Phantom 75 LED Spot V2

ORDERCODE 40188

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SHOWELECTRONICS FOR PROFESSIONALS

Congratulations!
You have bought a great, innovative product from Showtec.
The Showtec Phantom 75 LED Spot brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated DMX show, this product provides the effect you need.

You can rely on Showtec, for more excellent lighting products.
We design and manufacture professional light equipment for the entertainment industry.
New products are being launched regularly. We work hard to keep you, our customer, satisfied.
For more information: iwant@showtec.info

You can get some of the best quality, best priced products on the market from Showtec.
So next time, turn to Showtec for more great lighting equipment.
Always get the best -- with Showtec !

Thank you!

Showtec Phantom 75 LED Spot ™ Product Guide

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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 75 LED Spot with IEC powercable 0,9m
- 1 bracket for truss mounting
- Safety eye
- 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. It is estimated that a viable lifespan of 40,000 to 50,000 hours will be achieved under normal operational conditions. If improving on this lifespan expectancy is of a 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. Always hold the fixture at the transport handles.
- Never place any material over the lens.
- Never look directly into the light source.
- Never leave any cables lying around.
- Never unscrew the screws of the rotating gobo, as the ball bearing will otherwise be opened.
- 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 (housing becomes very hot). 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 indoor, 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. Movinghead 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. 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.
- During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.
- 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 light source.
(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 = 45°C must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 45° 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!

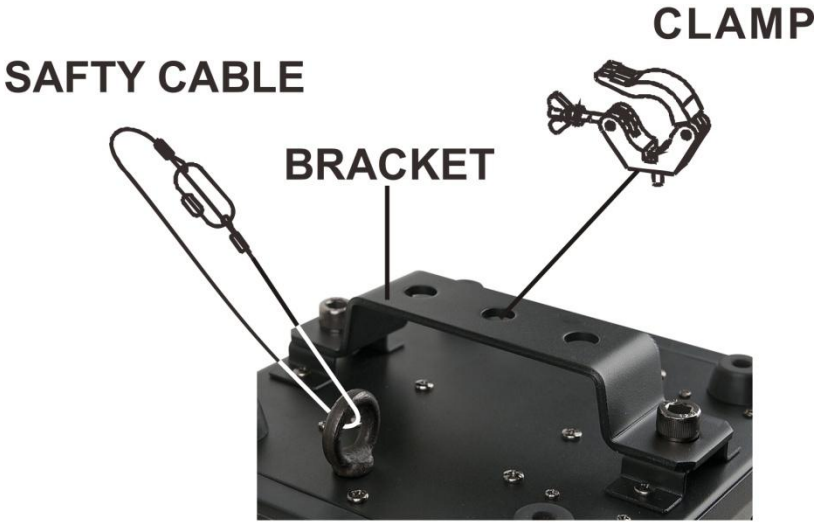
Rigging

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 !

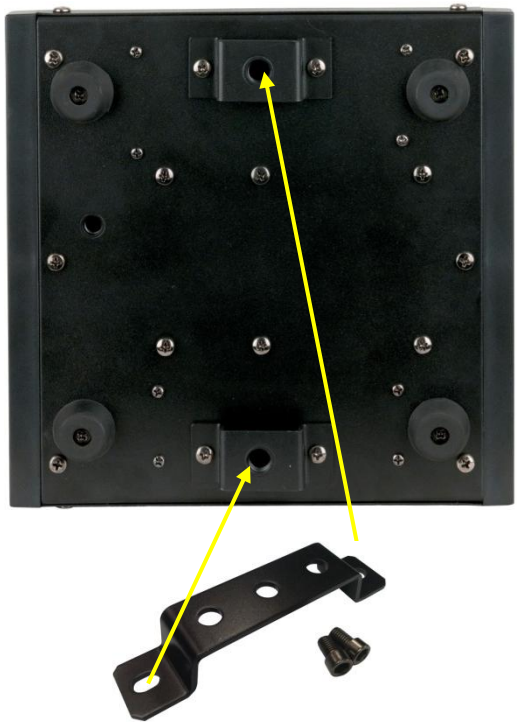
Procedure:

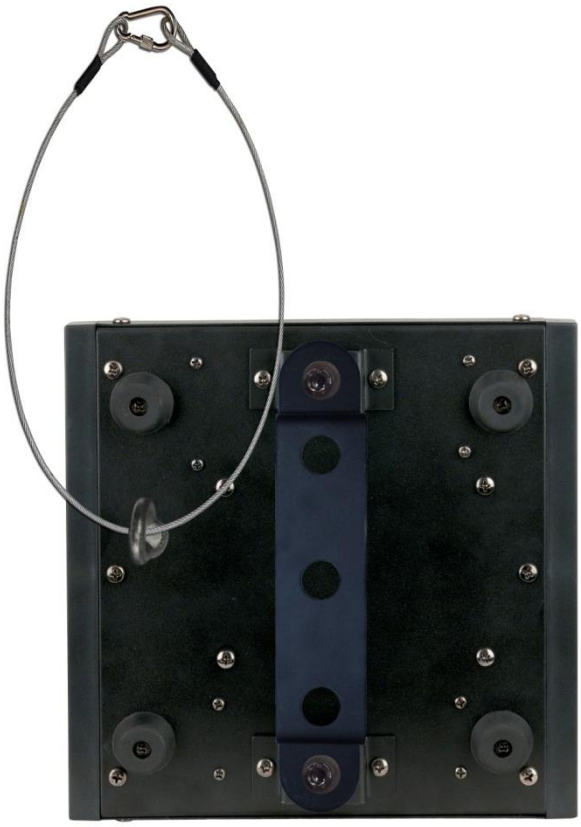
- If the projector is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the projector, with the mounting-bracket, to the trussing system.
- The projector must never be fixed swinging freely in the room.
- The installation must always be secured 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 can be placed on a flat stage floor or mounted to any kind of truss by a clamp.

