

grandMA - total control





grandMA – total control

Trust

Grandma was always someone you could trust. And trust has to be earned. It comes from stability and proven reliability. In today's world of high technology lighting you need confidence in people as well as in the product. MA Lighting with its regional offices and competence centres as well as with its highly skilled distributor network delivers a vital combination – products you can trust from people you can trust. Today and in the future...

Stories

The grandMA has had a long period of success, in which we have captured the imagination of the top designers and programmers. During the past several years, we have heard whispers on the market that the grandMA was getting too old. Sorry, she is not. She is getting "only" more experienced and smarter than ever. Software is always the well respected lifeblood of the grandMA control system and makes the difference. Now another standard will be set into the future, with the advanced hardware platform of the grandMA2 series. She is now both older and more beautiful.

Never change a winning Team

Just renew and refresh it. The market spoke and we listened. We kept the intuitive grandMA control philosophy including the same command line. However we have further improved the software and optimized the display for clarity. The new hardware has an enhanced networking architecture that is even more powerful but allows compatibility with the grandMAs that you have come to love.

This is grandMA2 series, where evolution meets revolution. Same same – but different. There are no compromises. Your investment and knowledge are safe in the future.

Keep discovering

One world is not enough. Total control is at your fingertips. Gone are the days when many specialized consoles were required to run a single show. Now control dimmers, LEDs, moving lights and media servers, in the way they should be controlled, all from a single intuitive control surface. grandMA2 redefines "controlling multimedia filled lighting rigs". Control concerts, theatre, opera, events, television in the way each style dictates. The newly designed screens allow easy access to all commands. Feel at home as you link your current grandMA to the new grandMA2. Moreover system integrations are even more complete with new ways of architetectural interconnection.

Yes, MA Lighting's first grandMA slogan from 1997 still fits best: like the German Autobahn, there are no limits.

Welcome to the Family

Complete system solution

• Incl. faderwing and dedicated software tools

Same system philosophy

 Different hardware solutions but one software, one showfile, one network environment per series

Compatibility

- grandMA2 can read 'series 1'showfiles (upward compatibility)
- Special 'series 1'-mode to run grandMA2 consoles in 'series 1'sessions (downward compatibility)
- 'Series 1' will still be available and further developed in the future

Same command line

- Absolutely identical syntax as in grandMA 'series 1'
- All commands / functions accessible via command line



grandMA2 full-size



grandMA2 light



grandMA2 ultra-light



Distinctive Characteristics and Remarkable Improvements

- Up to 65,536 parameters per session (max. 256 DMX universes)
- Up to 32 sessions possible; 200 stations per session
- All command keys stay in the same place with the different consoles
- Enhanced Multi-User mode; enhanced user-interface
- Additional command screen built-in; SVGA 9" multi-touch*
- Renowned but "cleaner" grandMA software, newly designed views
- Intuitive programming control via optimised tree structure
- Improved hardware, stylish finish
- Diagnostic tools / Online help via F1

*(Patent pending)



grandMA2 replay unit



Network Processing Unit (NPU)

System and Console Improvements in Detail



- More parameters, more DMX outputs per console / Network Processing Unit (NPU)
- No HDD solid-state-disc instead (flash-memory)
- 2 x 1Gbit/s Ethercon
- Up to 5 USB 2.0 connectors (2 x on the back of the console, 2 x on the monitor-wing, 1 x within the drawer)
- Powercon and Ethercon connectors, XLR 3pin for LTC and sound
- Connectivity: 2 x DVI-I, Midi in / out, analog Remote input, Ethernet, LTC, sound, USB, DMX in / out



- More motorized executor-faders (conductive plastic, means: long-life, easy exchangeable)
- More executor-buttons

 (all buttons are silent individually backlit and dimmable)
- 2 additional motorized A/B-fader (100mm)**
- All encoders are nonwearing, magnetic with touch



 Motorized faderwing available* (via internal MA-bus)



Motorized display wing



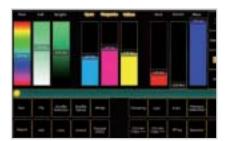
Keyboard and storage integrated*/**



 Touchscreens: 15,4" WXGA (1280 x 800)



• 2 external screens (can be touch screens via USB; individual resolutions)



• Command monitor with multi-touch: 9" SVGA (800 x 480)



