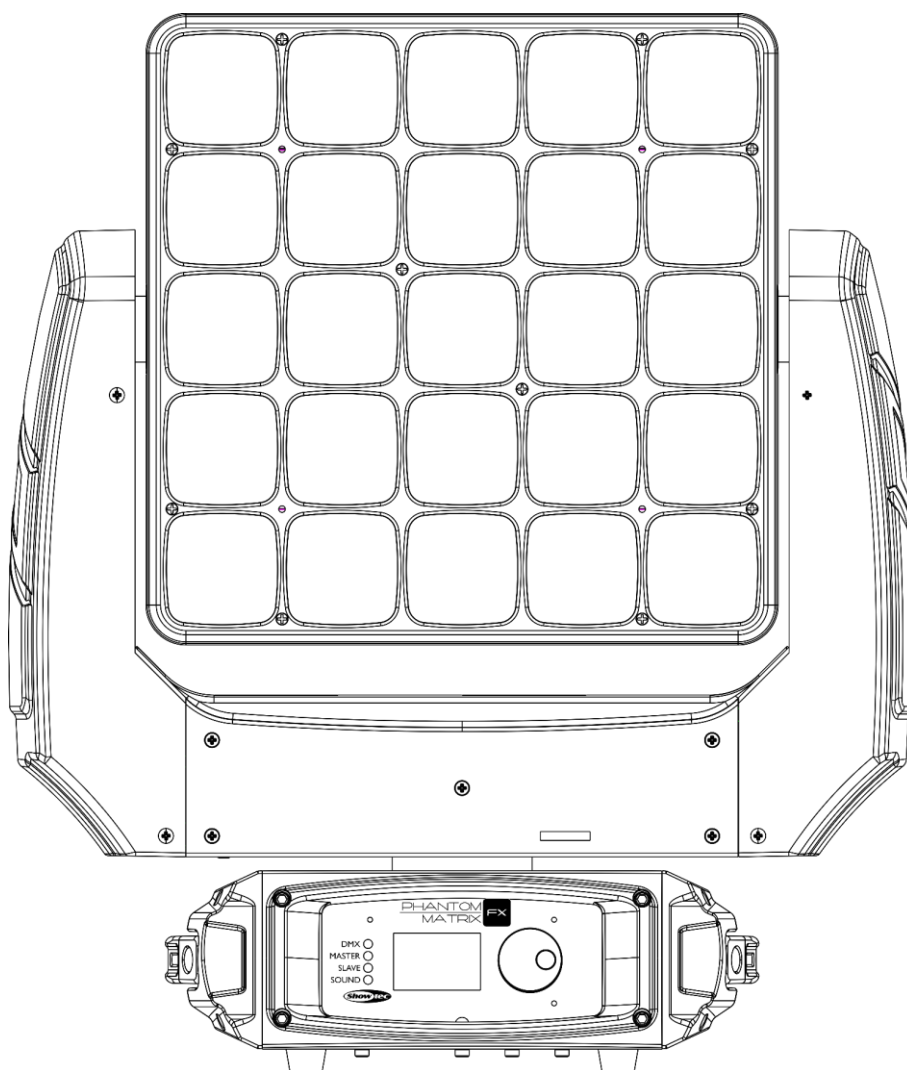




# MANUAL



ENGLISH

## Phantom Matrix FX

V1

Ordercode: 40062

## Table of contents

---

<b>Warning</b> .....	2
Safety Instructions .....	2
Operating Determinations .....	4
Rigging .....	4
Connection with the mains .....	5
Return Procedure .....	6
Claims .....	6
<b>Description of the device</b> .....	7
Frontside .....	7
Backside .....	8
<b>Installation</b> .....	8
<b>Set Up and Operation</b> .....	8
Control Modes .....	9
One Phantom (Built-in Programs and Manual) .....	9
One Phantom (Sound-controlled) .....	9
Multiple Phantoms (Master/Slave Control) .....	9
Multiple Phantoms (DMX Control) .....	10
Fixture Linking .....	11
Data Cabling .....	11
Control Panel .....	12
DMX Control Mode .....	12
DMX Addressing .....	12
Menu Overview .....	13
Main Menu Options .....	14
1. DMX Address .....	14
2. Channel Mode .....	14
3. Run Mode .....	15
3.1. DMX Mode .....	15
3.2. Master Mode .....	15
3.3. Slave Mode .....	15
3.4. Sound Mode .....	15
3.5. Manual Mode .....	15
4. Functions .....	16
4.1 Pan Invert .....	16
4.2 Tilt Invert .....	16
4.3 Dimmer Curve .....	17
4.4 DMX Fail .....	17
4.5 Display .....	17
4.6 Back Light .....	18
4.7 Reset .....	18
4.8 Factory Sets .....	18
4.9 Auto Test .....	18
5. Version .....	18
DMX Channels .....	19
10 Channels .....	19
18 Channels .....	23
118 Channels .....	27
<b>Maintenance</b> .....	32
Replacing the Fuse .....	32
<b>Troubleshooting</b> .....	32
No Light .....	32
No Response to DMX .....	33
<b>Product Specifications</b> .....	34
<b>Dimensions</b> .....	35
<b>Notes</b> .....	36

## Warning



**For your own safety, please read this user manual carefully  
before your initial start-up!**

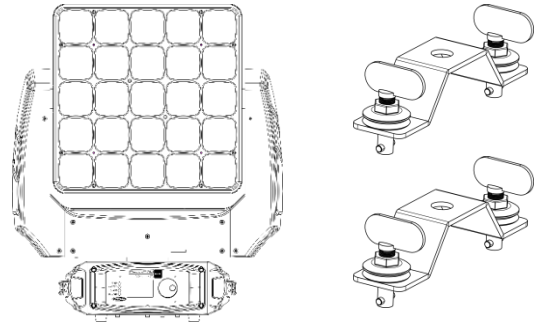


### Unpacking Instructions

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 Matrix FX
- 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.



