

ENGLISH

Phantom 300 LED Matrix

V1

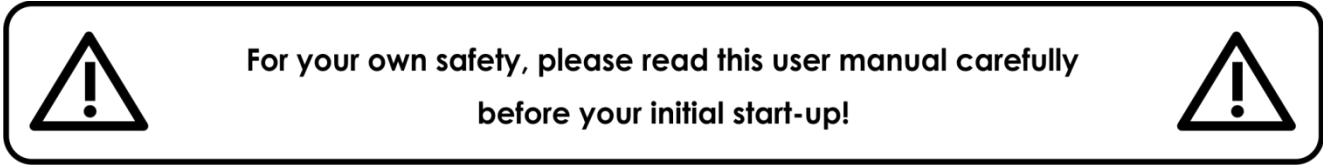
Ordercode: 40060

Table of contents

Warning	3
Safety Instructions	3
Operating Determinations	5
Rigging	5
Connection with the mains	6
Return Procedure	7
Claims	7
Description of the device	8
Frontside	8
Backside	9
Installation	9
Set Up and Operation	9
Control Modes	10
One Phantom (Built-in Programs and Manual)	10
One Phantom (Sound-controlled)	10
Multiple Phantoms (Master/Slave Control)	10
Multiple Phantoms (DMX Control)	11
Multiple Phantoms (ArtNet Control)	12
Connecting to a Network	13
ArtNet settings	13
How to make a data cable	14
Software for controlling	14
Fixture Linking	15
Data Cabling	15
Control Panel	16
DMX Control Mode	16
DMX Addressing	16
Menu Overview	17
Main Menu Options	18
1. DMX-512	18
2. ArtNet Settings	19
2.1. IP Address	19
2.2. Subnet Mask	20
2.3. Net	20
2.4. Sub-Net	20
2.5. Universe	21
3. Channel Mode	21
4. Run Mode	21
4.1. DMX Mode	22
4.2. ArtNet	22
4.3. Master Mode	22
4.4. Slave Mode	22
4.5. Sound Mode	22
4.6. Manual Mode	22
5. Functions	23
5.1 Pan Invert	23
5.2 Tilt Invert	23
5.3 Dimmer Curve	24
5.4 DMX Fail	24
5.5 Display	24
5.6 Back Light	25
5.7 Reset	25
5.8 Factory Sets	25

5.9. Auto Test25
6. Version25
DMX Channels26
 12 Channels26
 20 Channels28
 120 Channels31
Maintenance35
 Replacing the Fuse35
Troubleshooting35
 No Light35
 No Response to DMX.....36
Product Specifications37
Dimensions38

Warning

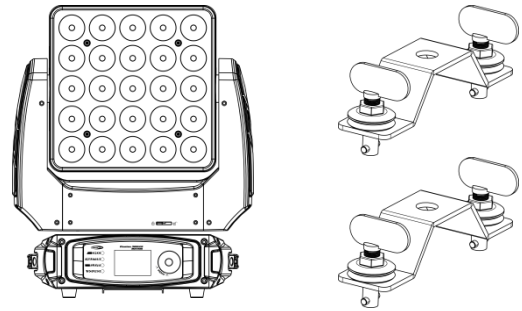


Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

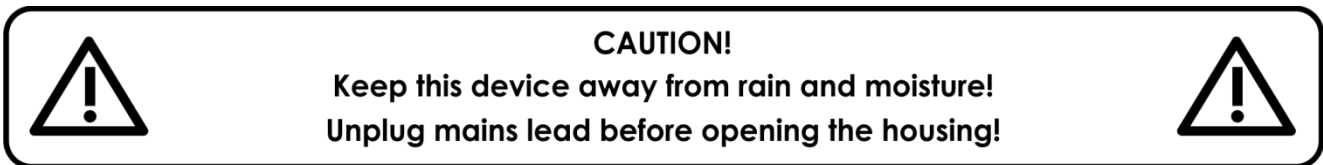
Your shipment includes:

- Showtec Phantom 300 LED Matrix
- 2 mounting brackets with 4 quick-locks
- Pro Power connector to Schuko cable (1,5 m)
- User manual



LED Expected Lifespan

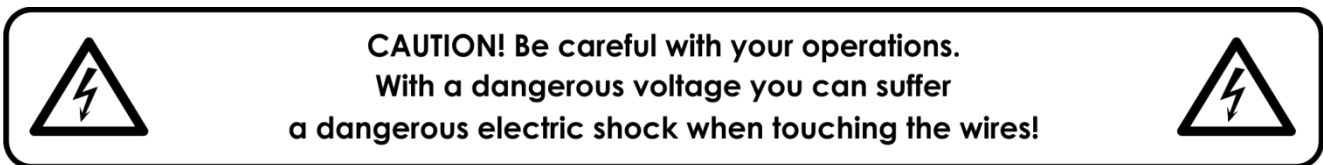
LEDs gradually decline in brightness over time. HEAT is the dominant factor that leads to the acceleration of this decline. Packaged in clusters, LEDs exhibit higher operating temperatures than in ideal or singular optimum conditions. For this reason when all color LEDs are used at their fullest intensity, life of the LEDs is significantly reduced. If improving the lifespan is of higher priority, place care in providing for lower operational temperatures. This may include climatic-environmental and the reduction of overall projection intensity.



Safety Instructions

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual



Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect 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.

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

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

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.

- Never let the power cord come into contact with other cables! Handle the power cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never lift the fixture by holding it at the projector-head, as the mechanics may be damaged.
- Never place any material over the lens.
- Never look directly into the light source.
- Never leave any cables lying around.
- Do not insert objects into air vents.
- Do not connect this device to a dimmerpack.
- Do not switch the device on and off in short intervals, as this would reduce the device's life.
- Do not touch the device's housing bare-handed during its operation. Allow the fixture to cool for at least 5 minutes before handling.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Only use device indoors, avoid contact with water or other liquids.
- Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to flammable liquids or gases.
- Always keep case closed while operating.
- Always allow free air space of at least 50 cm around the unit for ventilation.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power cord is never crimped or damaged. Check the device and the power cord from time to time.
- If the lens is obviously damaged, it has to be replaced, so that its functions are not impaired due to cracks or deep scratches.
- If device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device 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.
- If your Showtec device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- For adult use only. Device must be installed out of the reach of children. Never leave the unit running unattended.
- Never attempt to bypass the thermostatic switch or fuses.
- For replacement use fuses of same type and rating only.
- The user is responsible for correct positioning and operating of the Phantom 300 LED Matrix. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.



CAUTION! Eyedamages!!!
Avoid looking directly into the lightsource!!!
(meant especially for epileptics)!!!



Operating Determinations

- This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
- The minimum distance between light output and the illuminated surface must be more than 1 meter.
- The maximum ambient temperature $t_a = 40^{\circ}\text{C}$ must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 40°C .
- If this device is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.
- Any other operation may lead to dangers like short-circuit, burns, electric shock, crash etc.

You endanger your own safety and the safety of others!

Rigging

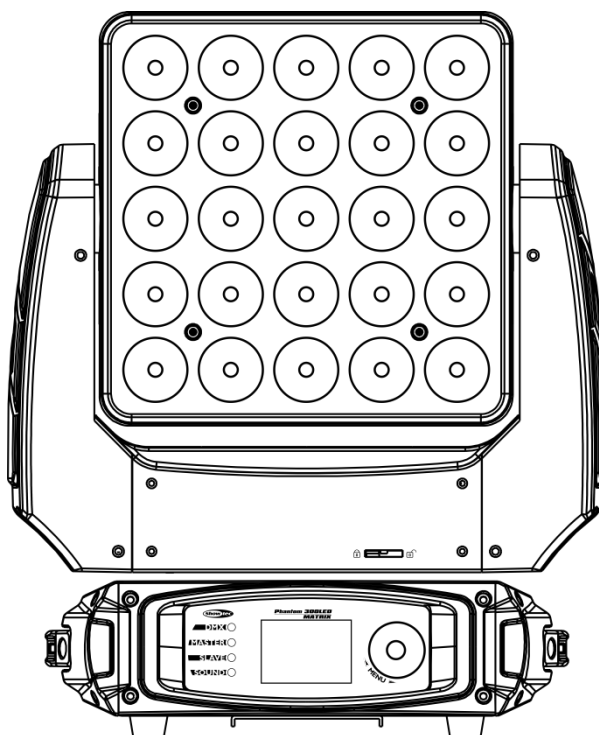
Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

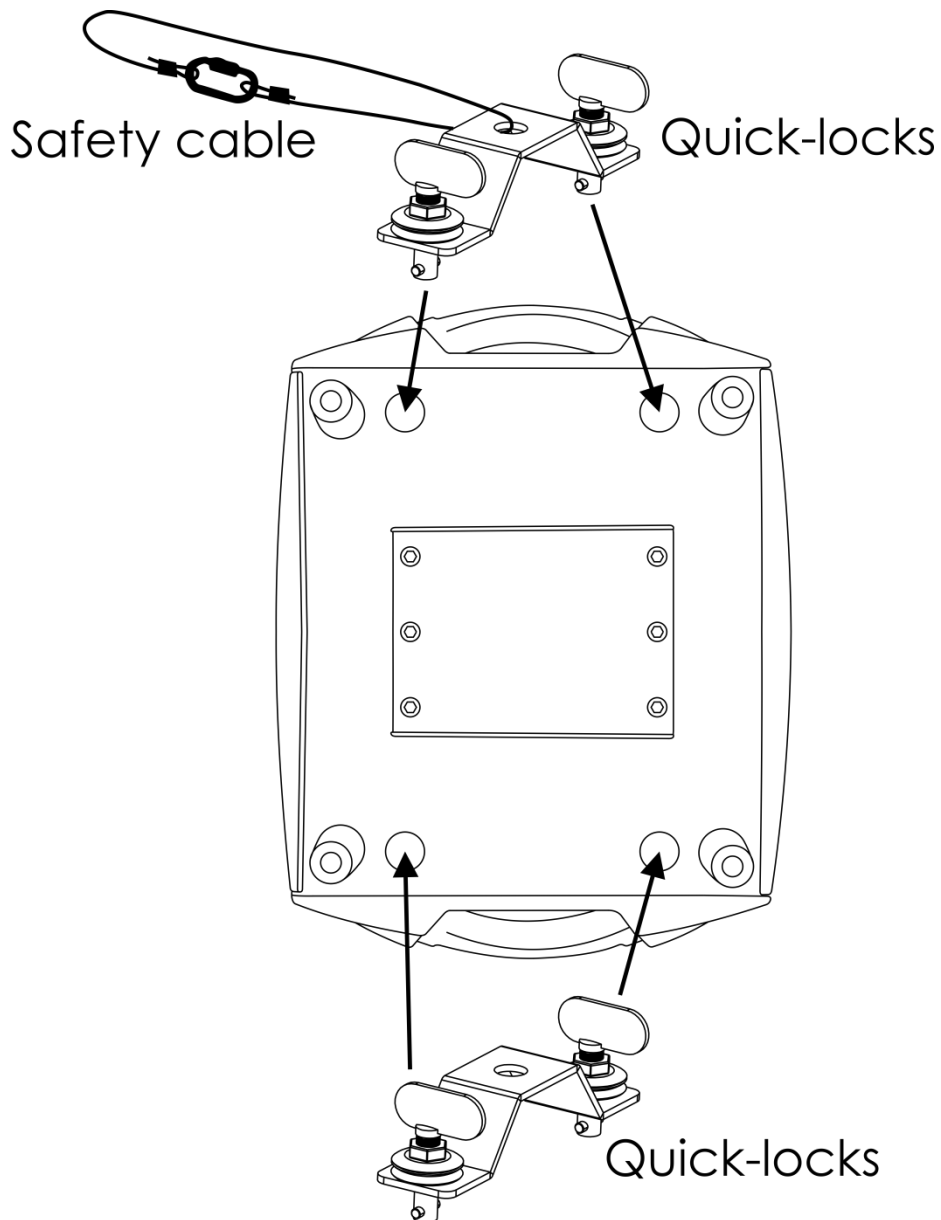
Do not attempt the installation yourself !