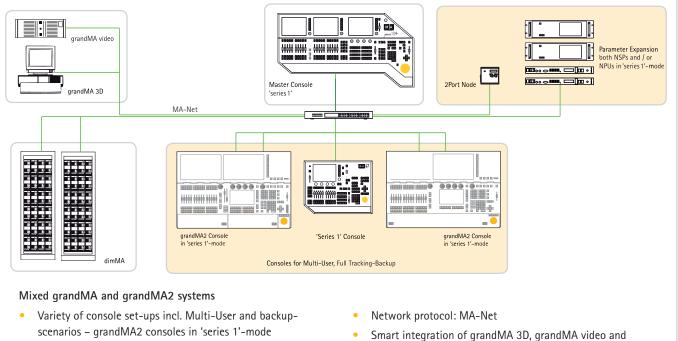
grandMA2 full-size

System integration

Same same – but different:

Two series with dedicated software and showfile, however compatible and all inter connectable

System Overview - grandMA 'series 1' and grandMA2 in one system.



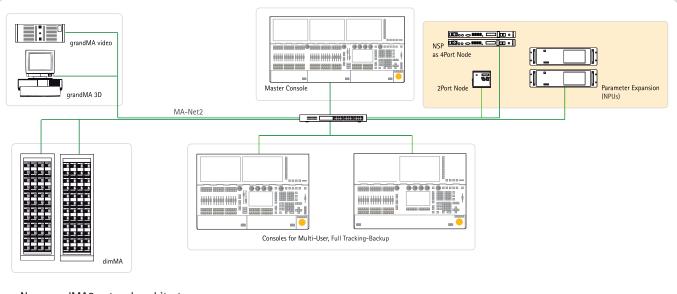
- Parameter Expansion both via NSPs & NPUs in 'series 1'-mode

Data Distribution via 2Port Nodes •

dimMA / dimMA compact

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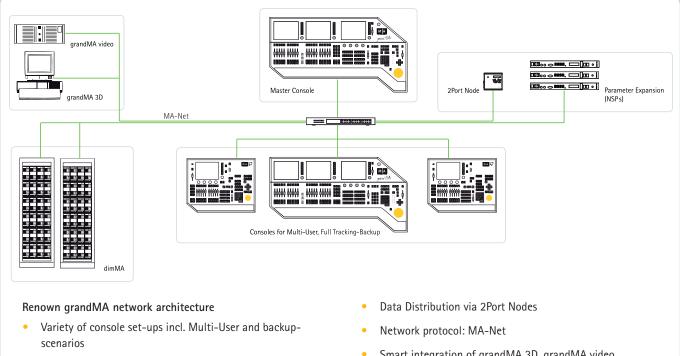
System Overview - grandMA2



New grandMA2 network architecture

- Variety of console set-ups incl. Multi-User and backupscenarios
- Parameter Expansion via Network Processing Units (NPUs)
- Data Distribution via 2Port Nodes and NSPs as 4Port Nodes in sniffer mode
- Network protocol: MA-Net2, for further details please see page 15
- Smart and full compatibility of grandMA 3D, grandMA video and dimMA / dimMA compact

System Overview - grandMA 'series 1'



- Parameter Expansion via Network Signal Processors (NSPs)
- Smart integration of grandMA 3D, grandMA video and dimMA / dimMA compact

grandMA2 full-size

- Realtime control for 65,536 parameters (up to 256 DMX universes)
- 8,192 HTP / LTP-parameter (6 x DMX out)
- 3 internal TFT wide mode touchscreens (15,4" WXGA)
- 2 external TFT screens (UXGA, can be touchscreens)
- 1 internal command screen multi-touch (9" SVGA)*
- 30 motorized executor faders
- Built in keyboard drawer*
- Built in UPS
- 2 Ethercon connectors
- Motorized monitor wing
- 2 motorized A/B fader 100mm
- Individually backlit and dimmable, silent keys

The new signature console of MA Lighting is the grandMA2 full-size. It controls all kinds of lighting genres like conventionals, moving lights, LEDs, video and media. Equipped with the most up-to-date technology and even some special tools (e.g. keyboard drawer or multi-touch command screen) the grandMA2 full-size is at home in all lighting segments. Intuitive and fast control over all connected fixtures and channels in different styles is self-evident. Furthermore the newly developed fader wings provide in addition up to 60 free assignable executor faders over an unlimited amount of pages.

