



# Moving Par 64

ORDERCODE 31200



**SHOWELECTRONICS FOR PROFESSIONALS**

## **Congratulations!**

You have bought a great, innovative product from Showtec.

The Showtec Moving Par 64 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.

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For more information: [iwant@showtec.info](mailto: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!



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## WARNING

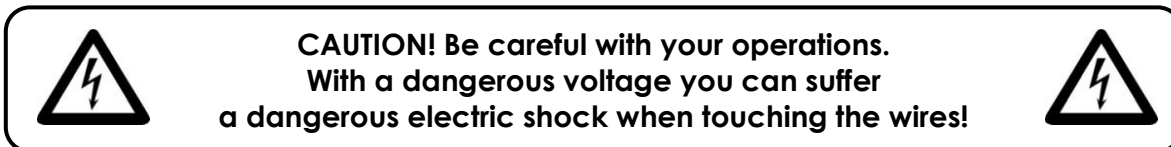


**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY  
BEFORE YOUR INITIAL START-UP!**

## SAFETY INSTRUCTIONS

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

- be qualified
- follow the instructions of this manual



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

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

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

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

### **IMPORTANT:**

*The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.*

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never run the device without lamp!
- Never ignite the lamp if the objective-lens or any housing-cover is open, as discharge lamps may expose and emit a high ultraviolet radiation, which may cause burns.
- 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 lamp'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 replace the lamp, when it is damaged or deformed due to the heat.
- 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, before cleaning or when replacing lamp! Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- To ensure the longest and most efficient use of the lamp always wait 15 minutes before re-applying power after a shutdown. Failure to do so could result in premature aging of the lamp and failure to the electronics that drive it.
- 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 lamps and fuses of same type and rating only.
- Replace the lamp if it becomes defective or worn out, or before usage exceeds the maximum service life.
- Allow the fixture to cool down for 15 minutes, before opening the fixture and replacing lamp. Protect your hands and eyes with gloves and safety glasses.
- 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.



## 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  $t_a$  must never be exceeded.

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, lamp explosion, 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 !

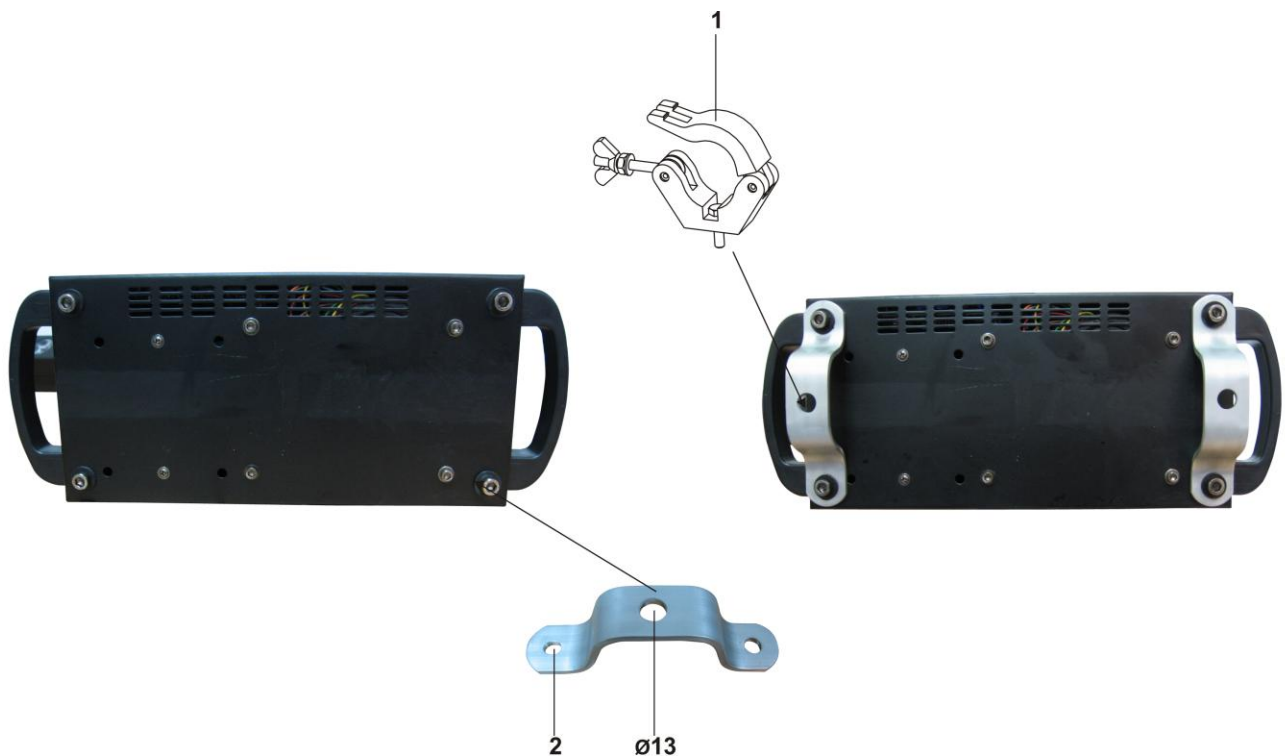
Always let the installation be carried out by an authorized dealer !

