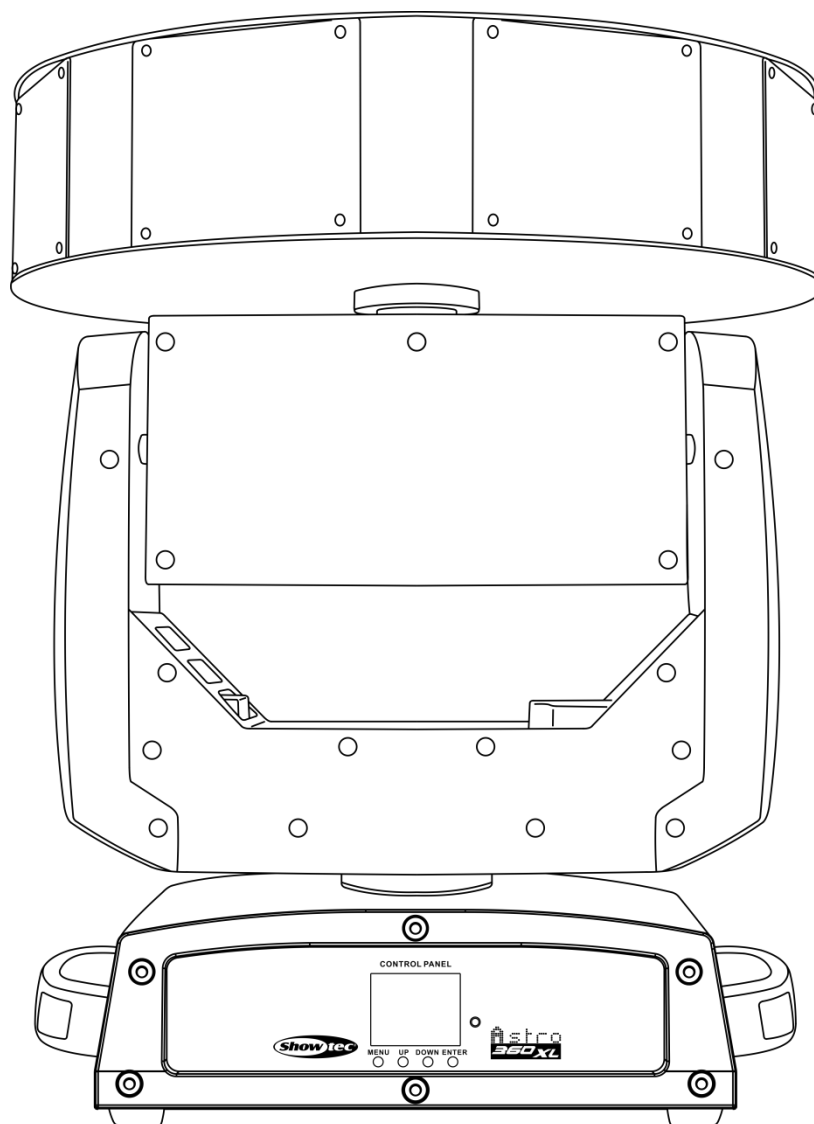




MANUAL



ENGLISH

Astro 360 XL

V2

Ordercode: 43024

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Warning



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

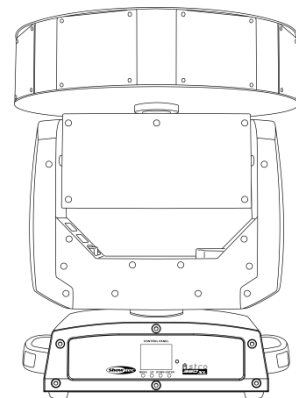


Unpacking Instructions

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 Astro 360 XL
- IEC power cable (1 m)
- 1 mounting bracket and 2 screws for truss mounting
- 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 the 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 contained in this manual.

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

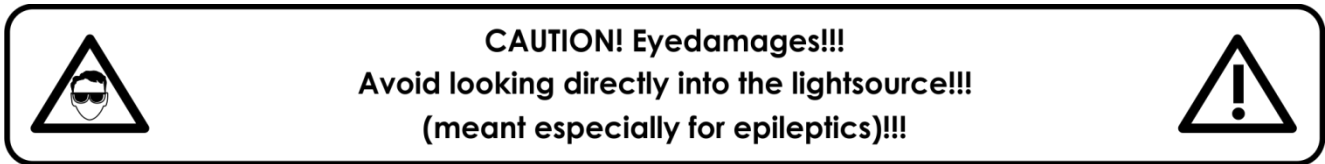
This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

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 holding it by the projector-head, as the mechanics may be damaged. Always hold the fixture by the transport handles.
- Never place any material over the lens.
- Never look directly into the light source.
- Never leave any cables lying around.
- Do not insert objects into air vents.
- Do not connect this device to a dimmerpack.
- Do not switch the device on and off in short intervals, as this will 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 the device indoors, avoid contact with water or other liquids.
- Only operate the fixture after having checked if 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 the case closed while operating.
- Always allow a 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 holding it 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.
- If device was 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 the 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. Moving head must be installed beyond 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 Astro. 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.



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 bigger than 1 meter.
- The maximum ambient temperature $t_a = 40^\circ\text{C}$ must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 40°C .
- If this device is operated in any other way than the one described in this manual, the product may suffer damages and the warranty becomes void.
- Any other operation may lead to dangers like short-circuit, burns, electric shock, crash, etc.

You endanger your own safety and the safety of others!

Rigging

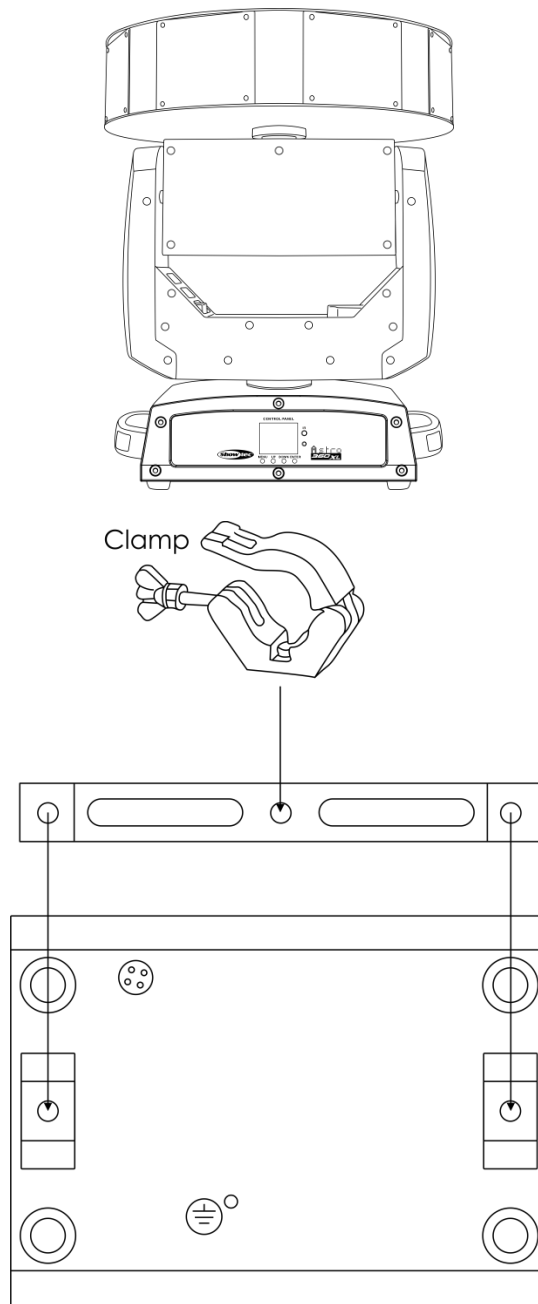
Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

Do not attempt the installation yourself !

