grandMA3 Quick Manual

QUICK MANUAL

grandMA3 consoles

english | deutsch

M A

Intended Use

The grandMA3 consoles control all kinds of lighting genres such as conventional, moving lights, LEDs, video, and media via DMX signal or within a network environment.

All grandMA3 components, despite different hardware solutions, use the same software.

All components are fully integrable into the network environment.

Use all grandMA3 components and accessories within closed rooms and in the permissible environmental conditions only. Installation and connection of the devices are explicitly to be carried out by trained personnel in compliance with all safety regulations.

Safety

Symbols and Warning Labels

Warning – Danger area

Caution– Risk of electric shock

Risk of Electric Shock

The device is to be serviced by qualified personnel only as live parts may be exposed when opening and/or removing coverings.

Touching live parts may cause electric shock.

Dispose of as hazardous waste. Follow the applicable regulations.

For more information see Disposal.

Recycle battery

Declaration of conformity

For more information see Conformity.

Operating voltage ON/OFF

Lithium Ion Battery

Warning

Safety instructions for the built-in lithium ion battery:

- The grandMA3 full-size, grandMA3 light and their CRV versions have a rechargeable lithium ion battery (LiFePo4) for an uninterrupted power supply (UPS);
- Only use batteries approved by MA Lighting Technology GmbH;
- Misuse or improper handling of the battery can cause it to explode or the fluid inside the battery to discharge.

Note the following instructions in order to avoid injuries:

- Do not open or disassemble the battery;
- Do not drill holes into the battery or damage it in any other different manner;
- Do not short-circuit the battery;
- Protect the battery against moisture and humidity;
- Protect the battery against fire;
- Keep the battery away from children;
- Do not use the battery if it is defective;
- Do not try to exchange the built-in battery. The exchange of the battery must be performed by a service technician or a repair center approved by MA Lighting Technology GmbH.

We recommend to charge the battery at least once a year in order to avoid deep discharge.

Note the transportation regulations UN 38.3. – UN Recommendations on the Transport of Dangerous Goods, 6th edition, section 38.3.

For more information see Transport.

> **Warning:**
>
> The device has to be grounded.
>
> Do not ignore the safety purpose of the grounding-type plug. A grounding-type plug has two blades and a third
>
> grounding connection. The third connection is provided for your safety.

Read all the instructions in this Quick Manual thoroughly, especially the General Safety Instructions further down and the Limitations.

Follow the instructions and keep this Quick Manual for future use.

Follow all cautions and warnings stated in this Quick Manual and indicated on the device.

> **Important:**
>
> All repair and service work has to be exclusively performed by qualified service technicians.

- This device is state-of-the-art technology;
- However, residual risks cannot be ruled out;
- To avoid risks, follow the safety instructions;
- This class A device can cause radio frequency interference in a domestic environment;
- This device is intended for professional use only and is not suitable for residential use.

MA Lighting Technology GmbH does not bear the damage which may occur due to inobservance of the safety instructions.

Avoid Risks Caused by Electric Current

Defective device or defective power cable can cause severe or fatal injury due to electrical shock.

Follow the safety instructions to avoid the risks caused by electric current.

- Do not use a defective power cable;
- Do not open screwed down covers from the housing;
- Use the device only if it is in a technically impeccable condition;
- Do not repair the device on your own;
- Do not reverse engineer the device, and make any changes to its components, and accessories;
- Do not expose the device to rain or moisture;
- Do not submerge the device in water.

General Safety Instructions

To avoid injury or damage to the device:

- Do not put your hands inside the device during operation;
- Device and power cable must be kept away from children under the age of 8;
- Children are not allowed to play with the device;
- Disconnect the power supply from electric voltage during thunderstorms;
- Disconnect the power supply from electric voltage if it is unattended for a longer period of time;
- Disconnect the power supply before cleaning the device;
- Do not use any liquid or spray cleanser. Use a dry cloth only;
- Do not use device in the vicinity of water;
- Do not expose it to a humid environment;
- Do not pour any liquids over the device.
- Do not block or cover any ventilation holes in the housing. These are essential for the airflow within the device and protect the device from overheating;