Mounting a clamp to the underside of the Phantom moving head





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	FASE
N	BLUE	BLACK	SILVER	NUL
⏚	YELLOW/GREEN	GREEN	GREEN	EARTH

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

⚠ 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:

1) Your name
2) Your address
3) Your phone number
4) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any short-comings 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 75 LED Spot is a moving-head with high output and great effects.

- LED source the shutter is electronic not mechanical.
- Focus is motorized and the Phantom 75 has a manual zoom.
- Gobo inner diameter: 20mm, Gobo outer diameter: 24mm
- DMX-control via standard DMX-controller
- Built-in Automatic Programs + Built-in Sound activated programs
- User-selectable Pan & Tilt ranges, 540° / 360° / 180°
- Reverse Pan / Tilt movement
- Special: Pan / Tilt movement blackout
- Pan 0° -- 540°, Tilt 0° -- 270°
- Pan/Tilt resolution: 16 bit
- Control: DMX-512, Master/Slave, Sound-controlled
- 16 Built in programs selectable by DMX
- Light Source: 1 x 75W White LED
- Colourwheel with 8 dichroic-colours and white
- Color functions: Split colors, Rainbow-flow effect
- Rotating Gobowheel with 2 glass gobos, 5 metal gobos and open with Gobo Shake Function
- Rotation: Bi-directional
- Prism: 3-facet prism
- Gobo functions: Gobo-flow effect, Gobo shake
- 8 automatic and 8 sound-to-light programs
- Single clamp bracket, which makes it easy to handle and position in truss systems.
- Output: 24.500 Lux @ 1m. (at 17°)
- Beam Angle: 17° - 20° Manual
- Input Voltage: 100-240 VAC
- LED Drive Current: 16.5A
- Continuous Power 170 Watt
- Dimmer: 0-100%
- Strobe: 0-20Hz
- Focus: Motorized focus
- Housing: Black Metal & Flame-retardant plastic
- Fixture Connection: XLR Data in/out (XLR 3-pin), IEC Power in
- Fuse F3A / 250V
- Dimensions (WxDxH): 338 x 247x 390 mm
- Weight: 11 kg
- User selectable Basic (8CH) or Advanced (14CH) operating modes

Overview

Fig. 1

1) Lens
2) Menu Buttons + LCD Display

Backside

Fig. 2

3) IEC power connector + Fuse F3A 250V
4) DMX signal connector (IN) 3-pin
5) DMX signal connector (OUT) 3-pin

Installation

Remove all packing materials from the Phantom 75 LED Spot. Check that 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.

Connect the device to the main power supply. The device can be music-controlled by its built-in microphone.

Control Modes

There are 4 modes:

- Stand-alone (built-in programs)
- Sound-controlled
- Master/Slave
- DMX512 (14 Channels ADVANCED or 8 channel BASIC)

One Phantom (Built-in Programs)

1. Fasten the effect light onto firm trussing. Leave at least 1 meter on all sides for air circulation.
2. Always use a safety cable (ordercode 70140 / 70141).
3. Plug the end of the electric mains power cord into a proper electric power supply socket.
4. When the Phantom is not connected by a DMX-cable, it functions as a stand-alone device. Please see page 15 for more information about the built-in programs.

One Phantom (Sound-control)

1. Fasten the effect light onto firm trussing. Leave at least 1 meter on all sides for air circulation.
2. Always use a safety cable (ordercode 70140 / 70141).
3. Plug the end of the electric mains power cord into a proper electric power supply socket.
4. 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)

1. Fasten the effect light onto firm trussing. Leave at least 1 meter on all sides for air circulation.
2. Always use a safety cable (ordercode 70140 / 70141).
3. Plug the end of the electric mains power cord into a proper electric power supply socket.
4. Use a 3-p XLR cable to connect the Phantom.
   The pins:

1.	Earth	
2.	Signal	-
3.	Signal	+

5. Link the units as shown in (Fig. 3), 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 15 (Built-in Programs or Music control)). This means on the master device you can set your desired operation Mode and all slave devices will react the same as the master device.

Multiple Phantoms (Master/Slave control)

Fig. 3

Multiple Phantoms (DMX Control)

1. Fasten the effect light onto firm trussing. Leave at least 1 meter on all sides for air circulation.
2. Always use a safety cable (ordercode 70140 / 70141).
3. Plug the end of the electric mains power cord into a proper electric power supply socket.
4. Use a 3-p XLR cable to connect the Phantoms and other devices.

Occupation of the XLR-connection:

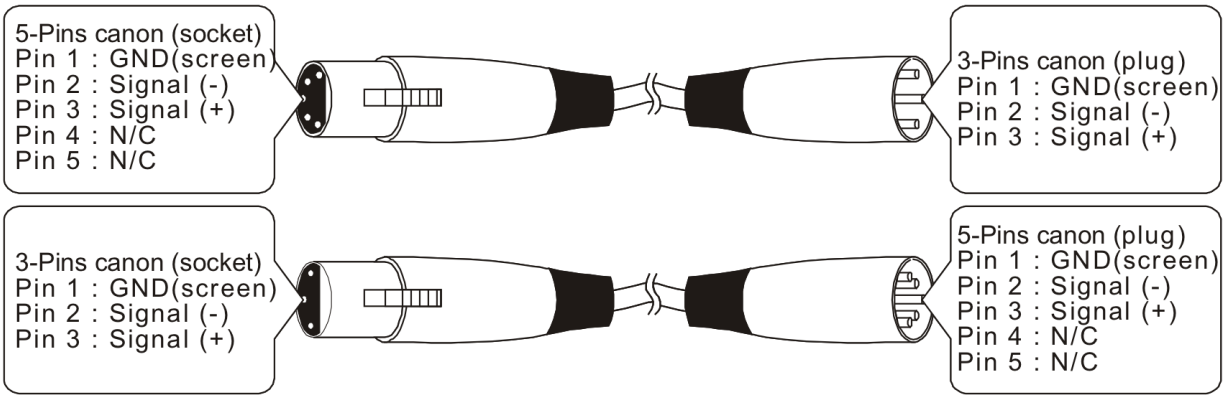
DMX-OUTPUT
XLR mounting-socket:

