Cable length	120V	190V	230V	277V
10 m	83,166	131	159	-
20 m	83,166	131	159	-
30 m	58,116,174	131	159	-
50 m	35,70,105,140,175	88,176	128	186
70 m	25,50,75,100,125,150,175	63,126,189	92,184	133
100 m	17,34,51,68,85,102,119, 136,153,170,187	44,88,132,176	64,128	93,186

200 m	22,44,66,88,110, 132,154,176	32,64,96,128, 160	47,94,141, 188

EMINERE 2	Max. number of Emineres 2= 94			
		Voltage		
Cable length	120V	190V	230V	277V
10 m	41,82	64	78	-
20 m	41,82	64	78	-
30 m	28,56,84	64	78	-
50 m	17,34,51,68,85	43,86	63	91
70 m	12,24,36,48,60,72,84	31,62,93	45,90	65
100 m	9,18,27,36,45,54,60,72,81, 90	21,42,63,84	31,62,93	46,92
200 m	4,8,12,16,20,24,28,32,36 40,44,48,52,56,60,64,68,72 76,80,84,88,92	11,22,33,44,55, 66,77,88	16,32,48,64,80	23,46,69,92

EMINERE 3	Max	number of Eminer	es 3= 64	
		Voltage		
Cable length	120V	190V	230V	277V
10 m	28,56	44	53	-
20 m	28,56	44	53	-
30 m	19,38,57	44	53	-
50 m	12,24,36,48,60	29,58	43	62
70 m	8,16,24,32,40,48,56	21,42,63	31.62	44
100 m	6,12,18,24,30,36,42,48,54, 60	15,30,45,60	21,42,63	31,62
200 m	3,6,9,12,15,18,21,24,27,30, 33,36,39,42,45,48,51,54,57 60,63	7,14,21,28,35,42 49,56,63	11,22,33,44,55	16,32,48,

EMINERE 4	Max	number of Eminer	es 4= 48	
		Voltage		_
Cable length	120V	190V	230V	277V
10 m	21,42	33	40	-
20 m	21,42	33	40	-
30 m	15,30,45	33	40	-
50 m	9,18,27,36,45	22,44	32	47
70 m	6,12,18,24,30,36,42	16,32	23,46	38
100 m	4,8,12,16,20,24,28,32,36, 40,44	11,22,33,44	16,32	23,46
200 m	2,4,6,8,10,12,14,16,18,20, 22.24.26,28,30,32,34,36,38 40,42,44,46	5,10,15,20,25,30 35,40,45	8,16,24,32,40	12,24,36

Example: E-box Daisy, Power supply= 230V, Cable length=70m, fixture=Eminere 2 The Booster box has to be connected after every 45th Eminere 2 (fixture 45 and fixture 90) from 94 fixtures.



# 3.4 The Booster box installation

ALWAYS DISCONNECT THE EMINERES FROM MAINS BEFORE CONNECTING/DISCONNECTING THE BOOSTER BOX.

The Booster box falls under protection class I. Therefore, every Booster box has to be connected to a mains socket outlet with a protective earthing connection.

1. Unscrew the four screws (1) from the cover (2) on the Booster box to get access to the terminal block (3) and two mounting holes of diameter of 4.6 mm (4).

2. Screw the Booster box on a non-flammable flat surface and connect cables.



The Cable gland M20x1.5 for Power IN (5) is intended for a cable of a diameter of 7-13mm. Remove the end cap from the cable gland before passing the cable.

Power connection

	L	N	(earth)
Core (EU)	Braun	Blue	Green/yellow
Core (US)	Black	White	Green

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.

Cable gland M20 MS:



The cable gland M20 MS with a standard seal serves for a cable of diameter of 6-12mm, for smaller diameter of cable (4-8mm) you have to remove the original seal from the cable gland M20 and use the enclosed reducing seal instead of it. The reducing seal for diameter of cable 4-8mm (P/N 13051388) is enclosed in the Booster box.



3. Screw the cover (2) back on the Booster box.

# 4. Technical specifications

#### Power supply

- Electronic auto-ranging
- Input voltage: 120 277V AC, 50/60 Hz
- Power consumption:
  - Eminere 1: 25W Eminere 2: 50W Eminere 3: 70W Eminere 4: 90W
- Inrush current:

Eminere 1: <70A/250µs Eminere 2: <70A/250µs Eminere 3: <100A/200µs Eminere 4: <100A/200µs

#### Optic

- Light source:
  - Eminere 1: 12 x high power LEDs Eminere 2: 24 x high power LEDs Eminere 3: 36 x high power LEDs Eminere 4: 48 x high power LEDs
- Colour variants: RGBW, RGBA, single colour
- Beam Angle:
  - Symetrical: 9°, 15°, 30°, 50°, 65°, 100°
  - Bi-symetrical: 10° x 30°, 30° x 10°, 10° x 60°, 60° x 10°, 35° x 70°, 70° x 35°, 15° x 90°, 90° x 15° Wallwasher, Wide Wallwasher
- Projected LED Life: 60.000 Hrs (L70@25°/C77F)