- Do not insert any objects into the ventilation holes of the device as these could get in contact with live parts or could cause short circuits, fire and/or an electric shock;
- Do not place any objects on the power cable. Protect it from being walked on or pinched, particularly at the connector and where the cables exit the device;
- When using an extension cable, make sure the rated output of all devices connected in series does not exceed the maximum rated output of the extension cable;
- Do not support yourself on the device;
- Do not place any heavy objects on top of the device;
- Do not use excessive force on keys, buttons, faders, knobs, switch, connector, or monitor wing;
- If the power cable or the main power plug are defective, let a qualified technician replace it immediately;
- Place the device on stable surfaces only. If it is placed on unstable surfaces, it may fall and break.
- Only use power cables which are safety-marked;
- Do not use high-power radio devices or cell phones near the device;
- The device is provided with a safety plug. This plug can only be used with safety outlets;
- As with all industrially manufactured goods, the use of substances that induce an allergic reaction such as aluminum cannot be generally excluded. If you develop an allergic reaction (such as rash, frequent sneezing, red eyes or respiratory difficulties), consult a physician immediately to determine the cause.

If one of the following conditions occurs, disconnect the main power plug and call your local distributor or the technical support!

- Power cable or main power plug is damaged or worn;
- Ingress of liquids;
- The device was exposed to rain or high ambient humidity;
- The device does not function properly, even if you followed all the instructions of this Quick Manual. Only operate the controls as stated in the Quick Manual. Incorrect control settings may damage the device;
- The device fell damaging the housing.

Support

Contact us for any questions about your MA product.

MA Lighting and its extensive distributor network offer an unparalleled technical support. Call on our expertise for help with any problem, no matter if it is about operation, software features, software installations or trouble shooting.

Online Manuals

All MA product related manuals are available as online versions. Just select your MA product and click on the according link. All further documents can be found in our download area. Go to www.malighting.com.

Video Tutorials

Get tips and tricks from our MA experts on your MA product.

MA offers a whole range of videos on how to use your MA product in the best possible way. Just select your series and click on the links to watch the videos on our YouTube channel. Go to www.malighting.com.

Community

Share your knowledge and get help from other MA users.

A community can be stronger and better than the individual. Be part of the MA community! Go to www.malighting.com.

Local Support

If you have a question regarding your MA Lighting product, please first of all contact your local MA product specialists.

Central Support

If you are in need of further assistance or manufacturer support, please fill out an email request on www.malighting.com in Training and Support. Your request will automatically be send to **support@malighting.com** (in English or German). This email service is monitored during MA Lighting's regular business hours in Germany from 8.30 am until 5 pm, Monday through Friday.

Emergency Hotline

In any case of a show critical emergency please contact the MA Lighting support hotline.

Phone +49 5251 68 88 65 99

Please note that this 24/7 hotline is strictly for emergency cases.

Transport

> ⚠️ **Warning:**
>
> -Pay attention to temperature and humidity during transport. For more information see Limitations.
>
> -After the transport check the device.
>
> -If the device or its display is damaged (dented, bent or broken), do not connect the grandMA3 console to power!

> 👆 **Important:**
>
> Be careful when moving or lifting a grandMA3 console, otherwise you may injure your back or other parts of your body.

- The grandMA3 console must be protected from environmental factors such as physical shocks and vibration during transportation;
- Remove all cables before transport;
- Secure the monitor wing using the transport locking on each side of the device;
- In addition to the **transportation regulations UN 38.3** also follow your country´s transportation regulations;

> 👆 **Important:**
>
> The CRV versions of the grandMA3 console do not have a transport locking.

Transport locking in a grandMA3 full-size

- The user is responsible for securely fastening the products for transport and for following the manufacturer´s safety instructions when transporting the device;
  Noncompliance of the safety instructions can result in personal injury or material damage;
- Do not place the grandMA3 console on unstable surfaces;
- Do not place any objects on top of the grandMA3 console.

Limitations

Temperature

Operation:

0 °C up to 40 °C / 32 °F up to 104 °F

> ⚠️ **Caution:**
> -Temperatures that exceed or fall below the range of those stated in this Quick Manual can cause maloperation of displays and other components.
> -Higher temperatures can stress the cooling system of the device and destroy hardware components.