Always let the installation be carried out by an authorized dealer !

Procedure:

- If the Phantom 300 LED Matrix is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the Phantom 300 LED Matrix, with the mounting bracket, to the trussing system.
- The Phantom 300 LED Matrix must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety cable.
- When rigging, derigging or servicing the projector, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.





The Phantom 300 LED Matrix can be placed on a flat stage floor or be mounted to any kind of truss by means of a mounting bracket with quick-locks.

Improper installation can cause serious damage to people and property!

Connection with the mains

Connect the device to the mains with the power-plug.

Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	PHASE
N	BLUE	BLACK	SILVER	NEUTRAL
⊕	YELLOW/GREEN	GREEN	GREEN	PROTECTIVE GROUND

Make sure that the device is always connected properly to the earth!

Improper installation can cause serious damage to people and property!



Return Procedure



Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

- 01) Your name.
- 02) Your address.
- 03) Your phone number.
- 04) A brief description of the symptoms.

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.

Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

Description of the device

Features

The Showtec Phantom 300 LED Matrix is a moving head with high output and great effects.

- Input voltage: 100-240V AC, 60/50Hz
- Power consumption: 340W
- Light source: 25 x 10W RGBW 4-in-1 LEDs
- Light output: 44950 lux @ 2 m
- DMX modes: 12, 20, 120 channels
- Beam angle: 15°
- Onboard: LCD display for easy setup
- Control mode: Auto, Manual, Sound-controlled, Master/Slave, DMX-512, ArtNet
- Continuous Pan/Tilt & Pan/Tilt inversion
- Dimmer: 0-100%
- Strobe: 0-20Hz
- Dimming curves: Linear, Square, I-Square, S-curve
- RGBW color mixing
- Pan: 0° -- 540°, Tilt: 0° -- 270°
- Pan/Tilt resolution: 16 bit
- Connections: Pro Power connector IN/OUT & 3-pin DMX IN/OUT
- Housing: flame-retardant plastic, die-cast aluminum
- Fuse: T5L/250V
- Dimensions: 230 x 395 x 480 mm (LxWxH)
- Weight: 13 kg

Frontside

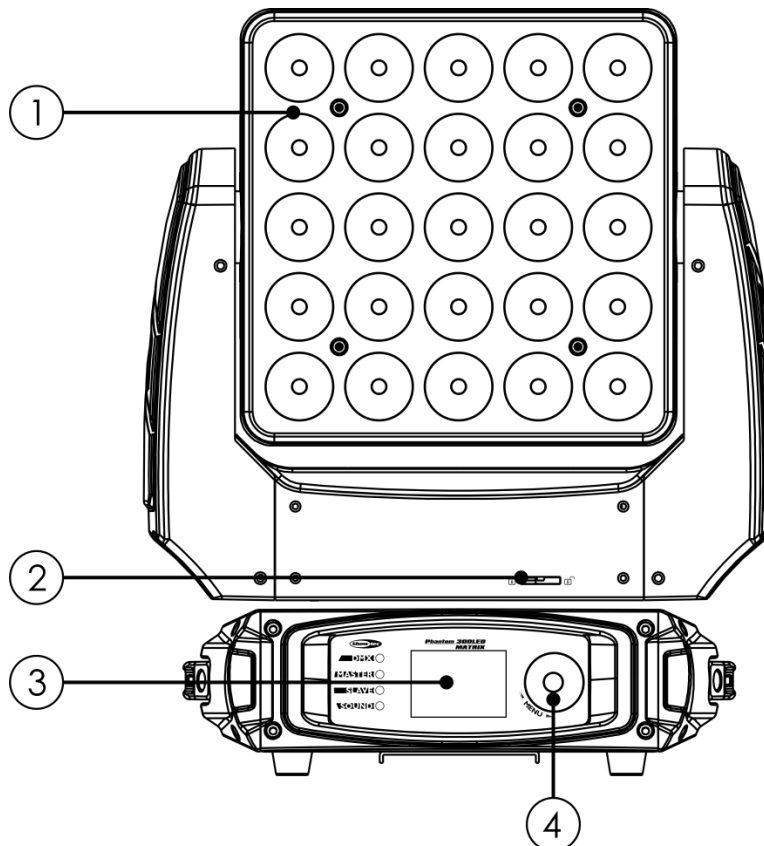


Fig. 01

- 01) 25 x 10W RGBW 4-in-1 LEDs
- 02) Pan lock
- 03) LCD display
- 04) MENU control

Backside

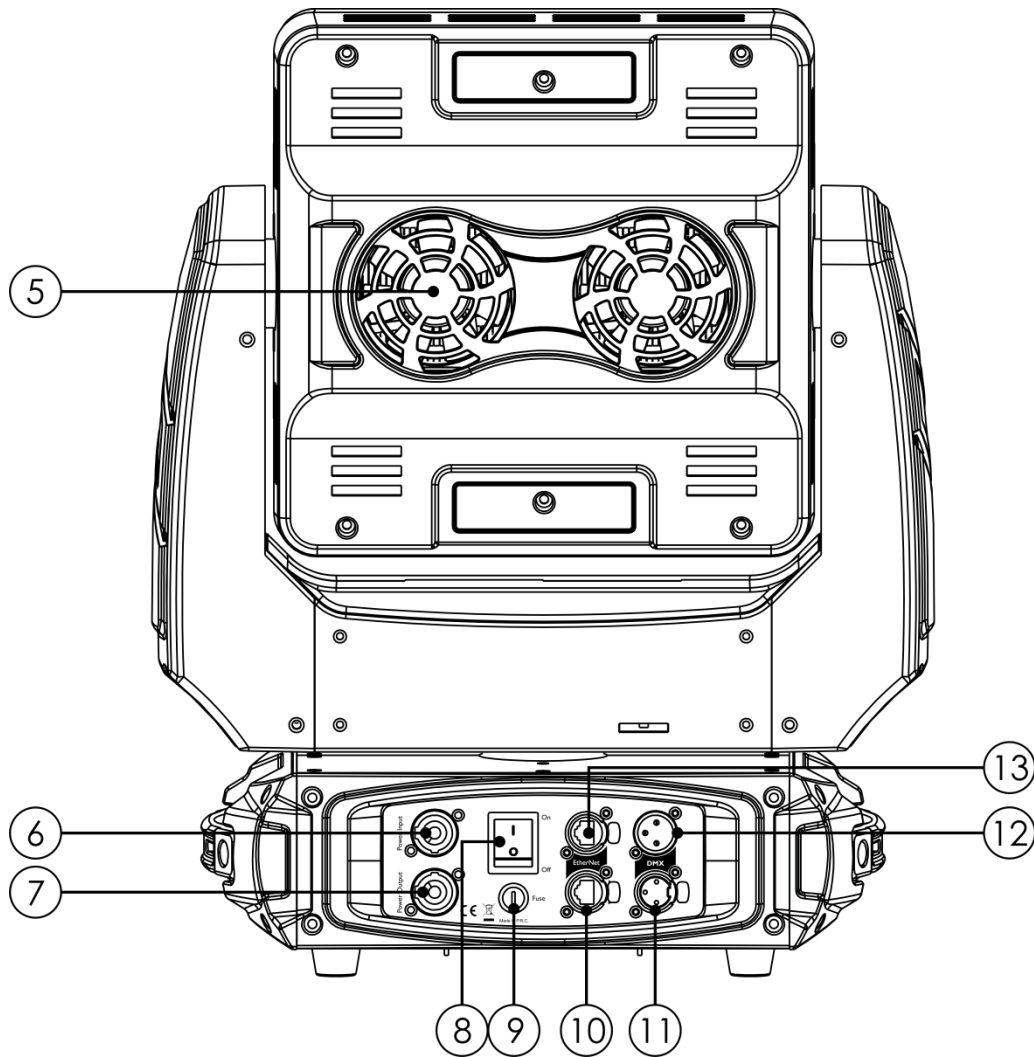


Fig. 02

- 05) Cooling fans
- 06) Pro power connector 100-240V IN
- 07) Pro power connector 100-240V OUT
- 08) Power switch ON/OFF
- 09) Fuse T5L/250V
- 10) RJ45 Ethernet connector OUT
- 11) 3-pin DMX signal connector OUT
- 12) 3-pin DMX signal connector IN
- 13) RJ45 Ethernet connector IN

Installation

Remove all packing materials from the Phantom 300 LED Matrix. Check if all foam and plastic padding is removed. Connect all cables.

Do not supply power before the whole system is set up and connected properly.

Always disconnect from electric mains power supply before cleaning or servicing.

Damages caused by non-observance are not subject to warranty.

Set Up and Operation

Follow the directions below, as they pertain to your preferred operation mode.

Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

Control Modes

There are 5 modes:

- Built-in programs (Master mode)
- Manual
- Sound-controlled
- Master/Slave mode
- DMX-512, ArtNet (12CH, 20CH, 120CH)

One Phantom (Built-in Programs and Manual)

- 01) Fasten the effect light onto firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Always use a safety cable (ordercode 70140 / 70141).
- 03) Plug the end of the electric mains power cord into a proper electric power supply socket.
- 04) When the Phantom is not connected with a DMX cable, it functions as a stand-alone device. Please see page 22 for more information.

One Phantom (Sound-controlled)

- 01) Fasten the effect light to a firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Plug the end of the electric mains power cord into a proper electric power supply socket.
- 03) Turn on the music. If the device is set to sound-control, then the Phantom will react to the beat of the music. Please see page 22 for more information about the sound-control options.

Multiple Phantoms (Master/Slave Control)

- 01) Fasten the effect light onto firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Always use a safety cable (ordercode 70140 / 70141).
- 03) Plug the end of the electric mains power cord into a proper electric power supply socket.
- 04) Use a 3-pin XLR cable to connect the Phantoms.

The pins:



- 01) Earth
- 02) Signal (-)
- 03) Signal (+)

- 05) Link the units as shown in (Fig.03). Connect a DMX signal cable from the first unit's DMX "out" socket to the second unit's "in" socket. Repeat this process to link the second, third, and fourth units. You can use the same functions on the master device as described on page 22. This means that you can set your desired operation mode on the master device and all slave devices will react the same as the master device.