Moreover the grandMA2 full-size can read 'series 1'-showfiles and is able to run in a special 'series 1'-mode. That means full compatibility with 'series 1'-sessions. All command keys within the new series can be found in the same place for easy operation. The grandMA2 offers a highly flexible and comfortable way of programming, including infinit numbers of presets, cues, pages, sequences and effects.



 grandMA faderwing available* (via internal MA-bus)



• Smart accessories, e.g. magnetic plate for easy labeling



 5 x USB 2.0 connectors (2 x on the back of the console, 2 x on the monitor-wing, 1 x within the drawer)



Art. No		Art. No	Dimensions (w x d x h)	weight (kg)
120111	MA grandMA full-size	120111	$1284 \times 661 \times 204 \text{ mm}$, 50.6 x 26 x 8 inch	54
121031	MA flightcase for grandMA2 full-size (excl. wheels)	121031	1360 x 912 x 315 mm, 53.5 x 36 x 12.4 inch	45
121033	MA flightcase for grandMA2 full-size (incl. wheels)			
120131	MA dustcover for grandMA2 full-size (spare)			
120122	MA LED Desklamp, 4-pin (spare)			

grandMA2 light

- Realtime control for 65,536 parameters (up to 256 DMX universes)
- 4,096 HTP / LTP-parameters (6 x DMX out)
- 2 internal TFT wide mode touchscreens (15,4" WXGA)
- 2 external TFT screens (UXGA, can be touchscreens)
- 1 internal command screen multi-touch (9" SVGA)*
- 15 motorized executor faders
- Built in keyboard drawer*
- Built in UPS
- 2 Ethercon connectors
- Motorized monitor wing
- 2 motorized A/B fader 100mm
- Individually backlit and dimmable, silent keys



With the grandMA2 light, MA Lighting offers a compact version of the new grandMA2 full-size featuring 4,096 parameters, 15 motorized faders on board and two touch screens. All additional features as well as all command keys are the same as with the grandMA2 full-size. The grandMA2 light is the optimal tool for control of all kinds of lighting genres like conventionals, moving lights, LEDs, video and media. Intuitive and fast control over all connected fixtures and channels in different styles is possible. The grandMA2 light can handle an infinit number of presets, cues, pages, sequences and effects. It is also a perfect back-up solution for the grandMA2 full-size. The console features a full compatibility to the 'series 1'.

Art. No		Art. No	Dimensions (w x d x h)	weight (kg)
120112	MA grandMA2 light	120112	$935 \times 652 \times 204 \text{ mm}$, 36.8 x 25.7 x 8 inch	44
121032	MA flightcase for grandMA2 light and ultra-light (excl. wheels)	121032	1020 x 915 x 315 mm, 40.2 x 36 x 12.4 inch	35
121034	MA flightcase for grandMA2 light and ultra-light (incl. wheels)			
120132	MA dustcover for grandMA2 light and ultra-light (spare)			
120122	MA LED Desklamp, 4-pin (spare)			
120122	MA LED Desklamp, 4-pin (spare)			

grandMA2 ultra-light

The grandMA2 ultra-light is the little brother of the grandMA2 light. It features the full network performance of the MA Lighting family with the best price-performance ratio. Therefore it is missing the built in UPS as well as the keyboard drawer, the level wheel and the A/B Faders, but still having all the command buttons in the same place as the bigger consoles. Although it offers 4,096 parameters it has got 6 DMX-outputs and is for this reason a perfect backup solution. It brings all the features of the new 'series 2' consoles to smaller shows and budgets and allows intuitive and fast control over all lighting genres as well as an infinit number of presets, cues, pages, sequences and effects.