### CAUTION!

**Keep this device away from rain and moisture!  
Unplug mains lead before opening the housing!**



### Safety Instructions

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

- be qualified
- follow the instructions of this manual



**CAUTION! Be careful with your operations.  
With a dangerous voltage you can suffer  
a dangerous electric shock when touching the wires!**



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 dimmer pack.
- 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 Matrix FX. 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.
- To eliminate wear and improve lifespan, during periods of non-use, completely disconnect from power via breaker or by unplugging.
- 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  $40^{\circ}\text{C}$ .
- 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

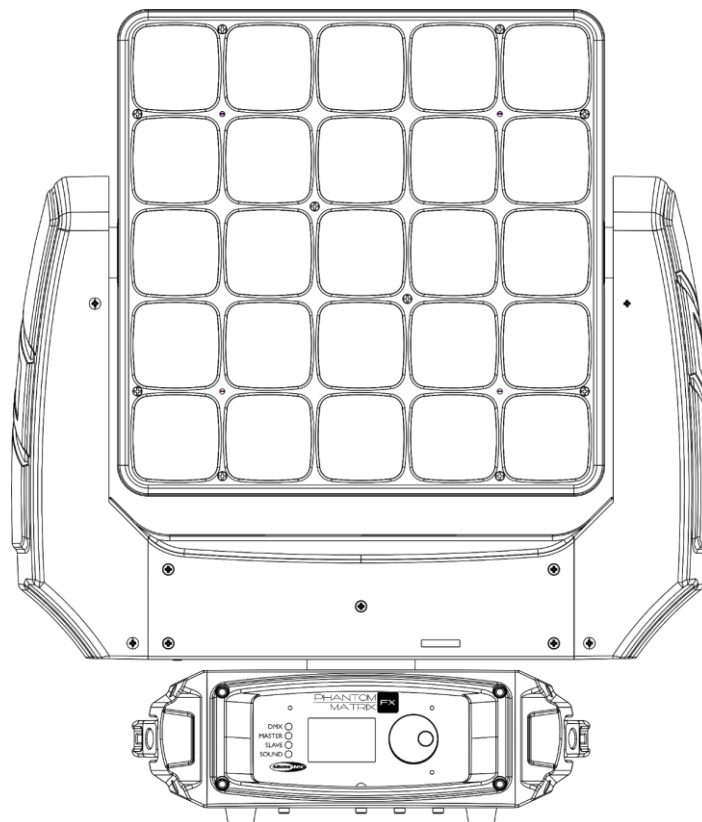
*Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.*

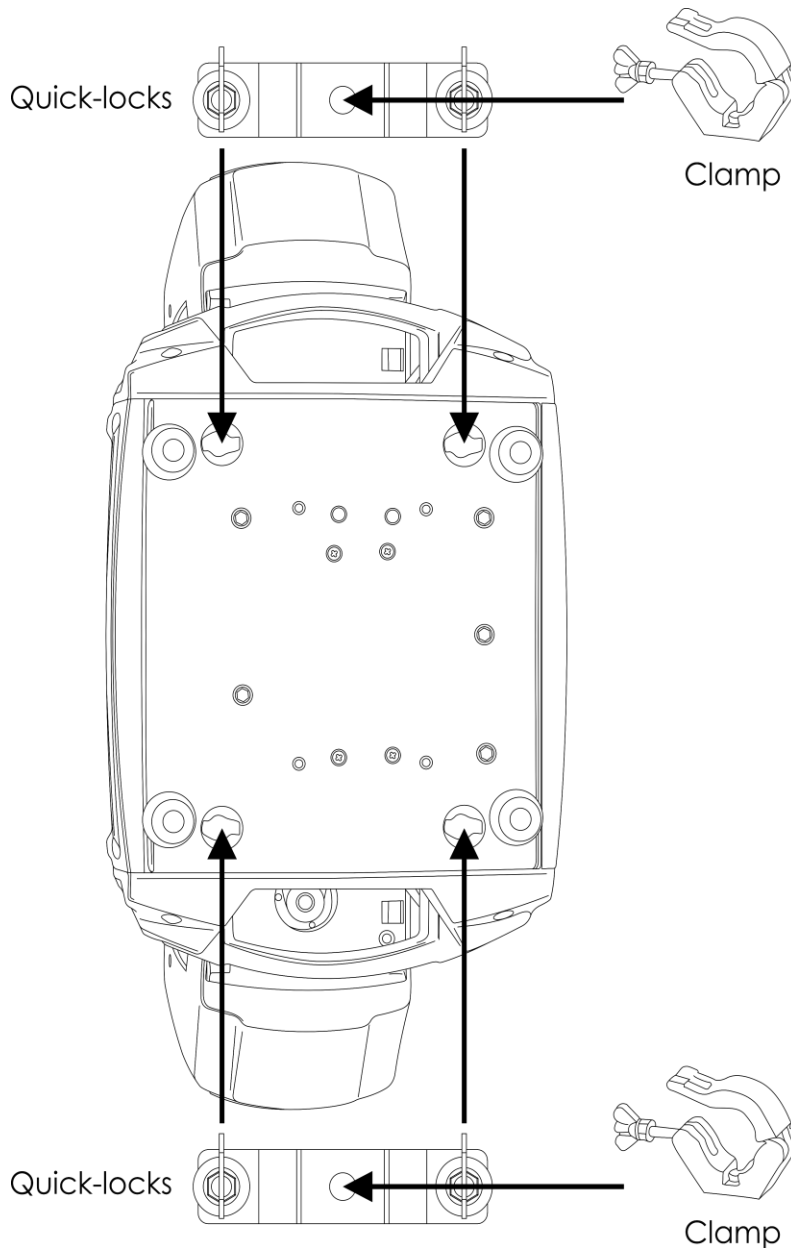
*Do not attempt the installation yourself !*

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

## Procedure:

- If the Phantom is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the Phantom, with the mounting bracket, to the trussing system.
- The Phantom 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 Matrix FX 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 [offersales@highlite.nl](mailto:offersales@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 Matrix FX is a moving head with high output and great effects.

- Input voltage: 100-240V AC, 50/60Hz
- Power consumption: 140W
- Light source: 25 x 4W RGBW LEDs
- Lux @2 m: 3214
- DMX modes: 10, 18, 118 channels
- Beam angle: 45°
- Onboard: LCD display for easy setup
- Control mode: Built-in programs (Master), Manual, Sound-controlled, Master/Slave, DMX-512
- 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: Metal & flame-retardant plastic
- Fuse: 3A/250V
- Dimensions: 445 x 200 x 530 mm (LxWxH)
- Weight: 9,8 kg