Multiple Phantoms (Master/Slave Set Up)

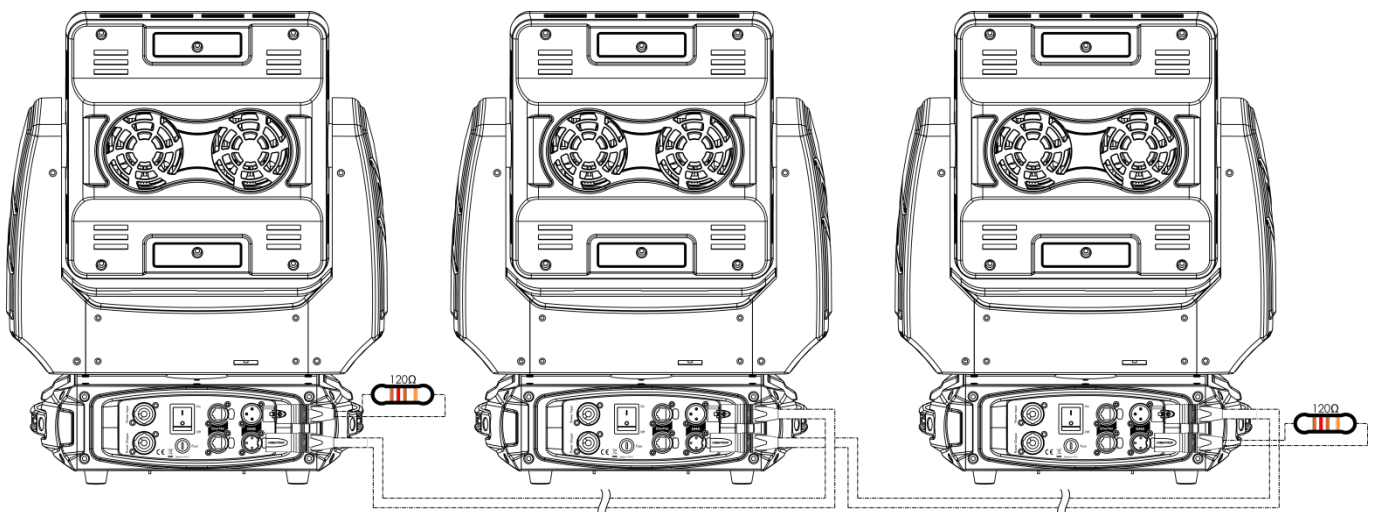
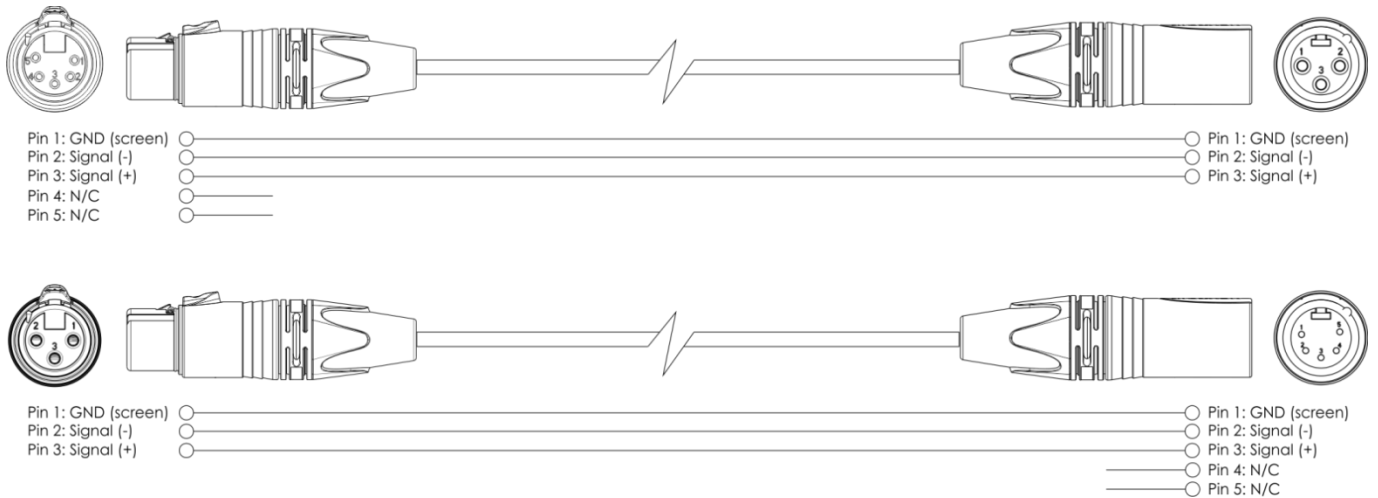


Fig. 03

Multiple Phantoms (DMX Control)

- 01) Fasten the effect light onto firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Always use a safety cable (ordercode 70140 / 70141).
- 03) Plug the end of the electric mains power cord into a proper electric power supply socket.
- 04) Use a 3-pin XLR cable to connect the Phantoms and other devices.



- 05) Link the units as shown in (Fig.04), Connect a DMX signal cable from the first unit's DMX "out" socket to the second unit's "in" socket. Repeat this process to link the second, third, and fourth units.
- 06) Supply electric power: Plug electric mains power cords into each unit's Pro power socket, then plug the other end of the mains power cord into proper electric power supply sockets, starting with the first unit. Do not supply power before the whole system is set up and connected properly.

Multiple Phantoms (DMX Set Up)

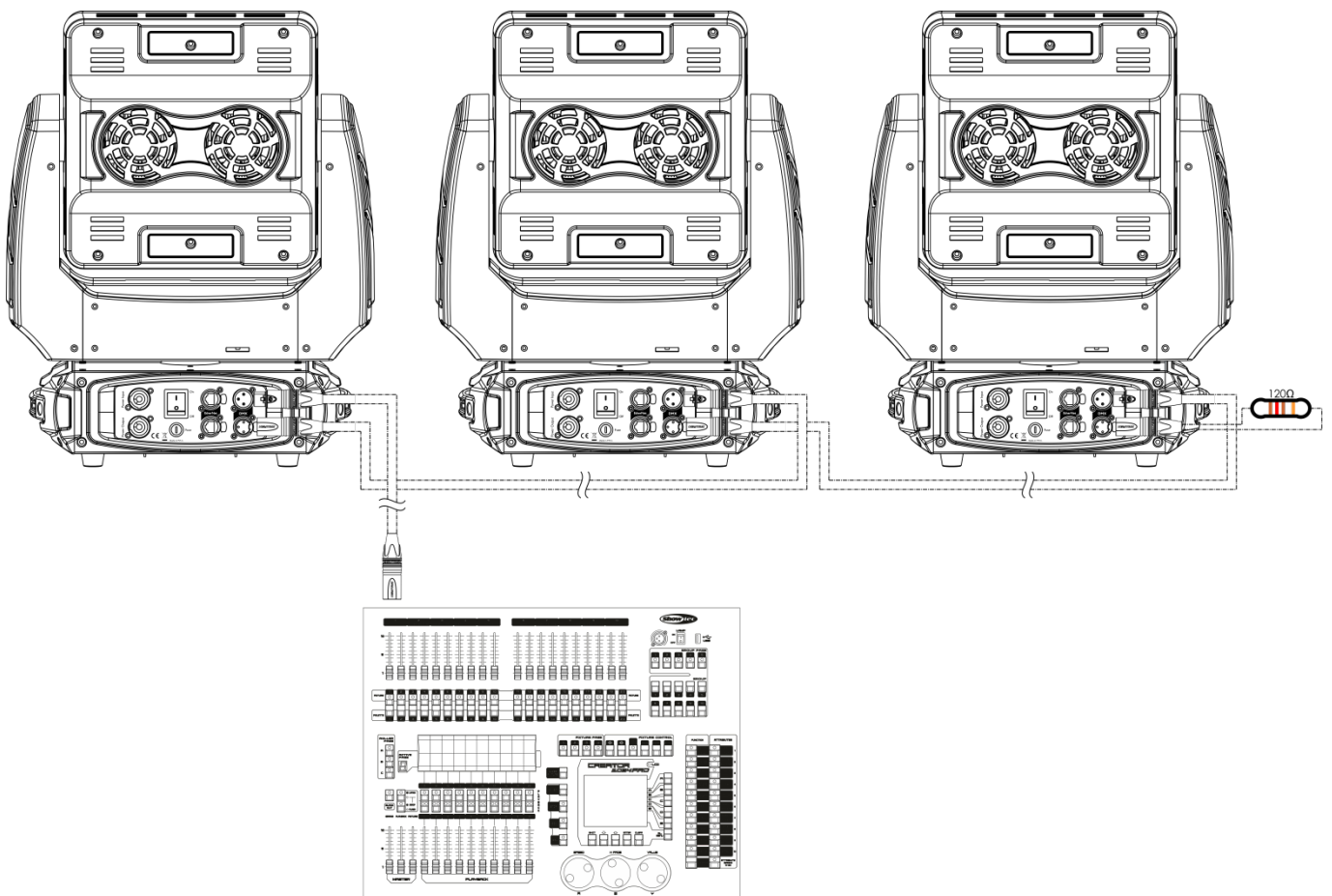


Fig. 04

Multiple Phantoms (ArtNet Control)

- 01) Fasten the effect light to a firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Always use a safety cable (ordercode 70140 / 70141).
- 03) Use a CAT-5/CAT-6 cable to connect the Phantom's "in" socket to your software/light controller's output.
- 04) Use a CAT-5/CAT-6 cable to connect the Phantom and other ArtNet devices.
- 04) Link the units as shown in fig. 05. Connect the first Phantom's RJ45 "out" socket with the second unit's "in" socket, using a CAT-5/CAT-6 signal cable. Repeat this process to link the second, third, and fourth units.
- 05) Supply electric power: Plug electric mains power cords into each unit's Pro power socket, then plug the other end of the mains power cord into proper electric power supply sockets, starting with the first unit. Do not supply power before the whole system is set up and connected properly.