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

Procedure:

- If the 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 site is secured and that there are not any unauthorized people around.



The Astro can be placed on a flat stage floor or mounted to any kind of truss with a clamp.

Improper installation can cause serious injuries and/or damage of property!

Connection with the mains

Connect the device to the mains with the power-plug.
Always check if 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 properly connected to the earth!

Improper installation can cause serious injuries and/or damage of 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 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 report 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 agreed otherwise in writing.

Complaints against us must be prepared in writing or sent 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 from which the obligation is resulting.

Description of the device

Features

The Showtec Astro 360 XL is a moving head fixture with high output and great effects.

- Input voltage: 100-240V AC, 60/50 Hz
- Power consumption: 175W
- Light source: 8 x 12W 4-in-1 RGBW LEDs
- Light output: 265 lumen per LED
- Beam angle: 5°
- Dimmer: 0-100%
- Strobe: 0-20Hz
- DMX control: via standard DMX-controller
- Channel modes: 20, 52 channels
- Control modes: DMX-512, Master/Slave, Auto, Sound-controlled, Manual
- Connections: 3-pin XLR IN/OUT & IEC power IN/OUT
- Adjustable Pan range: 540° / 360° / 180°
- Adjustable Tilt range: 90° / 180°
- Reversible Pan/Tilt movement
- Bi-directional dish rotation
- Special: Pan/Tilt movement blackout
- Pan/Tilt resolution: 16-bit
- Housing: Metal & flame-retardant plastic
- Fuse: F3AL/250V
- Dimensions: 354 x 354 x 435 mm (LxWxH)
- Weight: 17,32 kg

Overview

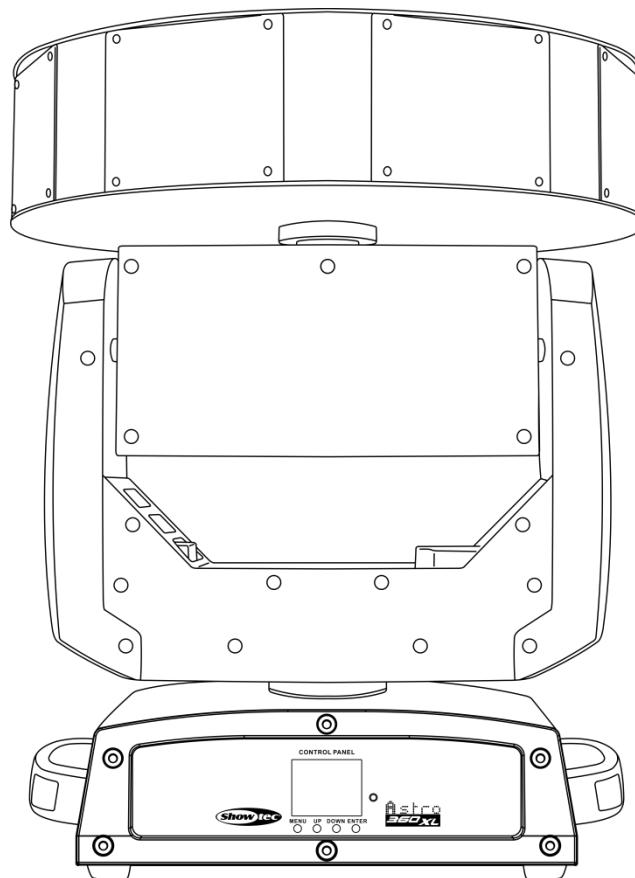


Fig. 01

Frontside

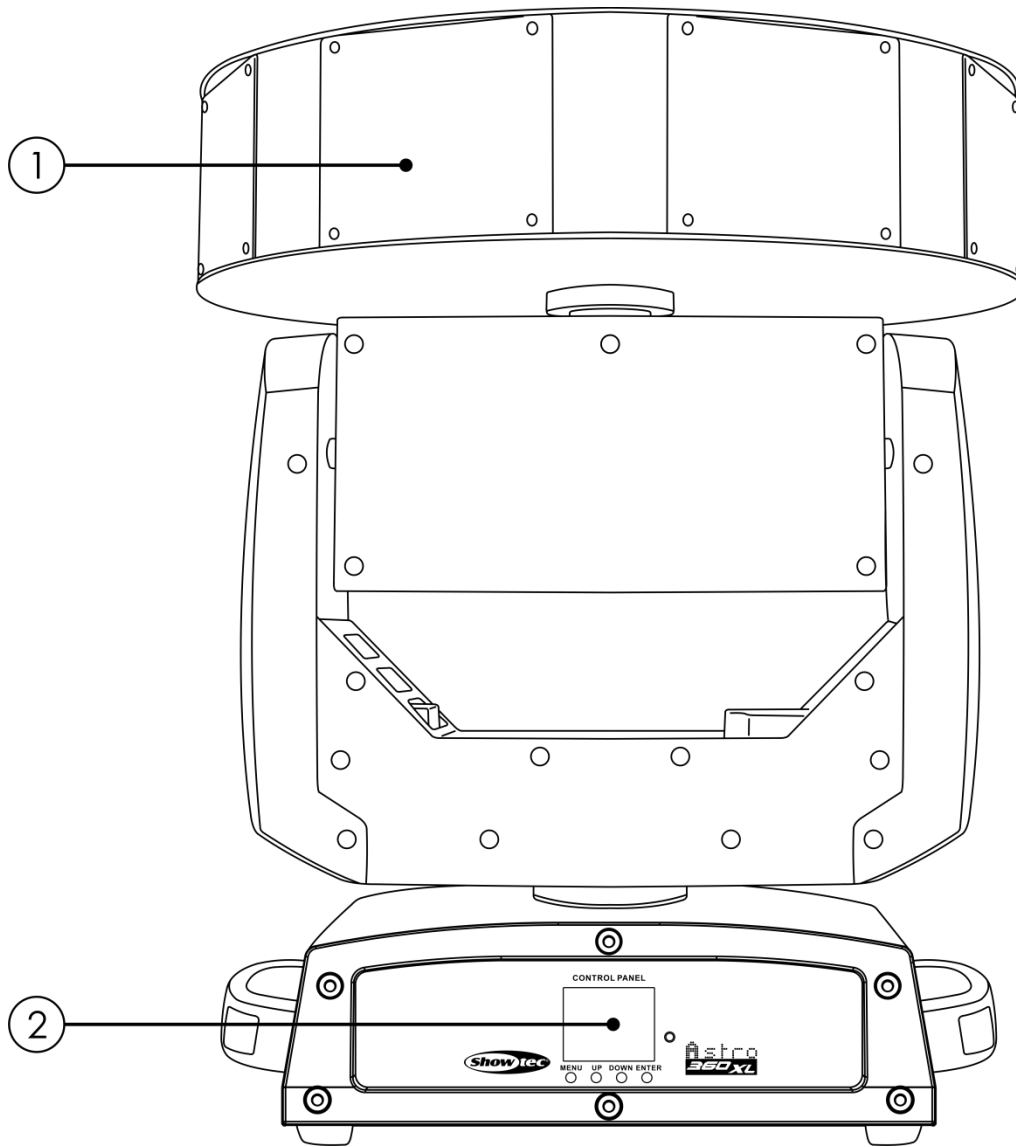
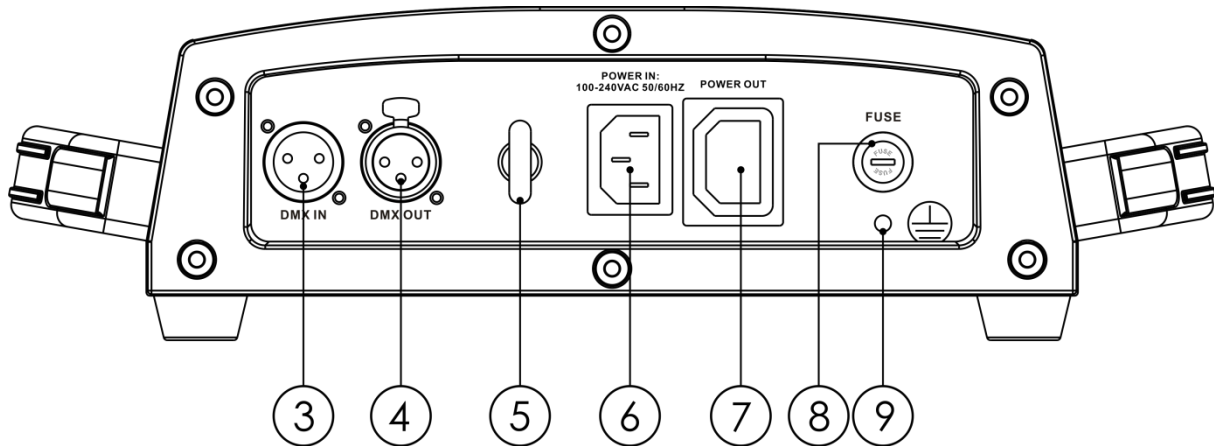