1 - Ground
2 - Signal (-)
3 - Signal (+)

DMX-input
XLR mounting-plug

1 - Ground
2 - Signal (-)
3 - Signal (+)

The transformation of the controller line of 3 pins and 5 pins (plug and socket)



5. Link the units as shown in (figure 4), 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.
6. Supply electric power: Plug electric mains power cords into each unit's IEC 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

Note : Link all cables before connecting electric power

Fig. 4

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 on 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 one 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 Phantoms 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 Certified DMX Data Cables

- DAP Audio cable for allround use. bal. XLR/M 3 p. > XLR/F 3 p.
  Ordercode FL01150 (1,5m.), FL013 (3m.), FL016 (6m.), FL0110 (10m.), FL0115 (15m.), FL0120 (20m.).
- DAP Audio cable for the demanding user with exceptional audio-qualities and connector made by Neutrik®. **Ordercode** FL71150 (1,5m.), FL713 (3m.), FL716 (6m.), FL7110 (10m.).

The Phantom 75 LED Spot can be operated with a controller in **control mode** or without the controller in **stand-alone mode.**

Control Panel

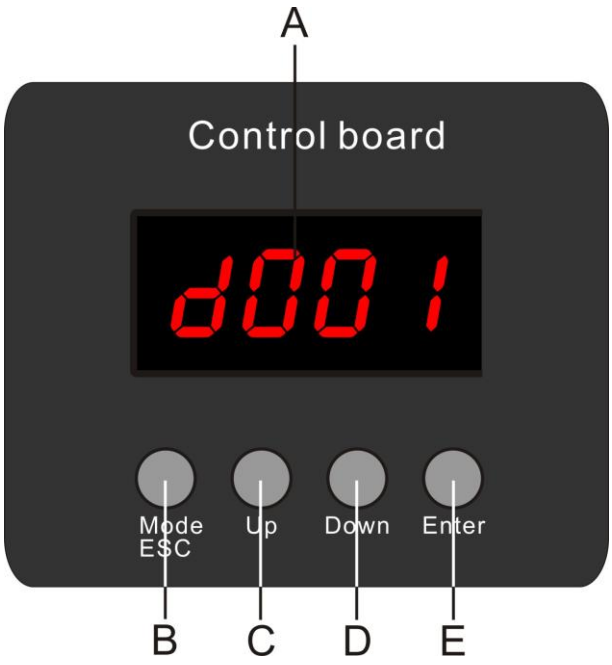


Fig. 5

A. LCD Display
B. MODE/ESC button
C. Up Button
D. Down Button
E. ENTER Button

Control Mode

The fixtures are individually addressed on a data-link and connected to the controller.
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 will respond to the controller.
Please note when you use the controller, the unit has **14** channels.
When using multiple Phantoms, make sure you set the DMX addresses right.
Therefore, the DMX address of the first Phantoms should be **1(001)**; the DMX address of the second Phantom should be **1+14=15 (015**); the DMX address of the third Phantom should be **15+14=29 (029)**, etc.
Please, be sure that you don't have any overlapping channels in order to control each Phantom correctly.
If two or more Phantoms are addressed similarly, they will work similarly.
For address settings, please refer to the instructions under "Addressing'.