Multiple Phantoms ArtNet Set Up

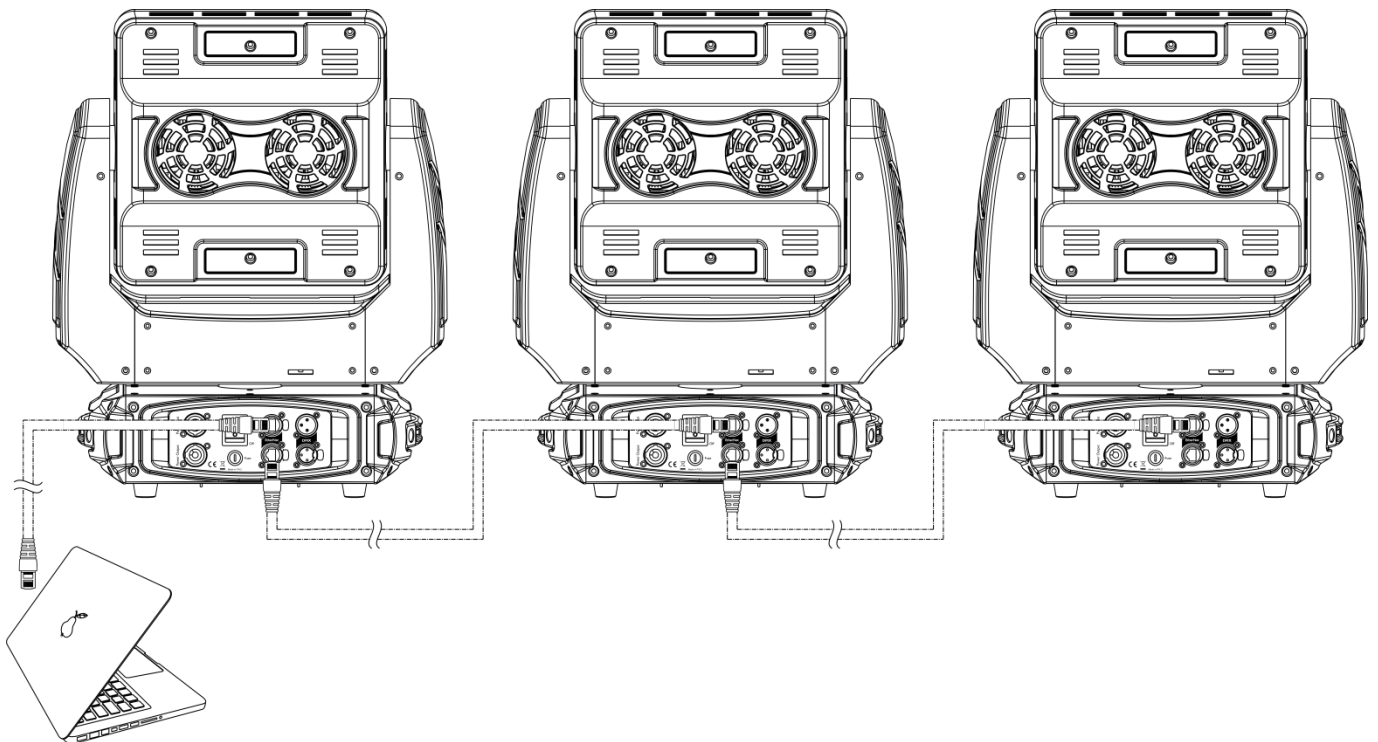


Fig. 05

Note : Link all cables before connecting electric power

Connecting to a Network

ArtNet settings

- 01) Install any ArtNet-based software on your PC (Windows or Mac) or use a light controller which supports ArtNet.
- 02) Connect the power supply to the Phantom 300 LED Matrix..
- 03) Connect the device's Ethernet connector (**13**) to your software/light controller's Ethernet connector, using a CAT-5/CAT-6 cable.
- 04) Set the IP address of your software/light controller to **2.x.x.x** or **10.x.x.x**, depending on the ArtNet settings.
- 05) Set the subnet mask to **255.0.0.0**. on both – the Phantom and your software/light controller. Make sure that all the fixtures in the network have a **unique IP address**.
- 06) If you want to connect more fixtures, follow the example below.

Example: The Phantom 300 LED Matrix, 120-channel mode.

- 01) Make sure that each connected Phantom has a **unique IP address**.
- 02) Make sure that the subnet mask on each device is set to **255.0.0.0**.
- 03) Set the universe of the first Phantom to **1**.
- 04) Set the first Phantom's DMX address to **001**.
- 05) Connect your Phantoms, inserting ascending universe numbers. Each universe has a maximum of **15** subnets.
- 06) Once you have reached the final subnet of the first universe, set the universe of the next Phantom to **2** and its DMX address to **001**.
- 07) Repeat steps 5 and 6 up to 15 times, each time inserting ascending universe numbers (as there are 15 universes available).
- 08) If you have reached the final universe of your current net, and you still want to connect more devices, set the net value of the following Phantom to **2** and repeat steps 4-7 .
- 09) Now, you are able to connect more Phantoms, as each separate net is equipped with 15 universes, 15 subnets each. There are 127 nets in total (the number of nets depends on the software which you use).
- 10) Using your software (for example [50224](#) - Arkaos Media Master Express), map all the connected devices, using the settings described above.
- 11) The Phantoms are now ready for use.
- 12) When creating large setups, it is recommended to use a 16-bit, high speed ethernet switch to distribute the ArtNet data signal.

How to make a data cable

A Standard ETHERNET cable can be used to replace the data cable required to transmit the data for the Phantom 300 LED Matrix.

Please follow the instructions below in order to create an extra Net Cable.

Take a standard net cable (CAT-5/ 5E /6) and connect it to the RJ45 connector, as shown in the picture below (fig. 06). The wires should now be colored as follows:

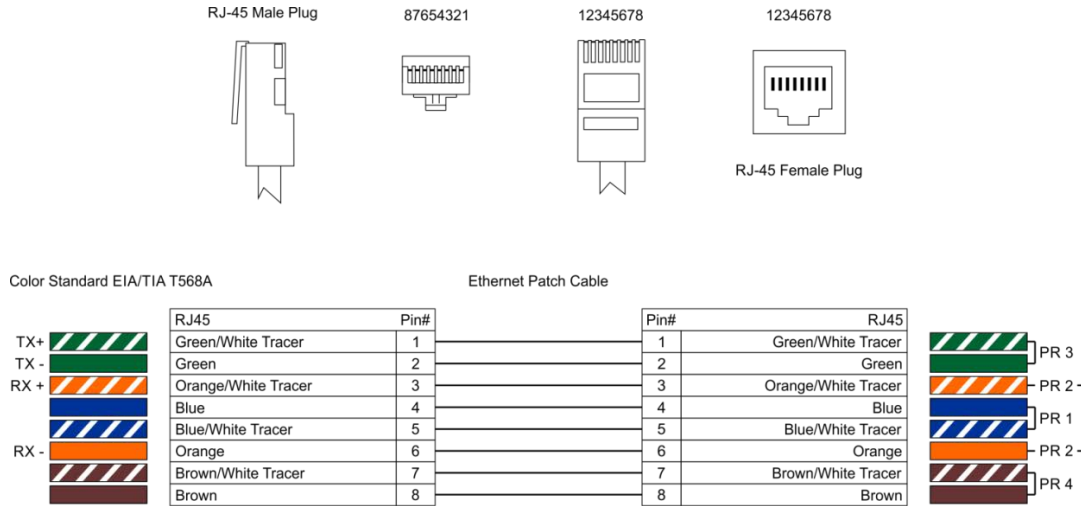


Fig. 06

Software for controlling

In combination with Arkaos or DMT Software, you are able to play videos over the Phantom 300 LED Matrix (pixelmapping). You only have to connect all the Phantoms and run your software.

50224

Arkaos Media Master Express

The latest update of the successful media server software.

502267

Arkaos Media Master Pro 4.0: PRO DMX video software for lighting designers.

Fixture Linking

You will need a serial data link to run light shows of one or more fixtures using a DMX-512 controller or to run synchronized shows of two or more fixtures set to a master/slave operating mode. The combined number of channels required by all the fixtures on a serial data link determines the number of fixtures the data link can support.

Important: Fixtures on a serial data link must be daisy-chained in a single line. To comply with the EIA-485 standard, no more than 30 devices should be connected on one data link. Connecting more than 30 fixtures on one serial data link without the use of a DMX optically isolated splitter may result in deterioration of the digital DMX signal.

Maximum recommended DMX data link distance: 100 meters
Maximum recommended number of fixtures on a DMX data link: 30 fixtures



Data Cabling

To link fixtures together, you must obtain data cables. You can purchase DAP Audio certified DMX cables directly from a dealer/distributor or construct your own cable. If you choose to create your own cable, please use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

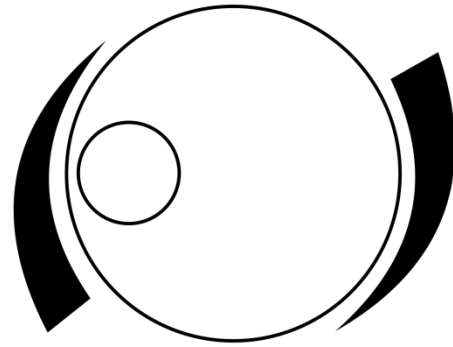
DAP Audio DMX Data Cables

- DAP Audio Basic microphone cable for allround use. bal. XLR/M 3-pin > XLR/F 3-pin. **Ordercode** FL01150 (1,5 m), FL013 (3 m), FL016 (6 m), FL0110 (10 m), FL0115 (15 m), FL0120 (20 m).
- DAP Audio X-type data cable XLR/M 3-pin > XLR/F 3-pin. **Ordercode** FLX0175 (0,75 m), FLX01150 (1,5 m), FLX013 (3 m), FLX016 (6 m), FLX0110 (10 m).
- DAP Audio cable for the demanding user with exceptional audio-qualities and connector made by Neutrik®. **Ordercode** FL71150 (1,5 m), FL713 (3 m), FL716 (6 m), FL7110 (10 m).
- DAP Audio cable for the demanding user with exceptional audio-qualities and connector made by Neutrik®. **Ordercode** FL7275 (0,75 m), FL72150 (1,5 m), FL723 (3 m), FL726 (6 m), FL7210 (10 m).
- DAP Audio 110 Ohm cable with digital signal transmission. **Ordercode** FL0975 (0,75 m), FL09150 (1,5 m), FL093 (3 m), FL096 (6 m), FL0910 (10 m), FL0915 (15 m), FL0920 (20 m).

DAP Audio PC Interface Cables

- CAT-5 cable 7,6 mm Matte blue PVC. **Ordercode** FL55150 (1,5 m), FL553 (3 m), FL556 (6 m), FL5510 (10 m), FL5515 (15 m), FL5520 (20 m).
- CAT-6 cable (recommended for best data transfer). **Ordercode** FL563 (3 m), FL566 (6 m), FL5610 (10 m), FL5615 (15 m), FL5640 (40 m).

Control Panel



Press and turn the control to navigate through the menu options

Fig. 07

DMX Control Mode

The fixtures are individually addressed on a data-link and connected to the controller. When a DMX signal is present, the DMX LED will blink.

The fixtures respond to the DMX signal from the controller. (When you select the DMX address and save it, the controller will display the saved DMX address the next time.)

DMX Addressing

The control panel on the front side of the base allows you to assign the DMX fixture address, which is the first channel from which the Phantom 300 LED Matrix will respond to the controller.

Please note when you use the controller, the unit has **120** channels.

When using multiple Phantoms, make sure that you set the DMX addresses right.

Therefore, the DMX address of the first Phantom should be **1(001)**; the DMX address of the second Phantom should be **1+120=121 (121)**; the DMX address of the third Phantom should be **121+120=241 (241)**, etc. Please, make sure that you do not have any overlapping channels in order to control each Phantom correctly. If two or more Phantoms are addressed similarly, they will work similarly.

Controlling:

After having addressed all Phantom fixtures, you may now start operating these via your lighting controller.

Note: After switching on, the Phantom 300 LED Matrix will automatically detect whether DMX 512 data is received or not. If there is no data received at the DMX input, the DMX LED will not blink.

The problem may be:

- The XLR cable from the controller is not connected with the input of the Phantom 300 LED Matrix.
- The controller is switched off or defective, the cable or connector is defective, or the signal wires are swapped in the input connector.