Fig. 02

- 01) 8 x 12W 4-in-1 RGBW LEDs
- 02) LCD display + control buttons

Backside**Fig. 03**

- 03) 3-pin DMX signal connector IN
- 04) 3-pin DMX signal connector OUT
- 05) Safety eye
- 06) IEC power connector 100-240V IN
- 07) IEC power connector 100-240V OUT
- 08) Fuse F3AL/250V
- 09) Ground/earth connection

Installation

Remove all packing materials from the Astro 360 XL. 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.

Connect the device to the main power supply.

Control Modes

There are 5 modes:

- Auto
- Manual
- Sound-controlled
- Master/Slave
- DMX-512 (20CH, 52 CH)

One Astro (Auto and Manual)

- 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) When the Astro is not connected with a DMX cable, it functions as a stand-alone device.
Please see pages 16-17 for more information about the Auto and Manual.

One Astro (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 Astro will react to the beat of the music. Please see page 16 for more information about the sound-control options.

Multiple Astros (Master/Slave control)

- 01) Fasten the effect light onto firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Use a 3-pin XLR cable to connect the Astro.

The pins:



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

- 03) Link the units as shown in fig. 04. Connect the first unit's DMX "out" socket with the second unit's "in" socket, using a DMX-signal cable. 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 16-17 (Auto, Manual and Sound-controlled). 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 Astros (Master/Slave control)

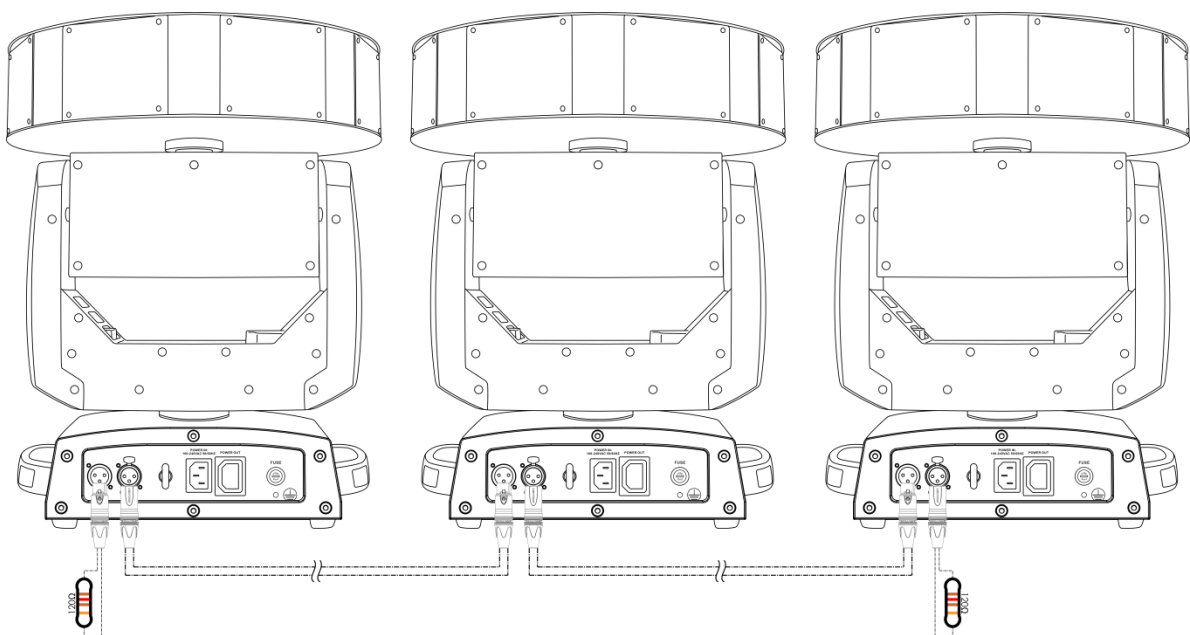
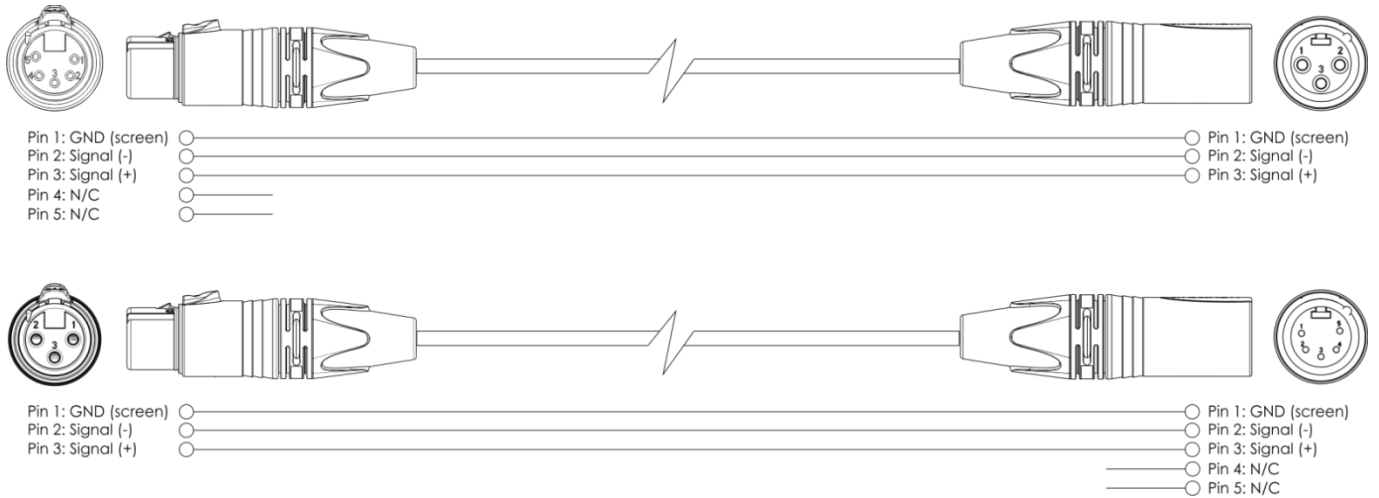


