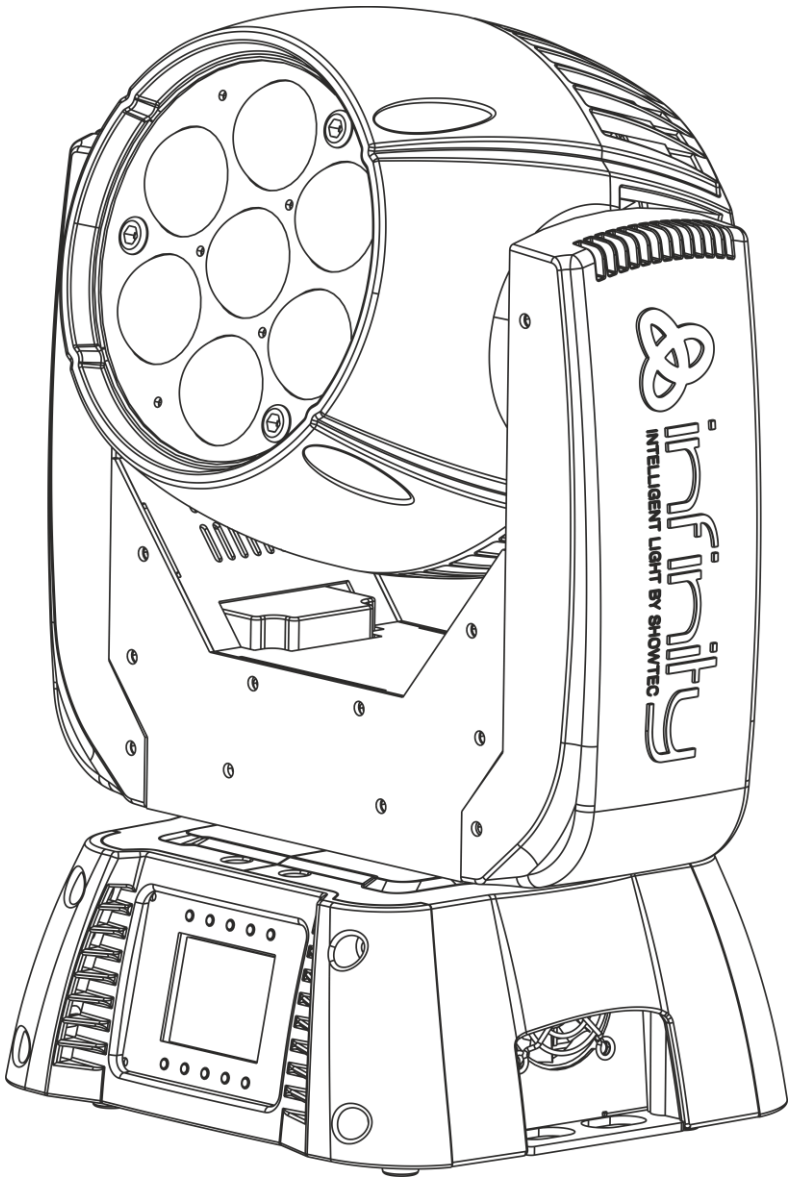
MANUAL



ENGLISH

Infinity iW-720 RDM V1

Ordercode: 41524

Table of contents

Warning

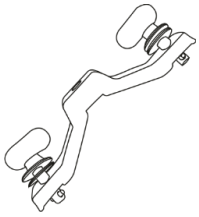
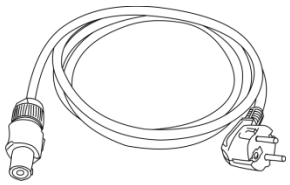
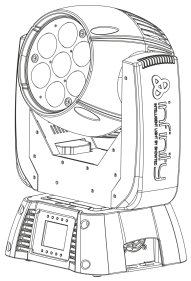
For your own safety, please read this user manual carefully before your initial start-up!

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:

- Infinity iW-720 RDM with PowerCON power cable (0,9 m)
- 1 bracket 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 your 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.
- Do not insert objects into air vents.
- Do not connect this device to a dimmer pack.
- Do not switch the device on and off in short intervals, as this would reduce the device's life.
- Do not touch the device's housing bare-handed during its operation (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 indoors, avoid contact with water or other liquids.
- Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to flammable liquids or gases.
- Always keep case closed while operating.
- Always allow free air space of at least 50 cm around the unit for ventilation.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power cord is never crimped or damaged. Check the device and the power cord from time to time.
- If the lens is obviously damaged, it has to be replaced, so that its functions are not impaired due to cracks or deep scratches.
- If device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your Infinity device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Infinity dealer for service.
- For adult use only. Moving head 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 Infinity. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.

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

Operating Determinations

- This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
- The minimum distance between light-output and the illuminated surface must be more than 1 meter.
- To eliminate wear and improve lifespan, during periods of non-use, completely disconnect from power via breaker or by unplugging.
- The maximum ambient temperature ta = 40°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!

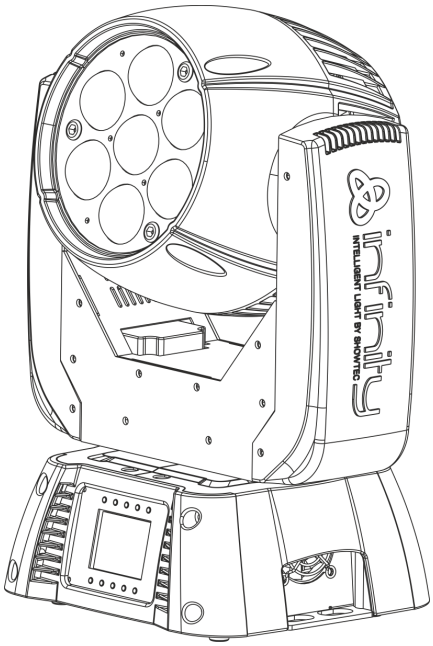
Rigging

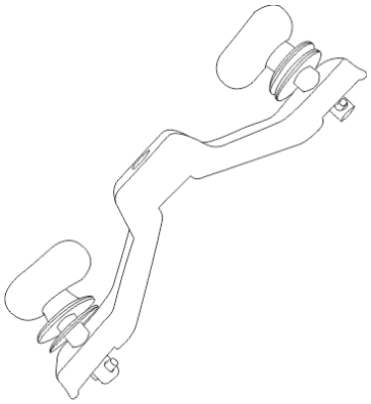
Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

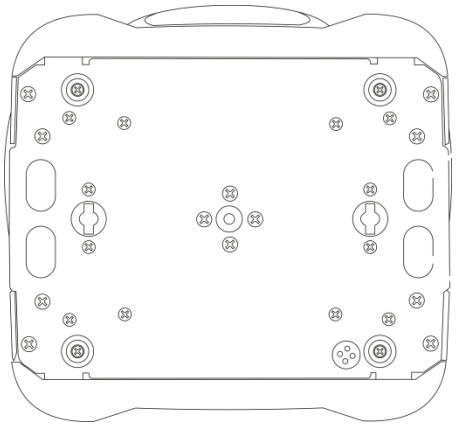
Do not attempt the installation yourself !
Always let the installation be carried out by an authorized dealer !

Procedure:

- If the Infinity is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the Infinity, with the mounting-bracket, to the trussing system.
- The Infinity 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 Infinity, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.