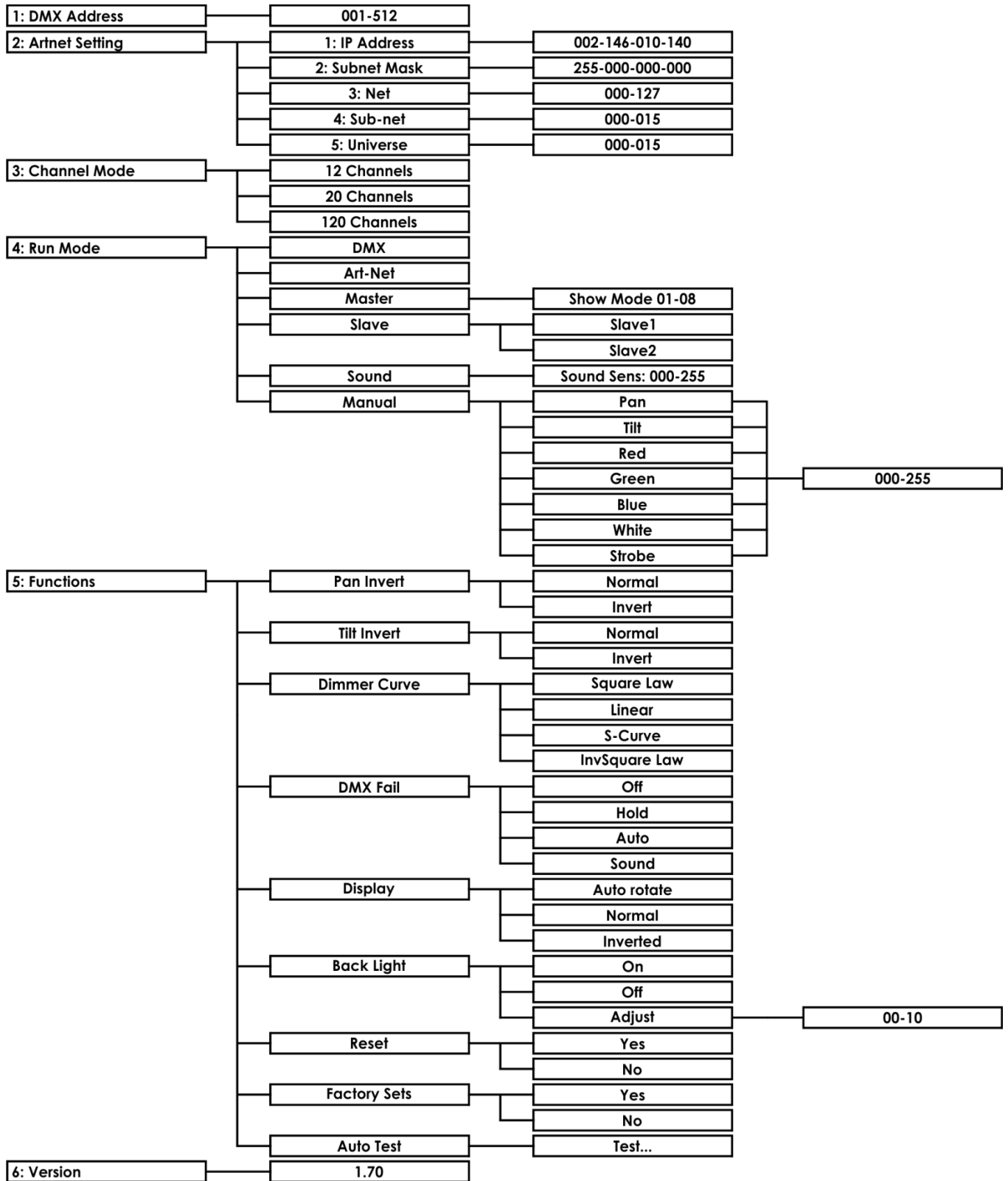
Note: It is necessary to insert an XLR termination plug (with 120 Ohm) in the last fixture in order to ensure proper transmission on the DMX data link.

⚠ Display Off after 35 seconds ⚠

When the MENU control is neither pressed nor turned for 35 seconds, the display will show the default screen. To return to the main menu, you have to press or turn the MENU control (**04**).

Once you have pressed or turned the control, the display will show the main menu screen.

Menu Overview



Main Menu Options

There are 6 menu modes:

- 1. DMX-512
- 2. ArtNet Settings
- 3. Channel Mode
- 4. Run Mode
- 5. Functions
- 6. Version

1. DMX-512

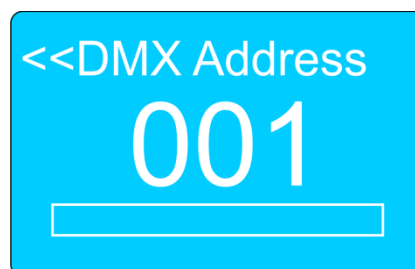
With this menu you can adjust the device's DMX settings.

01) While in the main menu, **turn** the MENU control **(04)** until the display shows:



02) **Press** the MENU control **(04)** to enter the menu.

03) The display will show:



04) **Turn** the MENU control **(04)** to set the desired DMX address.

05) The adjustment range is between 001-512.

06) **Press** the MENU control **(04)** to confirm the DMX address.

2. ArtNet Settings

With this menu you can adjust the device's ArtNet settings.

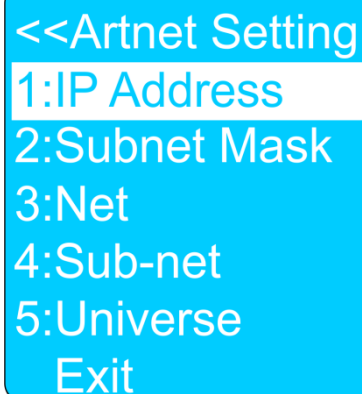
01) While in the main menu, **turn** the MENU control **(04)** until the display shows:



1) DMX Address
2) ArtNet Setting
3) Channel Mode
4) Run Mode

02) **Press** the MENU control **(04)** to enter the menu.

03) **Turn** the MENU control **(04)** to toggle through the following submenus:



<<Artnet Setting
1:IP Address
2:Subnet Mask
3:Net
4:Sub-net
5:Universe
Exit

04) **Press** the MENU control **(04)** to choose the desired submenu.

05) **Turn** the MENU control **(04)** to select Exit and **press** the MENU control **(04)** to return to the previous menu.

2.1. IP Address



<<IP Address
002-146-010-140
Exit

01) **Turn** the MENU control **(04)** to select the section of the IP address which you want to edit.

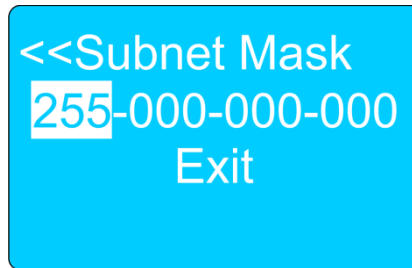
02) **Press** the MENU control **(04)** to enter edition mode.

03) **Turn** the MENU control **(04)** to adjust the value.

04) **Press** the MENU control **(04)** to confirm.

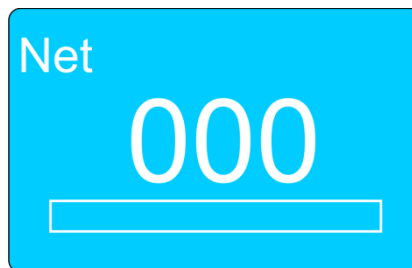
05) **Turn** the MENU control **(04)** to select Exit and **press** the MENU control **(04)** to return to the previous menu.

2.2. Subnet Mask



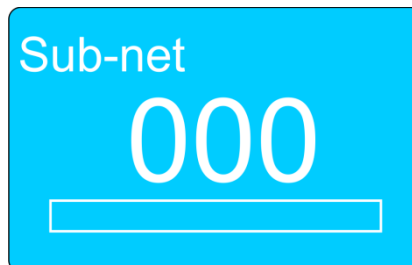
- 01) **Turn** the MENU control **(04)** to select the section of the subnet mask which you want to edit.
- 02) **Press** the MENU control **(04)** to enter edition mode.
- 03) **Turn** the MENU control **(04)** to adjust the value.
- 04) **Press** the MENU control **(04)** to confirm.
- 05) **Turn** the MENU control **(04)** to select Exit and **press** the MENU control **(04)** to return to the previous menu.

2.3. Net



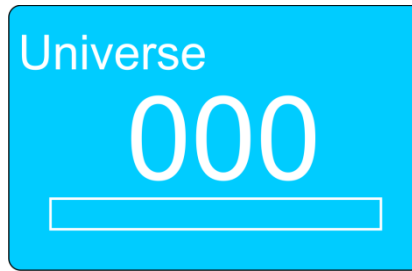
- 01) **Turn** the MENU control **(04)** to set the desired net number. The adjustment range is between 000-127.
- 02) **Press** the MENU control **(04)** to confirm your choice.

2.4. Sub-Net



- 01) **Turn** the MENU control **(04)** to set the desired sub-net number. The adjustment range is between 000-015.
- 02) **Press** the MENU control **(04)** to confirm your choice.

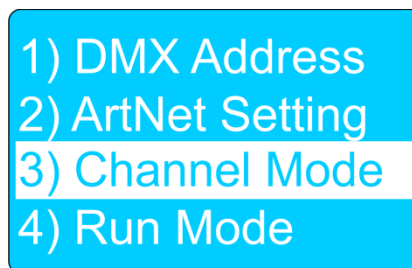
2.5. Universe



- 01) **Turn** the MENU control **(04)** to set the desired universe number. The adjustment range is between 000-015.
- 02) **Press** the MENU control **(04)** to confirm your choice.

3. Channel Mode

- 01) While in main menu, **turn** the MENU control **(04)** until the display shows:



- 02) **Press** the MENU control **(04)** to enter the menu.
- 03) **Turn** the MENU control **(04)** to toggle between the 3 available channel modes:
 - 12 channels
 - 20 channels
 - 120 channels
- 04) **Press** the MENU control **(04)** to choose the desired channel mode.
- 05) For more information about the DMX channels and their functions, see page 26.

4. Run Mode

- 01) While in main menu, **turn** the MENU control **(04)** until the display shows:



- 02) **Press** the MENU control **(04)** to enter the menu.
- 03) **Turn** the MENU control **(04)** to toggle between the 6 available modes:
 - DMX
 - ArtNet
 - Master
 - Slave
 - Sound
 - Manual
- 04) **Press** the MENU control **(04)** to open the desired mode.

4.1. DMX Mode

01) **Press** the MENU control **(04)** to activate DMX mode.

4.2. ArtNet

01) **Press** the MENU control **(04)** to activate ArtNet mode.

4.3. Master Mode

01) **Turn** the MENU control **(04)** to choose one of 8 built-in auto shows:

- Showmode 01 – Showmode 08

02) **Press** the MENU control **(04)** to confirm your choice.

03) The device will now run the desired auto show.

4.4. Slave Mode

01) **Turn** the MENU control **(04)** to toggle between the 2 slave functions:

- Slave1 (normal slave mode)
- Slave2 (mirror slave mode)

03) **Press** the MENU control **(04)** to confirm your preferred slave mode.

04) The device is now operating in slave mode and it will react the same as the master device (Slave1), or it will mirror the actions of the master device (Slave2).

4.5. Sound Mode

01) **Press** the MENU control **(04)** to enter the menu.

02) The display will show the following screen:

03) **Turn** the MENU control **(04)** to adjust the sound sensitivity. The adjustment range is between 000-255, from low to high sensitivity.