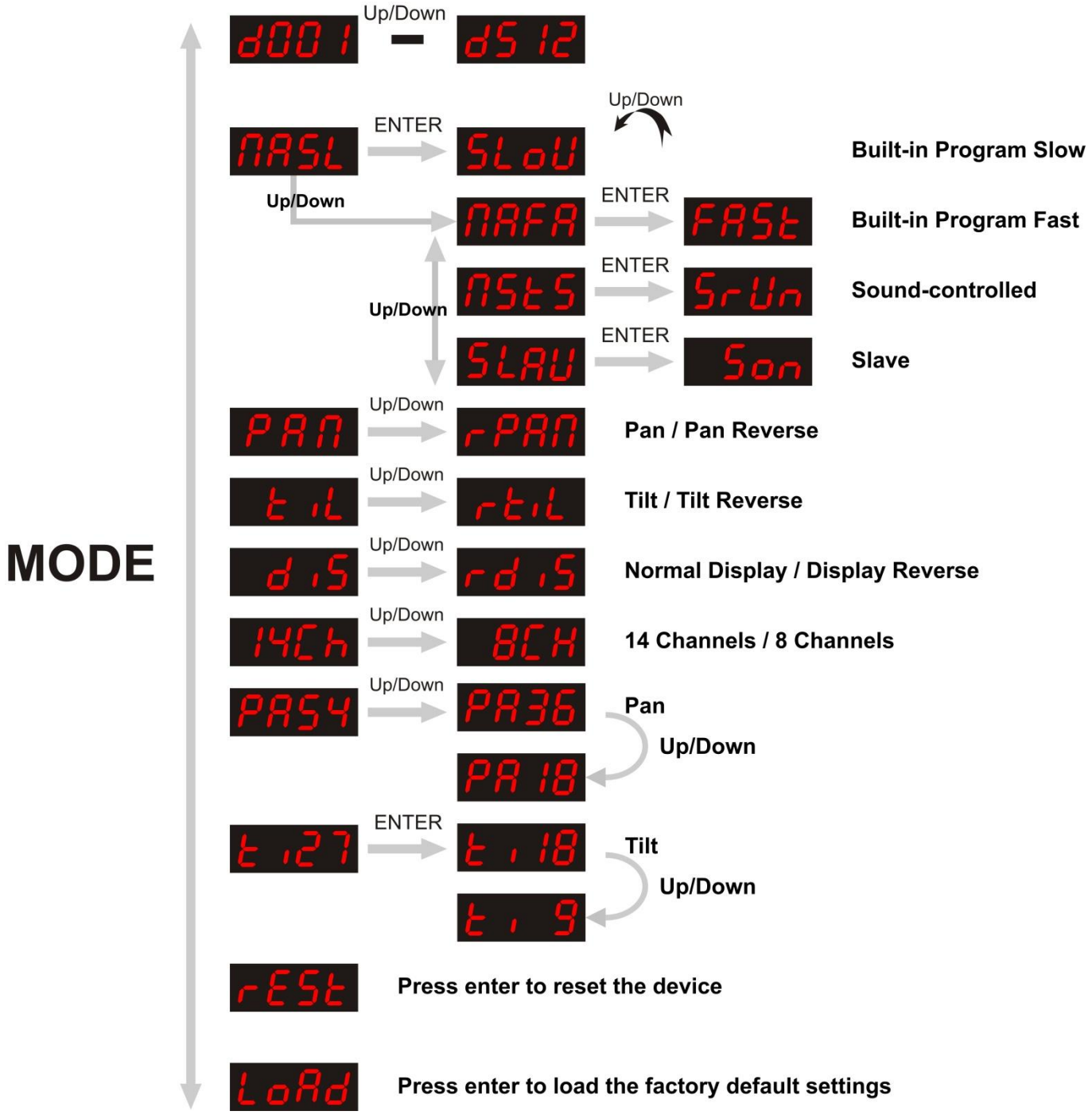
Controlling:

After having addressed all Phantom fixtures, you may now start operating these via your lighting controller.
Note: After switching on, the Phantom will automatically detect whether DMX 512 data is received or not. If there is no data received at the DMX-input, the "**LED** " on the control panel will not flash.
The problem may be:

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

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

Menu Overview



Main Menu Options

DMX address

Built-in Programs Slow/Fast/Sound-control/Slave

Pan/Reverse Pan

Tilt/Reverse Tilt

Display/Reverse Display

Advanced 14 channels/ Basic 8 channels

Pan 540°, 360°, 180°

Tilt 270°, 180°, 90°

Reset

Load factory default settings

DMX Addressing

With this menu you can set the DMX address.

1. Press Mode/Esc, until the display shows

.
2. Press Enter to confirm. You can choose 512 different DMX addresses.
   Use the Up / Down buttons to select the required address from

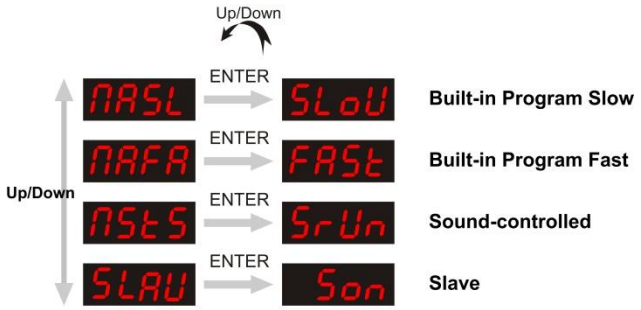
Up/Down

.
3. Once you have set the desired DMX address, press the enter button to store your DMX address.

Built-in Programs Mode

You can select 4 different Programs when using the Phatom.

Press MODE until the display shows MASL ,then press the UP / DOWN buttons to select all 4 programs.



Built-in Program Slow

When the display shows : MASL ,then press ENTER. The display will show SLoU .

The device is now in a slow built-in program mode.

Built-in Program Fast

When the display shows : MAFA ,then press ENTER. The display will show FASt .

The device is now in a fast built-in program mode.

Sound-controlled Mode

When the display shows : MStS ,then press ENTER. The display will show SrUn .

The device is now sound-controlled and will react to the music.

Slave Mode

When the display shows : SLAU , then press ENTER. The display will show Son .

The device is now a slave device. It will now react the same as its master.

Pan movement Mode

When the display shows : PAN , the device is in normal Pan Mode.

When you press Up/Down. The display will show rPAN . The Pan function is reversed.

Tilt movement Mode

When the display shows : tiL , the device is in normal Tilt Mode.

When you press Up/Down. The display will show rtiL . The Tilt function is reversed.

Display Mode

When the display shows : diS , the device is in normal Display Mode.

When you press Up/Down. The display will show rdiS . The Display function is reversed.

Advanced/Basic Mode

When the display shows : 14Ch , the device has 14 Channels.

When you press Up/Down. The display will show 8CH . The device now has 8 channels.

Pan Mode

When the display shows : PA54 , the Pan is 540°.

When you press Up/Down and the display shows PA36 , the Pan is 360°.

When you press Up/Down and the display shows PA18 , the Pan is 180°.

Tilt Mode

When the display shows : t.27, the Tilt is 270°.

When you press Up/Down and the display shows t.18, the Pan is 180°.

When you press Up/Down and the display shows t. 9, the Pan is 90°.

Reset

When the display shows : rESt and you press ENTER the device will reset.

Default Settings

When the display shows : LoAd and you press ENTER the device will return to the factory default settings.

Password Change

This is a Service Function.
Press and hold **MODE/ESC** for 10 seconds.
The display will show 0000.
Press the Up button to change the value. Press the Down button to go to the next digit.
Enter **password: 2323**.