Storage / Transport:

-10 °C up to +50 °C / 14 °F up to 122 °F

Humidity

Operation:

20 % up to 90 % relative humidity (no condensation)

Storage / Transport:
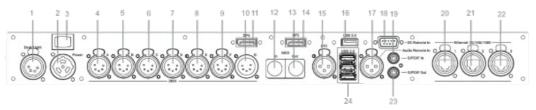
10 % up to 90 % relative humidity (no condensation)

Environment

- Follow all safety instructions;
- Only use the device within its operating limits;
- Only use the device indoors;
- Air must be free of dust and any hazardous or explosive substances;
- Avoid jolting;
- This device is not protected against splash water. Do not use it near water;
- Do not use the device in rain or moisture;
- Do not place the device where it can come in contact with corrosive gases or saline air as this can cause maloperation.

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Quick Start

grandMA3 connectors

grandMA3 full-size back panel

1. Desk light

2. powerCON TRUE1

3. Power switch

4.-10. DMX

11. DisplayPort 4

12. MIDI In

13. MIDI Out

14. DisplayPort 5

15. LTC / SMPTE In

16. USB 3.0

17. Audio Remote In

18. DC Remote In

19. S/PDIF In

20. Ethernet 1

21. Ethernet 2

22. Ethernet 3
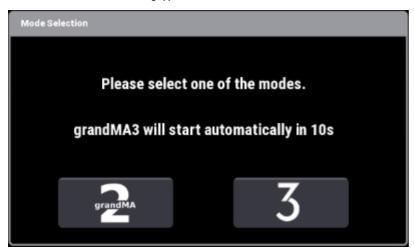
23. S/PDIF Out

24. 3x USB 2.0

Turn on the console

1. Unpack the device.
2. Remove the packaging, cushioning material, and the dust cover.
3. Place the device indoors on a stable surface.
4. Connect external monitors to the console using a native DisplayPort connector.

5. Start the grandMA3 console:
   -Insert powerCON TRUE1 into the corresponding jack.
   -Connect the main power plug.
   -Turn on the power switch:
   -Set it to position **I**.
   -The power switch lights up in red.
   -Press the power button on the front panel.
   -The device starts booting.
   -The **Mode Selection** dialog appears.

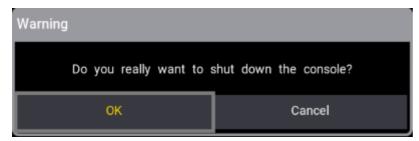*Select mode*

-Tap to select a mode.

Turn off the console

To turn off the grandMA3 console:
-Press the power button on the front panel.
-A warning pop-up appears.

Shut down the grandMA3 console

-Tap OK .
-The grandMA3 console powers down.
-Set the power switch to position **O**.

Maintenance

Hint:

The grandMA3 consoles only require minor attention.

Warning:

All repair and service work has to be exclusively performed by qualified service technicians as live parts may be exposed when opening and / or removing coverings. Touching live parts may cause electric shock.

Warning:

The grandMA3 full-size, the grandMA3 light, and their CRV versions have an air intake filter on the back.

Do not wash the filter.

Clean it using a vacuum cleaner only.

Important:

The intervals between maintenance may differ depending on the frequency of transport and the operational environment.

- Disconnect power supply before cleaning;
- Clean the surface using dry cloth only;
- Clean the wrist rest using a damp cloth only;
- Do not use liquid cleanser or compressed air;
- Do not use solvent;
- Check if the ventilation holes are blocked;
- Depending on the environment, we recommend to professionally clean the device once a year.

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Disposal

According to the directive 2011/65 EU (RoHS) the device was produced in the European Union, and is hence to be disposed of as stated in the directive.

If the device is used within the European Union, follow the directive WEEE 2012/19/EU.

If the device is used outside the European Union, the corresponding country´s waste disposal regulations apply.

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Technical Data

> **Important:**
> The grandMA3 full-size, grandMA3 light and their CRV versions have a built-in uninterruptible power supply (UPS). For more information on UPS see Safety.

> **Important:**
> -Only use adequately protected power cables (min. Ø = 3 x 1.0 mm²).
> -The required power cable must meet the country´s standards.
> **Only qualified personnel is allowed to perform work on the power cable!**
> -Only use monitors with a native DisplayPort connector. Do not use adapters, for example DP to VGA or similar.

> **Important:**
> Power cable and connector are not included in the delivery.