### 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 Moving Par 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 Moving Par moving head




- 1) Clamp
- 2) Omega Holder

*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.

<b>International</b>	<b>EU Cable</b>	<b>UK Cable</b>	<b>US Cable</b>	<b>Pin</b>
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!

## Description of the device

### Features

The Showtec Moving Par 64 is a moving-head with high output and great effects.

- DMX-control via standard DMX-controller
- 6 DMX-control channels required
- Electronic Dimmer
- Strobe-effect with adjustable speed (1 - 10 flashes/sec.)
- Pan 0° -- 540°
- Tilt 0° -- 180°
- Pan/Tilt speed & reset control channel
- Automatic Pan/Tilt correction
- 16 bit resolution
- Auto correction
- Built-in dimmer (0-100%)
- LED display menu with invert
- Pan/Tilt Invert option
- Micro-stepping motors
- Fuse T6A / 250V and extra spare fuse
- Lamp: Par 64 / 1000W Lamp not included

### Overview



Fig. 1



## Backside



Fig. 2

- 1) DMX signal connector (OUT)
- 2) DMX signal connector (IN)
- 3) IEC power connector + Fuse 6A
- 6) 110V/230V Switch

## Inside View

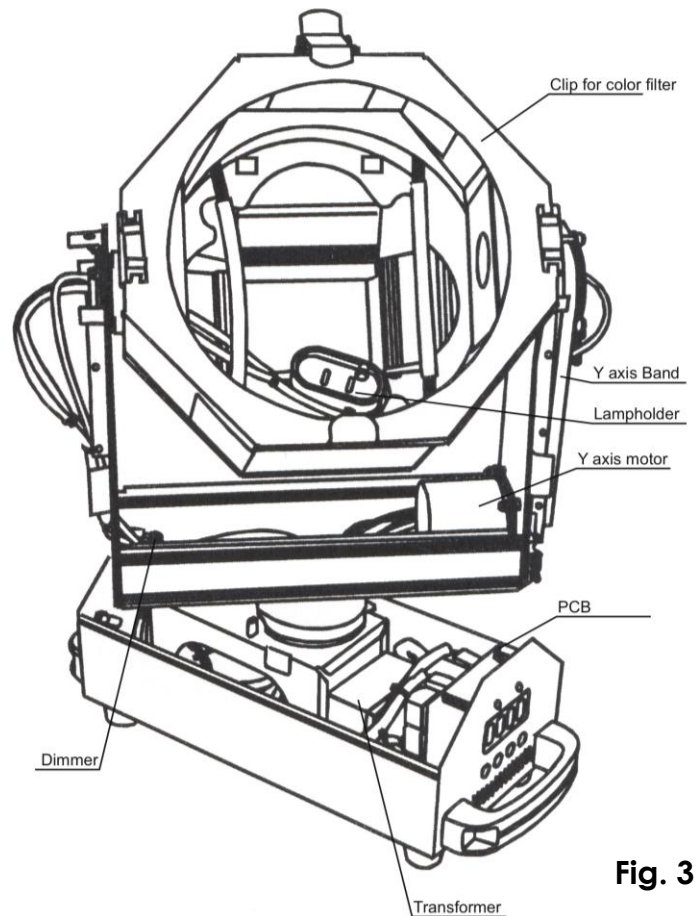
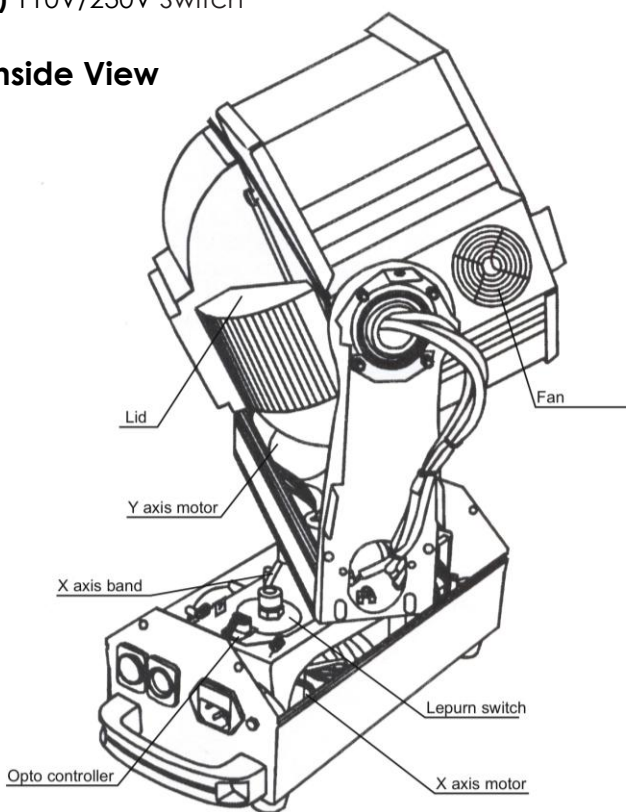