A new menu will open, you can scroll through the menu with the **MODE/ESC** button.

P128	**Pan Adjustment**
t128	**Tilt Adjustment**
G128	**Gobowheel Adjustment**
C128	**Colorwheel Adjustment**
F128	**Focus Adjustment**
L000	**Prism Adjustment**
d000	**Adjustment of the starting Brightness of the Lamp**

Use the Up/Down buttons to change a certain value.
Press the ENTER button to store your setting. This option will auto-exit after 10 seconds.

Service Functions

This is a Service Function.
Press and hold **MODE/ESC** for 10 seconds.
The display will show 0000.
Press the Up button to change the value. Press the Down button to go to the next digit.
Enter **password: 2322**.

Use the Up/Down buttons to change a certain value.

L000	**Half a step Prism motor adjustment**

Press the ENTER button to store your setting. This option will auto-exit after 10 seconds.

DMX Channels

14 Channels

Channel 1 – Horizontal movement (Pan)
Push the slider up, in order to move head horizontally (PAN).
Gradual head adjustment from one end of the slider to the other (0-255, 128-center).
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 from one end of the slider to the other (0-255, 128-center).
The head can be turned by 270° and stopped at any position you wish.

Channel 3 – Pan fine 16 bit

Channel 4 – Tilt fine 16 bit

Channel 5 – PAN/TILT Speed

0-255	From Max Speed (0) to Min. Speed (255)

Channel 6 – Colourwheel
Linear color change following the movement of the slider. Between 128 - 255, the color-wheel rotates continuously the so-called "Rainbow" effect.

0-6	Open / White
7-13	Yellow
14-20	Pink
21-27	Green
28-34	Red
35-41	Light Blue
42-48	Light Green
49-55	Orange
56-63	Dark Blue
64-70	Split Color White / Yellow
71-77	Split Color Yellow / Pink
78-84	Split Color Pink / Green
85-91	Split Color Green / Red
92-98	Split Color Red / Light Blue
99-105	Split Color Light Blue / Light Green
106-112	Split Color Light Green / Orange
113-119	Split Color Orange / Dark Blue
120-127	Split Color Dark Blue / White
128-191	Clockwise rotation (CW) rainbow effect from slow to fast
192-255	Counter-clockwise rotation (CCW) rainbow effect from slow to fast

Channel 7 – Shutter / Strobe (Dimmer must be open ⚠)

0-3	Close
4-7	Shutter open
8-76	Strobe effect, from slow to fast (0-10 flashes/sec.)
77-145	Pulse Strobe effect
146-215	Random Shutter
216-255	Shutter open

Channel 8 – Dimmer intensity (Shutter must be open ⚠)

0-255	From black to brightest

Channel 9 – Rotating Gobo-wheel + Gobo Shake

0-7	Open / White
8-15	Gobo 1 (Glass)
16-23	Gobo 2 (Glass)
24-31	Gobo 3 (Metal)
32-39	Gobo 4 (Metal)
40-47	Gobo 5 (Metal)
48-55	Gobo 6 (Metal)
56-63	Gobo 7 (Metal)
64-71	Gobo Shake 7 from slow to fast
72-79	Gobo Shake 6 from slow to fast
80-87	Gobo Shake 5 from slow to fast
88-95	Gobo Shake 4 from slow to fast
96-103	Gobo Shake 3 from slow to fast
104-111	Gobo Shake 2 from slow to fast
112-119	Gobo Shake 1 from slow to fast
120-127	Open / White
128-191	Clockwise rotation (CW) rainbow effect from slow to fast
192-255	Counter-clockwise rotation (CCW) rainbow effect from slow to fast

Channel 10 – Gobo rotation

0-63	Gobo-indexing
64-147	Clockwise rotation (CW) from slow to fast
148-231	Counter-clockwise rotation (CCW) from slow to fast
232-255	Gobo bouncing

Channel 11 – Channel Functions

0-7	No Function
8-15	Blackout during Pan/Tilt movement
16-23	Blackout during Colorwheel movement
24-31	Blackout during Gobowheel movement
32-39	Blackout during Pan/Tilt/Colorwheel movement
40-47	Blackout during Pan/Tilt/Gobowheel movement
48-55	Blackout during Pan/Tilt/Gobowheel /Colorwheel movement
56-87	No Function
88-95	No Function
96-103	Reset Pan after 3 seconds
104-111	Reset Tilt after 3 seconds
112-119	Reset Colorwheel after 3 seconds
120-127	Reset Gobowheel after 3 seconds
128-135	Reset Gobo rotation after 3 seconds
136-143	Reset Prism after 3 seconds (Tip: nice fade out prism effect)
144-151	Reset Focus after 3 seconds
152-159	Reset All channels after 3 seconds
160-255	No Function

Channel 12 – Built-in Programs + Sound-controlled Programs

0-7	No Function
8-23	Built-in Program 1
24-39	Built-in Program 2
40-55	Built-in Program 3
56-71	Built-in Program 4
72-87	Built-in Program 5
88-103	Built-in Program 6
104-119	Built-in Program 7
120-135	Built-in Program 8
136-151	Sound-controlled Program 1
152-167	Sound-controlled Program 2
168-183	Sound-controlled Program 3
184-199	Sound-controlled Program 4
200-215	Sound-controlled Program 5
216-231	Sound-controlled Program 6
232-247	Sound-controlled Program 7
248-255	Sound-controlled Program 8

Channel 13 – Prism

0-7	Open
8-12	3-facet Prism Effect
13-130	Clockwise rotation (CW) prism effect from slow to fast
131-247	Counter-clockwise rotation (CCW) prism effect from slow to fast
248-255	3-facet Prism Effect

Channel 14 – Focus

0-255	0-255 Continuous adjustment from far to near

8 Channels

Channel 1 – Horizontal movement (Pan)

Push the slider up, in order to move head horizontally (PAN).
Gradual head adjustment from one end of the slider to the other (0-255, 128-center).
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 from one end of the slider to the other (0-255, 128-center).
The head can be turned by 270° and stopped at any position you wish.