04) **Press** the MENU control **(04)** to confirm.

4.6. Manual Mode

01) **Turn** the MENU control **(04)** to toggle between the 7 available functions:

- Pan (Pan adjustment)
- Tilt (Tilt adjustment)
- Red (Red LED intensity)
- Green (Green LED intensity)
- Blue (Blue LED intensity)
- White (White LED intensity)
- Strobe (Strobe frequency)

02) **Press** the MENU control **(04)** to select the desired function. The adjustment range of each function is between 000-255.

03) **Turn** the MENU control **(04)** to set the value.

04) **Press** the MENU control **(04)** to save changes.

05) **Turn** the MENU control **(04)** to choose Exit and press the MENU control **(04)** to return to the previous menu.

5. Functions

01) While in main menu, **turn** the MENU control **(04)** until the display shows:



02) **Press** the MENU control **(04)** to enter the menu.

03) **Turn** the MENU control **(04)** to toggle between the 9 available functions:

- Pan Invert
- Tilt Invert
- Dimmer Curve
- DMX Fail
- Display
- Back Light
- Reset
- Factory Sets
- Auto Test

04) Press the MENU control **(04)** to open the desired menu.

5.1 Pan Invert

01) **Turn** the MENU control **(04)**, choose Normal and **press** the MENU control **(04)** to deactivate pan inversion.

02) **Turn** the MENU control **(04)**, choose Invert and **press** the MENU control **(04)** to activate pan inversion.

03) **Press** the MENU control **(04)** to confirm the changes.

5.2 Tilt Invert

01) **Turn** the MENU control **(04)**, choose Normal and **press** the MENU control **(04)** to deactivate tilt inversion.

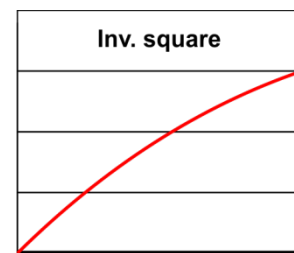
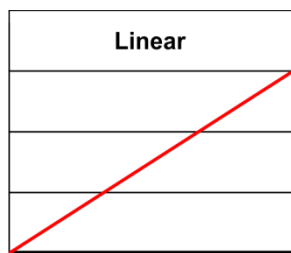
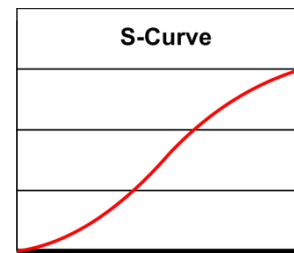
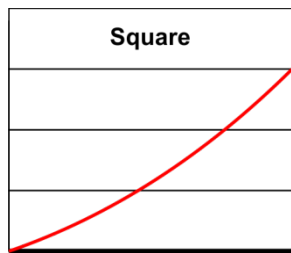
02) **Turn** the MENU control **(04)**, choose Invert and **press** the MENU control **(04)** to activate tilt inversion.

03) **Press** the MENU control **(04)** to confirm the changes.

5.3. Dimmer Curve

01) Turn the MENU control (04) to toggle between the 4 available modes:

- Square Law
- Linear
- S-curve
- InvSquare Law



02) Press the MENU control (04) to confirm the mode of your choice.

5.4. DMX Fail

With this menu you can determine the behaviour of the Phantom in case of DMX failure.

01) Turn the MENU control (04) to toggle between the 4 available modes:

- Off (DMX signal lost, device stops)
- Hold (DMX signal lost, device will memorize the last successfully received DMX signal and will continue using it until DMX signal reception is restored)
- Auto (DMX signal lost, device starts an auto program)
- Sound (DMX signal lost, device becomes sound active)

02) Press the MENU control (04) to confirm your choice.

5.5. Display

01) Press the MENU control (04) to enter the menu.

02) Turn the MENU control (04) to toggle between the 3 options:

- Auto Rotate (Display flips accordingly to the position of the fixture)
- Normal
- Inverted (horizontal flip)

03) Press the MENU control (04) to confirm your choice.

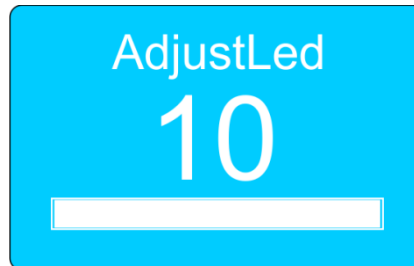
5.6. Back Light

01) **Turn** the MENU control **(04)** to toggle between the 3 options:

- ON (Display continuously ON)
- OFF (Display turns OFF after 10 seconds)
- Adjust (Display brightness)

02) **Turn** the MENU control **(04)** to choose Adjust and **press** the MENU control **(04)** to enter the menu.

03) The display will show:



04) **Turn** the MENU control **(04)** to adjust brightness. The adjustment range is between 00-10, from dark to brightest.

05) **Press** the MENU control **(04)** to confirm the changes.

5.7. Reset

01) **Turn** the MENU control **(04)**, choose Yes and **press** the MENU control **(04)** to reset the Phantom.

02) **Turn** the MENU control **(04)**, choose No and **press** the MENU control **(04)** to cancel the reset function.

5.8. Factory Sets

01) **Turn** the MENU control **(04)**, choose Yes and **press** the MENU control **(04)** to restore the factory default settings.

02) **Turn** the MENU control **(04)**, choose No and **press** the MENU control **(04)** to return to the main menu.

5.9. Auto Test

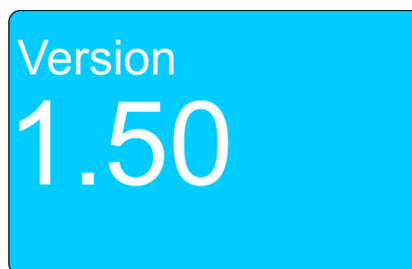
01) **Turn** the MENU control **(04)**, choose Test and **press** the MENU control **(04)** to perform a full test of all the available functions.

02) **Turn** the MENU control **(04)**, choose Exit and **press** the MENU control **(04)** to return to the main menu.

6. Version

01) **Press** the MENU control **(03)** to enter the menu.

02) The display is now showing the current software version, installed on the Phantom:



DMX Channels

12 Channels

Channel 1 – Horizontal movement (Pan)

Push the slider up, in order to move head horizontally (PAN).

Gradual head adjustment, between 0-127. The head can be turned by 540° and stopped at any position you wish.

Channel 2 – Vertical movement (Tilt)

Push the slider, up in order to move head vertically (TILT).

Gradual head adjustment, between 0-127. The head can be turned by 270° and stopped at any position you wish.

Channel 3 – Continuous Pan

0-15	Not functional
16-135	Clockwise rotation, from slow to fast
136-255	Counterclockwise rotation, from slow to fast

Channel 4 – Continuous Tilt

0-15	Not functional
16-135	Clockwise rotation, from slow to fast
136-255	Counterclockwise rotation, from slow to fast

Channel 5 – Dimmer

0-255	0-100%, from dark to brightest
-------	--------------------------------

Channel 6 – Strobe Dimmer must be open

0-10	Off
11-128	Random strobe intensity, from low to high frequency
129-255	Linear strobe intensity, from low to high frequency

Channel 7 – Color Macro Dimmer must be open

0-7	Not functional
8-13	Color1(R255, G000, B000, W000)
14-20	Color2(R255, G000, B000, W100)
21-27	Color3(R255, G000, B000, W200)
28-34	Color4(R255, G050, B000, W000)
35-41	Color5(R255, G150, B000, W000)
42-48	Color6(R255, G255, B000, W000)
49-55	Color7(R255, G255, B000, W075)
56-62	Color8(R000, G255, B000, W255)
63-69	Color9(R000, G255, B000, W150)
70-76	Color10(R000, G255, B000, W050)
77-83	Color11(R000, G255, B000, W000)
84-90	Color12(R000, G255, B050, W000)
91-97	Color13(R000, G255, B150, W000)
98-104	Color14(R000, G255, B255, W000)
105-111	Color15(R000, G255, B255, W075)
112-118	Color16(R000, G255, B255, W150)
119-125	Color17(R000, G100, B255, W255)
126-132	Color18(R000, G000, B255, W100)
133-139	Color19(R000, G000, B255, W050)
140-146	Color20(R000, G000, B255, W000)
147-153	Color21(R075, G000, B255, W000)
154-160	Color22(R160, G000, B255, W000)
161-167	Color23(R255, G000, B255, W000)

168-174	Color24(R255, G000, B175, W000)
175-181	Color25(R255, G000, B100, W000)
182-188	Color26(R255, G000, B100, W050)
189-195	Color27(R255, G000, B025, W050)
196-202	Color28(R255, G000, B025, W025)
203-209	Color29(R255, G000, B025, W000)
210-216	Color30(R000, G000, B000, W255)
217-223	Color31(R075, G075, B000, W255)
224-230	Color32(R000, G000, B100, W255)
231-255	Color33(R255, G255, B255, W255)

Channel 8 – Color Switch/Flow/Rainbow ⚠ Dimmer must be open ⚠

0-12	Not functional
13-24	Color switch 1
25-36	Color switch 2
37-48	Color switch 3
49-60	Color switch 4
61-72	Color switch 5
73-84	Color switch 6
85-96	Color switch 7
97-108	Color switch 8
109-120	Color flow 1
121-132	Color flow 2
133-144	Color flow 3
145-156	Color flow 4
157-168	Color flow 5
169-180	Color flow 6
181-192	Color flow 7
193-204	Rainbow effect 1
205-216	Rainbow effect 2
217-228	Blue-red color flow
229-240	Blue-green color flow
241-255	Yellow-red color flow

Channel 9 – Color Flow Speed ⚠ CH8 must be set between 13-255 ⚠

0-255	From slow to fast
-------	-------------------

Channel 10 – Characters ⚠ Dimmer must be open, CH7 or CH8 must be open ⚠

0-7	Not functional
8-37	Digits (0-9)
38-115	Letters (A-Z)
116-255	Patterns 1-46

Channel 11 – Pattern Speed

0-255	From slow to fast
-------	-------------------

Channel 12 – Functions

0-5	No function
6-10	Show1
11-20	Show2
21-30	Show3
31-40	Show4
41-50	Show5
51-60	Show6
61-70	Show7
71-80	Show8

81-90	Slave1
91-96	Slave2
97-160	Sound sensitivity, from low sensitivity to high sensitivity
161-170	Pan inversion
171-180	Tilt inversion
181-190	Pan normal
191-200	Tilt normal
201-220	Pan/Tilt blackout ON
221-240	Pan/Tilt blackout OFF
241-255	Not functional

20 Channels

Channel 1 – Horizontal movement (Pan)

Push the slider up, in order to move head horizontally (PAN).

Gradual head adjustment, between 0-127. The head can be turned by 540° and stopped at any position you wish.

Channel 2 – Pan fine 16 bit

Channel 3 – Vertical movement (Tilt)

Push the slider, up in order to move head vertically (TILT).

Gradual head adjustment, between 0-127. The head can be turned by 270° and stopped at any position you wish.