Fig. 3

# Installation

## Installing the Lamp

The Showtec Moving Par 64 uses the Par 64 (ordercode 82183 / 82184 / 82185) bulb as manufactured by all popular manufacturers. Use only the appropriate lamp for your unit.

Note that, product versions that use other lamps, may be offered in the future. Check your product specification label for information.

**Always disconnect from electric mains power supply before changing lamps.**

The lamp has to be replaced when it is damaged or deformed due to the heat.

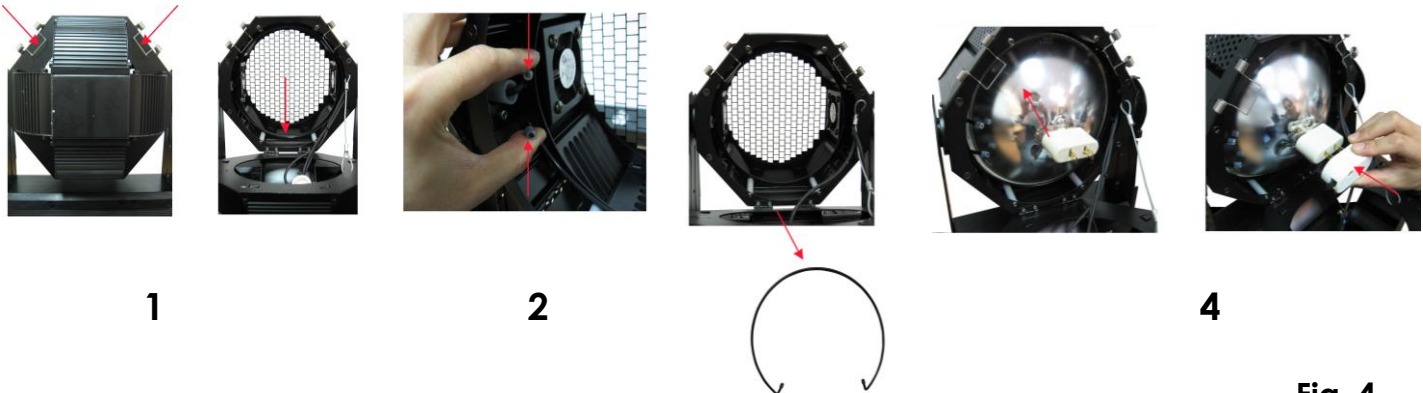
**Do not install lamps with a higher wattage!** Lamps with a higher wattage generate temperatures the device was not designed for.

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

### Procedure :

- **Always read the safety instructions that are included with the lamp.**
- **Oil on hands shortens the lamp life. (If you touch the bulb glass, wipe off the glass with a clean, lint-free towel and rubbing alcohol.)**
- **Always read all the safety warnings at the beginning of this manual, before replacing the lamp !!!**






1. Loosen the 2 springs on the back of the head and gently open the back cover.
2. Gently press the large safety spring together and remove the spring.
3. Read lamp instructions. Do not touch the lamp bulb glass.  
Oil on hands shortens the lamp life. (If you touch the bulb glass, wipe off the glass with a clean, lint-free towel and rubbing alcohol.). Put large safety spring back to fasten the PAR 64 bulb.
4. Insert the lamp pins into the small holes in the lamp socket.
5. Close the housing and fasten the 2 springs.