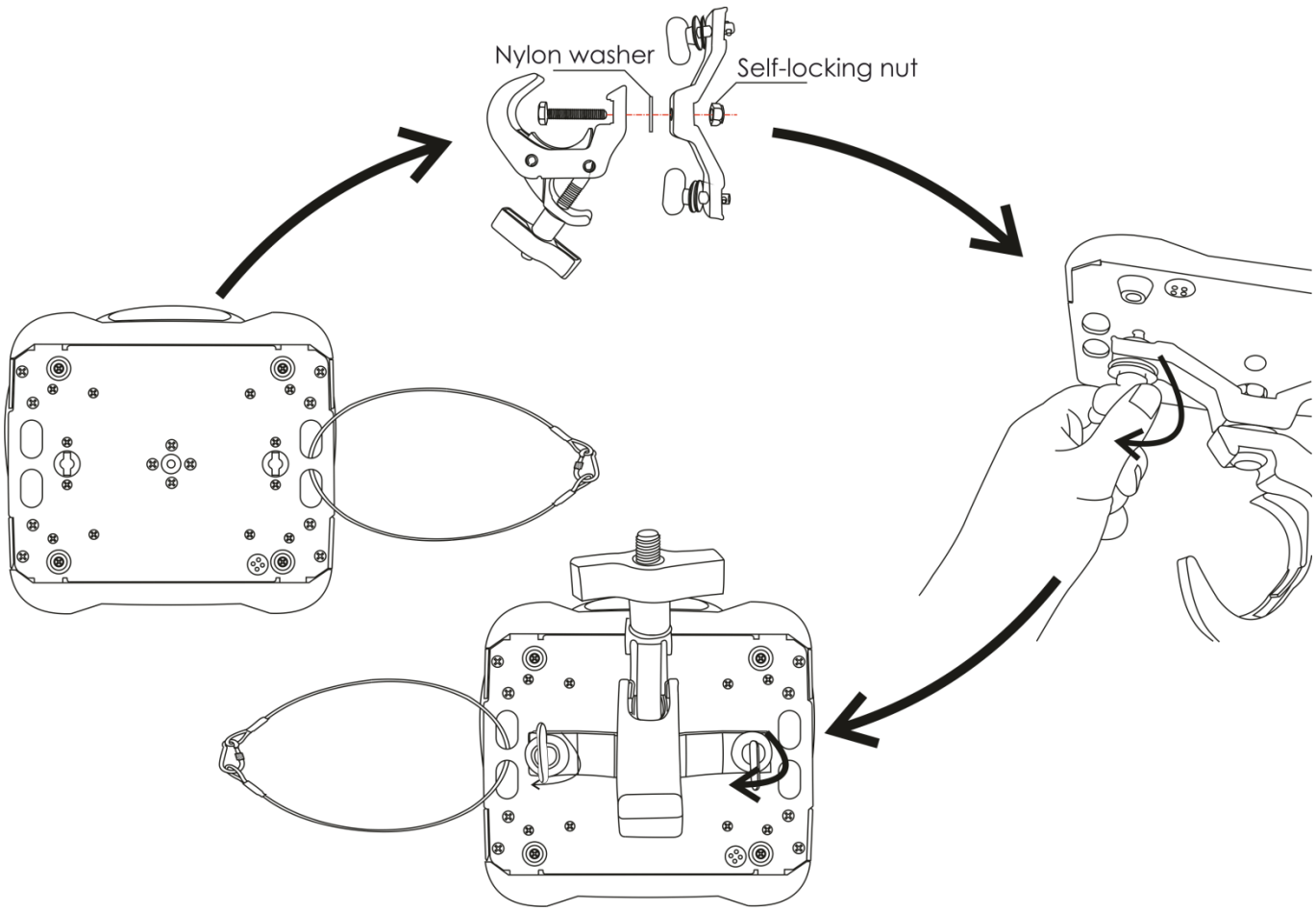






The Infinity can be placed on a flat stage floor or mounted to any kind of truss with a clamp.

Mounting a clamp to the underside of the Infinity moving head



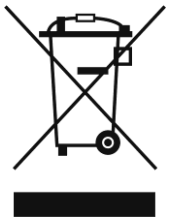
Improper installation can cause serious injuries and/or damage of property !

Connection with the mains

Connect the device to the mains with the power-plug.
Always 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	NULL
⏚	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:

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 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.

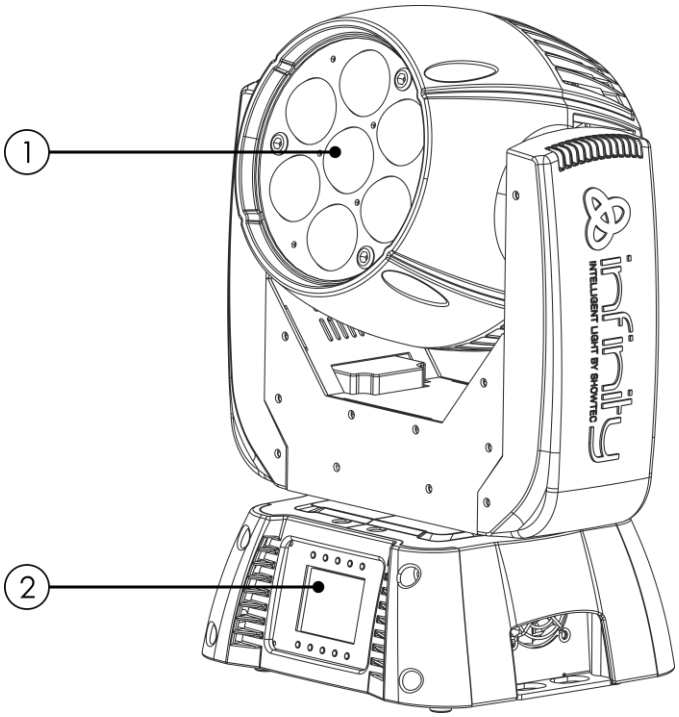
Description of the device

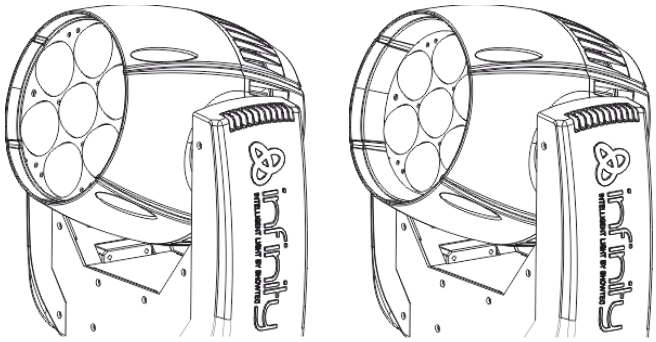
Features

The Infinity iW-720 RDM is a moving head with high output and great effects.

- Input voltage: 100-240V AC
- Power consumption: 170W
- Light source: 7 x 20W RGBW 4-in-1 Osram LED
- Light output: 13800 Lux @ 3m
- Beam angle: 7°-50°
- Dimmer: 0-100%
- Strobe: 0-20Hz
- Dimmer curves: Linear, Square, I-Square, S curve
- Dimmer speed: Smooth, Fast
- Channel modes: 14, 16, 29 channels
- Onboard: Battery powered full color display including gravity sensor
- DMX-control: via standard DMX/RDM controller
- 10 selectable built-in programs
- 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, Built-in Programs
- Housing: Metal & flame-retardant plastic
- Color: Black
- Connections: 3-pin XLR data IN/OUT, Neutrik PowerCON IN/OUT
- Fuse F5AL/250V
- Dimensions: 197 x 285 x 390 mm (LxWxH)
- Weight: 8 kg

Overview



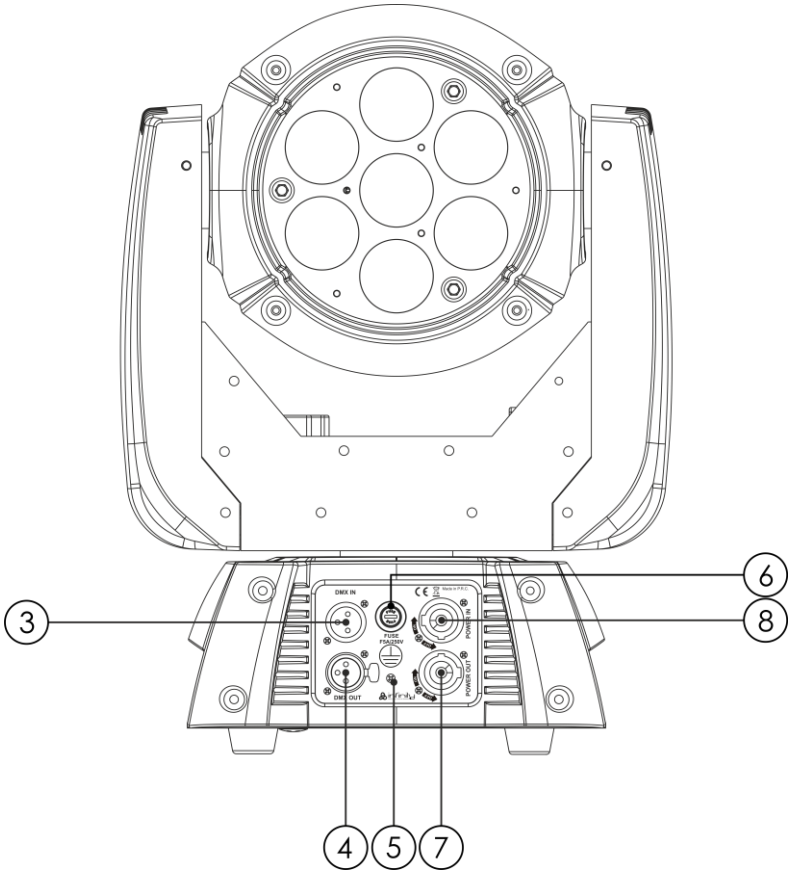


Beam angle 7° - 50° Electronic adjustment

Fig. 01

01) 7 x 20W RGBW 4-in-1 Osram LED
02) Control buttons + LCD display

Backside



03) 3-pin DMX signal connector IN
04) 3-pin DMX signal connector OUT
05) Ground/earth connection
06) Fuse F5AL/250V
07) Neutrik PowerCON OUT
08) Neutrik PowerCON IN

Fig. 02

NOTE: Knowledge of DMX is required to fully utilize this unit.