Fig. 04

Multiple Astros (DMX Control)

- 01) Fasten the effect light to a firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Always use a safety cable (ordercode 70140 / 70141).
- 03) Use a 3-pin XLR cable to connect the Astros and other devices.



- 04) Link the units as shown in fig. 05. Connect the first unit's DMX "out" socket with the second unit's "in" socket, using a DMX-signal cable. Repeat this process to link the second, third, and fourth units.
- 05) Supply electric power: Plug electric mains power cords into each unit's 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 Astros DMX Set Up

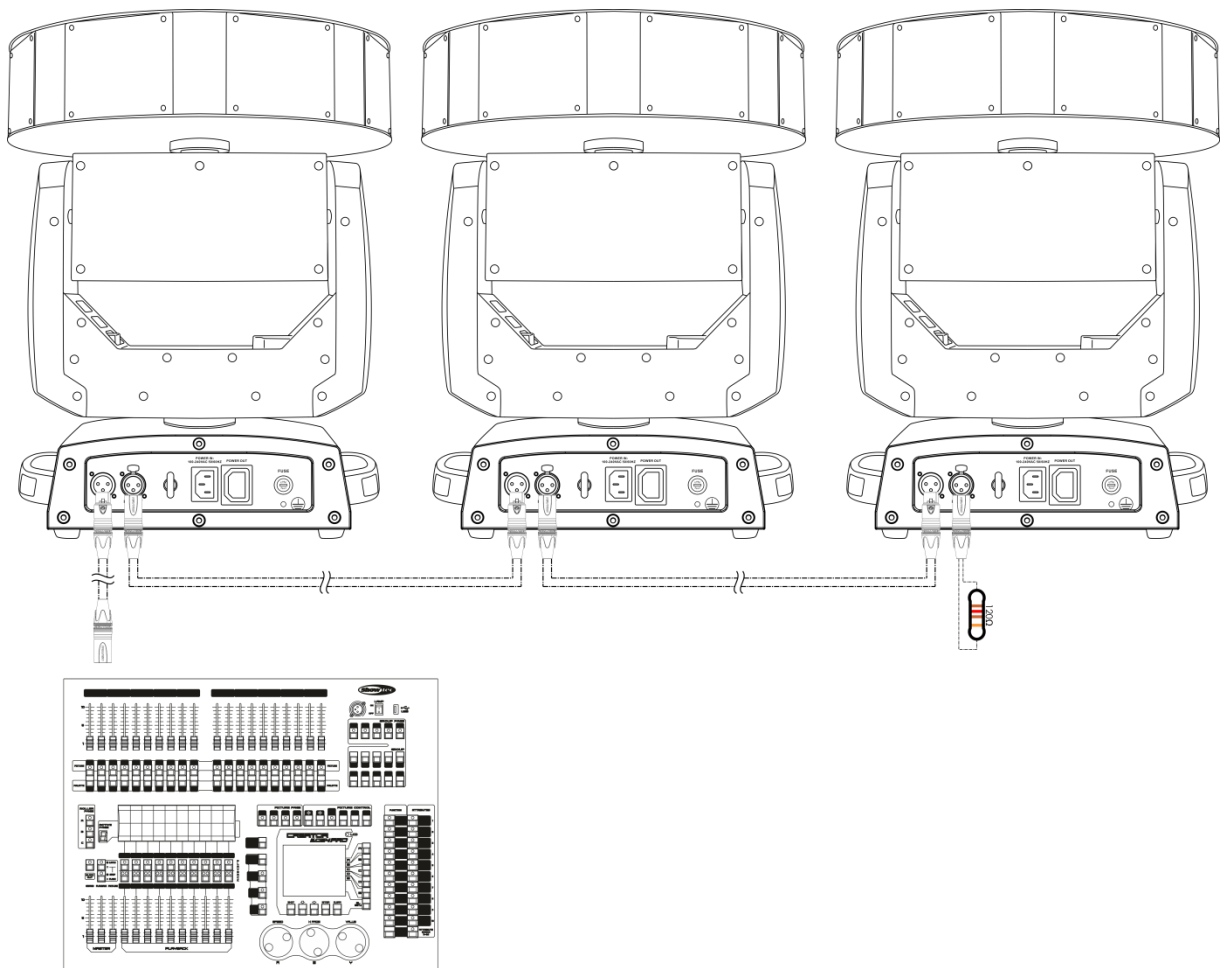


Fig. 05

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

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).

The Astro 360 XL can be operated with a controller in **control mode** or without the controller in **stand-alone mode**.

Control Panel

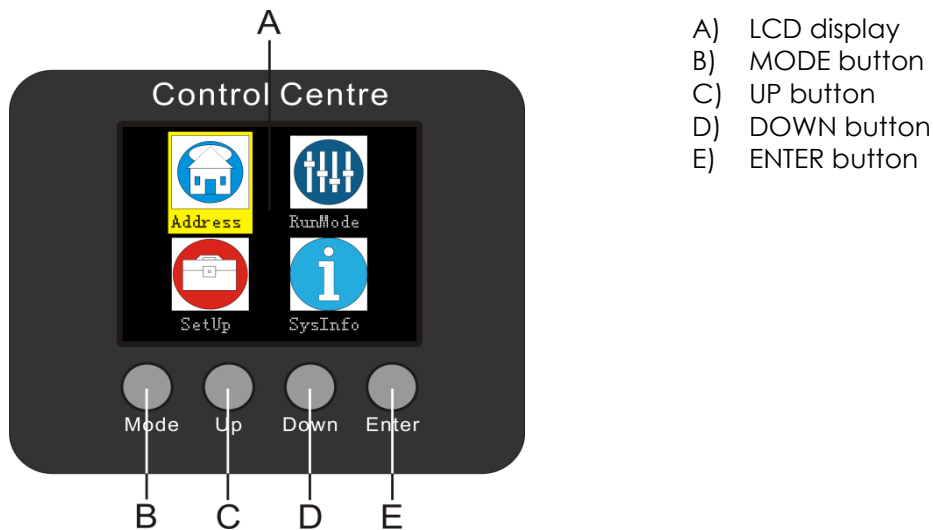


Fig. 06

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 next time.)