### Frontside

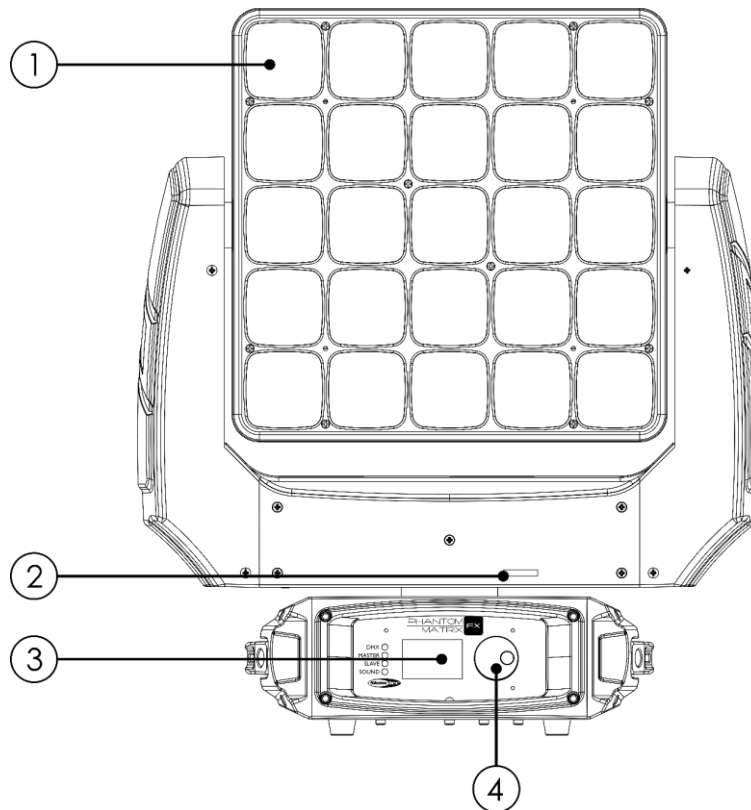


Fig. 01

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



## Backside

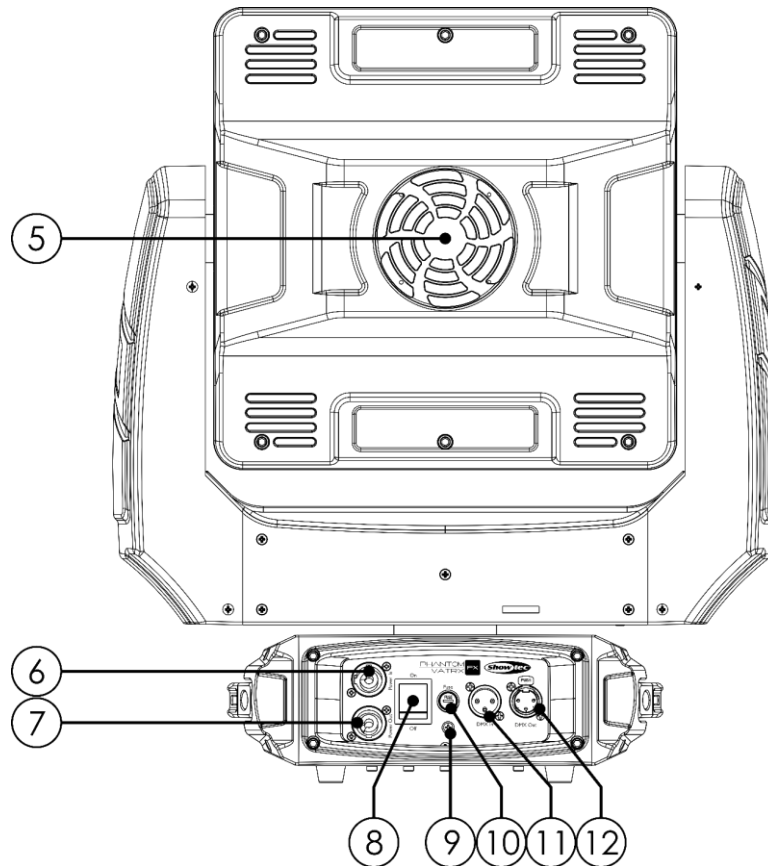


Fig. 02

- 05) Cooling fan
- 06) Pro power connector Blue 100-240V IN
- 07) Pro power connector Grey 100-240V OUT
- 08) Power switch ON/OFF
- 09) Ground/earth connection
- 10) Fuse 3A/250V
- 11) 3-pin DMX signal connector IN
- 12) 3-pin DMX signal connector OUT

## Installation

Remove all packing materials from the Phantom Matrix FX. 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 (10CH, 18CH, 118CH)

### 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 pages 15-16 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 15 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 pages 15-16. 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)

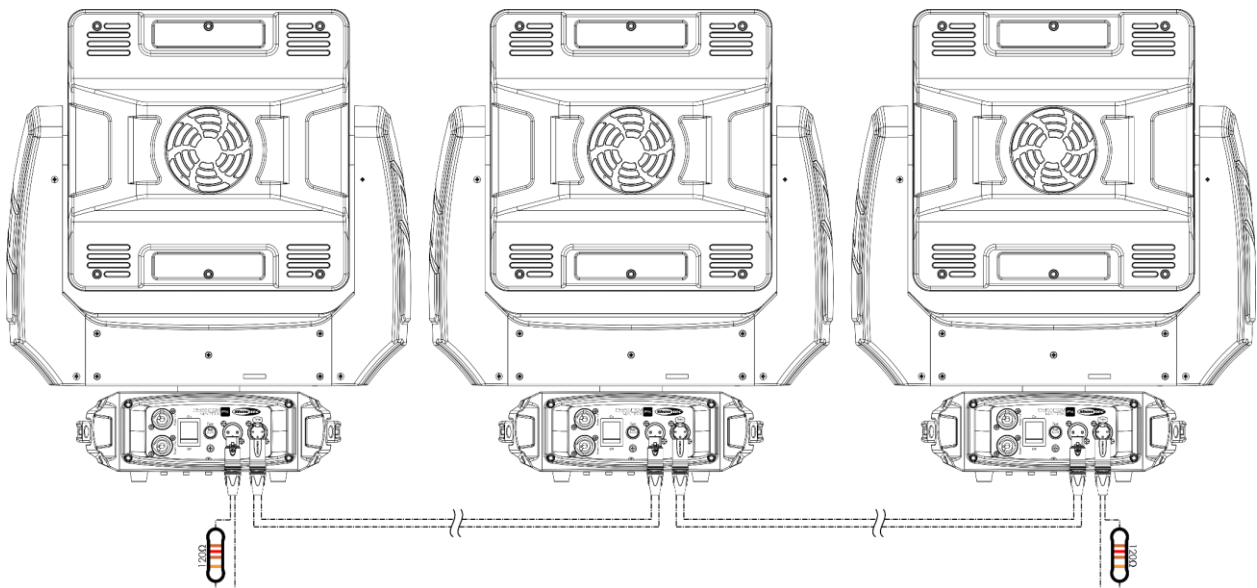
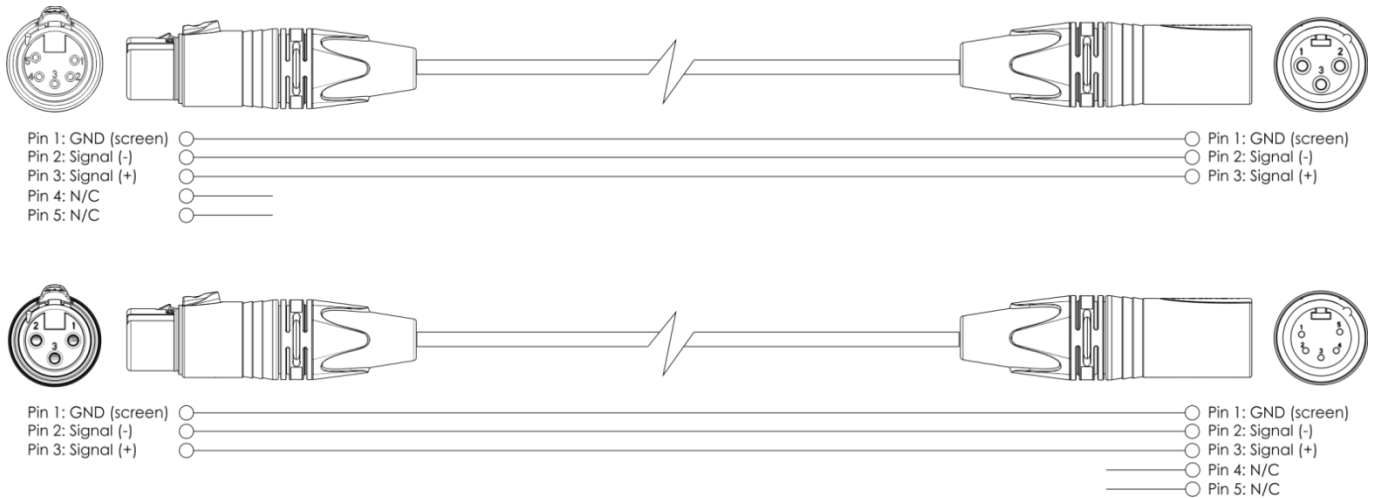