- DMX: max. length of the cable 350 m (in ideal conditions)
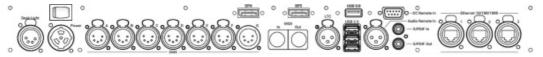- Use Ethernet cable category CAT-5e or higher. Max. length of the cable 75 m

grandMA3 full-size

grandMA3 full-size – front panel

Technical Data	
Parameters	12,288
Operating voltage	AC 100 - 240 V; 50/60 Hz
Net weight	44 kg / 98 lbs
Power	max. 300 VA
Dimensions (folded and closed keyboard drawer)	1,256 x 539 x 181 mm / 50 x 22 x 8 inches (width x depth x height)
Dimensions (unfolded for operation)	1,256 x 584 x 409 (max. 450) mm / 50 x 23 x 17 (max. 18) inches (width x depth x height)
Dimensions (maximally unfolded and opened keyboard drawer)	1256 x 871 x 255 mm / 50 x 35 x 10 inches (width x depth x height)

Outputs grandMA3 full-size

grandMA3 full-size – back panel

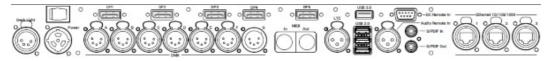| Number	Connector
1 x	powerCON TRUE1*
3 x	etherCON/RJ45
6 x	DMX512-A Out (5pin XLR female)
1 x	DMX512-A In (5pin XLR male)
1 x	MIDI In (5pin DIN female)
1 x	MIDI Out (5pin DIN female)
1 x	LTC – Linear Time Code In (3pin XLR female)
1 x	Audio In (3pin XLR female)
1 x	GPI – General Purpose Input (D-SUB DE9 female – remote control)
2 x	DisplayPort (external screens)
2 x	S/PDIF In and Out
3 x	USB 2.0 (type A)
3 x	USB 3.0 (type A)
2 x	LED desk light (4pin XLR female)

*registered trademark of Neutrik AG, Liechtenstein

grandMA3 full-size CRV

grandMA3 full-size CRV – front panel

Technical Data	
Parameters	12,288
Operating voltage	AC 100 - 240 V; 50/60 Hz
Net weight	33 kg / 73 lbs
Power	max. 300 VA
Dimensions (closed keyboard drawer)	1,213 x 539 x 169 mm / 48 x 22 x 7 inches (width x depth x height)
Dimensions (opened keyboard drawer)	1,213 x 644 x 169 mm / 48 x 26 x 7 inches (width x depth x height)

Outputs grandMA3 full-size CRV

grandMA3 full-size CRV – back panel

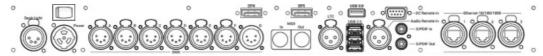| Number	Connector
1 x	powerCON TRUE1*
3 x	etherCON/RJ45
6 x	DMX512-A Out (5pin XLR female)
1 x	DMX512-A In (5pin XLR male)
1 x	MIDI In (5pin DIN female)
1 x	MIDI Out (5pin DIN female)
1 x	LTC – Linear Time Code In (3pin XLR female)
1 x	Audio In (3pin XLR female)
1 x	GPI – General Purpose Input (D-SUB DE9 female – remote control)
5 x	DisplayPort (external screens)
2 x	S/PDIF In and Out
3 x	USB 2.0 (type A)
3 x	USB 3.0 (type A)
2 x	LED desk light (4pin XLR female)

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grandMA3 light

grandMA3 light – front panel

Technical Data	
Parameters	8,192
Operating voltage	AC 100 - 240 V; 50/60 Hz
Net weight	33 kg / 73 lbs
Power	max. 300 VA
Dimensions (folded and closed keyboard drawer)	854 x 539 x 181 mm / 34 x 22 x 8 inches (width x depth x height)
Dimensions (unfolded for operation)	854 x 584 x 409 (max. 450) mm / 34 x 23 x 17 (max. 18) inches (width x depth x height)
Dimensions (maximally unfolded and opened keyboard drawer)	854 x 871 x 255 mm / 34 x 35 x 10 inches (width x depth x height)