DMX Addressing

The control panel on the front side of the base allows you to assign DMX fixture addresses, which is the first channel with which the Astro will respond to the controller.

Please note, when you use the controller, the unit has **52** channels.

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

Therefore, the DMX address of the first Astro should be **1(001)**; the DMX address of the second Astro should be **1+52=53 (053)**; the DMX address of the third Astro should be **53+52=105 (105)**, etc.

Please, be sure that you do not have any overlapping channels in order to control each Astro correctly. If two or more Astros are addressed similarly, they will work similarly.

Controlling:

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

Note: After switching on, the Astro 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.

If not, the problem may be:

- The XLR cable from the controller is not connected with the input of the Astro 360 XL.
- 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.

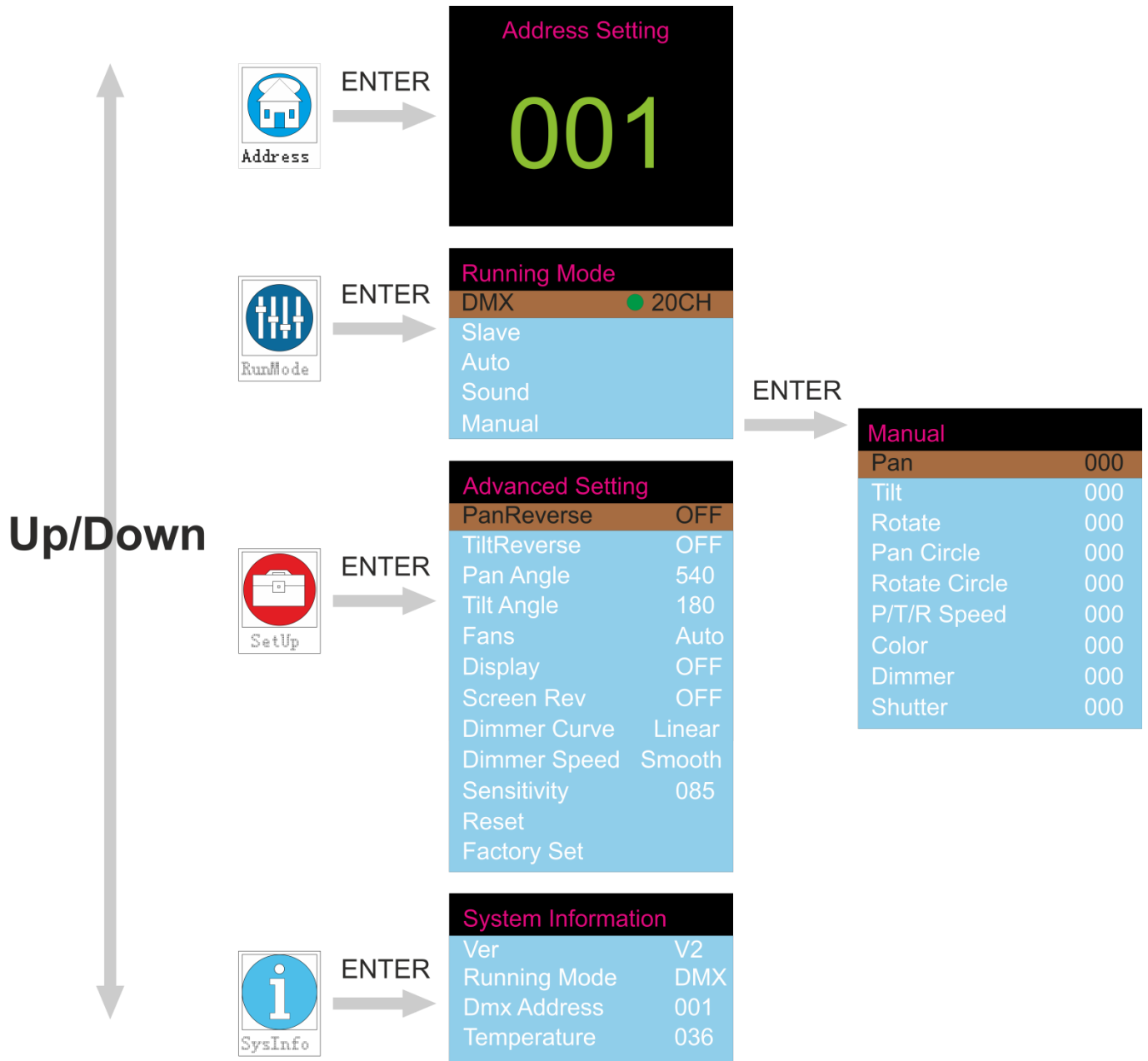
Display Off after 30 seconds

When no button is pressed for 30 seconds, the display will turn off.

To light up the display, you have to press the MODE, UP, DOWN or ENTER button.

Once you have pressed the button, the display will light up.

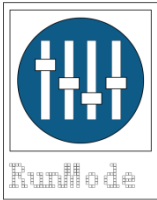
Menu Overview



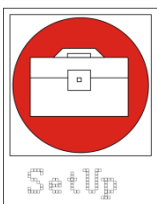
Main Menu Options



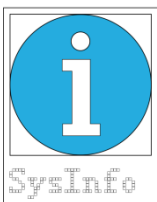
DMX Address



DMX Mode / Master-Slave / Auto / Sound-controlled / Manual



Pan and Tilt Reverse / Screen Reverse / Pan and Tilt Angle / Fans / Display / Sound Sensitivity / Dimmer Curves and Speed / Reset / Factory Settings




System Information

DMX Addressing

With this menu you can set the DMX address.



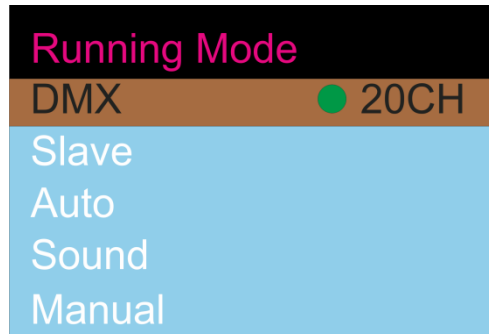
- 01) In the main menu, press the **UP/DOWN** buttons, until the display shows  .
- 02) Press the **ENTER** button to confirm. You can choose 512 different DMX addresses.
- 03) Press the **UP/DOWN** buttons to select the required address from 001-512.
- 04) Press the **ENTER** button to confirm the address.

Operation Modes

You can select 6 different operation modes when using the Astro.