Installation

Remove all packing materials from the Infinity iW-720 RDM. 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.

Control Modes

There are 3 modes:

- Stand-alone (built-in programs)
- Master/Slave
- DMX512 (14CH, 16CH, 29CH)

One Infinity (Built-in Programs)

01) Fasten the effect light onto firm trussing. Leave at least 1 meter on all sides for air circulation.
02) Always use a safety cable (ordercode 70140 / 70141).
03) Plug the end of the electric mains power cord into a proper electric power supply socket.
04) When the Infinity is not connected with a DMX cable, it functions as a stand-alone device.
05) Please see page 16 for more information about the built-in programs.

Multiple Infinitys (Master/Slave control)

01) Fasten the effect light onto firm trussing. Leave at least 1 meter on all sides for air circulation.
02) Always use a safety cable (ordercode 70140 / 70141).
03) Plug the end of the electric mains power cord into a proper electric power supply socket.
04) Use a 3-pin XLR cable to connect the Infinity.

The pins:

1. Earth
2. Signal (-)
3. Signal (+)

05) Link the units as shown in fig. 03. Connect a DMX signal cable from the first unit's DMX "out" socket to the second unit's "in" socket. Repeat this process to link the second, third, and fourth units. You can use the same functions on the master device as described on page 16 (Built-in Programs or Music control). 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 Infinitys (Master/Slave control)

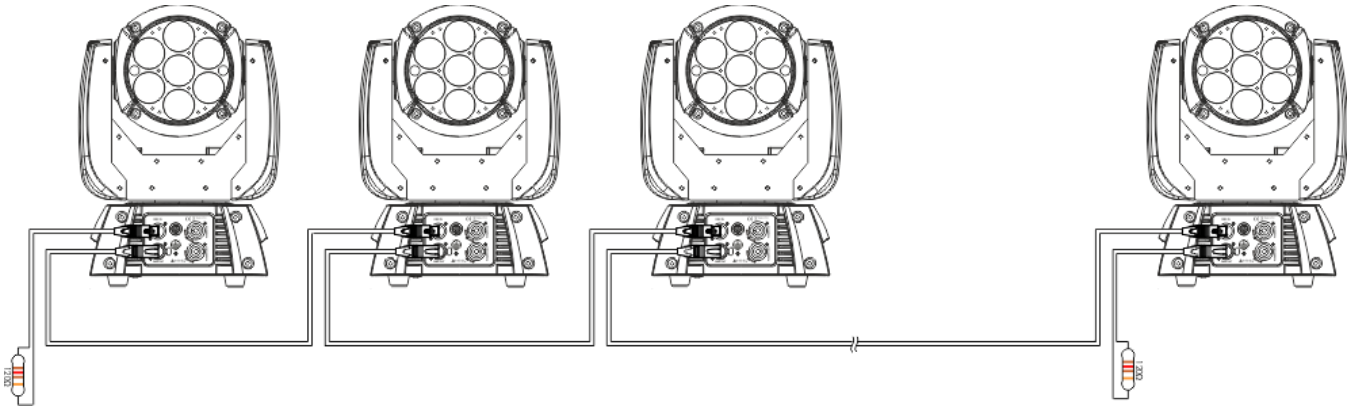
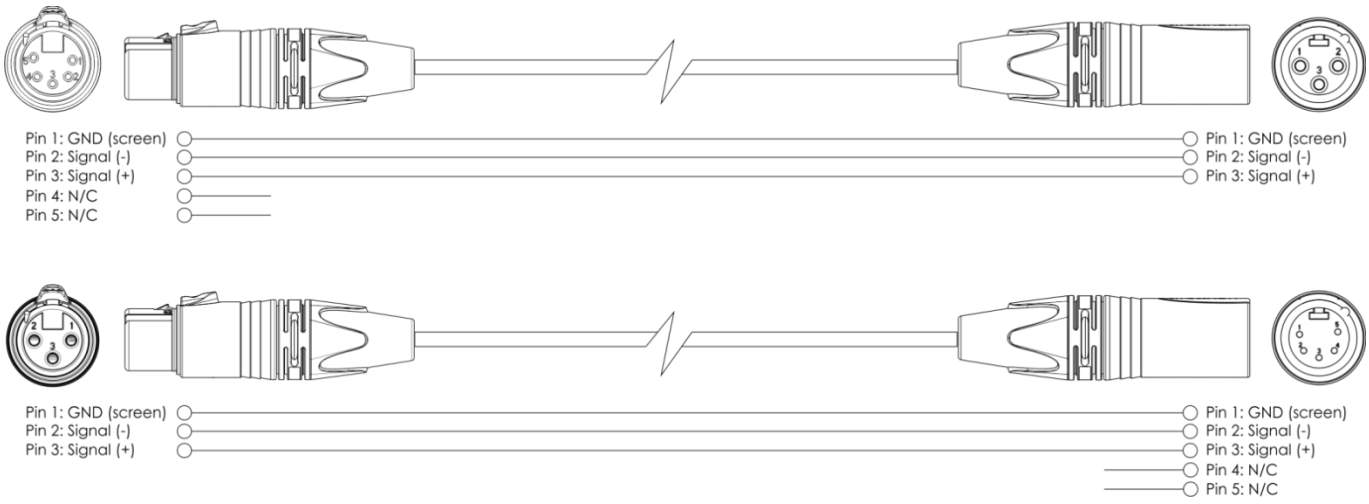


Fig. 03

Multiple Infinitys (DMX Control)