Outputs grandMA3 light

grandMA3 light – back panel

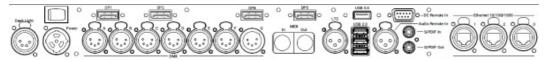| Number	Connector
1 x	powerCON TRUE1*
3 x	etherCON/RJ45
6 x	DMX-512-A Out (5pin XLR female)
1 x	DMX-512-A In (5pin XLR male)
1 x	MIDI In (5pin DIN female)
1 x	MIDI Out (5pin DIN female)
1 x	LTC – Linear Time Code In (3pin XLR female)
1 x	Audio In (3pin XLR female)
1 x	GPI – General Purpose Input (D-SUB DE9 female – remote control)
2 x	DisplayPort (external screens)
2 x	S/PDIF In and Out
3 x	USB 2.0 (type A)
3 x	USB 3.0 (type A)
2 x	LED desk light (4pin XLR female)

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grandMA3 light CRV

grandMA3 light CRV – front panel

Technical Data	
Parameters	8,192
Operating voltage	AC 100 - 240 V; 50/60 Hz
Net weight	25 kg / 56 lbs
Power	max. 300 VA
Dimensions (closed keyboard drawer)	811 x 539 x 169 mm / 32 x 22 x 7 inches (width x depth x height)
Dimensions (opened keyboard drawer)	811 x 644 x 169 mm / 32 x 26 x 7 inches (width x depth x height)

Outputs grandMA3 light CRV

grandMA3 light CRV – back panel

Number	Connector
1 x	powerCON TRUE1*
3 x	etherCON/RJ45
6 x	DMX-512-A Out (5pin XLR female)
1 x	DMX-512-A In (5pin XLR male)
1 x	MIDI In (5pin DIN female)
1 x	MIDI Out (5pin DIN female)
1 x	LTC – Linear Time Code In (3pin XLR female)
1 x	Audio In (3pin XLR female)
1 x	GPI – General Purpose Input (D-SUB DE9 female – remote control)
4 x	DisplayPort (external screens)
2 x	S/PDIF In and Out
3 x	USB 2.0 (type A)
3 x	USB 3.0 (type A)
2 x	LED desk light (4pin XLR female)

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grandMA3 compact XT

grandMA3 compact XT – front panel

Technical Data	
Parameters	4,096
Operating voltage	100 - 240 V; 50/60 Hz
Net weight	20 kg / 45 lbs
Power	max. 250 VA
Dimensions (folded)	845 x 429 x 160 mm / 34 x 17 x 7 inches (width x depth x height)
Dimensions (unfolded)	845 x 563 x 325 (max. 410) mm / 34 x 23 x 13 (max. 17) inches (width x depth x height)

Outputs grandMA3 compact XT

grandMA3 compact XT – back panel

Number	Connector
1 x	powerCON TRUE1*
3 x	etherCON/RJ45
6 x	DMX-512-A Out (5pin XLR female)
1 x	1 x DMX-512-A In (5pin XLR male)
1 x	1 x MIDI In (5pin DIN female)
1 x	1 x MIDI Out (5pin DIN female)
1 x	LTC – Linear Time Code In (3pin XLR female)
1 x	Audio In (3pin XLR female)
1 x	GPI – General Purpose Input (D-SUB DE9 female – remote control)
1 x	DisplayPort (external screen)
2 x	S/PDIF In and Out
3 x	USB 2.0 (type A)
2 x	USB 3.0 (type A)
1 x	LED desk light (4pin XLR female)

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grandMA3 compact

grandMA3 compact – front panel

Technical Data	
Parameters	4,096
Operating voltage	AC 100 - 240 V; 50 / 60 Hz
Net weight	16 kg / 36 lbs
Power	max. 250 VA
Dimensions (folded)	661 x 429 x 160 mm / 26 x 17 x 7 inches (width x depth x height)
Dimensions (unfolded)	661 x 563 x 325 (max. 410) mm / 26 x 23 x 13 (max. 17) inches (width x depth x height)

Outputs grandMA3 compact

grandMA3 compact – back panel

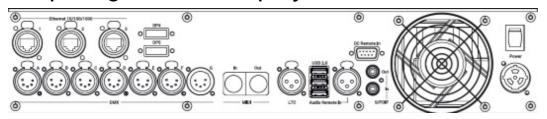| Number	Connector
1 x	powerCON TRUE1*
3 x	etherCON/RJ45
6 x	DMX-512-A Out (5pin XLR female)
1 x	DMX-512-A In (5pin XLR male)
1 x	MIDI In (5pin DIN female)
1 x	MIDI Out (5pin DIN female)
1 x	LTC – Linear Time Code In (3pin XLR female)
1 x	Audio In (3pin XLR female)
1 x	GPI – General Purpose Input (D-SUB DE9 female – remote control)
1 x	DisplayPort (external screen)
2 x	S/PDIF In and Out
3 x	USB 2.0 (type A)
2 x	USB 3.0 (type A)
1 x	LED desk light (4pin XLR female)