## 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.

### One Moving Par

1. Fasten the moving head onto firm trussing (Use a proper clamp fastened onto the Moving Par ).  
 Leave at least 1 meter on all sides for air circulation.
2. Plug one end of the electric mains power cord into the IEC socket on the unit.  
 Then plug the other end of the cord into a proper electric power supply socket.
3. To set the program to be played, press:  →  →  →  
4. Always use a safety cable.

Hold for 3 sec

### Multiple Moving Pars

1. Fasten the moving head onto firm trussing (Use a proper clamp fastened onto the Moving Par ).  
 Leave at least 1 meter on all sides for air circulation.
2. Use a 3-p XLR cable to connect the Moving Pars and other devices.  
 The pins:



1. Earth
2. Signal -
3. Signal +

3. Always use a safety cable.
4. Link the units as shown in (figure 5), 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.
5. 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 Moving Pars Set Up

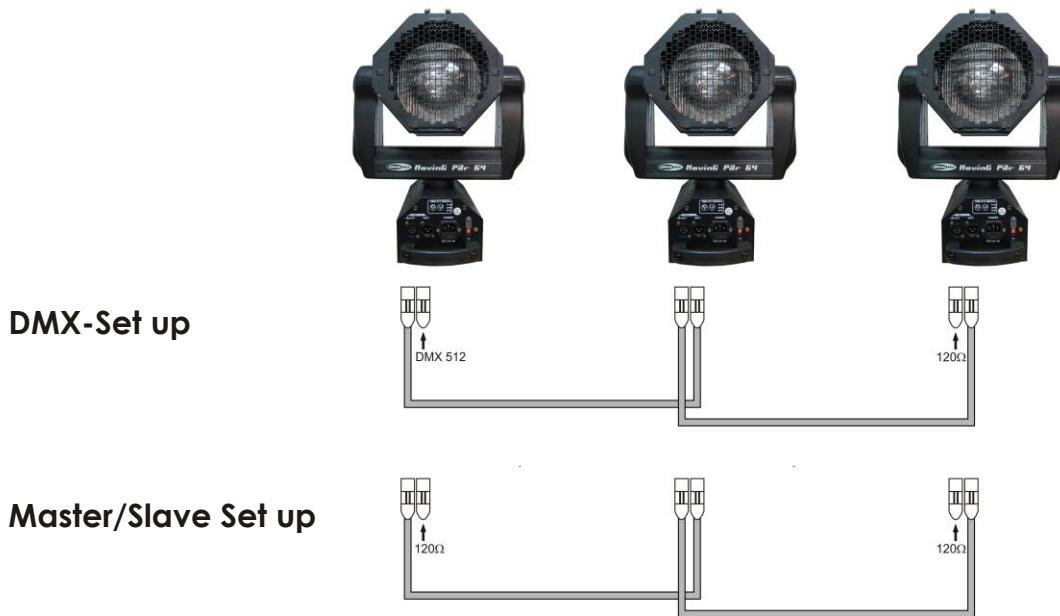


Fig. 5

**Note : Link all cables before connecting electric power**

# DMX Protocol

## Channel 1 – Dimmer

0-255	From Shutter / Blackout closed (0) to open (255)
-------	--

## Channel 2 – Strobe

0-255	Strobe effect, from slow to fast (0-10 flashes/sec.)
-------	--

## Channel 3 - 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 4 - 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 180° and stopped at any position you wish.

## Channel 5 - Pan fine 16 bit

## Channel 6 - Tilt fine 16 bit

The Moving Par can be operated with a controller in **control mode** or without the controller in **stand-alone mode**.

## Control Panel

When the indicator light is on, means the Moving Par is working



Fig. 6

- |                                 |                     |
|---------------------------------|---------------------|
| A. Display                      | D. Down Button      |
| B. Audio Sensitivity Adjustment | E. Up Button        |
| C. [EXIT] Button                | F. [M/ENTER] Button |

## Control Mode

The fixtures are individually addressed `ADD1 - AS 11` 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 Moving Par will respond to the controller.