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



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

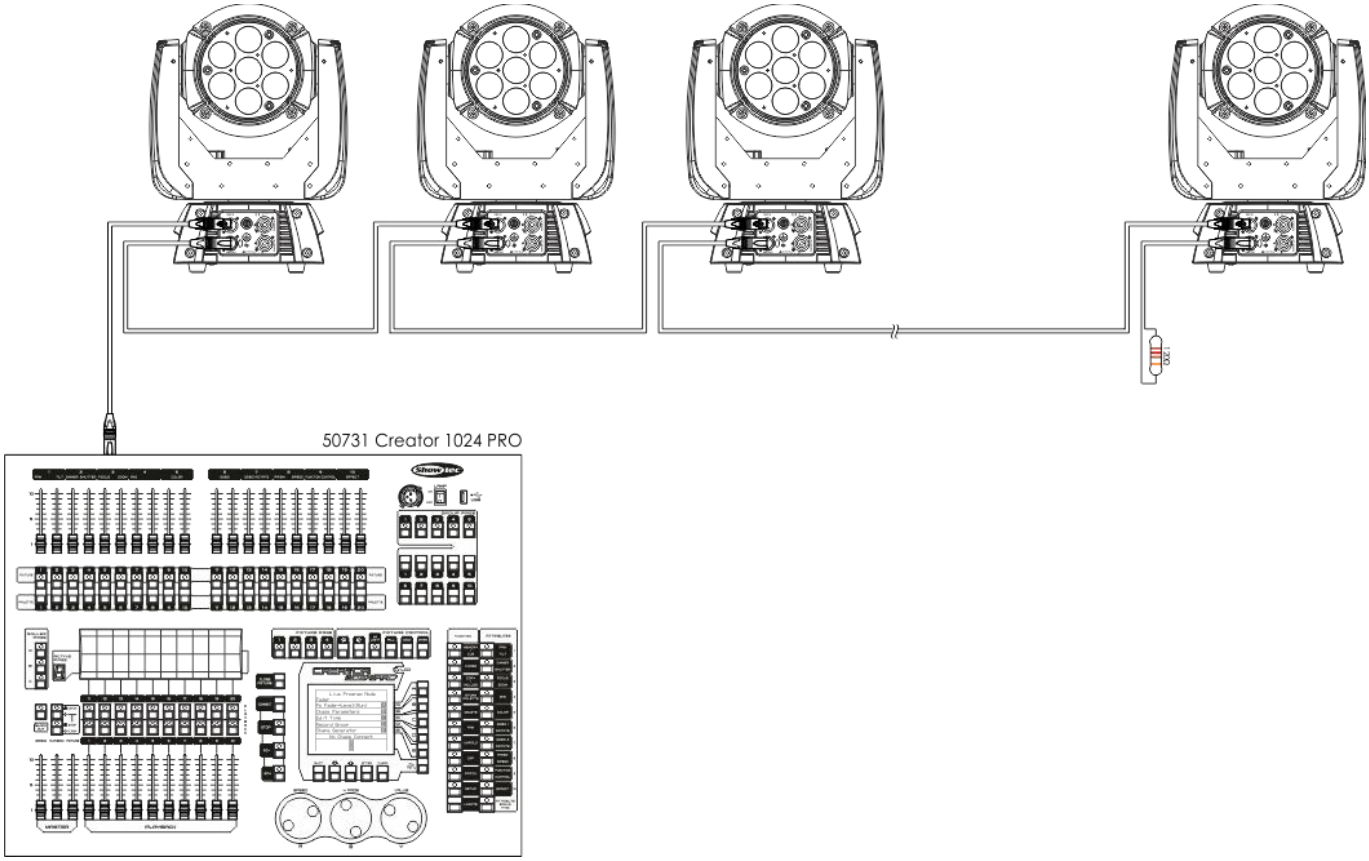


Fig. 04

Note: Link all cables before connecting electric power

Fixture Linking

You will need a serial data link to run light shows of one or more fixtures using a DMX-512 controller or to run synchronized shows 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 fixtures on a DMX data link: 30 fixtures
Maximum recommended number of fixtures on a power link @120V: 5 fixtures
Maximum recommended number of fixtures on a power link @230V: 10 fixtures

Data Cabling

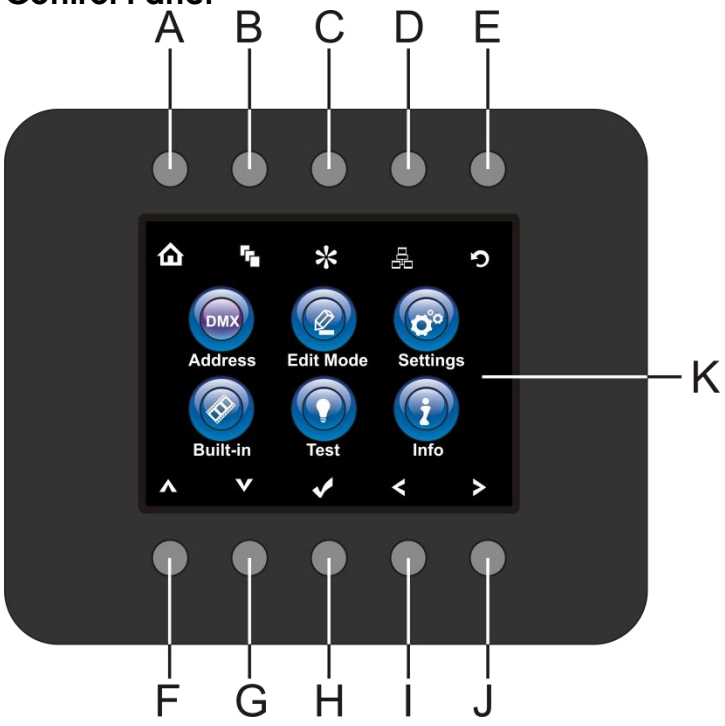
To link fixtures together you must obtain data cables. You can purchase DAP Audio certified DMX cables directly from a dealer/distributor or construct your own cable. If you choose to create your own cable please use data-grade cables that can carry a high quality signal and are less prone to electromagnetic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

DAP Audio Certified DMX Data Cables

- DAP Audio 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 Infinity iW-720 RDM can be operated with a controller in **control mode** or without the controller in **stand-alone mode**.

Control Panel



A) Home button
B) Edit Menu button
C) Settings Mode button
D) Address Setting button
E) Infinity Logo button
F) Up button
G) Down button
H) OK/ENTER
I) Left button
J) Right button
K) LCD display

Fig. 05

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 Infinity will respond to the controller.
Please note when you use the controller, the unit has **29** channels.
When using multiple Infinitys, make sure you set the DMX addresses right.
Therefore, the DMX address of the first Infinity should be **1(001)**; the DMX address of the second Infinity should be **1+29=30 (030)**; the DMX address of the third Infinity should be **30+29=59 (059)**, etc.
Please, be sure that you do not have any overlapping channels in order to control each Infinity correctly.
If two or more Infinity's are addressed similarly, they will work similarly.
For address settings, please refer to the instructions under "Addressing".

Controlling:

After having addressed all Infinity fixtures, you may now start operating these via your lighting controller.
Note: After switching on, the Infinity 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 Infinity.
- 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.

⚠ 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 any of the buttons on the control panel.
Once you have pressed the button, the display will light up.

Menu Overview

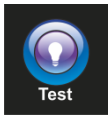
Main Menu Options

DMX address

Edit Mode

Settings Menu

Built-in Programs



Test Mode

Info

Home

Edit Menu

Setting Mode

Address Setting

Infinity Logo

Up

Down

OK

Left

Right

1. DMX Addressing
With this menu you can set the DMX address.

01) Press the  button and select 

.

02) Press the  button, to confirm. You can choose 512 different DMX addresses.

03) Press the Left /Right / Up / Down buttons to select the required address from 

.

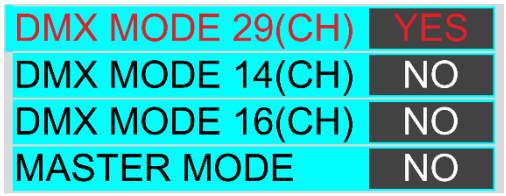
04) Once you have set the desired DMX address, press the  button to store your DMX address.

2. Edit Mode
With this menu you can set your desired mode.

01) Press the  button and select 

.

02) Press the  button, to confirm. You can choose 4 different modes.
03) Press the Up / Down buttons to select the required mode:



04) Once you have selected the desired mode, press the  buttons to change the value from NO to YES.

05) Once you have selected the desired setting, press the  button to store your settings.

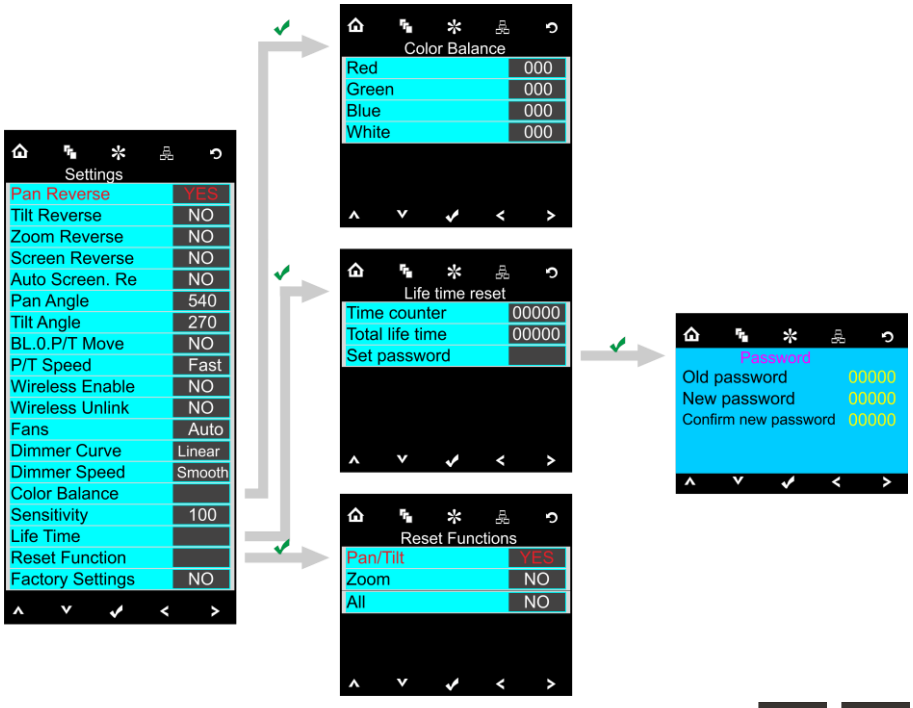
06) If the device has been set to master, all slave devices will follow the master movement.
07) If the device has been set to slave, it will react the same as its master device.

3. Settings Menu
With this menu you can set your desired mode.

01) Press the  button and select 

.

02) Press the  button, to confirm.
03) Press the Up / Down buttons to select the required mode:



04) Once you have selected the desired mode, press the  buttons to change the value from NO to YES.