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grandMA3 replay unit

grandMA3 replay unit – front panel

Technical Data	
Parameters	4,096
Operating voltage	100 - 240 V; 50 /60 Hz
Net weight	6 kg / 14 lbs
Power	max. 200 VA
Dimensions	482 x 372 x 87 mm / 19 x 15 x 4 inches (width x depth x height)

Outputs grandMA3 replay unit

grandMA3 replay unit – back panel

Number	Connector
1 x	powerCON TRUE1*
3 x	etherCON/RJ45
6 x	DMX512-A Out (5pin XLR female)
1 x	DMX512-A In (5pin XLR male)
1 x	MIDI In (5pin DIN female)
1 x	MIDI Out (5pin DIN female)
1 x	LTC – Linear Time Code In (3pin XLR female)
1 x	Audio In (3pin XLR female)
1 x	GPI – General Purpose Input (D-SUB DE9 female – remote control)
2 x	DisplayPort (external screens)
2 x	S/PDIF In and Out
5 x	USB 2.0 (type A)

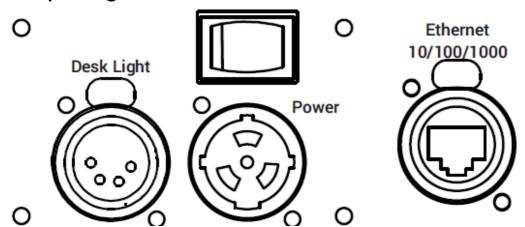*registered Trademark of Neutrik AG, Liechtenstein

grandMA3 extension

grandMA3 extension – front panel

Technical Data	
Parameters	0
Operating voltage	AC 100 - 240 V; 50/60 Hz
Net weight	11 kg / 25 lbs
Power	max. 75 VA
Dimensions	409 x 537 x 169 mm / 17 x 22 x 7 inches (width x depth x height)

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Outputs grandMA3 extension

grandMA3 extension – back panel

Number	Connector
1 x	powerCON TRUE1*
1 x	etherCON/RJ45
1 x	LED desk light (4pin XLR female)

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Display Conditions

The screens of grandMA3 series are subject to pixel fault class II (ISO 13406-2).

The table below shows the maximum number of allowed defects per 1 million pixels.

Pixel fault	Maximum number of faults per 1 million pixels
Permanent hot pixel (always on, being color white)	2 (minimum distance between bright dots ≥ 15mm)
2 permanent hot pixels that are adjacent	1
Permanent dead pixel (always off, meaning black)	5 (minimum distance between dark dots ≥ 15mm)
2 permanent dead pixels that are adjacent	1
Stuck pixel (one or more sub-pixels (red, blue or green) are always on or always off)	5

Due to technical reasons, there might be some slight scratches on the screens.

Conformity

C€ EU Declaration of Conformity

Manufacturer:

MA Lighting Technology GmbH

Dachdeckerstraße 16
97297 Waldbüttelbrunn
GERMANY

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declares that the products

Name of product:

- grandMA3 full-size
- grandMA3 full-size CRV
- grandMA3 light
- grandMA3 light CRV
- grandMA3 compact XT
- grandMA3 compact
- grandMA3 replay unit
- grandMA3 extension

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are conform to the following directives and harmonized standards

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Safety:

2014/35/EU (Low Voltage Directive)

- IEC/EN/UL 62368-1:2014
- CAN/CSA-C22. No. 62368-1:2014

EMC:

2014/30/EU (electromagnetic compatibility)

- EN55032:2016-02 (Class A)
- EN61000-3-2
- EN55035:2018-04

RoHS:

2011/65/EU (RoHS II)

- EN50581:2012
- WEEE-Reg.-NR. DE 14150988

Additional information:

All data lines and signal lines must be shielded and the shielding must be connected to the grounding or the housing of the connector.

Waldbüttelbrunn, August 17, 2018

Dipl.-Ing. Michael Adenau (CEO)