Fig. 03

## 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)

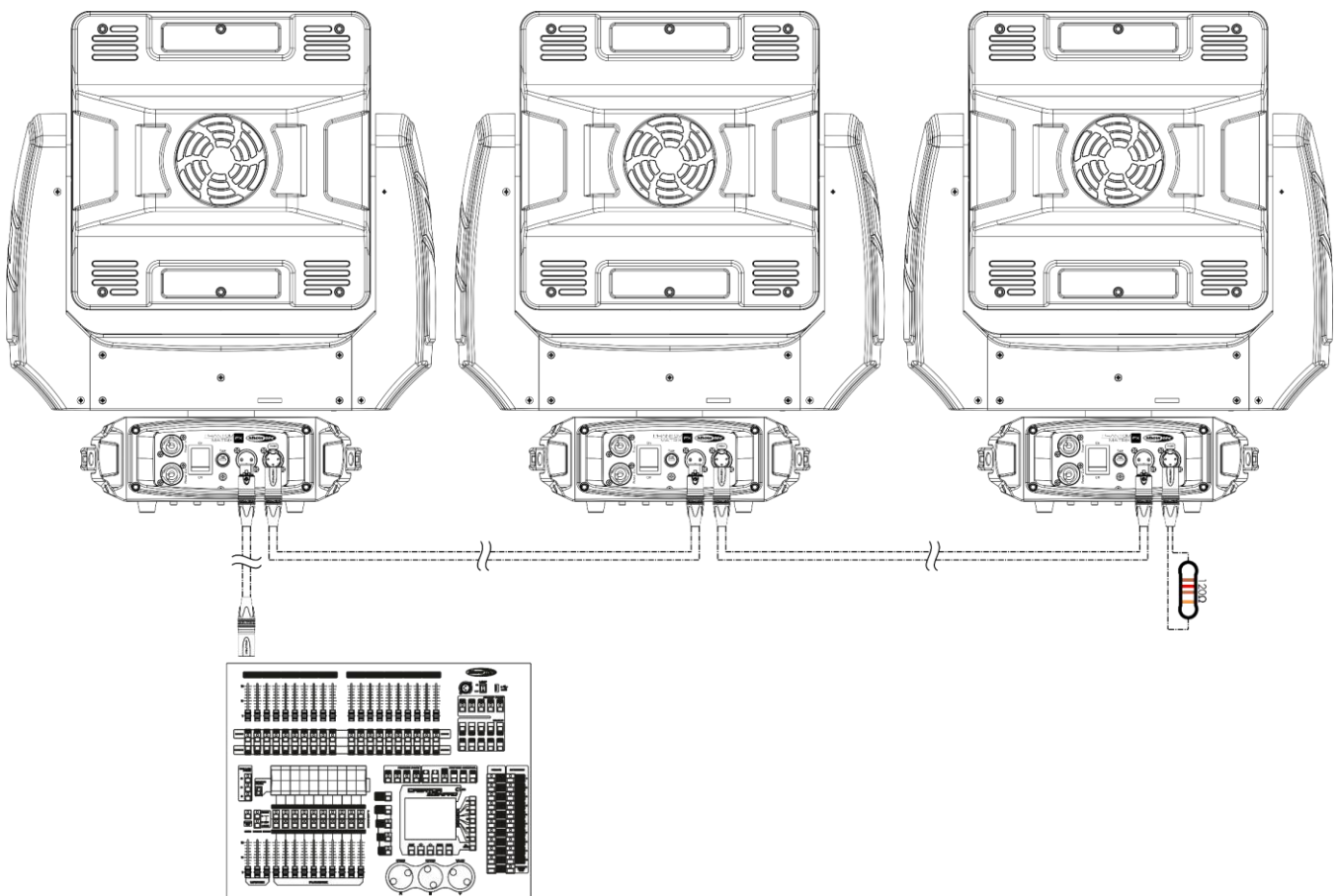


Fig. 04

Note : Link all cables before connecting electric power

## 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
  - Maximum recommended number of fixtures on a power link @120V: 7 fixtures
  - Maximum recommended number of fixtures on a power link @230V: 14 fixtures



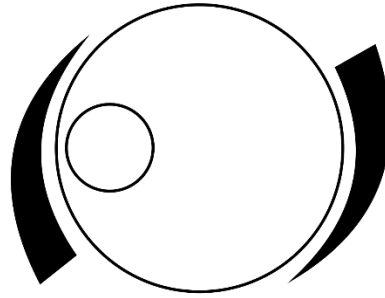
## Data Cabling

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).

## Control Panel



Press and turn the control to navigate through the menu options.

Fig. 05

### 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 Matrix FX will respond to the controller.

Please note when you use the controller, the unit has **118** 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+118=119 (119)**; the DMX address of the third Phantom should be **119+118=237 (237)**, 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 Matrix FX 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 Matrix FX.
- The controller is switched off or defective, the cable or connector is defective, or the signal wires are swapped in the input connector.