05) A couple of menus have more options than the regular yes / no function:
Pan Angle: 540°, 360°, 180°
Tilt Angle: 270°, 180°, 90°
P/T Speed Fast, Slow
Fans Auto, Full
Dimmer Curve Linear, Square, I Square, S-Curve
Dimmer Speed Smooth, Fast
Sensitivity 001-100 (sound sensitivity)
06) If you press the OK button at the Color Balance, a new menu will open.
07) In the Color Balance menu you can set 4 colors: Red (000-255)
Green (000-255)
Blue (000-255)
White (000-255)
08) If you press the OK button at the Life Time function, a new menu will open.
09) You can set 3 different reset options: Time Counter
Total Life Time
Set Password
10) If you press the OK button at the Set Password function, a new menu will open and you can set a new password.
11) If you press the OK button at the Reset function, a new menu will open.
12) You can set 3 different reset options: Pan/Tilt
Zoom
All
13) Once you have selected the desired setting, press the  button to store your settings.

4. Built-in Programs

With this menu you can set your desired mode.

01) Press the  button and select 

.

02) Press the  button, to confirm. You can choose 10 different built-in programs.
03) Press the Up / Down buttons to select the required program:

Program Number 0	YES
Program Number 1	NO
Program Number 2	NO
Program Number 3	NO
Program Number 4	NO
Program Number 5	NO
Program Number 6	NO
Program Number 7	NO
Program Number 8	NO
Program Number 9	NO

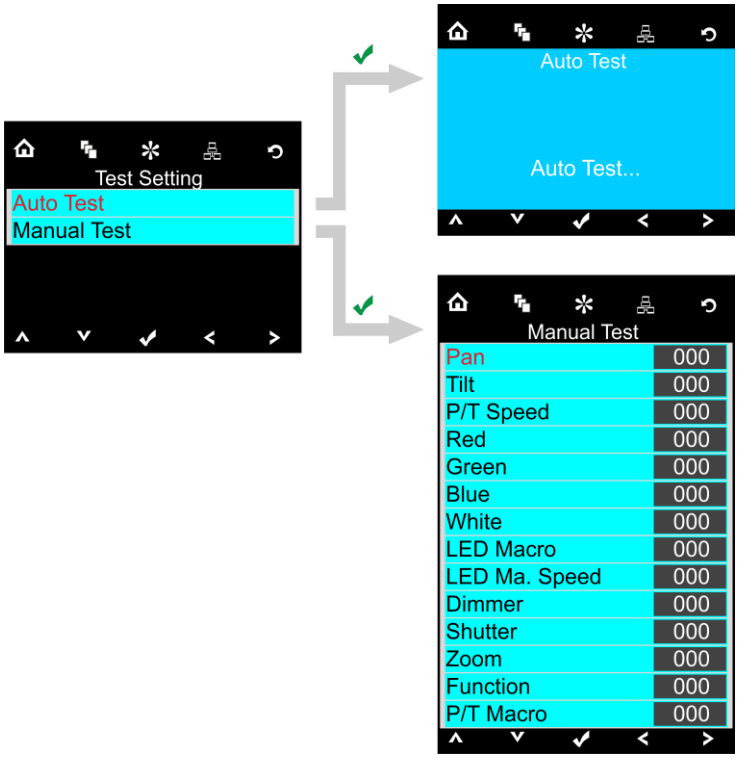
04) Once you have selected the desired built-in program, press the  buttons to change the value from NO to YES.
05) Once you have selected the desired setting, press the  button to store your settings.

5. Test Menu
With this menu you can set your desired mode.

01) Press the  button and select 

.

02) Press the  button, to confirm. You can choose 2 different modes.
03) Press the Up / Down buttons to select the required mode:



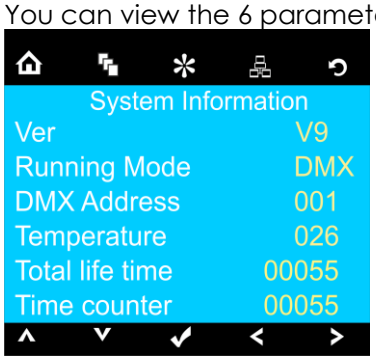
04) Once you have selected the desired mode, press the  buttons to change the value from 000 to 255.
05) If you press the OK button at the Manual Test, a new menu will open.
06) You can set 14 different test options.
07) Once you have selected the desired setting, press the  button to store your settings.

6. Information Menu
With this menu you can set your desired mode.

01) Press the  button and select 

.

02) Press the  button, to confirm.
03) You can view the 6 parameters.



DMX Channels

29 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.

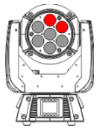
Channel 2 – Vertical movement (Tilt)
Move the slider up, in order to move head vertically (TILT).
Gradual head adjustment from one end of the slider to the other (0-255, 128-center).
The head can be turned by 270° and stopped at any position you wish.

Channel 3 – Pan fine 16 bit

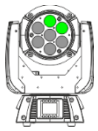
Channel 4 – Tilt fine 16 bit

Channel 5 – PAN/TILT Speed
0-255 From Max Speed (0) to Min. Speed (255)

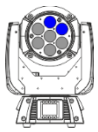
Channel 6 – Red 1 Dimmer intensity (CH25 and CH26 must be open ⚠)
0-255 Red from 0 – 100%



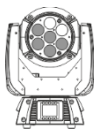
Channel 7 – Green 1 Dimmer intensity (CH25 and CH26 must be open ⚠)
0-255 Green from 0 – 100%



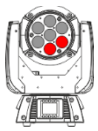
Channel 8 – Blue 1 Dimmer intensity (CH25 and CH26 must be open ⚠)
0-255 Blue from 0 – 100%



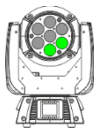
Channel 9 – White 1 Dimmer intensity (CH25 and CH26 must be open ⚠)
0-255 White from 0 – 100%



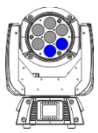
Channel 10 – Red 2 Dimmer intensity (CH25 and CH26 must be open ⚠)
0-255 Red from 0 – 100%



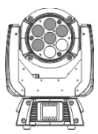
Channel 11 – Green 2 Dimmer intensity (CH25 and CH26 must be open ⚠)
0-255 Green from 0 – 100%



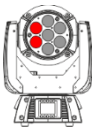
Channel 12 – Blue 2 Dimmer intensity (CH25 and CH26 must be open ⚠)
0-255 Blue from 0 – 100%



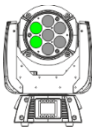
Channel 13 – White 2 Dimmer intensity (CH25 and CH26 must be open ⚠)
0-255 White from 0 – 100%



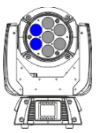
Channel 14 – Red 3 Dimmer intensity (CH25 and CH26 must be open)
0-255 Red from 0 – 100%



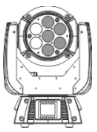
Channel 15 – Green 3 Dimmer intensity (CH25 and CH26 must be open)
0-255 Green from 0 – 100%



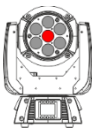
Channel 16 – Blue 3 Dimmer intensity (CH25 and CH26 must be open)
0-255 Blue from 0 – 100%



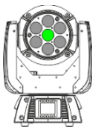
Channel 17 – White 3 Dimmer intensity (CH25 and CH26 must be open)
0-255 White from 0 – 100%



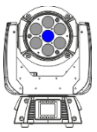
Channel 18 – Red 4 Dimmer intensity (CH25 and CH26 must be open)
0-255 Red from 0 – 100%



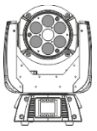
Channel 19 – Green 4 Dimmer intensity (CH25 and CH26 must be open)
0-255 Green from 0 – 100%



Channel 20 – Blue 4 Dimmer intensity (CH25 and CH26 must be open)
0-255 Blue from 0 – 100%



Channel 21 – White 4 Dimmer intensity (CH25 and CH26 must be open)
0-255 White from 0 – 100%



Channel 22 – Built-in Colors (CH25 and CH26 must be open ⚠)

0-4	No Function
5-9	Color 1
10-14	Color 2
15-19	Color 3
20-24	Color 4
25-29	Color 5
30-34	Color 6
35-39	Color 7
40-44	Color 8
45-49	Color 9
50-54	Color 10
55-59	Color 11
60-64	Color 12
65-69	Color 13
70-74	Color 14
75-79	Color 15
80-84	Color 16
85-89	Color 17
90-94	Color 18
95-99	Color 19
100-104	Color 20
105-109	Color 21
110-114	Color 22
115-119	Color 23
120-124	Color 24
125-129	Color 25
130-134	Color 26
135-139	Color 27
140-144	Color 28
145-149	Color 29
150-154	Color 30
155-159	Color 31
160-164	Color 32
165-169	Color 33
170-174	Color 34
175-179	No Function
180-201	CW Color-flow from fast to slow
202-207	Stop color at this point
208-229	CCW Color-flow from fast to slow
230-234	No Function
235-249	Color Jump from fast to slow
250-255	Sound-controlled