Channel 3 – Colourwheel

Linear color change following the movement of the slider. Between 128 - 255, the color-wheel rotates continuously the so-called "Rainbow" effect.

0-6	Open / White
7-13	Yellow
14-20	Pink
21-27	Green
28-34	Red
35-41	Light Blue
42-48	Light Green
49-55	Orange
56-63	Dark Blue
64-70	Split Color White / Yellow
71-77	Split Color Yellow / Pink
78-84	Split Color Pink / Green
85-91	Split Color Green / Red
92-98	Split Color Red / Light Blue
99-105	Split Color Light Blue / Light Green
106-112	Split Color Light Green / Orange
113-119	Split Color Orange / Dark Blue
120-127	Split Color Dark Blue / White
128-191	Clockwise rotation (CW) rainbow effect from slow to fast
192-255	Counter-clockwise rotation (CCW) rainbow effect from slow to fast

Channel 4 – Shutter / Strobe (Dimmer must be open ⚠)

0-3	Close
4-7	Shutter open
8-76	Strobe effect, from slow to fast (0-10 flashes/sec.)
77-145	Pulse Strobe effect
146-215	Random Shutter
216-255	Shutter open

Channel 5 – Dimmer intensity (Shutter must be open ⚠)

0-255	From black to brightest

Channel 6 – Rotating Gobo-wheel + Gobo Shake

0-7	Open / White
8-15	Gobo 1 (Glass)
16-23	Gobo 2 (Glass)
24-31	Gobo 3 (Metal)
32-39	Gobo 4 (Metal)
40-47	Gobo 5 (Metal)
48-55	Gobo 6 (Metal)
56-63	Gobo 7 (Metal)
64-71	Gobo Shake 7 from slow to fast
72-79	Gobo Shake 6 from slow to fast
80-87	Gobo Shake 5 from slow to fast
88-95	Gobo Shake 4 from slow to fast
96-103	Gobo Shake 3 from slow to fast
104-111	Gobo Shake 2 from slow to fast
112-119	Gobo Shake 1 from slow to fast
120-127	Open / White
128-191	Clockwise rotation (CW) rainbow effect from slow to fast
192-255	Counter-clockwise rotation (CCW) rainbow effect from slow to fast

Channel 7 – Prism

0-7	Open
8-12	3-facet Prism Effect
13-130	Clockwise rotation (CW) prism effect from slow to fast
131-247	Counter-clockwise rotation (CCW) prism effect from slow to fast
248-255	3-facet Prism Effect

Channel 8 – Focus

0-255	0-255 Continuous adjustment from far to near

Channel settings

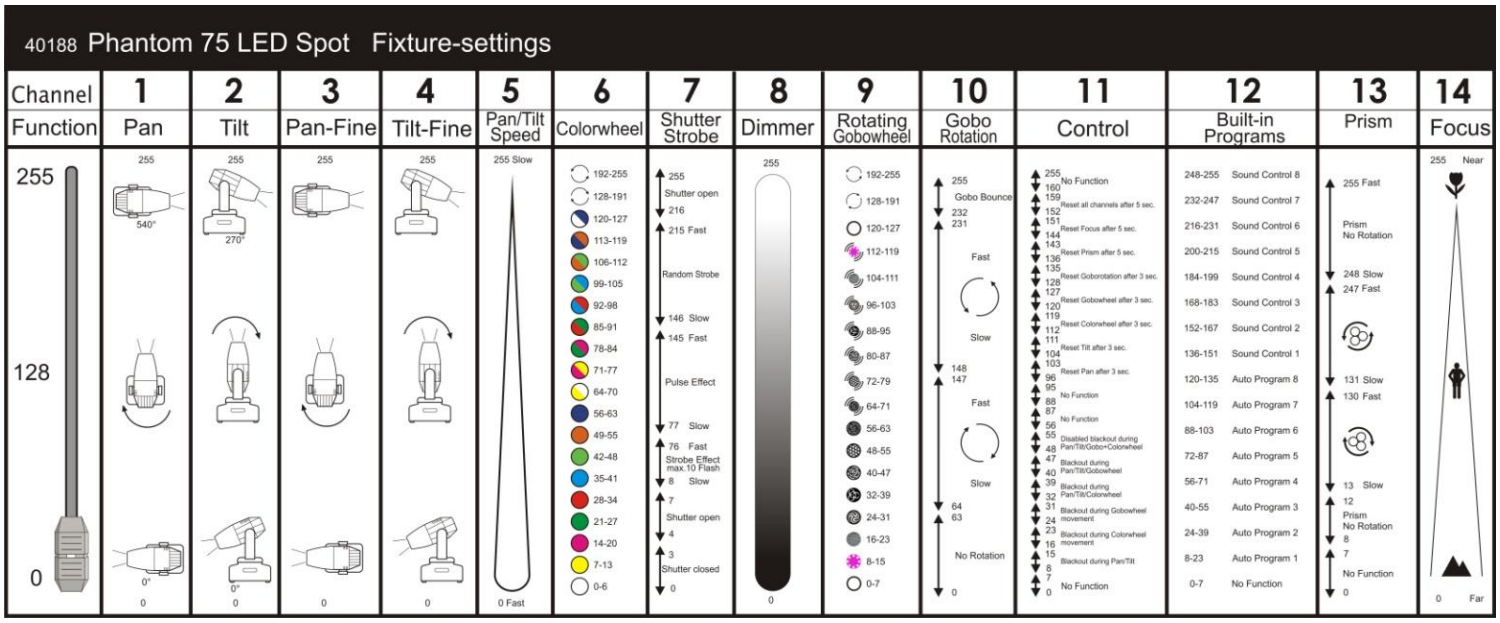


Fig. 6

Maintenance

The Showtec Phantom 75 LED Spot 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. The cooling-fans, colour-wheel, the gobowheel, the gobos and the internal lenses should be cleaned monthly with a soft brush.
Please clean internal components once a year with a light brush and vacuum cleaner.
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-relating 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-relating 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:

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

Replacing a 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.