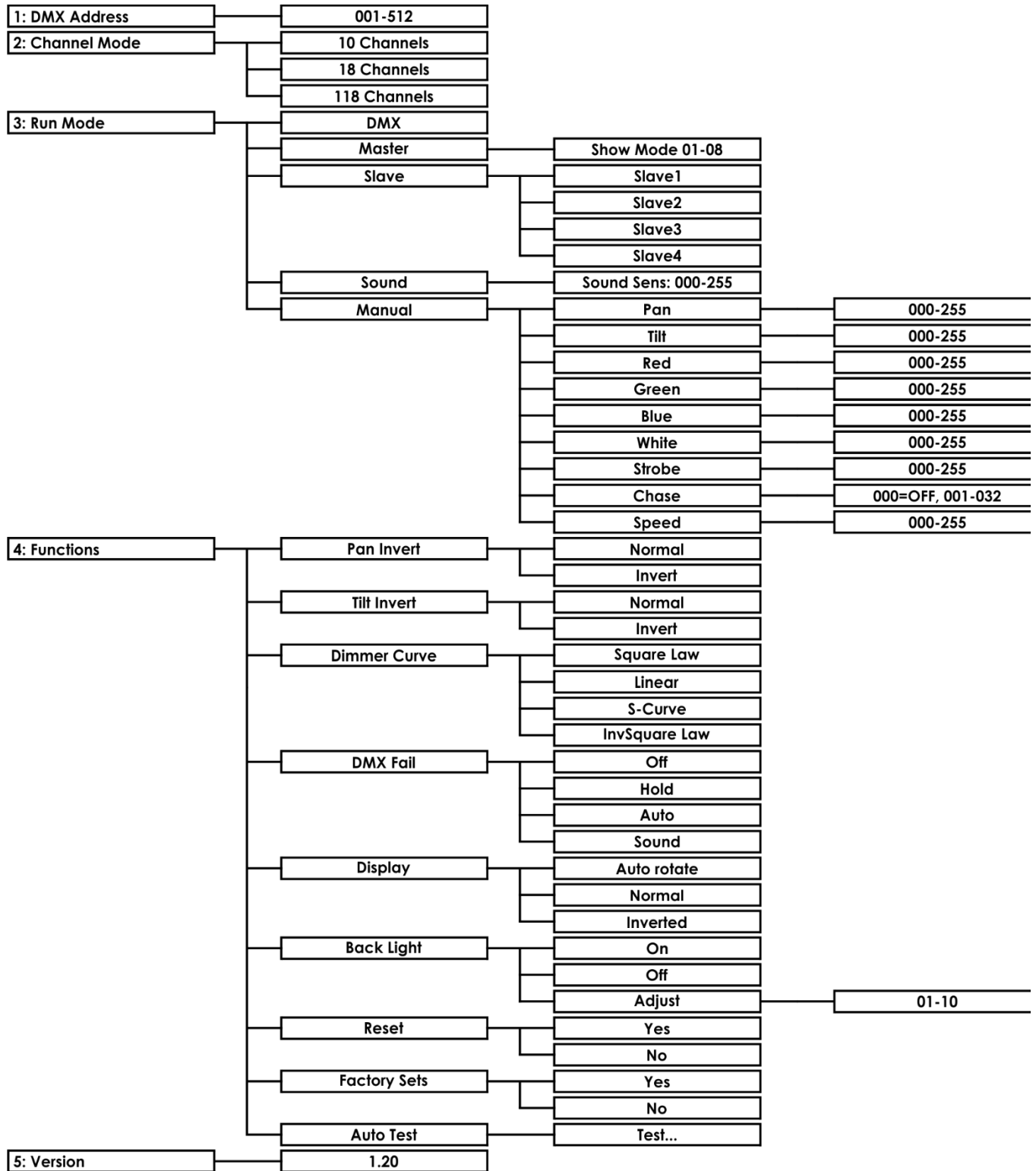
**Note:** It is necessary to insert an XLR termination plug (with 120 Ohm) in the last fixture in order to ensure proper transmission on the DMX data link.

### 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 5 menu options:
1. DMX Address
  2. Channel Mode
  3. Run Mode
  4. Functions
  5. Version

### 1. DMX Address

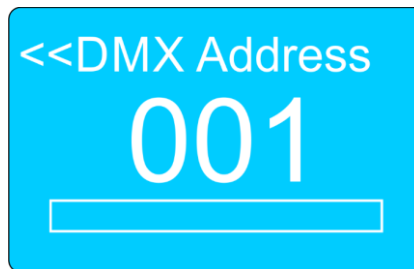
With this menu you can adjust the device's DMX settings.

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) 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. 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 through the 3 available channel modes:

- 10 channels
- 18 channels
- 118 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 19.

## 3. Run Mode

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

- 
- 1) DMX Address
  - 2) Channel Mode
  - 3) Run Mode
  - 4) Functions

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

03) **Turn** the MENU control **(04)** to toggle through the 5 available modes:

- DMX
- Master
- Slave
- Sound
- Manual

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

### 3.1. DMX Mode

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

### 3.2. Master Mode

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

- Show mode 01 – Show mode 08

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

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

### 3.3. Slave Mode

01) **Turn** the MENU control **(04)** to set the device as the first, second, third or fourth slave device (Slave1-Slave4).

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

03) The device is now operating in slave mode. It means that it will react the same as the master device. You can connect up to 4 slave devices to one master device.

### 3.4. Sound Mode

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

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

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

### 3.5. Manual Mode

01) **Turn** the MENU control **(04)** to toggle through the 9 available functions:

- Pan (Pan adjustment, 000-255)
- Tilt (Tilt adjustment, 000-255)
- Red (Red LED intensity, 000-255)
- Green (Green LED intensity, 000-255)
- Blue (Blue LED intensity, 000-255)
- White (White LED intensity, 000-255)
- Strobe (strobe frequency, 000-255)
- Chase (chase selection, 000-032)
- Speed (chase speed, 000-255)

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

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

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



## 4. Functions

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

- 
- 1) DMX Address
  - 2) Channel Mode
  - 3) Run Mode
  - 4) Functions

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

03) **Turn** the MENU control **(04)** to toggle through 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.

### 4.1 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.

### 4.2 Tilt Invert

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

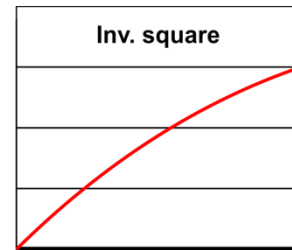
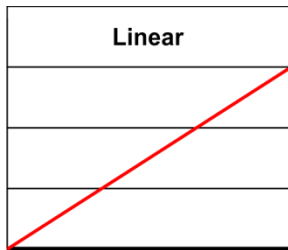
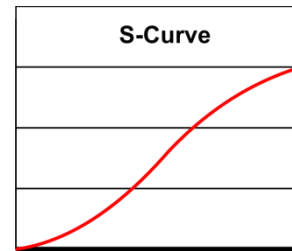
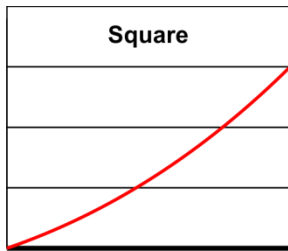
02) **Turn** the MENU control **(04)**, choose Invert and **press** the MENU control **(04)** to activate tilt inversion.

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

## 4.3. Dimmer Curve

01) **Turn** the MENU control **(04)** to toggle through the 4 available dimming curves:

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



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

## 4.4. DMX Fail

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

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

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

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

## 4.5. Display

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

02) **Turn** the MENU control **(04)** to toggle through 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.