Channel 23 – Mobile Macros (CH25 and CH26 must be open ⚠)
Use in combination with CH24

0-15	No Function
16-31	LED program 1 (no movement)
32-47	LED program 2 (no movement)
48-63	LED program 3 (no movement)
64-79	LED program 4 (no movement)
80-95	LED program 5 (no movement)
96-111	LED program 6 (no movement)
112-127	LED program 7 (no movement)
128-143	LED program 8 (no movement)
144-159	LED program 9 (no movement)
160-175	LED program 10 (no movement)
176-191	LED program 11 (no movement)
192-207	LED program 12 (no movement)
208-223	LED program 13 (no movement)
224-239	LED program 14 (no movement)
240-255	LED program 15 (no movement)

Channel 24 – Built-in Speed; Use in combination with CH23 ⚠

0-255	From slow to fastest

Channel 25 – Dimmer (Shutter and Colors RGBW must be open ⚠)

0-255	From black to brightest

Channel 26 – Shutter / Strobe (Dimmer must be open ⚠)

0-19	Close
20-24	Shutter open
25-64	Strobe effect 1, from fast to slow
65-69	Shutter open
70-84	Strobe effect 2 (fast on and slow off), from fast to slow
85-89	Shutter open
90-104	Strobe effect 3 (slow on and fast off), from fast to slow
105-109	Shutter open
110-124	Strobe effect 4 (random strobe), from fast to slow
125-129	Shutter open
130-144	Strobe effect 5 (random strobe fast on and slow off), from fast to slow
145-149	Shutter open
150-164	Strobe effect 6 (random strobe slow on and fast off), from fast to slow
165-169	Shutter open
170-184	Strobe effect 7 (pulse strobe), from fast to slow
185-189	Shutter open
190-204	Strobe effect 8 (random pulse frequency strobe), from fast to slow
205-209	Shutter open
210-224	Strobe effect 9 (strobe light, gradually destroy), from fast to slow
225-229	Shutter open
230-244	Strobe effect 10 (pulse strobe), from fast to slow
245-255	Shutter open

Channel 27 – Zoom

0-255	From big to small

Channel 28 – Channel Functions

0-9	No Function
10-14	Blackout during Pan/Tilt movement
15-19	Reserved
20-24	Reserved
25-29	Reserved
30-34	Reserved
35-39	Reserved
40-44	Reserved
45-49	Reserved
50-54	Reset Pan after 3 seconds
55-59	Reset Tilt after 3 seconds
60-64	Reset Zoom after 3 seconds
65-69	Reserved
70-74	Reset all
75-79	Reserved
80-84	Reserved
85-89	Reserved
90-94	Reserved
95-99	Reserved
100-104	Reserved
105-109	Reserved
110-114	Reserved
115-119	Pan/Tilt Speed Fast
120-124	Pan/Tilt Speed Slow
125-129	Fan Full Speed
130-134	Fan Temperature controlled
135-139	Dimming Fast
140-144	Dimming Smooth
145-239	No Function
240-247	XY Smoothing model open
248-255	XY Smoothing model to shut down

Channel 29 – Built-in Programs; Use in combination with CH6 - CH21 

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
232-249	Sound-controlled Program 7
247-255	Sound-controlled Program 8

16 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.

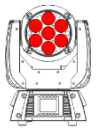
Channel 2 – Vertical movement (Tilt)
Move the slider up, in order to move head vertically (TILT).
Gradual head adjustment from one end of the slider to the other (0-255, 128-center).
The head can be turned by 270° and stopped at any position you wish.

Channel 3 – Pan fine 16 bit

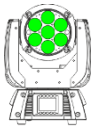
Channel 4 – Tilt fine 16 bit

Channel 5 – PAN/TILT Speed
0-255 From Max Speed (0) to Min. Speed (255)

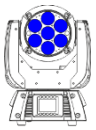
Channel 6 – Red Dimmer intensity (CH12 and CH13 must be open)
0-255 Red from 0 – 100%



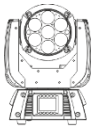
Channel 7 – Green Dimmer intensity (CH12 and CH13 must be open)
0-255 Green from 0 – 100%



Channel 8 – Blue Dimmer intensity (CH12 and CH13 must be open)
0-255 Blue from 0 – 100%



Channel 9 – White Dimmer intensity (CH12 and CH13 must be open)
0-255 White from 0 – 100%



Channel 10 – Mobile Macros (CH12 and CH13 must be open)
Use in combination with CH11

0-15	No Function
16-31	LED program 1 (no movement)
32-47	LED program 2 (no movement)
48-63	LED program 3 (no movement)
64-79	LED program 4 (no movement)
80-95	LED program 5 (no movement)
96-111	LED program 6 (no movement)
112-127	LED program 7 (no movement)
128-143	LED program 8 (no movement)
144-159	LED program 9 (no movement)
160-175	LED program 10 (no movement)
176-191	LED program 11 (no movement)
192-207	LED program 12 (no movement)
208-223	LED program 13 (no movement)
224-239	LED program 14 (no movement)
240-255	LED program 15 (no movement)

Channel 11 – Built-in Speed

0-255	From slow to fastest

Channel 12 – Dimmer (Shutter and Colors RGBW must be open ⚠)

0-255	From black to brightest

Channel 13 – Shutter / Strobe (Dimmer must be open ⚠)

0-19	Close
20-24	Shutter open
25-64	Strobe effect 1, from fast to slow
65-69	Shutter open
70-84	Strobe effect 2 (fast on and slow off), from fast to slow
85-89	Shutter open
90-104	Strobe effect 3 (slow on and fast off), from fast to slow
105-109	Shutter open
110-124	Strobe effect 4 (random strobe), from fast to slow
125-129	Shutter open
130-144	Strobe effect 5 (random strobe fast on and slow off), from fast to slow
145-149	Shutter open
150-164	Strobe effect 6 (random strobe slow on and fast off), from fast to slow
165-169	Shutter open
170-184	Strobe effect 7 (pulse strobe), from fast to slow
185-189	Shutter open
190-204	Strobe effect 8 (random pulse frequency strobe), from fast to slow
205-209	Shutter open
210-224	Strobe effect 9 (strobe light, gradually destroy), from fast to slow
225-229	Shutter open
230-244	Strobe effect 10 (pulse strobe), from fast to slow
245-255	Shutter open

Channel 14 – Zoom

0-255	From big to small

Channel 15 – Channel Functions

0-9	No Function
10-14	Blackout during Pan/Tilt movement
15-19	Reserved
20-24	Reserved
25-29	Reserved
30-34	Reserved
35-39	Reserved
40-44	Reserved
45-49	Reserved
50-54	Reset Pan after 3 seconds
55-59	Reset Tilt after 3 seconds
60-64	Reset Zoom after 3 seconds
65-69	Reserved
70-74	Reset all
75-79	Reserved
80-84	Reserved
85-89	Reserved
90-94	Reserved
95-99	Reserved
100-104	Reserved
105-109	Reserved
110-114	Reserved

115-119	Pan/Tilt Speed Fast
120-124	Pan/Tilt Speed Slow
125-129	Fan Full Speed
130-134	Fan Temperature controlled
135-139	Dimming Fast
140-144	Dimming Smooth
145-239	No Function
240-247	XY Smoothing model open
248-255	XY Smoothing model to shut down

Channel 16 – Built-in Programs; Use in combination with CH6 - CH9 

0-7	No Function
8-23	Built-in Macro 1
24-39	Built-in Macro 2
40-55	Built-in Macro 3
56-71	Built-in Macro 4
72-87	Built-in Macro 5
88-103	Built-in Macro 6
104-119	Built-in Macro 7
120-135	Built-in Macro 8
136-151	Sound-controlled Macro 1
152-167	Sound-controlled Macro 2
168-183	Sound-controlled Macro 3
184-199	Sound-controlled Macro 4
200-215	Sound-controlled Macro 5
216-231	Sound-controlled Macro 6
232-249	Sound-controlled Macro 7
247-255	Sound-controlled Macro 8

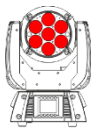
14 Channels

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.

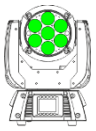
Channel 2 – Vertical movement (Tilt)
Move the slider up, in order to move head vertically (TILT).
Gradual head adjustment from one end of the slider to the other (0-255, 128-center).
The head can be turned by 270° and stopped at any position you wish.