Please note when you use the controller, the unit has **6** channels.

When using multiple Moving Pars, make sure you set the DMX addresses right.

Therefore, the DMX address of the first Moving Par should be **1(A001)**; the DMX address of the second Moving Par should be **1+6=7 (A007)**; the DMX address of the third Moving Par should be **7+6=13 (A013)**, etc. Please, be sure that you don't have any overlapping channels in order to control each Moving Par correctly.

If two or more Moving Pars are addressed similarly, they will work similarly.

For address settings, please refer to the instructions under "Addressing" (menu `ADD1`)

## Controlling:

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

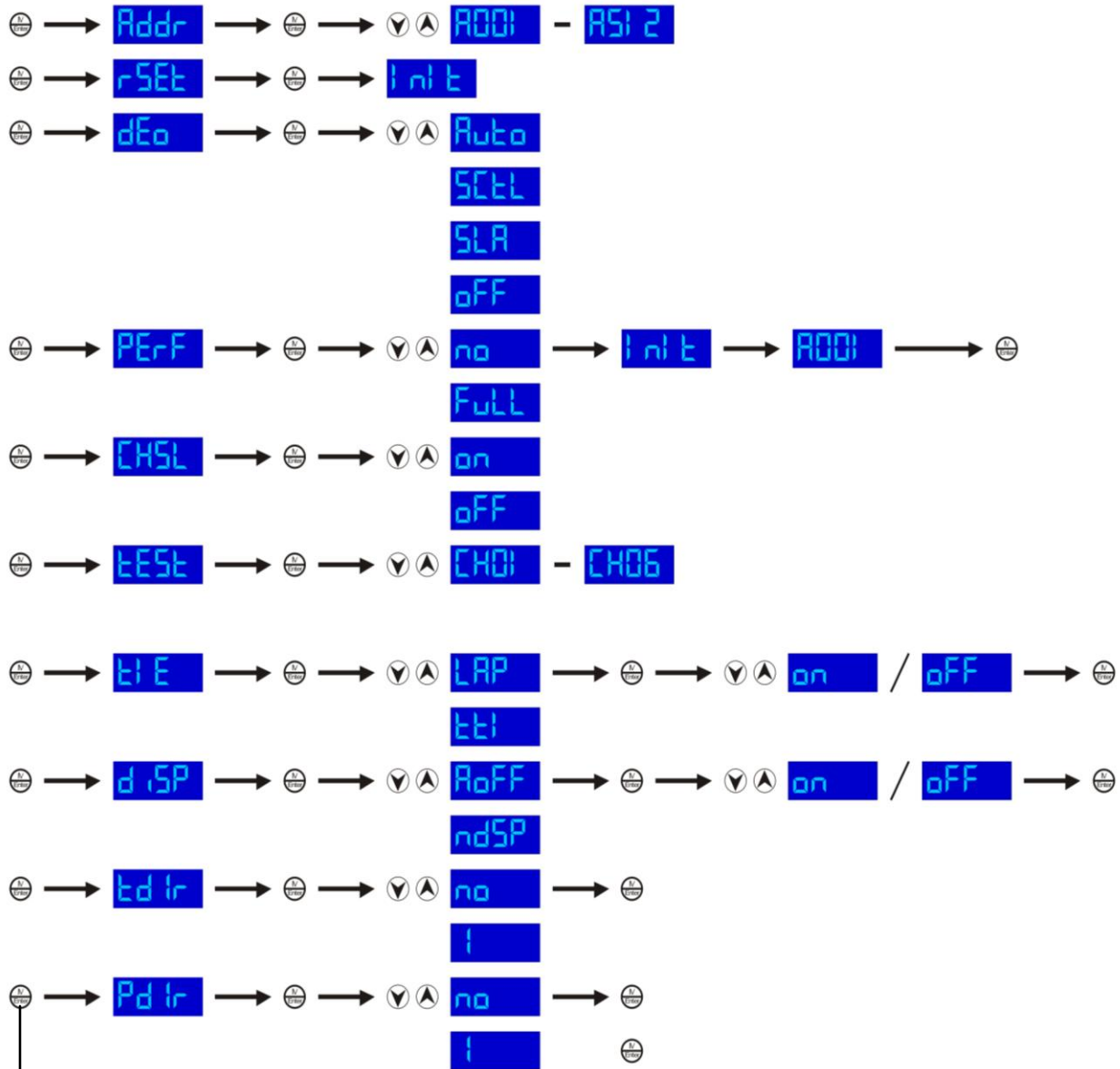
**Note:** After switching on, the Moving Par will automatically detect whether DMX 512 data is received or not. If there is no data received at the DMX-input, the "LED" on the control panel will not flash.