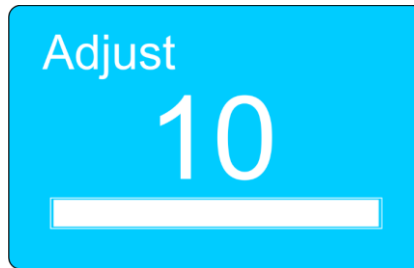
## 4.6. Back Light

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

- ON (Display continuously ON)
- OFF (Display turns OFF after 15 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 01-10, from dark to brightest.

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

## 4.7. 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.

## 4.8. 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.

## 4.9. 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.

## 5. Version

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) The display will show the currently installed software version:



## DMX Channels

### 10 Channels

#### Channel 1 – Horizontal movement (Pan)

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

Gradual head adjustment, between 0-255. The head can be turned by 540° and stopped at any position you wish.

#### Channel 2 – Vertical movement (Tilt)

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

Gradual head adjustment, between 0-255. The head can be turned by 270° and stopped at any position you wish.

#### Channel 3 – Dimmer

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

#### Channel 4 – Strobe CH3 must be open and CH5 or CH6 must be open

0-10                      Off

11-128                      FX strobe frequency, from low to high frequency

129-255                      Linear strobe frequency, from low to high frequency

#### Channel 5 – Color Macro CH3 must be open, CH6 must be closed

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 6 – Color Switch/Flow/Rainbow CH3 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 7 – Color Flow Speed CH6 must be set between 13-255

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

## Channel 8 – Characters CH3 must be open and CH5 or CH6 must be open

0-7	Not functional
8-10	0
11-13	1
14-16	2
17-19	3
20-22	4
23-25	5
26-28	6
29-31	7
32-34	8
35-37	9
38-40	A
41-43	B
44-46	C
47-49	D
50-52	E
53-55	F
56-58	G
59-61	H
62-64	I
65-67	J
68-70	K
71-73	L
74-76	M
77-79	N
80-82	O
83-85	P
86-88	Q
89-91	R

92-94	S
95-97	T
98-100	U
101-103	V
104-106	W
107-109	X
110-112	Y
113-115	Z
116-118	Pattern 1
119-121	Pattern 2
122-124	Pattern 3
125-127	Pattern 4
128-130	Pattern 5
131-133	Pattern 6
134-136	Pattern 7
137-139	Pattern 8
140-142	Pattern 9
143-145	Pattern 10
146-148	Pattern 11
149-151	Pattern 12
152-154	Pattern 13
155-157	Pattern 14
158-160	Pattern 15
161-163	Pattern 16
164-166	Pattern 17
167-169	Pattern 18
170-172	Pattern 19
173-175	Pattern 20
176-178	Pattern 21
179-181	Pattern 22
182-184	Pattern 23
185-187	Pattern 24
188-190	Pattern 25
191-193	Pattern 26
194-196	Pattern 27
197-199	Pattern 28
200-202	Pattern 29
203-205	Pattern 30
206-208	Pattern 31
209-211	Pattern 32
212-214	Pattern 33
215-217	Pattern 34
218-220	Pattern 35
221-223	Pattern 36
224-226	Pattern 37
227-229	Pattern 38
230-232	Pattern 39
233-235	Pattern 40
236-238	Pattern 41
239-241	Pattern 42
242-244	Pattern 43
245-247	Pattern 44
248-250	Pattern 45
251-253	Pattern 46
254-255	Pattern 47

## Channel 9 – Pattern Speed ⚠ CH8 must be set between 116-255 ⚠

0-255 From slow to fast

## Channel 10 – Functions

0-5 Not functional

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-controlled mode, from low to high sensitivity

161-170 Pan inversion (after 5 seconds)

171-180 Tilt inversion (after 5 seconds)

181-190 Pan normal (after 5 seconds)

191-200 Tilt normal (after 5 seconds)

201-220 Pan/Tilt blackout ON

221-240 Reset (after 5 seconds)

241-255 Pan/Tilt Blackout OFF

## 18 Channels

### Channel 1 – Horizontal movement (Pan)

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

Gradual head adjustment, between 0-255. 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)

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

Gradual head adjustment, between 0-255. 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 – Dimmer

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

#### Channel 7 – Linear Strobe CH6 and CH9 or CH10 or CH15-18 must be open

0-10 Off

11-255 Linear strobe frequency, from low to high frequency

#### Channel 8 – FX Strobe CH6 must be open and CH9, CH10 or CH15-18 must be open

0-10 Off

11-255 FX strobe frequency, from low to high frequency

#### Channel 9 – Color Macro CH6 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 10 – Color Switch/Flow/Rainbow** ⚠️ CH6 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 11 – Color Flow Speed** ⚠️ CH10 must be set between 13-255 ⚠️

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

**Channel 12 – Characters** ⚠️ CH6 and CH9, CH10 or CH15-18 must be open ⚠️

0-7	Not functional
8-10	0
11-13	1
14-16	2
17-19	3
20-22	4
23-25	5
26-28	6
29-31	7
32-34	8
35-37	9
38-40	A
41-43	B
44-46	C
47-49	D
50-52	E
53-55	F
56-58	G
59-61	H
62-64	I

65-67	J
68-70	K
71-73	L
74-76	M
77-79	N
80-82	O
83-85	P
86-88	Q
89-91	R
92-94	S
95-97	T
98-100	U
101-103	V
104-106	W
107-109	X
110-112	Y
113-115	Z
116-118	Pattern 1
119-121	Pattern 2
122-124	Pattern 3
125-127	Pattern 4
128-130	Pattern 5
131-133	Pattern 6
134-136	Pattern 7
137-139	Pattern 8
140-142	Pattern 9
143-145	Pattern 10
146-148	Pattern 11
149-151	Pattern 12
152-154	Pattern 13
155-157	Pattern 14
158-160	Pattern 15
161-163	Pattern 16
164-166	Pattern 17
167-169	Pattern 18
170-172	Pattern 19
173-175	Pattern 20
176-178	Pattern 21
179-181	Pattern 22
182-184	Pattern 23
185-187	Pattern 24
188-190	Pattern 25
191-193	Pattern 26
194-196	Pattern 27
197-199	Pattern 28
200-202	Pattern 29
203-205	Pattern 30
206-208	Pattern 31
209-211	Pattern 32
212-214	Pattern 33
215-217	Pattern 34
218-220	Pattern 35
221-223	Pattern 36
224-226	Pattern 37
227-229	Pattern 38
230-232	Pattern 39
233-235	Pattern 40

236-238	Pattern 41
239-241	Pattern 42
242-244	Pattern 43
245-247	Pattern 44
248-250	Pattern 45
251-253	Pattern 46
254-255	Pattern 47