- 01) In the main menu, press the **UP/DOWN** buttons until the display shows
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to select one of the 6 modes:



1. DMX Mode

- 01) When the display shows DMX, press the **ENTER** button to open the menu.
- 02) Press the **UP/DOWN** buttons to toggle between the 2 channel modes:
 - 20 channels
 - 52 channels
- 03) Press the **ENTER** button to confirm your choice.

2. Slave Mode

- 01) Press the **UP/DOWN** buttons until the display shows SLAVE.
- 02) Press the **ENTER** button to activate the mode.
- 03) The device will now operate as a slave device, which means that it will react the same as the master device.

3. Auto Mode

- 01) Press the **UP/DOWN** buttons until the display shows AUTO.
- 02) Press the **ENTER** button to activate Auto mode.
- 03) The device will now run the auto show.

4. Sound-controlled Mode

- 01) Press the **UP/DOWN** buttons until the display shows SOUND.
- 02) Press the **ENTER** button to activate Sound-controlled mode.
- 03) The device will now react to the beat of the background music by means of the built-in microphone.

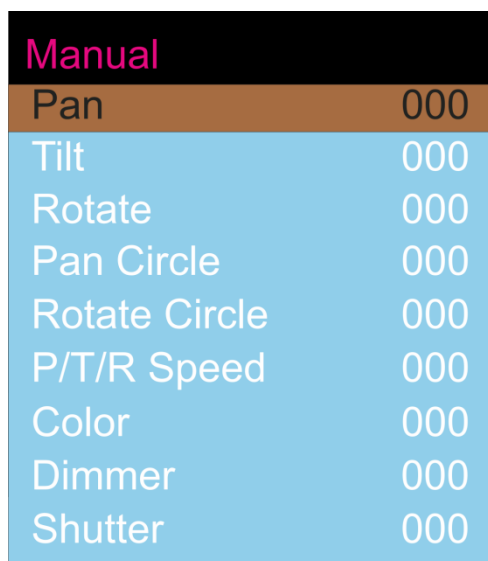
5. Manual Mode

In this menu you can adjust various settings.

01) In the main menu, press the **UP/DOWN** buttons to choose MANUAL.



02) Press the **ENTER** button to open the menu. The display will show:



03) Press the **UP/DOWN** buttons to toggle through the options below.

- **Pan** (gradual pan adjustment, 0-540°)
- **Tilt** (gradual tilt adjustment, 0-180°)
- **Rotate** (gradual dish adjustment, 0-360°)
- **Pan Circle** (moving head rotation)
- **Rotate Circle** (dish rotation)
- **P/T/R/Speed** (movement speed adjustment, from fast to slow)
- **Color** (color adjustment)
- **Dimmer** (dimmer adjustment, from closed to open)
- **Shutter** (shutter adjustment, from closed to open)

04) The adjustment range for each of those options is between 0-255. Once you have chosen the desired option, press the **ENTER** button to open and then the **UP/DOWN** buttons to adjust the settings.

05) Press the **ENTER** button to store changes.

Advanced Settings



- 01) In the main menu, press the **UP/DOWN** buttons until the display shows
 02) Press the **ENTER** button to open the menu. The display will show:

Advanced Setting	
PanReverse	OFF
TiltReverse	OFF
Pan Angle	540
Tilt Angle	180
Fans	Auto
Display	OFF
Screen Rev	OFF
Dimmer Curve	Linear
Dimmer Speed	Smooth
Sensitivity	085
Reset	
Factory Set	

- 03) Press the **UP/DOWN** buttons to toggle through the options below:
- **PanReverse** (pan reverse, ON/OFF)
 - **TiltReverse** (tilt reverse, ON/OFF)
 - **Pan Angle** (pan angle adjustment, 540°/360°/180°)
 - **Tilt Angle** (tilt angle adjustment, 90°/180°)
 - **Fans** (cooling fan operation modes, Auto/Silent/Full)
 - **Display** (backlight settings, OFF/ON. If you have chosen OFF, the display will turn off after 30 seconds, if no button is pressed.)
 - **Screen Rev** (display flip, OFF/ON)
 - **Dimmer Curve** (dimming curve settings, Linear/SCurve/I Squa/Square)
 - **Dimmer Speed** (dimmer speed settings, Smooth/Fast)
 - **Sensitivity** (sound sensitivity 001-100, from low to high sound sensitivity)
 - **Reset** (press the **ENTER** button to reset the settings)
 - **Factory Set** (press the **ENTER** button to restore the factory settings)
- 04) Press the **ENTER** button to open the desired menu.
 05) Press the **UP/DOWN** buttons to adjust settings.
 06) Press the **ENTER** button to store changes.

System Information

In this menu you can see the current active mode, the active DMX address, the current software version and the temperature of the device.



01) In the main menu, press the **UP/DOWN** buttons until the display shows

02) Press the **ENTER** button to open the menu and view the information.

System Information	
Ver	V2
Running Mode	DMX
Dmx Address	001
Temperature	036

DMX Channels

20 Channels

Channel 1 – Horizontal movement (Pan)

Move 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)

Move 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 – Dish rotation

Move the slider, up in order to rotate the dish.

Gradual dish adjustment from one end of the slider to the other (0-255, 128-center).

The dish can be turned by 360° and stopped at any position you wish.

Channel 4 – Pan fine 16-bit

Channel 5 – Tilt fine 16-bit

Channel 6 – Dish rotation fine 16-bit

Channel 7 – Continuous Pan

0-55 Not functional

56-155 Clockwise rotation, from slow to fast

156-255 Counterclockwise rotation, from slow to fast

Channel 8 – Continuous dish rotation

0-55 Not functional

56-155 Clockwise dish rotation, from slow to fast

156-255 Counterclockwise dish rotation, from slow to fast

Channel 9 – Pan/Tilt/Rotation speed

0-255 Pan/Tilt/Rotation speed adjustment, from fast to slow

Channel 10 – Red Dimmer and shutter must be open

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

Channel 11 – Green Dimmer and shutter must be open

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

Channel 12 – Blue Dimmer and shutter must be open

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

Channel 13 – White Dimmer and shutter must be open

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

Channel 14 – Color Macros ⚠ **Dimmer and shutter must be open** ⚠

0	Not functional
1-239	Manual color adjustment
240-247	Color flow, fast to slow
248-255	Color switch, fast to slow

Channel 15 – Built-in programs ⚠ **Dimmer and shutter must be open** ⚠

0-15	Not functional
16-31	Built-in program 1 and CH10-45 must be open
32-47	Built-in program 2 and CH10-45 must be open
48-63	Built-in program 3 and CH10-45 must be open
64-79	Built-in program 4 and CH10-45 must be open
80-95	Built-in program 5 and CH10-45 must be open
96-111	Built-in program 6 and CH10-45 must be open
112-127	Built-in program 7 and CH10-45 must be open
128-143	Built-in program 8
144-159	Built-in program 9
160-175	Built-in program 10
176-191	Built-in program 11
192-207	Built-in program 12
208-223	Built-in program 13
224-239	Built-in program 14
240-255	Built-in program 15