Channel 4 – Tilt fine 16 bit

Channel 5 – Pan / Tilt speed

0-255	From minimum speed (0) to maximum speed (255)
-------	---

Channel 6 – Continuous Pan

0-15	Not functional
16-135	Clockwise rotation, from slow to fast
136-255	Counterclockwise rotation, from slow to fast

Channel 7 – Continuous Tilt

0-15	Not functional
16-135	Clockwise rotation, from slow to fast
136-255	Counterclockwise rotation, from slow to fast

Channel 8 – Dimmer

0-255	0-100%, from dark to brightest
-------	--------------------------------

Channel 9 – Linear Strobe Dimmer must be open

0-10	Off
11-255	Linear strobe intensity, from low to high frequency

Channel 10 – Random Strobe Dimmer must be open

0-10	Off
11-255	Random strobe intensity, from low to high frequency

Channel 11 – Color Macro Dimmer must be open

0-7	Not functional
8-13	Color1(R255, G000, B000, W000)
14-20	Color2(R255, G000, B000, W100)
21-27	Color3(R255, G000, B000, W200)

28-34	Color4(R255, G050, B000, W000)
35-41	Color5(R255, G150, B000, W000)
42-48	Color6(R255, G255, B000, W000)
49-55	Color7(R255, G255, B000, W075)
56-62	Color8(R000, G255, B000, W255)
63-69	Color9(R000, G255, B000, W150)
70-76	Color10(R000, G255, B000, W050)
77-83	Color11(R000, G255, B000, W000)
84-90	Color12(R000, G255, B050, W000)
91-97	Color13(R000, G255, B150, W000)
98-104	Color14(R000, G255, B255, W000)
105-111	Color15(R000, G255, B255, W075)
112-118	Color16(R000, G255, B255, W150)
119-125	Color17(R000, G100, B255, W255)
126-132	Color18(R000, G000, B255, W100)
133-139	Color19(R000, G000, B255, W050)
140-146	Color20(R000, G000, B255, W000)
147-153	Color21(R075, G000, B255, W000)
154-160	Color22(R160, G000, B255, W000)
161-167	Color23(R255, G000, B255, W000)
168-174	Color24(R255, G000, B175, W000)
175-181	Color25(R255, G000, B100, W000)
182-188	Color26(R255, G000, B100, W050)
189-195	Color27(R255, G000, B025, W050)
196-202	Color28(R255, G000, B025, W025)
203-209	Color29(R255, G000, B025, W000)
210-216	Color30(R000, G000, B000, W255)
217-223	Color31(R075, G075, B000, W255)
224-230	Color32(R000, G000, B100, W255)
231-255	Color33(R255, G255, B255, W255)

Channel 12 – Color Switch/Flow/Rainbow Dimmer must be open

0-12	Not functional
13-24	Color switch 1
25-36	Color switch 2
37-48	Color switch 3
49-60	Color switch 4
61-72	Color switch 5
73-84	Color switch 6
85-96	Color switch 7
97-108	Color switch 8
109-120	Color flow 1
121-132	Color flow 2
133-144	Color flow 3
145-156	Color flow 4
157-168	Color flow 5
169-180	Color flow 6
181-192	Color flow 7
193-204	Rainbow effect 1
205-216	Rainbow effect 2
217-228	Blue-red color flow
229-240	Blue-green color flow
241-255	Yellow-red color flow

Channel 13 – Color Flow Speed CH12 must be set between 13-255

0-255	From slow to fast
-------	-------------------

Channel 14 – Characters Dimmer must be open, CH11 or CH12 must be open

0-7	Not functional
8-37	Digits (0-9)
38-115	Letters (A-Z)
116-255	Patterns 1-46

Channel 15 – Pattern Speed

0-255	From slow to fast
-------	-------------------

Channel 16 – Functions

0-5	No function
6-10	Show1
11-20	Show2
21-30	Show3
31-40	Show4
41-50	Show5
51-60	Show6
61-70	Show7
71-80	Show8
81-90	Slave1
91-96	Slave2
97-160	Sound sensitivity, from low sensitivity to high sensitivity
161-170	Pan inversion
171-180	Tilt inversion
181-190	Pan normal
191-200	Tilt normal
201-220	Pan/Tilt blackout ON
221-240	Pan/Tilt blackout OFF
241-255	Not functional

Channel 17 – Red color intensity Dimmer must be open, CH11 and CH12 must be closed

0-255	Gradual adjustment Red, from 0 – 100%
-------	---------------------------------------

Channel 18 – Green color intensity Dimmer must be open, CH11 and CH12 must be closed

0-255	Gradual adjustment Green, from 0 – 100%
-------	---

Channel 19 – Blue color intensity Dimmer must be open, CH11 and CH12 must be closed

0-255	Gradual adjustment Blue, from 0 – 100%
-------	--

Channel 20 – White color intensity Dimmer must be open, CH11 and CH12 must be closed

0-255	Gradual adjustment White, from 0 – 100%
-------	---

120 Channels

Channel 1 – Horizontal movement (Pan)

Push the slider up, in order to move head horizontally (PAN).

Gradual head adjustment, between 0-127. The head can be turned by 540° and stopped at any position you wish.

Channel 2 – Pan fine 16 bit

Channel 3 – Vertical movement (Tilt)

Push the slider, up in order to move head vertically (TILT).

Gradual head adjustment, between 0-127. The head can be turned by 270° and stopped at any position you wish.

Channel 4 – Tilt fine 16 bit

Channel 5 – Pan / Tilt speed

0-255	From minimum speed (0) to maximum speed (255)
-------	---

Channel 6 – Continuous Pan

0-15	Not functional
16-135	Clockwise rotation, from slow to fast
136-255	Counterclockwise rotation, from slow to fast

Channel 7 – Continuous Tilt

0-15	Not functional
16-135	Clockwise rotation, from slow to fast
136-255	Counterclockwise rotation, from slow to fast

Channel 8 – Dimmer

0-255	0-100%, from dark to brightest
-------	--------------------------------

Channel 9 – Linear Strobe Dimmer must be open

0-10	Off
11-255	Linear strobe intensity, from low to high frequency

Channel 10 – Random Strobe Dimmer must be open

0-10	Off
11-255	Random strobe intensity, from low to high frequency

Channel 11 – Color Macro Dimmer must be open

0-7	Not functional
8-13	Color1(R255, G000, B000, W000)
14-20	Color2(R255, G000, B000, W100)
21-27	Color3(R255, G000, B000, W200)
28-34	Color4(R255, G050, B000, W000)
35-41	Color5(R255, G150, B000, W000)
42-48	Color6(R255, G255, B000, W000)
49-55	Color7(R255, G255, B000, W075)
56-62	Color8(R000, G255, B000, W255)
63-69	Color9(R000, G255, B000, W150)
70-76	Color10(R000, G255, B000, W050)
77-83	Color11(R000, G255, B000, W000)
84-90	Color12(R000, G255, B050, W000)
91-97	Color13(R000, G255, B150, W000)
98-104	Color14(R000, G255, B255, W000)
105-111	Color15(R000, G255, B255, W075)

112-118	Color16(R000, G255, B255, W150)
119-125	Color17(R000, G100, B255, W255)
126-132	Color18(R000, G000, B255, W100)
133-139	Color19(R000, G000, B255, W050)
140-146	Color20(R000, G000, B255, W000)
147-153	Color21(R075, G000, B255, W000)
154-160	Color22(R160, G000, B255, W000)
161-167	Color23(R255, G000, B255, W000)
168-174	Color24(R255, G000, B175, W000)
175-181	Color25(R255, G000, B100, W000)
182-188	Color26(R255, G000, B100, W050)
189-195	Color27(R255, G000, B025, W050)
196-202	Color28(R255, G000, B025, W025)
203-209	Color29(R255, G000, B025, W000)
210-216	Color30(R000, G000, B000, W255)
217-223	Color31(R075, G075, B000, W255)
224-230	Color32(R000, G000, B100, W255)
231-255	Color33(R255, G255, B255, W255)

Channel 12 – Color Switch/Flow/Rainbow ⚠ Dimmer must be open ⚠

0-12	Not functional
13-24	Color switch 1
25-36	Color switch 2
37-48	Color switch 3
49-60	Color switch 4
61-72	Color switch 5
73-84	Color switch 6
85-96	Color switch 7
97-108	Color switch 8
109-120	Color flow 1
121-132	Color flow 2
133-144	Color flow 3
145-156	Color flow 4
157-168	Color flow 5
169-180	Color flow 6
181-192	Color flow 7
193-204	Rainbow effect 1
205-216	Rainbow effect 2
217-228	Blue-red color flow
229-240	Blue-green color flow
241-255	Yellow-red color flow

Channel 13 – Color Flow Speed ⚠ CH12 must be set between 13-255 ⚠

0-255	From slow to fast
-------	-------------------

Channel 14 – Characters ⚠ Dimmer must be open, CH11 or CH12 must be open ⚠

0-7	Not functional
8-37	Digits (0-9)
38-115	Letters (A-Z)
116-255	Patterns 1-46

Channel 15 – Pattern Speed

0-255	From slow to fast
-------	-------------------

Channel 16 – Functions

0-5	No function
-----	-------------

6-10	Show1
11-20	Show2
21-30	Show3
31-40	Show4
41-50	Show5
51-60	Show6
61-70	Show7
71-80	Show8
81-90	Slave1
91-96	Slave2
97-160	Sound sensitivity, from low sensitivity to high sensitivity
161-170	Pan inversion
171-180	Tilt inversion
181-190	Pan normal
191-200	Tilt normal
201-220	Pan/Tilt blackout ON
221-240	Pan/Tilt blackout OFF
241-255	Not functional

Channel 17 – Red color intensity ⚠ **Dimmer must be open, CH11 and CH12 must be closed** ⚠

0-255 Gradual adjustment Red, from 0 – 100%

Channel 18 – Green color intensity ⚠ **Dimmer must be open, CH11 and CH12 must be closed** ⚠

0-255 Gradual adjustment Green, from 0 – 100%

Channel 19 – Blue color intensity ⚠ **Dimmer must be open, CH11 and CH12 must be closed** ⚠

0-255 Gradual adjustment Blue, from 0 – 100%

Channel 20 – White color intensity ⚠ **Dimmer must be open, CH11 and CH12 must be closed** ⚠

0-255 Gradual adjustment White, from 0 – 100%

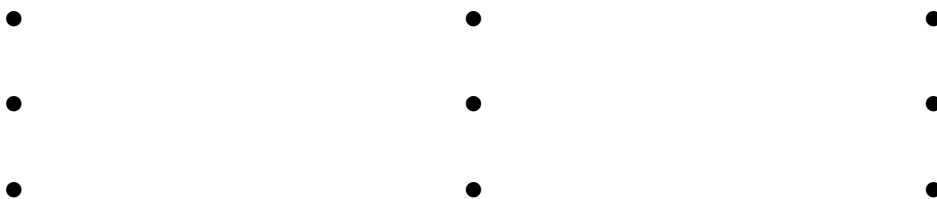


Channel 21 – LED 1 Red color intensity ⚠ Dimmer must be open, CH11 and CH12 must be closed ⚠
 0-255 Gradual adjustment Red, from 0 – 100%

Channel 22 – LED 1 Green color intensity ⚠ Dimmer must be open, CH11 and CH12 must be closed ⚠
 0-255 Gradual adjustment Green, from 0 – 100%

Channel 23 – LED 1 Blue color intensity ⚠ Dimmer must be open, CH11 and CH12 must be closed ⚠
 0-255 Gradual adjustment Blue, from 0 – 100%

Channel 24 – LED 1 White color intensity ⚠ Dimmer must be open, CH11 and CH12 must be closed ⚠
 0-255 Gradual adjustment White, from 0 – 100%



Channel 117 – LED 25 Red color intensity ⚠ Dimmer must be open; CH11, CH12 must be closed ⚠
 0-255 Gradual adjustment Red, from 0 – 100%

Channel 118 – LED 25 Green color intensity ⚠ Dimmer must be open; CH11, CH12 must be closed ⚠
 0-255 Gradual adjustment Green, from 0 – 100%

Channel 119 – LED 25 Blue color intensity ⚠ Dimmer must be open; CH11, CH12 must be closed ⚠
 0-255 Gradual adjustment Blue, from 0 – 100%

Channel 120 – LED 25 White color intensity ⚠ Dimmer must be open; CH11, CH12 must be closed ⚠
 0-255 Gradual adjustment White, from 0 – 100%

Maintenance

The Showtec Phantom 300 LED Matrix requires almost no maintenance. However, you should keep the unit clean. Otherwise, the fixture's light output will be significantly reduced. Disconnect the mains power supply and then wipe the cover with a damp cloth. Wipe the front glass panel clean with glass cleaner and a soft cloth. Do not use alcohol or solvents. The front glass panel will require weekly cleaning, as smoke-fluid tends to build up residues, reducing the light output very quickly. Do not immerse in liquid. Keep connections clean. Disconnect electric power, and then wipe the DMX and audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

The operator has to make sure that safety-related and machine-technical installations are to be inspected by an expert after every year in the course of an acceptance test.