**Channel 13 – Pattern Speed** ⚠ **CH12 must be set between 116-255** ⚠  
 0-255 From slow to fast

**Channel 14 – Functions**

0-5	Not functional
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-controlled mode, from low to high sensitivity
161-170	Pan inversion (after 5 seconds)
171-180	Tilt inversion (after 5 seconds)
181-190	Pan normal (after 5 seconds)
191-200	Tilt normal (after 5 seconds)
201-220	Pan/Tilt blackout ON
221-240	Reset (after 5 seconds)
241-255	Pan/Tilt Blackout OFF

**Channel 15 – Red color intensity** ⚠ **CH6 must be open, CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment Red, from 0 – 100%

**Channel 16 – Green color intensity** ⚠ **CH6 must be open, CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment Green, from 0 – 100%

**Channel 17 – Blue color intensity** ⚠ **CH6 must be open, CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment Blue, from 0 – 100%

**Channel 18 – White color intensity** ⚠ **CH6 must be open, CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment White, from 0 – 100%

## 118 Channels

**Channel 1 – Horizontal movement (Pan)**

Move 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)**

Move 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 – Dimmer**

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

**Channel 7 – Linear Strobe  CH6 and CH9 or CH10 or CH15-18 must be open **

0-10 Off

11-255 Linear strobe frequency, from low to high frequency

**Channel 8 – FX Strobe  CH6 must be open and CH9, CH10 or CH15-18 must be open **

0-10 Off

11-255 FX strobe frequency, from low to high frequency

**Channel 9 – Color Macro  CH6 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 10 – Color Switch/Flow/Rainbow** ⚠️ CH6 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 11 – Color Flow Speed** ⚠️ CH10 must be set between 13-255 ⚠️

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

**Channel 12 – Characters** ⚠️ CH6 must be open and CH9, CH10 or CH15-18 must be open ⚠️

0-7	Not functional
8-10	0
11-13	1
14-16	2
17-19	3
20-22	4
23-25	5
26-28	6
29-31	7
32-34	8
35-37	9
38-40	A
41-43	B
44-46	C
47-49	D
50-52	E
53-55	F
56-58	G
59-61	H
62-64	I

65-67	J
68-70	K
71-73	L
74-76	M
77-79	N
80-82	O
83-85	P
86-88	Q
89-91	R
92-94	S
95-97	T
98-100	U
101-103	V
104-106	W
107-109	X
110-112	Y
113-115	Z
116-118	Pattern 1
119-121	Pattern 2
122-124	Pattern 3
125-127	Pattern 4
128-130	Pattern 5
131-133	Pattern 6
134-136	Pattern 7
137-139	Pattern 8
140-142	Pattern 9
143-145	Pattern 10
146-148	Pattern 11
149-151	Pattern 12
152-154	Pattern 13
155-157	Pattern 14
158-160	Pattern 15
161-163	Pattern 16
164-166	Pattern 17
167-169	Pattern 18
170-172	Pattern 19
173-175	Pattern 20
176-178	Pattern 21
179-181	Pattern 22
182-184	Pattern 23
185-187	Pattern 24
188-190	Pattern 25
191-193	Pattern 26
194-196	Pattern 27
197-199	Pattern 28
200-202	Pattern 29
203-205	Pattern 30
206-208	Pattern 31
209-211	Pattern 32
212-214	Pattern 33
215-217	Pattern 34
218-220	Pattern 35
221-223	Pattern 36
224-226	Pattern 37
227-229	Pattern 38
230-232	Pattern 39
233-235	Pattern 40

236-238	Pattern 41
239-241	Pattern 42
242-244	Pattern 43
245-247	Pattern 44
248-250	Pattern 45
251-253	Pattern 46
254-255	Pattern 47

**Channel 13 – Pattern Speed** ⚠ **CH12 must be set between 116-255** ⚠  
 0-255 From slow to fast

**Channel 14 – Functions**

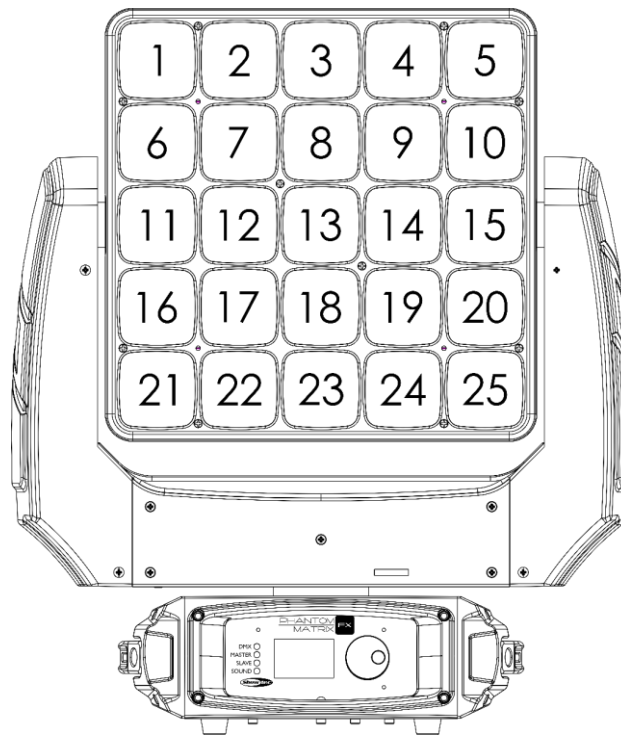
0-5	Not functional
6-10	Show1
11-20	Show2
21-30	Show3
31-40	Show4
41-50	Show5
51-60	Show6
61-70	Show7
71-80	Show8
81-90	Slave1
91-96	Slave2
97-160	Sound-controlled mode, from low to high sensitivity
161-170	Pan inversion (after 5 seconds)
171-180	Tilt inversion (after 5 seconds)
181-190	Pan normal (after 5 seconds)
191-200	Tilt normal (after 5 seconds)
201-220	Pan/Tilt blackout ON
221-240	Reset (after 5 seconds)
241-255	Pan/Tilt Blackout OFF

**Channel 15 – Red color intensity** ⚠ **CH6 must be open, CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment Red, from 0 – 100%

**Channel 16 – Green color intensity** ⚠ **CH6 must be open, CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment Green, from 0 – 100%

**Channel 17 – Blue color intensity** ⚠ **CH6 must be open, CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment Blue, from 0 – 100%

**Channel 18 – White color intensity** ⚠ **CH6 must be open, CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment White, from 0 – 100%

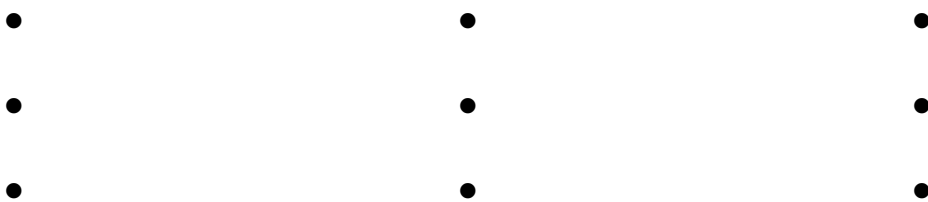


**Channel 19 – LED 1 Red color intensity** ⚠ **CH6 must be open, CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment Red, from 0 – 100%