Channel 16 – Built-in program speed

0	No Function
1-127	Clockwise program, from slow to fast
128-255	Counterclockwise program, from slow to fast

Channel 17 – Dimmer

0-255	0-100% dimmer
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Channel 18 – Shutter ⚠ **Dimmer and CH10-13 must be open** ⚠

0-19	Closed
20-24	Open
25-64	Strobe 1, from high to low frequency
65-69	Open
70-84	Strobe 2 (fast fade-in/slow fade-out), from high to low frequency
85-89	Open
90-104	Strobe 3 (slow fade-in/fast fade-out), from high to low frequency
105-109	Open
110-124	Strobe 4 (random strobe), from high to low frequency
125-129	Open
130-144	Strobe 5 (random fast fade-in/slow fade-out), from high to low frequency
145-149	Open
150-164	Strobe 6 (random slow fade-in/fast fade-out), from high to low frequency
165-169	Open
170-184	Strobe 7 (pulse strobe), from high to low frequency
185-189	Open
190-204	Strobe 8 (random pulse strobe), from high to low frequency
205-209	Open
210-224	Strobe 9 (fade-in/fade-out), from high to low frequency
225-229	Open
230-244	Strobe 10 (pulse strobe without blackout), from high to low frequency
245-255	Open

Channel 19 – Functions

0-9	Not functional
10-14	Pan/Tilt blackout
15-49	Pan/Tilt blackout OFF
50-54	No Function
55-59	No Function
60-64	No Function
65-69	Not functional
70-74	All reset
75-79	Not functional
80-84	Pan/Tilt reverse
85-89	Pan reverse
90-94	Tilt reverse
95-99	Pan reverse OFF
100-104	Tilt reverse OFF
105-109	Pan/Tilt reverse OFF
110-124	Not functional
125-129	Fan speed: full
130-134	Fan speed: auto (temperature dependent)
135-139	Fan speed: silent
140-144	Fast dimmer
145-149	Smooth dimmer
150-255	Not functional

Channel 20 – Pan/Tilt programs

0-7	Not functional
8-23	Program 1
24-39	Program 2
40-55	Program 3
56-71	Program 4
72-87	Program 5
88-103	Program 6
104-119	Program 7
120-135	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

52 Channels

Channel 1 – Horizontal movement (Pan)

Move 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)

Move 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 – Dish rotation

Move the slider, up in order to rotate the dish.
Gradual dish adjustment from one end of the slider to the other (0-255, 128-center).
The dish can be turned by 360° and stopped at any position you wish.

Channel 4 – Pan fine 16-bit

Channel 5 – Tilt fine 16-bit

Channel 6 – Dish rotation fine 16-bit

Channel 7 – Continuous Pan

0-55	Not functional
56-155	Clockwise rotation, from slow to fast
156-255	Counterclockwise rotation, from slow to fast

Channel 8 – Continuous dish rotation

0-55	Not functional
56-155	Clockwise dish rotation, from slow to fast
156-255	Counterclockwise dish rotation, from slow to fast

Channel 9 – Pan/Tilt/Rotation speed

0-255	Pan/Tilt/Rotation speed adjustment, from fast to slow
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Channel 10 – LEDs 1-8 Red  Dimmer and shutter must be open 

0-255	Gradual adjustment Red, from 0-100%
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Channel 11 – LEDs 1-8 Green  Dimmer and shutter must be open 

0-255	Gradual adjustment Green, from 0-100%
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Channel 12 – LEDs 1-8 Blue  Dimmer and shutter must be open 

0-255	Gradual adjustment Blue, from 0-100%
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Channel 13 – LEDs 1-8 White  Dimmer and shutter must be open 

0-255	Gradual adjustment White, from 0-100%
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Channel 14 – LED 1 Red  Dimmer and shutter must be open 

0-255	Gradual adjustment Red, from 0-100%
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Channel 15 – LED 1 Green  Dimmer and shutter must be open 

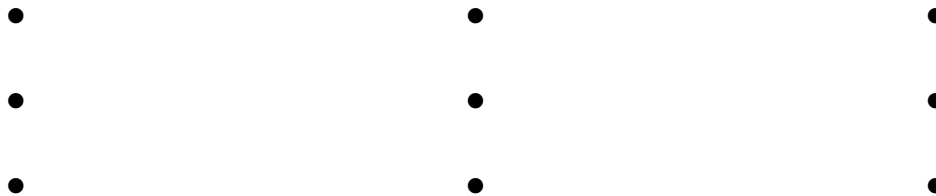
0-255	Gradual adjustment Green, from 0-100%
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Channel 16 – LED 1 Blue ⚠ **Dimmer and shutter must be open** ⚠

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

Channel 17 – LED 1 White ⚠ **Dimmer and shutter must be open** ⚠

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



Channel 42 – LED 8 Red ⚠ **Dimmer and shutter must be open** ⚠

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

Channel 43 – LED 8 Green ⚠ **Dimmer and shutter must be open** ⚠

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

Channel 44 – LED 8 Blue ⚠ **Dimmer and shutter must be open** ⚠

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

Channel 45 – LED 8 White ⚠ **Dimmer and shutter must be open** ⚠

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

Channel 46 – Color Macros ⚠ **Dimmer and shutter must be open** ⚠

0 Not functional
 1-239 Manual color adjustment
 240-247 Color flow, fast to slow
 248-255 Color switch, fast to slow

Channel 47 – Built-in programs ⚠ **Dimmer and shutter must be open** ⚠

0-15 Not functional
 16-31 Built-in program 1 **and CH10-13 must be open**
 32-47 Built-in program 2 **and CH10-13 must be open**
 48-63 Built-in program 3 **and CH10-13 must be open**
 64-79 Built-in program 4 **and CH10-13 must be open**
 80-95 Built-in program 5 **and CH10-13 must be open**
 96-111 Built-in program 6 **and CH10-13 must be open**
 112-127 Built-in program 7 **and CH10-13 must be open**
 128-143 Built-in program 8
 144-159 Built-in program 9
 160-175 Built-in program 10
 176-191 Built-in program 11
 192-207 Built-in program 12
 208-223 Built-in program 13
 224-239 Built-in program 14
 240-255 Built-in program 15

Channel 48 – Built-in program speed

0	No Function
1-127	Clockwise program, from slow to fast
128-255	Counterclockwise program, from slow to fast

Channel 49 – Dimmer

0-255	0-100% dimmer
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Channel 50 – Shutter  Dimmer and CH10-45 must be open 

0-19	Closed
20-24	Open
25-64	Strobe 1, from high to low frequency
65-69	Open
70-84	Strobe 2 (fast fade-in/slow fade-out), from high to low frequency
85-89	Open
90-104	Strobe 3 (slow fade-in/fast fade-out), from high to low frequency
105-109	Open
110-124	Strobe 4 (random strobe), from high to low frequency
125-129	Open
130-144	Strobe 5 (random fast fade-in/slow fade-out), from high to low frequency
145-149	Open
150-164	Strobe 6 (random slow fade-in/fast fade-out), from high to low frequency
165-169	Open
170-184	Strobe 7 (pulse strobe), from high to low frequency
185-189	Open
190-204	Strobe 8 (random pulse strobe), from high to low frequency
205-209	Open
210-224	Strobe 9 (fade-in/fade-out), from high to low frequency
225-229	Open
230-244	Strobe 10 (pulse strobe without blackout), from high to low frequency
245-255	Open