The operator has to make sure that safety-related and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:

- 01) All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
- 02) There may not be any deformations on housings, fixations and installation spots.
- 03) Mechanically moving parts like axles, eyes and others may not show any traces of wearing.
- 04) The electric power supply cables must not show any damages or material fatigue.

Replacing the Fuse

Power surges, short-circuit or inappropriate electrical power supply may cause a fuse to burn out. If the fuse burns out, the product will not function whatsoever. If this happens, follow the directions below to do so.

- 01) Unplug the unit from electric power source.
- 02) Insert a screwdriver into the slot in the fuse cover. Turn the fuse holder counterclockwise. The fuse will come out.
- 03) Remove the used fuse. If brown or unclear, it is burned out.
- 04) Insert the replacement fuse into the holder where the old fuse was. Reinsert the fuse holder. Be sure to use a fuse of the same type and specification. See the product specification label for details.

Troubleshooting

No Light

This troubleshooting guide is meant to help solve simple problems.

If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

If the light effect does not operate properly, refer servicing to a technician.

Suspect three potential problem areas as: the power supply, the LEDs, the fuse.

- 01) Power supply. Check if the unit is plugged into an appropriate power supply.
- 02) The LEDs. Return the Phantom 300 LED Matrix to your Showtec dealer.
- 03) The fuse. See page 35 for replacing the fuse
- 04) If all of the above appears to be O.K., plug the unit in again.
- 05) If you are unable to determine the cause of the problem, do not open the Phantom 300 LED Matrix, as this may damage the unit and the warranty will become void.
- 06) Return the device to your Showtec dealer.

No Response to DMX

Suspect the DMX cable or connectors, a controller malfunction, a light effect DMX card malfunction.

- 01) Check the DMX setting. Make sure that DMX addresses are correct.
- 02) Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.
- 03) Determine whether the controller or light effect is at fault. Does the controller operate properly with other DMX products? If not, take the controller in for repair. If so, take the DMX cable and the light effect to a qualified technician.

Problem	Probable cause(s)	Solution
One or more fixtures do not function at all	No power to the fixture	<ul style="list-style-type: none"> • Check if power is switched on and cables are plugged in
	Primary fuse blown	<ul style="list-style-type: none"> • Replace fuse
Fixtures reset correctly, but all respond erratically or not at all to the controller	The controller is not connected.	<ul style="list-style-type: none"> • Connect controller.
	3-pin XLR Out of the controller does not match XLR Out of the first fixture on the link (i.e. signal is reversed)	<ul style="list-style-type: none"> • Install a phase reversing cable between the controller and the first fixture on the link
Fixtures reset correctly, but some respond erratically or not at all to the controller	Poor data quality	<ul style="list-style-type: none"> • Check data quality. If much lower than 100 percent, the problem may be a bad data link connection, poor quality or broken cables, missing termination plug, or a defective fixture disturbing the link
	Bad data link connection	<ul style="list-style-type: none"> • Inspect connections and cables. Correct poor connections. Repair or replace damaged cables
	Data link not terminated with 120 Ohm termination plug	<ul style="list-style-type: none"> • Insert termination plug in output jack of the last fixture on the link
	Incorrect addressing of the fixtures	<ul style="list-style-type: none"> • Check address setting
	One of the fixtures is defective and disturbs data transmission on the link	<ul style="list-style-type: none"> • Bypass one fixture at a time until normal operation is restored: unplug both connectors and connect them directly together. • Have the defective fixture serviced by a qualified technician
	3-pin XLR Out on the fixtures does not match (pins 2 and 3 reversed)	<ul style="list-style-type: none"> • Install a phase-reversing cable between the fixtures or swap pin 2 and 3 in the fixture that behaves erratically
No light or lamp cuts out intermittently	Fixture is too hot	<ul style="list-style-type: none"> • Allow the fixture to cool down • Clean the fans • Make sure air vents in control panel and the front lens are not blocked • Turn up the air conditioning
	LEDs damaged	<ul style="list-style-type: none"> • Disconnect the fixture and return it to your dealer
	The power supply settings do not match local AC voltage and frequency	<ul style="list-style-type: none"> • Disconnect fixture. Check settings and correct if necessary

Product Specifications

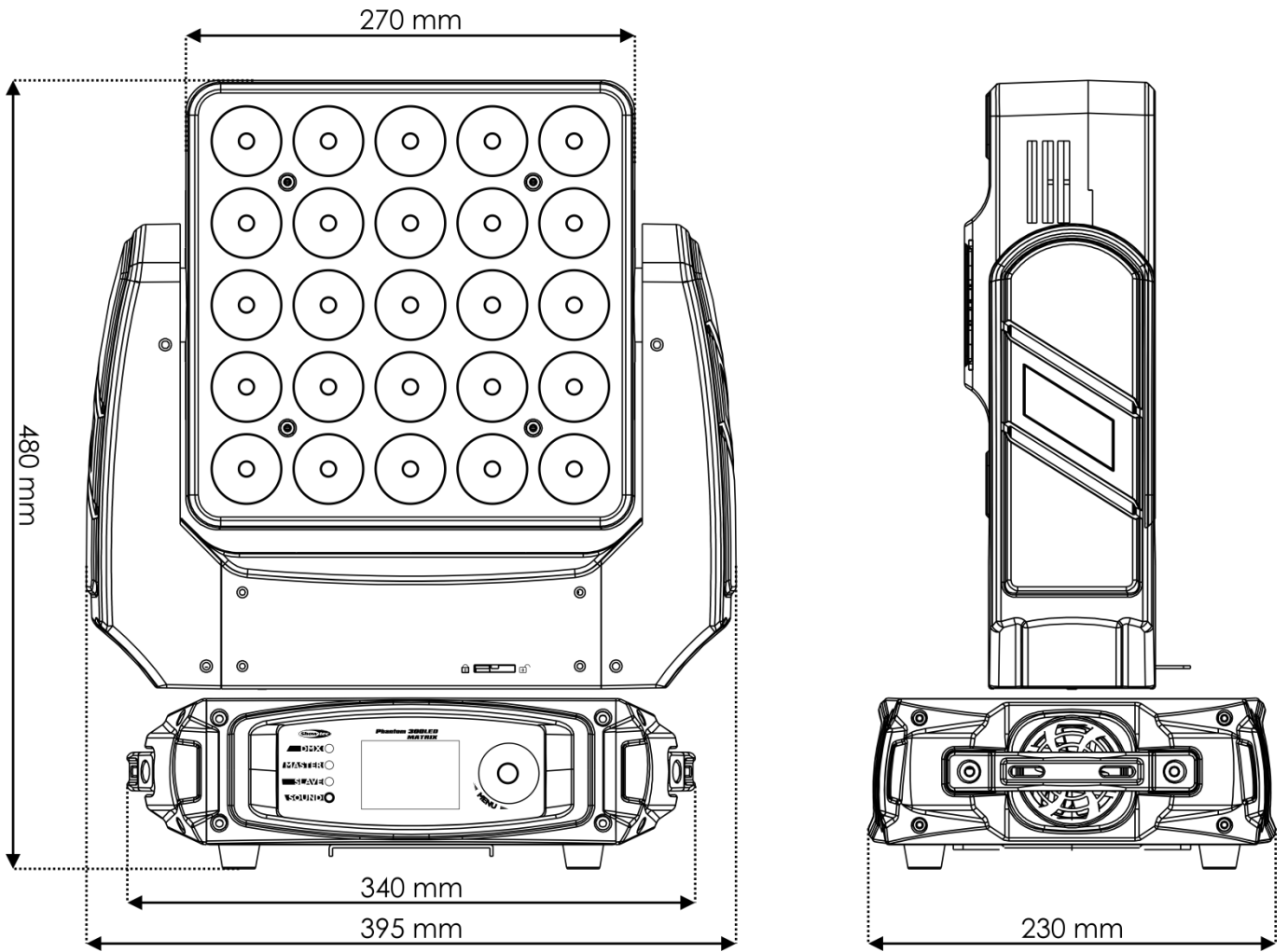
Model:	Showtec Phantom 300 LED Matrix
Input voltage:	100-240V AC, 60/50Hz
Power consumption:	340W
DMX linking:	30pcs
Fuse:	T5L/250V
Dimensions:	230 x 395 x 480 mm (LxWxH)
Weight:	13 kg
Operating and Programming:	
Signal pin OUT:	Pin 1 (earth), pin 2 (-), pin 3 (+)
DMX Mode:	12, 20, 120 channels
Signal input:	3-pin XLR/RJ45 IN
Signal output:	3-pin XLR/RJ45 OUT
Electro-mechanical effects:	
Light source:	25 x 10W RGBW 4-in-1 LEDs
Light output:	44950 lux @ 2 m
Colormixing:	RGBW
Beam angle:	15°
Pan/Tilt range	540°/270°
Dimmer:	0-100%
Strobe:	0-20Hz
DMX-control:	via standard DMX-controller
Onboard:	LCD display for easy setup
Control:	Auto, Manual, Sound-controlled, Master/Slave, DMX-512, ArtNet
Housing:	Black metal & flame-retardant plastic
Connections:	Pro Power connector IN/OUT
Dimmer curves:	Linear, Square, I-Square, S-curve
Special:	Pan/Tilt inversion
Cooling:	Internal fans
Included:	Schuko to Pro Power connector cable (length 1,5 m) and 2 mounting brackets with quick-locks
Max. ambient temperature t_a :	40°C
Max. housing temperature t_B :	80°C
Minimum distance:	
Minimum distance from flammable surfaces:	0,5 m
Minimum distance to lighted object:	1 m



Website: www.Showtec.info

Email: service@highlite.nl

Dimensions





©2016 Showtec