Channel 3 – PAN/TILT Speed
0-255 From Max Speed (0) to Min. Speed (255)

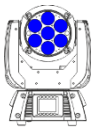
Channel 4 – Red Dimmer intensity (CH10 and CH11 must be open)
0-255 Red from 0 – 100%



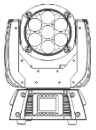
Channel 5 – Green Dimmer intensity (CH10 and CH11 must be open)
0-255 Green from 0 – 100%



Channel 6 – Blue Dimmer intensity (CH10 and CH11 must be open)
0-255 Blue from 0 – 100%



Channel 7 – White Dimmer intensity (CH10 and CH11 must be open)
0-255 White from 0 – 100%



Channel 8 – Mobile Macros (CH10 and CH11 must be open)
Use in combination with CH9

0-15	No Function
16-31	LED program 1 (no movement)
32-47	LED program 2 (no movement)
48-63	LED program 3 (no movement)
64-79	LED program 4 (no movement)
80-95	LED program 5 (no movement)
96-111	LED program 6 (no movement)
112-127	LED program 7 (no movement)
128-143	LED program 8 (no movement)
144-159	LED program 9 (no movement)
160-175	LED program 10 (no movement)
176-191	LED program 11 (no movement)
192-207	LED program 12 (no movement)
208-223	LED program 13 (no movement)
224-239	LED program 14 (no movement)
240-255	LED program 15 (no movement)

Channel 9 – Built-in Speed
0-255 From slow to fastest

Channel 10 – Dimmer (Shutter and Colors RGBW must be open ⚠)

0-255	From black to brightest

Channel 11 – Shutter / Strobe (Dimmer must be open ⚠)

0-19	Close
20-24	Shutter open
25-64	Strobe effect 1, from fast to slow
65-69	Shutter open
70-84	Strobe effect 2 (fast on and slow off), from fast to slow
85-89	Shutter open
90-104	Strobe effect 3 (slow on and fast off), from fast to slow
105-109	Shutter open
110-124	Strobe effect 4 (random strobe), from fast to slow
125-129	Shutter open
130-144	Strobe effect 5 (random strobe fast on and slow off), from fast to slow
145-149	Shutter open
150-164	Strobe effect 6 (random strobe slow on and fast off), from fast to slow
165-169	Shutter open
170-184	Strobe effect 7 (pulse strobe), from fast to slow
185-189	Shutter open
190-204	Strobe effect 8 (random pulse frequency strobe), from fast to slow
205-209	Shutter open
210-224	Strobe effect 9 (strobe light, gradually destroy), from fast to slow
225-229	Shutter open
230-244	Strobe effect 10 (pulse strobe), from fast to slow
245-255	Shutter open

Channel 12 – Zoom

0-255	From big to small

Channel 13 – Channel Functions

0-9	No Function
10-14	Blackout during Pan/Tilt movement
15-19	Reserved
20-24	Reserved
25-29	Reserved
30-34	Reserved
35-39	Reserved
40-44	Reserved
45-49	Reserved
50-54	Reset Pan after 3 seconds
55-59	Reset Tilt after 3 seconds
60-64	Reset Zoom after 3 seconds
65-69	Reserved
70-74	Reset all
75-79	Reserved
80-84	Reserved
85-89	Reserved
90-94	Reserved
95-99	Reserved
100-104	Reserved
105-109	Reserved
110-114	Reserved
115-119	Pan/Tilt Speed Fast
120-124	Pan/Tilt Speed Slow
125-129	Fan Full Speed

130-134	Fan Temperature controlled
135-139	Dimming Fast
140-144	Dimming Smooth
145-239	No Function
240-247	XY Smoothing model open
248-255	XY Smoothing model to shut down

Channel 14 – Built-in Programs; Use in combination with CH4 - CH7

0-7	No Function
8-23	Built-in Macro 1
24-39	Built-in Macro 2
40-55	Built-in Macro 3
56-71	Built-in Macro 4
72-87	Built-in Macro 5
88-103	Built-in Macro 6
104-119	Built-in Macro 7
120-135	Built-in Macro 8
136-151	Sound-controlled Macro 1
152-167	Sound-controlled Macro 2
168-183	Sound-controlled Macro 3
184-199	Sound-controlled Macro 4
200-215	Sound-controlled Macro 5
216-231	Sound-controlled Macro 6
232-249	Sound-controlled Macro 7
247-255	Sound-controlled Macro 8

Channel settings

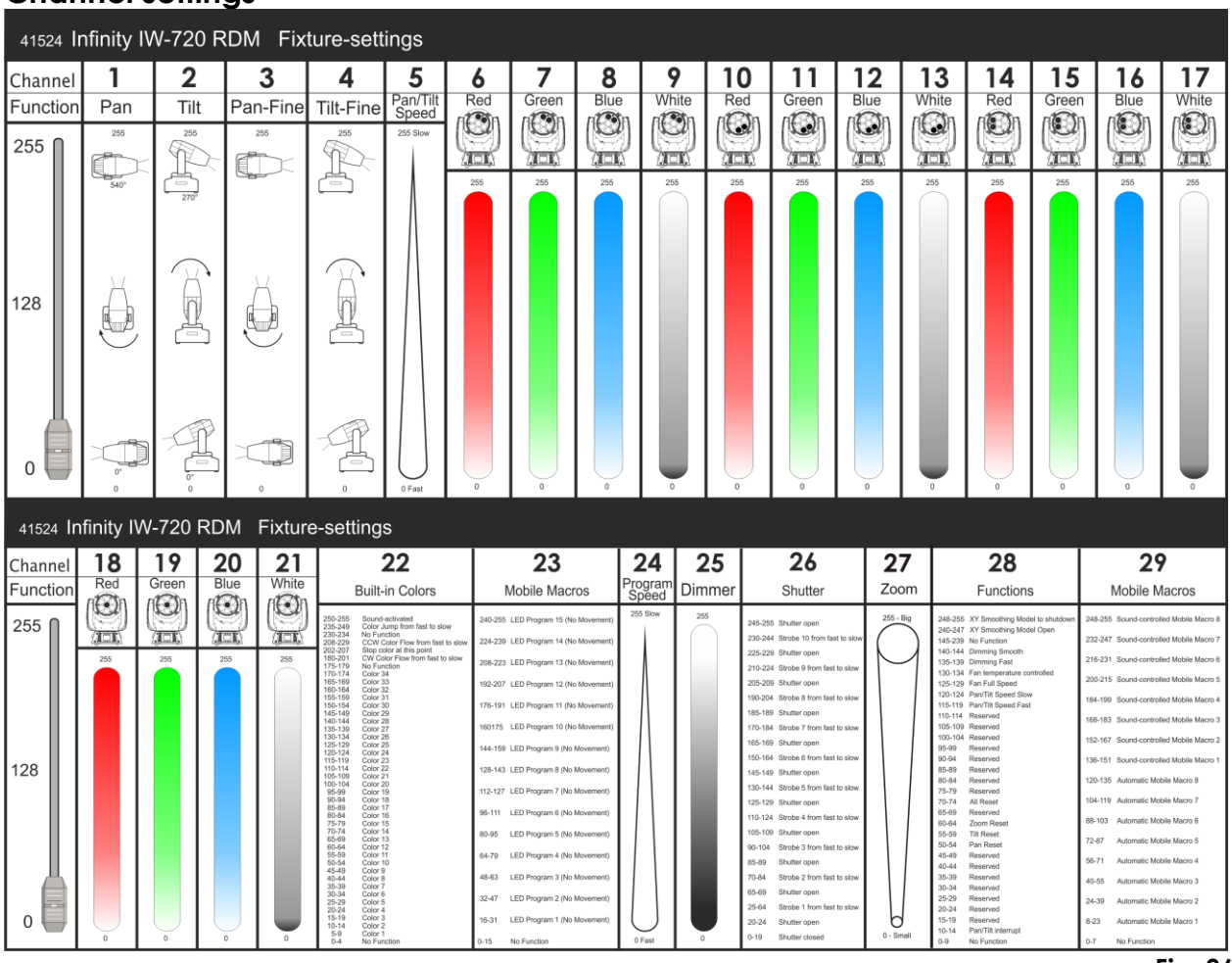


Fig. 06

Maintenance

The Showtec Infinity iW-720 RDM 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 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-related and machine-technical installations are to be inspected by an expert after every year in the course of an acceptance test.
The operator has to make sure that safety-related and machine-technical installations are to be inspected by a skilled person once a year.

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

Replacing 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.
01) Unplug the unit from electric power source.
02) Insert a screwdriver into the 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.