Channel 51 – Functions

0-9	Not functional
10-14	Pan/Tilt blackout
15-49	Pan/Tilt blackout OFF
50-54	No Function
55-59	No Function
60-64	No Function
65-69	Not functional
70-74	All reset
75-79	Not functional
80-84	Pan/Tilt reverse
85-89	Pan reverse
90-94	Tilt reverse
95-99	Pan reverse OFF
100-104	Tilt reverse OFF
105-109	Pan/Tilt reverse OFF
110-124	Not functional
125-129	Fan speed: full
130-134	Fan speed: auto (temperature dependent)
135-139	Fan speed: silent
140-144	Fast dimmer
145-149	Smooth dimmer
150-255	Not functional

Channel 52 – Pan/Tilt programs

0-7	Not functional
8-23	Program 1
24-39	Program 2
40-55	Program 3
56-71	Program 4
72-87	Program 5
88-103	Program 6
104-119	Program 7
120-135	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

Maintenance

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.

The Astro 360 XL 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 connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

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 flat-head screwdriver into a slot in the fuse cover. Turn the screwdriver to the left, at the same time gently push a bit (Turn and Push). 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 cover. Be sure to use a fuse of the same type and specification. See the product specification label for details.

Troubleshooting

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.

No Light

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

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

- 01) Power supply. Check that the unit is plugged into an appropriate power supply.
- 02) The LEDs. Return the Astro to your Showtec dealer.
- 03) The fuse. Replace the fuse. See page 26 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 Astro, as this may damage the unit and the warranty will become void.
- 06) 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.

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

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

Product Specifications

Model:	Showtec Astro 360 XL
Input Voltage:	100-240V AC, 60/50Hz
Power consumption:	175W
DMX linking:	30pcs
Fuse:	F3AL/250V
Dimensions:	354 x 354 x 435 mm (LxWxH)
Weight:	17,32 kg
Operating and Programming:	
Signal pin OUT:	Pin 1 (earth), pin 2 (-), pin 3 (+)
DMX Mode:	20, 52 channels
Signal input:	3-pin XLR IN
Signal output:	3-pin XLR OUT
Electro-mechanical effects:	
Light source:	8 x 12W 4-in-1 RGBW LEDs
Light output:	265 lumen per LED
Pan range:	180°/360°/540°
Tilt range:	90°/180°
Pan/Tilt resolution:	16-bit
Dimmer:	0-100%
Strobe:	0-20Hz
Beam angle:	5°
Housing:	Metal & flame retardant plastic
DMX-control:	via standard DMX-controller
Onboard:	LCD display for easy setup
Control:	DMX-512, Master/Slave, Auto, Sound-controlled, Manual
Connections:	Dedicated Schuko to IEC & data connector
Cooling:	Cooling fan
Max. ambient temperature t_a :	40°C
Max. housing temperature t_B :	80°C
Minimum distance:	
Minimum distance from flammable surfaces:	0,5 m
Minimum distance to lighted object:	1 m

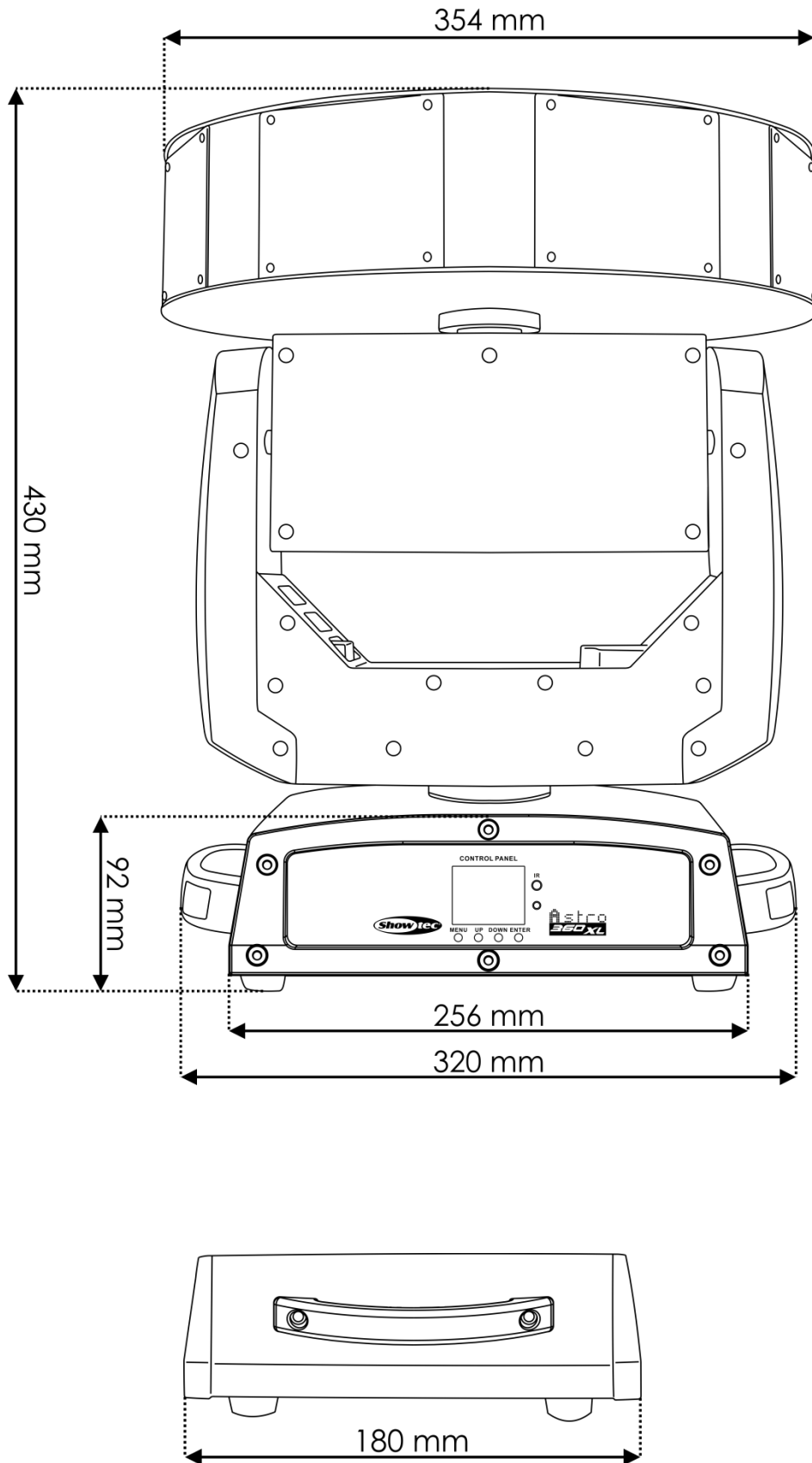
Design and product specifications are subject to change without prior notice.



Website: www.Showtec.info

Email: service@highlite.nl

Dimensions





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