The problem may be:

- The XLR cable from the controller is not connected with the input of the Moving Par.
- 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'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.

## Control Panel Functions



Hold for 3 sec

Press Exit to return to the main menu

Addr

DMX Address selection

rSEt

Reset unit, the display will **IntE** show for 30 seconds

dEo

Control Mode selection. Choose one of 4 control modes: **Auto** Master Mode

**SEtL**

Music-controlled Mode

**SLA**

Slave Mode

**oFF**

DMX Mode

PErF

Working Speed selection **no** 80% of the working speed

**FuLL**

Maximum working speed

CHSL

Channel selection **on** 16-bit available for Pan (X) and Tilt (Y)

**oFF**

16-bit not available for Pan (X) and Tilt (Y)

tEST

Channel Test selection. First select the channel, then press enter to test the desired channel

tIE

Time Menu

**LAP**

Lamp lifetime, hold enter for 5 seconds to reset time to 0

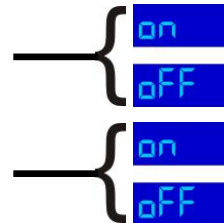
**tEt**

Unit working hours

dSP

Display main Menu

**RoFF**



Display open

Display close after 10 seconds

Display open

Display close after 10 seconds

tDir

Tilt (Y) direction selection **no** Display words in positive direction

**l**

Display words in negative direction

PdIr

Tilt (Y) direction selection **no** Lamp lifetime, hold enter for 5 seconds to reset time to 0

**l**

Unit working hours

## Stand-Alone / Slave addressing

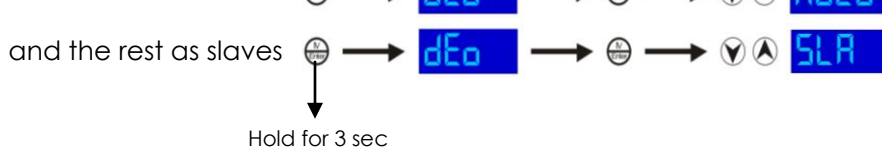
Note: Disconnect the fixtures from the DMX controller before master/slave operating, otherwise data collisions can occur and the fixtures will not work properly!

It's necessary to insert the XLR termination plug (with 120 Ohm ) into the input of the master fixture and into the output of the last slave fixture in the data-link, in order to ensure proper transmission on the data link. From the master's control panel it is possible to control any slave in a master/slave chain.

1) Only one fixture can be the master. Up to the 16 slaves may be connected to the master.

Stand-alone operation" can be applied to a single fixture (the fixture may be set to the master/slave mode or controller mode) or to multiple fixture operating synchronously.

For synchronous operation of multiple fixtures the fixtures must all be connected on a data-link and one of them is set as a master

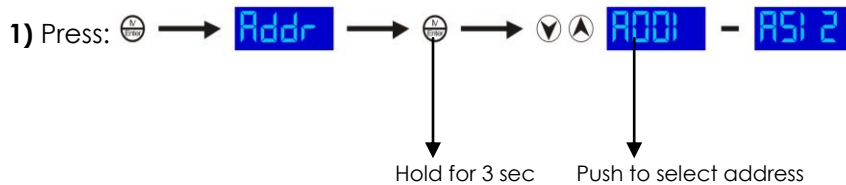


The DMX address of all the slaves are assigned to **A001** and on that particular slave address only one fixture can be connected. To the fixture as the master or slave, see "Addressing" (menu **A001** ). If the master fixture resets or runs a test (program), all slaves will execute these acts too. You can't play or edit any program on a slave, if the master is switched on and connected to the master/slave chain.

## Addressing

With this menu you can set the DMX address.

**A001** - DMX addressing



2) The first device should be set to ADDR A001.