1. Unplug the unit from electric power source.
2. Insert a screwdriver into the slot in the fuse cover. Gently pry up the fuse cover. The fuse will come out.
3. Remove the used fuse. If brown or unclear, it is burned out.
4. Insert the replacement fuse into the holder where the old fuse was. Reinsert the fuse cover. Be sure to use a fuse of the same type and specification. See the product specification label for details

Replacing a Gobo from the rotating Gobowheel

1. Disconnect mains power supply and set the switch to OFF.
2. Make sure that the gobo you want to insert has the same size. For the right size, see below.

Gobo Size

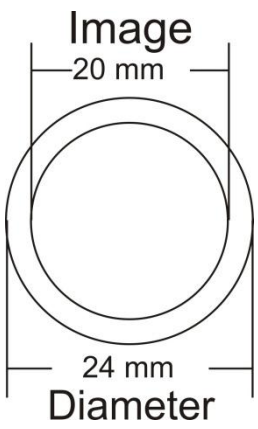


Fig. 7

Fig. 8

3. Loosen the service lid of the housing, by sliding it to the left/right.
4. Gently tilt the head so the small metal housing will slide out more easy.
5. Turn the gobo wheel, with the gobo you want to remove, to the upside.
6. Gently lift up the gobo holder 10° and then gently pull out the gobo from its position.

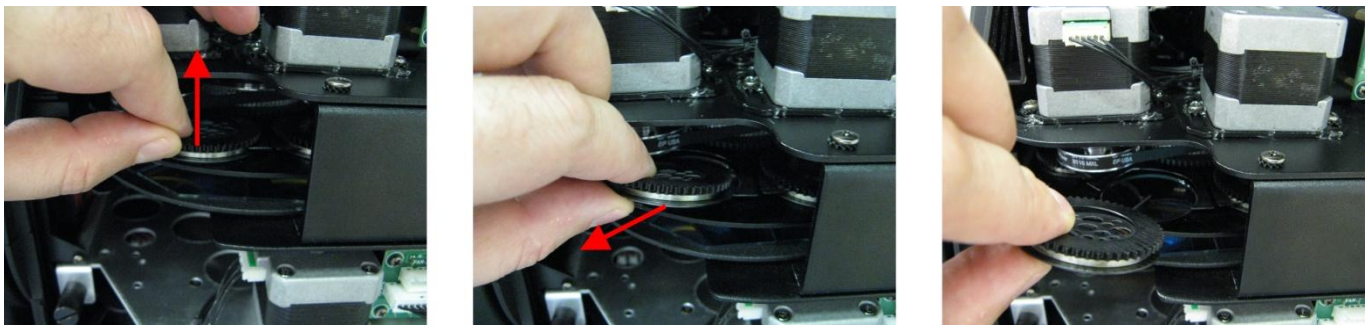


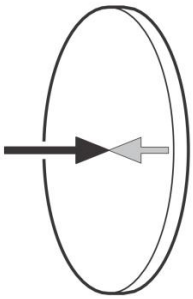
Fig. 9

7. Very carefully take the gobo out of the gobo holder with a pair of pliers.
8. Place the new gobo in the gobo holder. Carefully put the pinchcock back, gently press the pinchcock a little bit together. Possibly use a pair of pliers to press the pinchcock a little bit together.
9. Put the gobo holder back under the pressing snap and push it back.
10. Replace the maintenance caps and fasten all screws.

Glass Gobo Orientation

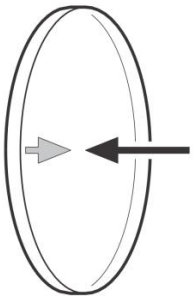
Coated glass gobos are inserted with the coating against the rim of the holder (away from the spring). Textured gobos are inserted with the smooth side against the spring. This provides the best results when combining rotating gobos.

Coated side



When an object is held up to the coated side there is no space between the object and its reflection. The back edge of the gobo cannot be seen when looking through the coated side.

Uncoated side



When an object is held up to the uncoated side there is a space between the object and its reflection. The back edge of the gobo can be seen when looking through the uncoated side.