Battery Replacement

(must be carried out by a qualified technician!)

01) Unplug the unit from the electric power source.
02) Remove the 6 screws on the front side of the Infinity.
03) Gently pull the front cover from the device.
04) Disconnect the plug from the PCB.
05) Remove the 2 screws holding the battery pack in place.
06) Replace the old battery pack with a new one.
07) Replace the maintenance cap and fasten all screws.

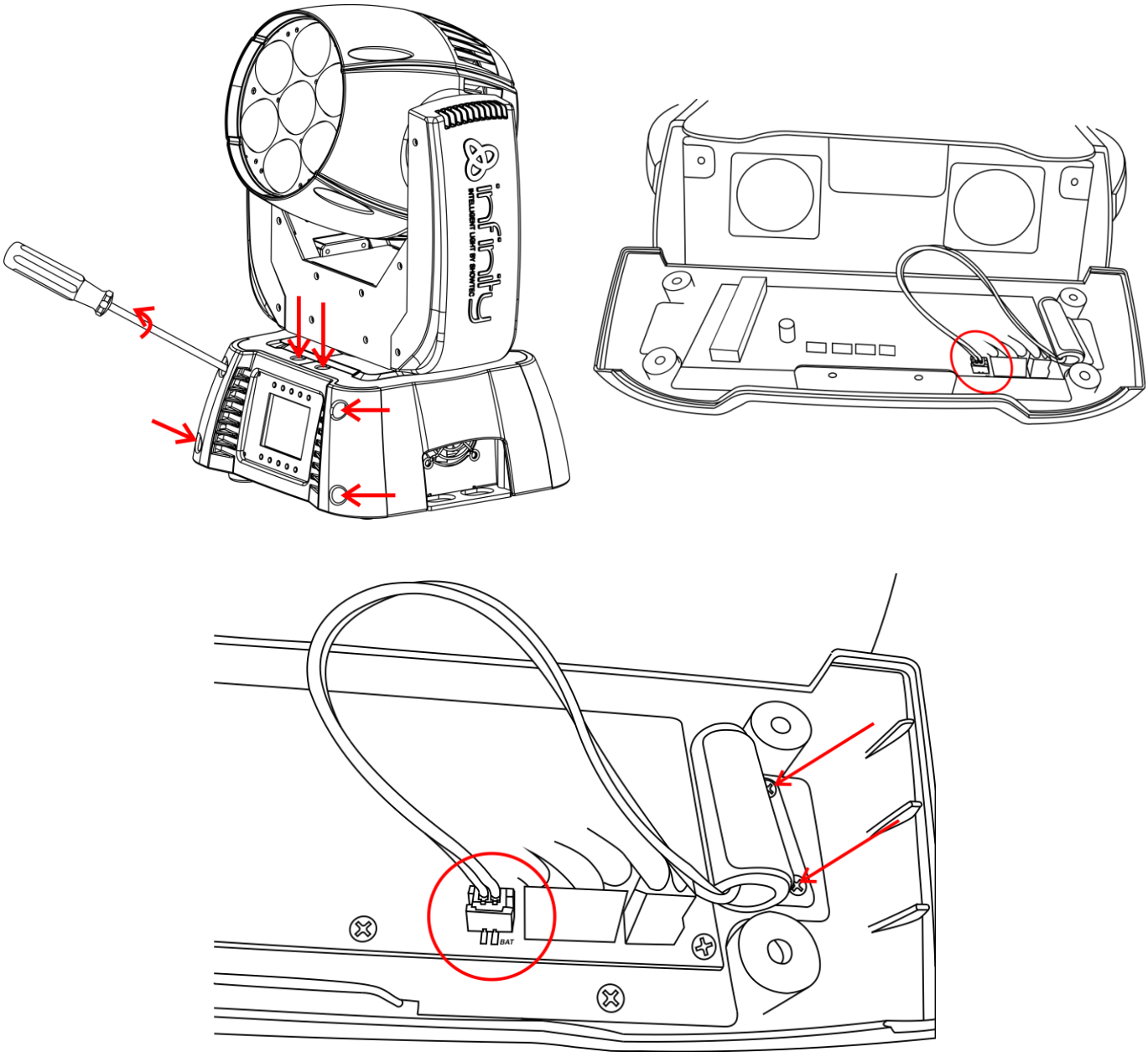


Fig. 07

Note: WARRANTY on batteries is only 6 months after date of purchase.
When your battery remains flat after fully charging, does not function or does not charge anymore, you can order a new battery.

The spare part number for the Infinity Series Battery : SPCI157

Troubleshooting

No Light

This troubleshooting guide is meant to help solve simple problems.
If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.
If the light effect does not operate properly, refer servicing to a technician.

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

01) First try to reset the device to its original factory default settings (**3. Settings Menu** see page 15).
02) Power supply. Check that the unit is plugged into an appropriate power supply.
03) The LEDs. Return the Infinity to your Showtec dealer.
04) The fuse. Replace the fuse. See page 29 for replacing the fuse.
05) If all of the above appears to be O.K., plug the unit in again.
06) If you are unable to determine the cause of the problem, do not open the Infinity, as this may damage the unit and the warranty will become void.
07) Return the device to your Showtec dealer.

No Response to DMX

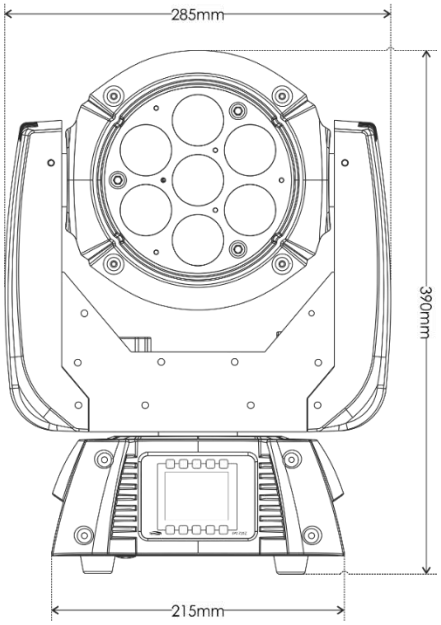
Suspect the DMX cable or connectors, a controller malfunction, a light effect DMX card malfunction.

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

Problem	Probable cause(s)	Remedy
One or more fixtures do not function at all.	No power to the fixture.	• Check if 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.
No light or LEDs cut out intermittently	Fixture is too hot.	• Allow fixture to cool. • Clean fan. • Make sure air vents 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 Infinity iW-720 RDM
Input voltage:	100-240V AC
Power consumption:	170W max. at full output
Fuse:	F5AL / 250V
Dimensions:	197 x 285 x 390 mm (LxWxH)
Weight:	8 kg

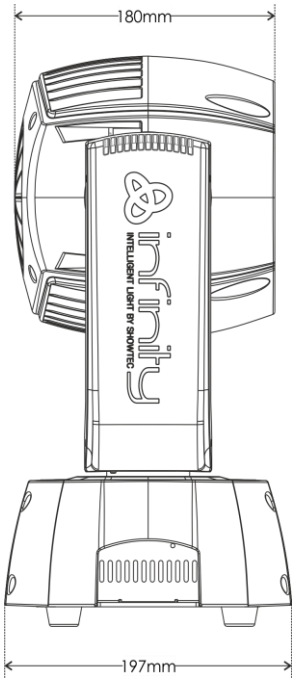


Operation and Programming

Signal pin OUT:	pin 1 earth, pin 2 (-), pin 3 (+)
Setup and Addressing:	LCD control panel
Pan/Tilt resolution:	8-16 bit
DMX Channels:	14, 16, 29 channels
XLR Data in/out:	3-pin XLR

Electro-mechanical effects

- Light source: 7 x 20W RGBW 4-in-1 Osram LED
- Light output: 13800 Lux @ 3m
- Beam angle: 7°-50°
- Dimmer: 0-100%
- Strobe: 0-20Hz
- Dimmer curves: Linear, Square, I-Square, S curve
- Dimmer speed: Smooth, Fast
- Channel modes: 14, 16, 29 channels
- Onboard: Battery powered full color display including gravity sensor
- DMX-control: via standard DMX/RDM controller
- 10 selectable built-in programs
- 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, Built-in Programs
- Housing: Metal & flame-retardant plastic
- Color: Black
- Connections: 3-pin XLR data IN/OUT, Neutrik PowerCON IN/OUT



Max. ambient temperature ta: 40°C
Max. housing temperature tB: 80°C
Motor: high quality stepping-motor controlled by microprocessors

Minimum distance:
Minimum distance from flammable surfaces: 0,5 m
Minimum distance to lighted object: 1,3 m

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

CE

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