## DMX 512 Channel settings for Moving Par 64

Code	Light No.	Start Channels
1	1	A001
2	2	A007
3	3	A013
4	4	A019
5	5	A025
6	6	A031
7	7	A037
8	8	A043
9	9	A049
10	10	A055
11	11	A061
12	12	A067
13	13	A073
14	14	A079
15	15	A085
16	16	A091
17	17	A097
18	18	A103
19	19	A109
20	20	A115
21	21	A121
22	22	A127
23	23	A133
24	24	A139
25	25	A145
26	26	A151
27	27	A157
28	28	A163
29	29	A169
30	30	A175
31	31	A181
32	32	A187
33	33	A193
34	34	A199
35	35	A205
36	36	A211
37	37	A217
38	38	A223
39	39	A229
40	40	A235

Code	Light No.	Start Channels
41	41	A241
42	42	A247
43	43	A253
44	44	A259
45	45	A265
46	46	A271
47	47	A277
48	48	A283
49	49	A289
50	50	A295
51	51	A301
52	52	A307
53	53	A313
54	54	A319
55	55	A325
56	56	A331
57	57	A337
58	58	A343
59	59	A349
60	60	A355
61	61	A361
62	62	A367
63	63	A373
64	64	A379
65	65	A385
66	66	A391
67	67	A397
68	68	A403
69	69	A409
70	70	A415
71	71	A421
72	72	A427
73	73	A433
74	74	A439
75	75	A445
76	76	A451
77	77	A457
78	78	A463
79	79	A469
80	80	A475

## Channels settings

31200 Moving Par 64 1000W Fixture-settings						
Channel	1	2	3	4	5	6
Function	Dimmer	Beam out Strobe	Pan	Tilt	Pan Fine	Tilt Fine
255	100%	255 Fast	Clockwise 530° rotate	255	Clockwise 530° rotate	255
128	255	10 Slow	570	280°	16 bit	16 bit
0	0 Black	9	0	0	0	0
		0 Shutter				

## Maintenance

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.

The Showtec Moving Par 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. Do not immerse in liquid. Wipe lens clean with glass cleaner and a soft cloth. Do not use alcohol or solvents.

The front lens will require weekly cleaning, as smoke-fluid tends to build up residues, reducing the light-output very quickly.

The cooling-fans 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.

## Changing the Lamp

1. Loosen the 2 springs on the back of the head and gently open the back cover.
2. Gently press the large safety spring together and remove the spring.
3. Follow directions for installing a new lamp, page 8.

## 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 flat-head screwdriver into a 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.

## Troubleshooting

### No Light, No Movement - All Products

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 three potential problem areas: the power supply, the lamp, the fuse.

1. Power supply. Check that the unit is plugged into an appropriate power supply.
2. The lamp. Replace the old lamp with a new one with the same specifications. See page 8 for replacing lamps.
3. The fuse. Replace the fuse. See page 17 for replacing the fuse.

### No Response to DMX

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

1. Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.
2. 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, gobo wheel, or a gobo has lost its index position and the fixture is resetting the effect.	· Contact a technician for servicing if the problem persists.
No light	The power supply settings do not match local AC voltage and frequency.	· Disconnect fixture. Check settings and correct if necessary.
	Lamp missing or blown	· Disconnect fixture and replace lamp.
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.
	The power supply settings do not match local AC voltage and frequency.	· Disconnect fixture. Check settings and correct if necessary.

## Product Specification

Model: Showtec Moving Par 64  
Voltage: 240V-50Hz (CE)  
Fuse: 6A / 250V  
Dimensions: 370x150x450mm (LxWxH)  
Weight: 8,54 kg

## Operation and Programming

Signal pin OUT: pin 1 earth, pin 2 (-), pin 3 (+)  
Set Up and Addressing: LED control panel  
DMX Channels: 6  
Signal input 3-pin XLR male  
Signal output 3-pin XLR female

## Lamp

Allowed lamp models\*:  
Showtec Par 64 (300 hr; 3200K) (ordercode 82183)  
Showtec Par 64 (300 hr; 3200K) (ordercode 82184)  
Showtec Par 64 (300 hr; 3200K) (ordercode 82185)  
Control: Automatic and DMX remote ON / OFF

## Electro-mechanical effects

Strobe-effect with variable speed (1 flash -- 10 flashes/sec.)  
DMX-control via standard DMX-controller  
Pan 0° -- 540°  
Tilt 0° -- 180°  
Automatic Pan / Tilt position correction

## Gobos

Max. ambient temperature  $t_a$ : 40°C; Max. housing temperature  $t_b$ : 80°C  
Cooling: 3 axial fans - two fan in the projector and one 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: 2m

\*: Versions for other lamps may be produced. Please check the specification label on your product.

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



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