#### **Compatible drivers**

- E-box Daisy
  - 1 Output 1 Main power Input Control: DMX, Art-Net, sACN , W-DMX control, RDM Pixel control (1px= 1ft) 120-277V Input Connection via terminal blocks, inlets via grommet IP67
- E-box Star
  - 6 outputs 1 Main power Input Control: DMX, Art-Net, sACN , W-DMX control, RDM Pixel control (1px= 1ft) 120-277V Input Connection via terminal blocks, inlets via grommet IP67
- E-box Pro

6 outputs 6 Main power Inputs Control: DMX, Art-Net, sACN, W-DMX control, RDM Pixel control (1px= 1ft) 120-277V Input Connection via terminal blocks, inlets via grommet

#### IP67

#### • E-box Lite

1 output 1 Main power Input Control: DMX, W-DMX control, RDM Pixel control (1px= 1ft) 120-277V Input Connection via screw terminal blocks, inlets via grommet IP67

#### **Mounting method**

- Via two L-shape brackets
- LED module "tilt" adjustment range: -95°/+95°

#### Sizes

- Eminere 1 (300mm / 1ft)
- Eminere 2 (600mm / 2ft)
- Eminere 3 (900mm / 3ft)
- Eminere 4 (1200mm / 4ft)

#### Housing

- Aluminium extruded body with die-casted end caps
- Tempered glass

#### **Cooling system**

Convection

#### **Total heat dissipation**

- Eminere 1: 85 BTU/h (calculated)
- Eminere 2: 171 BTU/h (calculated)
- Eminere 3: 256 BTU/h (calculated)
- Eminere 4: 307 BTU/h (calculated)

#### **Protection factor**

- CE: IP 67
- US: Suitable for wet location

#### Impact rating

• CE: IK06

#### **Operating ambient temperature range**

• -20°C /+40°C (-4°F /+104°F)

#### **Operating temperature**

+67°C @ Ambient +40°C (+153°F @ Ambient +104°F)

#### Connection

- Input: panel connector Amphenol ABAB-DMQ06000021-IN (P/N13052952)
- Output: panel connector Amphenol ABAB-DAQ06000021 (P/N13052953) + water-tight cap

#### Weight

- •Eminere 1: 2.5 kg (5.5 lbs)
- •Eminere 2: 4.2 kg (9.3 lbs)
- •Eminere 3: 5.9 kg (13 lbs)
- •Eminere 4: 8.7 kg (19.1 lbs)

Dimensions (All dimensions in mm [inch])



#### • Booster box



#### Included items

- 1 x Eminere
- 1 x User manual

### **Optional accessories**

Leader cables:	
P/N 13053005	Cable CE Leader FF 2m ABB1-DFQ06
P/N 13053006	Cable CE Leader FF 5m ABB1-DFQ06
P/N 13053007	Cable CE Leader FF 10m ABB1-DFQ06
P/N 13053008	Cable CE Leader FF 25m ABB1-DFQ06
P/N 13053009	Cable CE Leader FF 50m ABB1-DFQ06
P/N 13053010	Cable US Leader FF 2m ABB1-DFQ06
P/N 13053011	Cable US Leader FF 5m ABB1-DFQ06
P/N 13053012	Cable US Leader FF 10m ABB1-DFQ06
P/N 13053013	Cable US Leader FF 25m ABB1-DFQ06
P/N 13053014	Cable US Leader FF 50m ABB1-DFQ06
P/N 13053015	Cable CE Leader MM 2m ABB1-DMQ06