Rotating Gobo-wheel

Fig. 10

Colorwheel

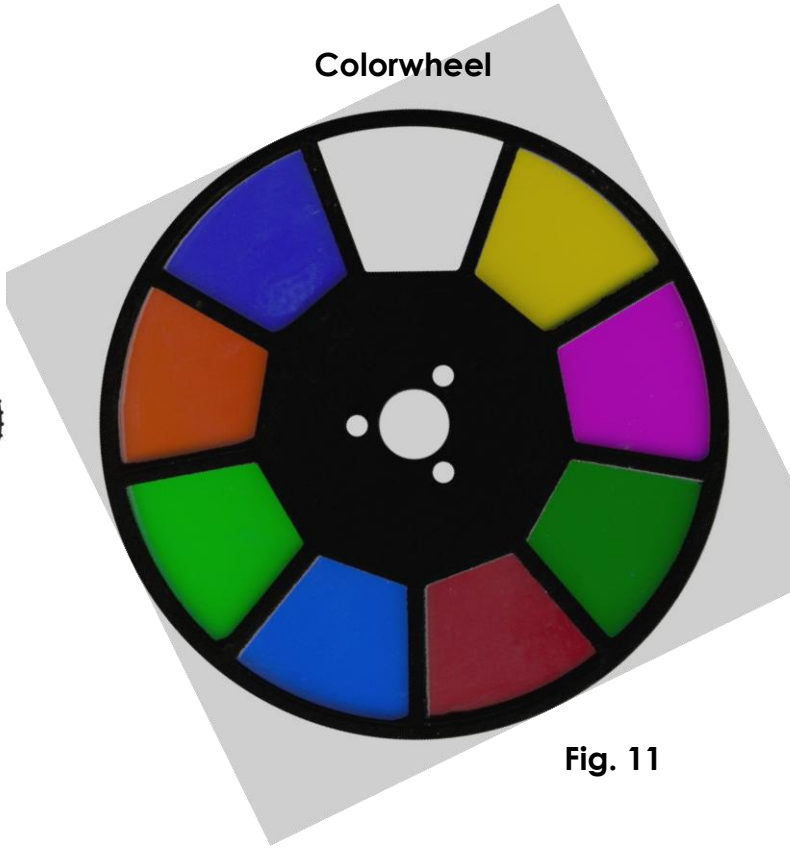


Fig. 11

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.
Response: Suspect four potential problem areas as: factory reset, the power supply, the LED, the fuse.

1. First try to reset the device to its original factory default settings (**Load** Menu see page 16). LoAd
2. Power supply. Check that the unit is plugged into an appropriate power supply.
3. The LEDs. Return the Phantom to your Showtec dealer.
4. The fuse. Replace the fuse. See page 21 for replacing the fuse.
5. If all of the above appears to be O.K., plug the unit in again.
6. 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.
7. Return the device to your Showtec dealer.

No Response to DMX

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

1. Check the DMX setting. Make sure that DMX addresses are correct.
2. Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.
3. 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.

See next page for more problem solving.

Problem	Probable cause(s)	Remedy
One or more fixtures are completely dead.	No power to the fixture	• Check that power is switched on and cables are plugged in.
	Primary fuse blown.	• Replace fuse.
Fixtures reset correctly, but all respond erratically or not at all to the controller.	The controller is not connected.	• 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).	• 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	• 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	• Inspect connections and cables. Correct poor connections. Repair or replace damaged cables.
	Data link not terminated with 120 Ohm termination plug.	• Insert termination plug in output jack of the last fixture on the link.
	Incorrect addressing of the fixtures.	• Check address setting.
	One of the fixtures is defective and disturbs data transmission on the link.	• Bypass one fixture at a time until normal operation is regained: 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).	• Install a phase-reversing cable between the fixtures or swap pin 2 and 3 in the fixture, that behaves erratically.
Shutter closes suddenly	The color wheel, gobowheel or a gobo has lost its index position and the fixture is resetting the effect.	• Contact a technician for servicing the problem persists.
No light or lamp cuts out intermittently	Fixture is too hot.	• Allow fixture to cool. • Clean fan. • Make sure air vents at control panel and front lens are not blocked. • Turn up the air conditioning .
	LEDs damaged	• Disconnect fixture and return to your dealer.
	The power supply settings do not match local AC voltage and frequency.	• Disconnect fixture. Check settings and correct if necessary.

Product Specification

Model: Showtec Phantom 75 LED Spot
Input Voltage: 100-240 VAC
Continuous Power 170 Watt
Fuse: F3A / 250V
Dimensions: 338 x 247x 390 mm (LxWxH)
Weight: 11 kg

Operation and Programming
Signal pin OUT: pin 1 earth, pin 2 (-), pin 3 (+)
Set Up and Addressing: LED control panel
Pan/Tilt resolution: 8-16 bit
DMX Channels: 14 or 8
Signal input 3-pin XLR male
Signal output 3 -pin XLR female

Electro-mechanical effects
LED source the shutter is electronic not mechanical.
Focus is motorized and the Phantom 75 has a manual zoom.
Gobo inner diameter: 20mm, Gobo outer diameter: 24mm
Built-in Automatic Programs + Built-in Sound activated programs
DMX-control via standard DMX-controller
User-selectable Pan & Tilt ranges, 540° / 360° / 180°
Reverse Pan / Tilt movement
Special: Pan / Tilt movement blackout
Pan 0° -- 540°, Tilt 0° -- 270°
Control: DMX-512, Master/Slave, Sound-controlled
16 Built in programs selectable by DMX
Light Source: 1 x 75W White LED
Colourwheel with 8 dichroic-colours and white
Color functions: Split colors, Rainbow-flow effect
Rotation: Bi-directional
Prism: 3-facet prism
Output: 24.500 Lux @ 1m. (at 17°)
Beam Angle: 17° - 20° Manual
Gobo functions: Gobo-flow effect, Gobo shake
8 automatic and 8 sound-to-light programs

Rotating Gobowheel with 2 glass gobos, 5 metal gobos and open with Gobo Shake Function
Single clamp bracket, which makes it easy to handle and position in truss systems.
Input Voltage: 100-240 VAC
LED Drive Current: 16.5A
Continuous Power 170 Watt
Dimmer: 0-100%
Strobe: 0-20Hz
Focus: Motorized focus
Housing: Black Metal & Flame-retardant plastic

Gobos
Colourwheel: heat-resistant and intensify glass; dichroic glas coating
Max. ambient temperature t_a: 40°C; Max. housing temperature t_B: 80°C
Cooling: 2 axial fans – 1 fan in the projector and 1 in the base
Motor: high quality stepping-motor controlled by microprocessors

Minimum distance:
Minimum distance from flammable surfaces: 0.5m
Minimum distance to lighted object: 1.3m

Design and product specifications are subject to change without prior notice.

CE

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