**Channel 20 – LED 1 Green color intensity** ⚠ **CH6 must be open, CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment Green, from 0 – 100%

**Channel 21 – LED 1 Blue color intensity** ⚠ **CH6 must be open, CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment Blue, from 0 – 100%

**Channel 22 – LED 1 White color intensity** ⚠ **CH6 must be open, CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment White, from 0 – 100%



**Channel 115 – LED 25 Red color intensity** ⚠ **CH6 must be open; CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment Red, from 0 – 100%

**Channel 116 – LED 25 Green color intensity** ⚠ **CH6 must be open; CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment Green, from 0 – 100%

**Channel 117 – LED 25 Blue color intensity** ⚠ **CH6 must be open; CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment Blue, from 0 – 100%

**Channel 118 – LED 25 White color intensity** ⚠ **CH6 must be open; CH9-10 must be closed** ⚠  
 0-255 Gradual adjustment White, from 0 – 100%



## Maintenance

---

The Showtec Phantom Matrix FX 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.

- 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 to your Showtec dealer.
- 03) The fuse. See page 32 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, 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.

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

## Product Specifications

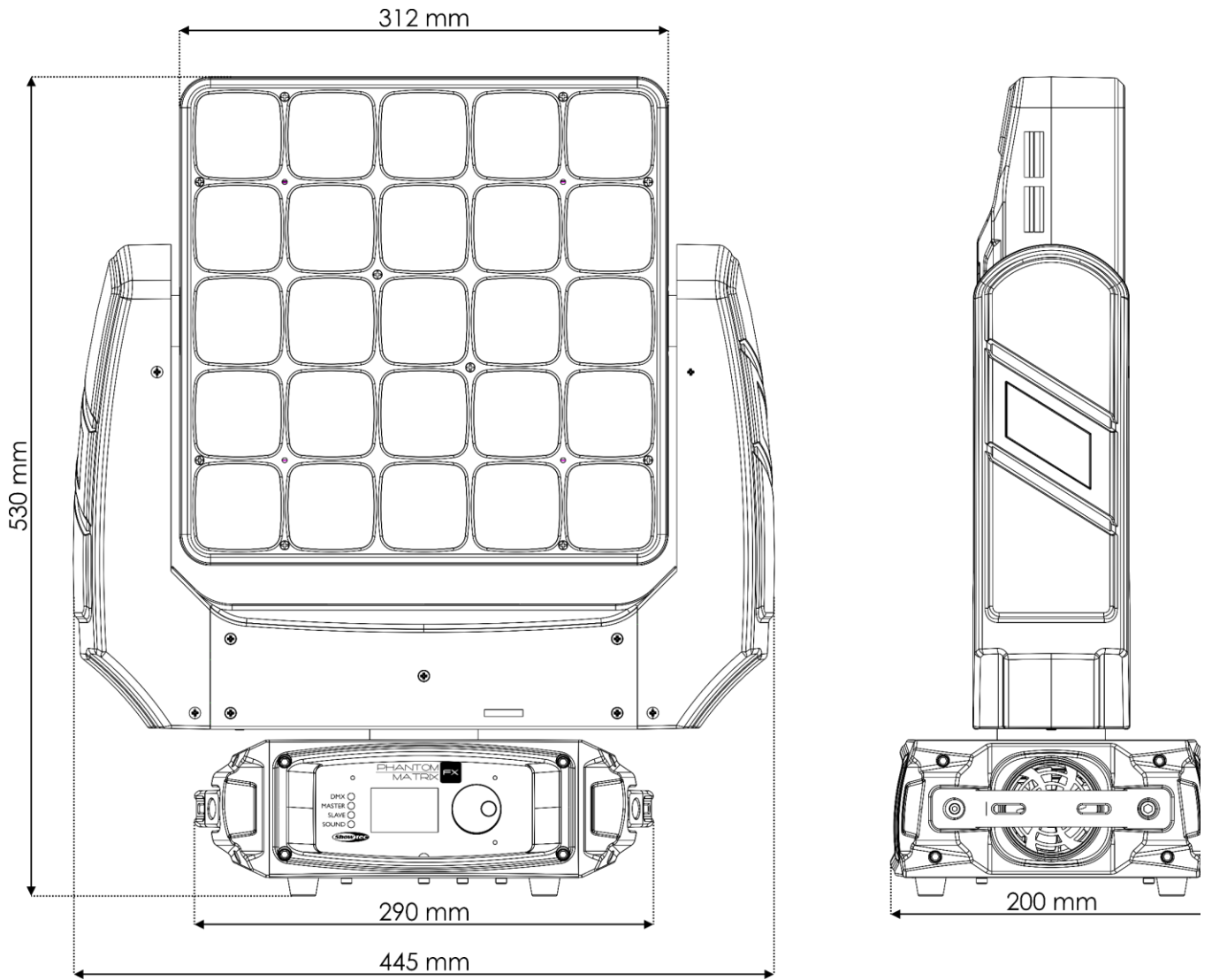
Model:	Showtec Phantom Matrix FX
Input voltage:	100-240V AC, 50/60Hz
Power consumption:	140W
DMX linking:	30pcs
Fuse:	3A/250V
Dimensions:	445 x 200 x 530 mm (LxWxH)
Weight:	9,8 kg
<b>Operating and Programming:</b>	
Signal pin OUT:	Pin 1 (earth), pin 2 (-), pin 3 (+)
DMX Mode:	10, 18, 118 channels
Signal input:	3-pin XLR
Signal output:	3-pin XLR
<b>Electro-mechanical effects:</b>	
Light source:	25 x 4W RGBW LEDs
Lux @2 m:	3214
Colormixing:	RGBW
Beam angle:	45°
Pan/Tilt range:	540°/270°
Dimmer:	0-100%
Strobe:	0-20Hz
DMX control:	via standard DMX-controller
Onboard:	LCD display for easy setup
Control:	Built-in programs (Master), Manual, Sound-controlled, Master/Slave, DMX-512
Housing:	Metal & flame-retardant plastic
Connections:	Pro power connector IN/OUT
Dimming curves:	Linear, Square, I-Square, S-curve
Special:	Pan/Tilt inversion
Cooling:	Internal fan
Max. ambient temperature $t_a$ :	40°C
Max. housing temperature $t_B$ :	80°C
<b>Minimum distance:</b>	
Minimum distance from flammable surfaces:	0,5 m
Minimum distance to lighted object:	1 m



Website: [www.Showtec.info](http://www.Showtec.info)

Email: [service@highlite.nl](mailto:service@highlite.nl)

## Dimensions











©2017 Showtec