P/N 13053016 Cable CE Leader MM 5m ABB1-DMQ06 P/N 13053017 Cable CE Leader MM 10m ABB1-DMQ06 P/N 13053018 Cable CE Leader MM 25m ABB1-DMQ06 P/N 13053019 Cable CE Leader MM 50m ABB1-DMQ06 P/N 13053020 Cable US Leader MM 2m ABB1-DMQ06 P/N 13053021 Cable US Leader MM 5m ABB1-DMQ06 P/N 13053022 Cable US Leader MM 10m ABB1-DMQ06 P/N 13053023 Cable US Leader MM 25m ABB1-DMQ06 P/N 13053024 Cable US Leader MM 50m ABB1-DMQ06 P/N 13053025 Cable CE Leader FM 2m ABB1-DBQ06 P/N 13053026 Cable CE Leader FM 5m ABB1-DBQ06 P/N 13053027 Cable CE Leader FM 10m ABB1-DBQ06 P/N 13053028 Cable CE Leader FM 25m ABB1-DBQ06 P/N 13053029 Cable CE Leader FM 50m ABB1-DBQ06 P/N 13053030 Cable US Leader FM 2m ABB1-DBQ06 P/N 13053031 Cable US Leader FM 5m ABB1-DBQ06 P/N 13053032 Cable US Leader FM 10m ABB1-DBQ06 P/N 13053033 Cable US Leader FM 25m ABB1-DBQ06 P/N 13053034 Cable US Leader FM 50m ABB1-DBQ06 P/N 13053035 Cable CE Leader MF 2m ABB1-DAQ06 P/N 13053036 Cable CE Leader MF 5m ABB1-DAQ06 P/N 13053037 Cable CE Leader MF 10m ABB1-DAQ06 P/N 13053038 Cable CE Leader MF 25m ABB1-DAQ06 P/N 13053039 Cable CE Leader MF 50m ABB1-DAQ06 P/N 13053040 Cable US Leader MF 2m ABB1-DAQ06 P/N 13053041 Cable US Leader MF 5m ABB1-DAQ06 P/N 13053042 Cable US Leader MF 10m ABB1-DAQ06 P/N 13053043 Cable US Leader MF 25m ABB1-DAQ06 P/N 13053044 Cable US Leader MF 50m ABB1-DAQ06 Jumper cables: P/N 13053045 Cable CE Jumper FF/FM 0,25m ABC1-DFQ06 P/N 13053046 Cable CE Jumper FF/FM 0,5m ABC1-DFQ06 P/N 13053047 Cable CE Jumper FF/FM 1m ABC1-DFQ06 P/N 13053048 Cable CE Jumper FF/FM 2m ABC1-DFQ06 P/N 13053049 Cable CE Jumper FF/FM 3m ABC1-FQ06 P/N 13053050 Cable CE Jumper FF/FM 5m ABC1-DFQ06 P/N 13053051 Cable CE Jumper FF/FM 10m ABC1-DFQ06 P/N 13053052 Cable US Jumper FF/FM 0,25m ABC1-DFQ06 P/N 13053053 Cable US Jumper FF/FM 0,5m ABC1-DFQ06 P/N 13053054 Cable US Jumper FF/FM 1m ABC1-DFQ06 P/N 13053055 Cable US Jumper FF/FM 2m ABC1-DFQ06 P/N 13053056 Cable US Jumper FF/FM 3m ABC1-DFQ06 P/N 13053057 Cable US Jumper FF/FM 5m ABC1-DFQ06 P/N 13053058 Cable US Jumper FF/FM 10m ABC1-DFQ06 P/N 13053059 Cable CE Jumper MF/FM 0,25m ABC1-DAQ06 P/N 13053060 Cable CE Jumper MF/FM 0,5m ABC1-FQ06 P/N 13053061 Cable CE Jumper MF/FM 1m ABC1-DFQ06 P/N 13053062 Cable CE Jumper MF/FM 2m ABC1-DFQ06 P/N 13053063 Cable CE Jumper MF/FM 3m ABC1-DFQ06 P/N 13053064 Cable CE Jumper MF/FM 5m ABC1-DFQ06 P/N 13053065 Cable CE Jumper MF/FM 10m ABC1-DFQ06 P/N 13053066 Cable US Jumper MF/FM 0,25m ABC1-DAQ06 P/N 13053067 Cable US Jumper MF/FM 0,5m ABC1-AQ06

P/N 13053068 Cable US Jumper MF/FM 1m ABC1-DAQ06 P/N 13053069 Cable US Jumper MF/FM 2m ABC1-DAQ06 P/N 13053070 Cable US Jumper MF/FM 3m ABC1-DAQ06 P/N 13053071 Cable US Jumper MF/FM 5m ABC1-DAQ06 P/N 13053072 Cable US Jumper MF/FM 10m ABC1-DAQ06 P/N 13053167 Cable CE Jumper FF/FM X 0,2m

E-boxes:

 P/N 10063655
 E-box Daisy

 P/N 10063638
 E-box Daisy/W

 P/N 10063657
 E-box Lite

 P/N 10063653
 E-box Lite/W

 P/N 10063654
 E-box PRO

 P/N 10063655
 E-box PRO

 P/N 10063656
 E-box Star

 P/N 10063654
 E-box Star/W

P/N 10063712 Booster box

# 5. Cleaning and maintenance

DANGER ! Disconnect from the mains before starting any maintenance or cleaning work

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

Maintenance and service operations are only to be carried out by a qualified person. Should you need any spare parts, please use ROBE OEM parts.

# 5.1 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.

# 6. ChangeLog

Version of manual	Date of issue	Description of changes
1.1	07/10/2019	Inrush current added to chapter Technical Specifications
1.2	25/11/2019	Booster box added
1.3	06/01/2020	Electromagnetic emission information
1.4	22/04/2020	Technical specifications more specified
1.5	18.05/2020	Wiring of input/output connectors changed
1.6	22/06/2020	Voltage range change
1.7	10/09/2020	Booster box seal overview added
1.8	16/12/2020	New dimensions picture

This section summarizes changes in the user manual.

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