- Realtime control for 65,536 parameters (up to 256 DMX universes)
- 4,096 HTP / LTP-parameters (6 x DMX out)
- 1 internal TFT wide mode touchscreen (15,4" WXGA)
- 2 external TFT screens (UXGA, can be touchscreens)
- 1 internal command screen multi-touch (9" SVGA)*
- 15 executor faders
- 2 Ethercon connectors
- Motorized monitor-wing



Integrated clipboard

Art. No		Art. No	Dimensions (w x d x h)	weight (kg)
120113	MA grandMA2 ultra-light	120113	935 x 652 x 204 mm, 36.8 x 25.7 x 8 inch	35
121032	MA flightcase for grandMA2 light and ultra-light (excl. wheels)	121032	1020 x 915 x 315 mm, 40.2 x 36 x 12.4 inch	35
121034	MA flightcase for grandMA2 light and ultra-light (incl. wheels)			
121032	MA dustcover for grandMA2 light and ultra-light (spare)			
120122	MA LED Desklamp, 4-pin (spare)			

grandMA2 replay unit

- Real-time control for 65,536 parameters (up to 256 DMX universes)
- 4,096 HTP / LTP-parameters (6 x DMX out)
- 2 external TFT screens (UXGA, can be touchscreens)
- 1 internal command touchscreen (7")
- No internal faders or buttons easy to protect
- Numerous remote interfaces



Beside all three grandMA2 lighting consoles there is also a grandMA2 replay unit available. In its 19 inch housing it is ready for integration into control room racks and also capable of all functions and features of the grandMA2 system. The grandMA2 replay unit is the ideal member of the grandMA family when it comes to architectural control or easy to mount backup solutions. It is a very safe playback / master controller because it has got no built in faders or buttons. Access is possible via touch screen control or via USB connected mouse and keyboard. A wide range of interfaces assures most flexible use and best performance within an architectural system.

Art. No replay unit

120115 MA grandMA2 replay unit, 3u, 19"

 Art. No
 Dimensions (w x d x h)
 weight (kg)

 120115
 485 x 379 x 126 mm, 19 x 15 x 5 inch
 10

grandMA2 faderwing

The new grandMA2 faderwing gives you the most possible executor faders and buttons that can be arranged with the showfile. Up to four faderwings can be connected to a console - that will be 60 additional motorized faders on each page for the actual show. The grandMA2 faderwing offers the same look and feel as the consoles fader arrangement.

- 15 motorized faders*
- 15 executor button
- MA-bus link to any console of the grandMA2 – series



Art. No	faderwing	Art. No	Dimensions (w x d x h)	weight (kg)
	MA grandMA2 faderwing		425 x 367 x 162 mm, 16.7 x 14.4 x 6.4 inch	8
121036	MA flightcase for grandMA2 faderwing	121036	519 x 510 x 270 mm, 20 x 20 x 10.6 inch	10
120133	MA dustcover for grandMA2 faderwing (spare)			

MA Network Processing Unit (NPU)



This is the new MA NSP! The Network Processing Unit (NPU) unites the calculation power in the network and offers the same CPU power as the consoles do. In addition it can handle twice as much parameters as the older MA NSPs. In total every MA NPU can deal with 4,096 parameters. With an easy to read touchscreen a MA NPU is intuitive to use and it is also easy to access all the important information. Available with 8 DMX XLR 5pin connectors on the backside the MA NPU offers a most flexible use within the network environment.

- Real-time calculation for up to 65,536 parameters (up to 256 DMX universes)
- 4,096 HTP / LTP-parameters (8 x DMX out)
- 1 internal command touchscreen (7")

Art. No NPU

130032 MA Network Processing Unit 3u, 19"

 Art. No
 Dimensions (w x d x h)
 weight (kg)

 130032
 485 x 332 x 126 mm, 19 x 13 x 5 inch
 9

Networking inside

MA-Net is the powerful backbone of the MA system. As the internal system language it enables bidirectional communication with all hard- and software components of the MA-System. Just like the consoles of the grandMA series, this protocol is also expanded for future requirements. We call this MA-Net2. However MA-Net2 includes first of all the same unique features as the MA-Net and there won't be any interferences when running both on the same network (coexistence).

Additional features of the MA-Net2

- 1,000 Base-T Ethernet (1 GBit/s Gigabit Ethernet)
- With up to 65,536 parameters (256 DMX-Universes, all parameters in 16bit each).
 32 sessions with max. 65,536 parameters in one network are possible
- Expanded Remote control functions
- Expanded Feedback information for grandMA video and dimMA

Enhanced Parameter Expansion

Another new feature of both the MA-Net2 and grandMA series is the simplification of the Parameter Expansion. There won't be any separate Parameter Expansion mode any longer. Due to an enhanced networking architecture grandMA2 consoles automatically share calculation power within the network. Parameters only need to be expanded by adding one or multiple Networking Processor Units (NPU) to the system.

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