



Starway

dino



USER MANUAL

Table of content

Technical Specifications	35
Introduction	35
Dimensions	37
Regulation and Safety	38
Spectrometry	39
DMX Connection	43
Menu	44
Gobo Wheel	50
DMX Map	52

Technical specifications:

Source: 200W white LED - 15700 ° K

Illumination at 5 m:

- 6400 Lux @ 11.5 °

- 4950 Lux @ 18 °

- 3150 Lux @ 24 °

Luminous flux max. : 8000 Lumens

10 ° - 25 ° zoom

DMX modes: 14/17/20 Channels

Mode: Static, Auto, DMX

Max consumption : 280W (@ 220V)

Dimensions: 292 x 474 x 185 mm

Weight: 11.5 kg

IP20

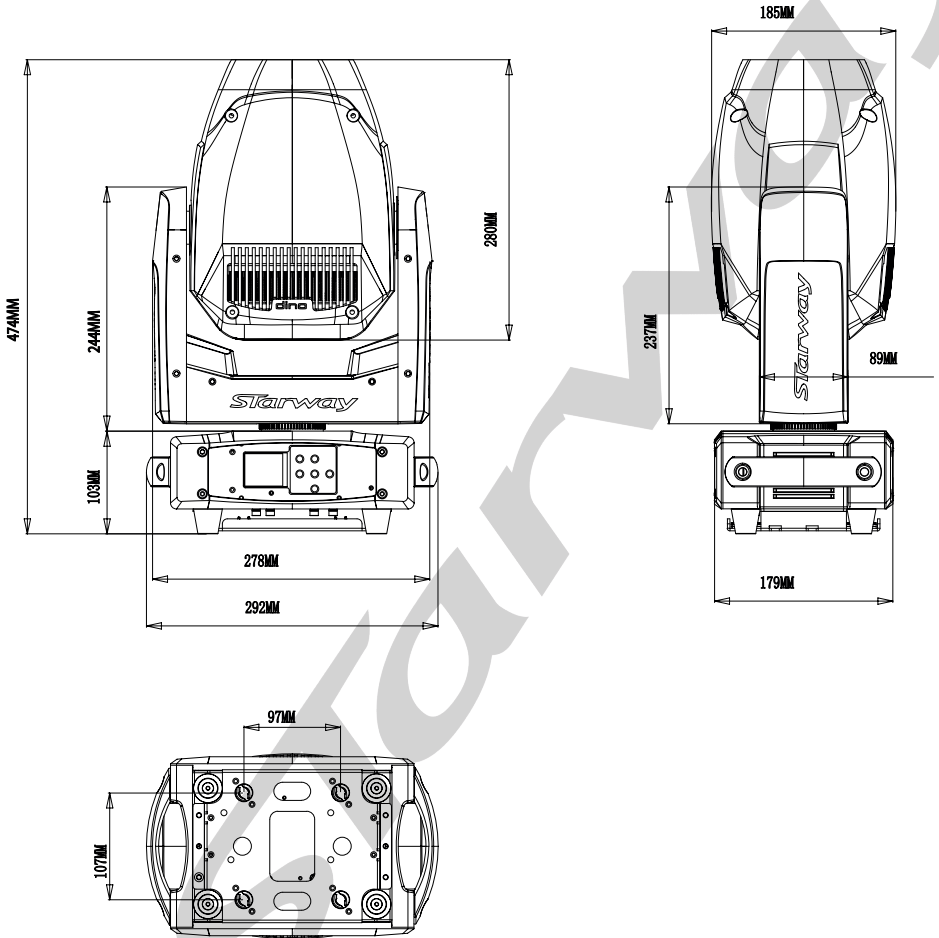
Introduction:

This product has been dedicated for indoor use only.

Particularly suitable for scenes. TV set or discos.

Controllable in DMX these projectors can be controlled by any DMX console.

DIMENSIONS (mm) :





WARNING! Before carrying out any operations with the unit, carefully read this instruction manual and keep it with care for future reference. It contains important about the installation, usage and maintenance of the unit.



SAFETY

GENERAL INSTRUCTION

- The products referred to in this manual conform to the European Community Directives and are therefore marked with CE:.
- The unit is supplied with hazardous network voltage (230V~). Leave servicing to skilled personnel only. Never make any modifications on the unit not described in this instruction manual, otherwise you will risk an electric shock.
- Connection must be made to a power supply system fitted with efficient earthing (Class I appliance according to standard EN 60598-1). It is, moreover, recommended to protect the supply lines of the units from indirect contact and/or shorting to earth by using appropriately sized residual current devices.
- The connection to the main network of electric distribution must be carried out by a qualified electrical installer. Check that the main frequency and voltage correspond to those for which the unit is designed as given on the electrical data label.
- Never use the fixture under the following conditions:
 - in places wet;
 - in places subject to vibrations or bumps;
 - in places with an ambient temperature of over 45° C.
- Make certain that no inflammable liquids, water or metal objects enter the fixture.
- Do not dismantle or modify the fixture.
- All work must always be carried out by qualified technical personnel. Contact the nearest sales point for an inspection or contact the manufacturer directly.
- If the unit is to be put out of operation definitively, take it to a local recycling plant for a disposal which is not harmful to the environment.

WARNINGS AND INSTALLATION PRECAUTIONS

- 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 modify, bend, mechanically strain, put pressure on, pull or heat up the power cord.
- Never strain the cable. There must always be sufficient cable going to the device. Otherwise, the cable will be damaged, which can cause serious damage.
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never lift the device holding it by the projector-head, as the mechanics may be damaged
- Do not shake the device. Avoid brute force when installing or operating the device.
- Only operate the device 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 allow a free air space of at least 0.8 m 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 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.
- Make sure that the core diameter of extension cords and power cords is sufficient for the required power consumption of the device.
- Always hold the device by the transport handles.
- Never place any material over the LEDs or lens.
- Never look directly into the light source.
- Never leave any cables lying around.
- Never use the device during thunderstorms, unplug the device immediately.
- Never leave various parts of the packaging (plastic bags, polystyrene foam, nails, etc within children's reach, as they potential sources of danger.
- Do not insert objects into air vents.
- Do not open the device and do not modify the device.
- Do not connect this device to a dimmer pack.
- 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 device to cool for at least 5 minutes before handling.
- If the lens or LEDs are obviously damaged, they need to be replaced to prevent their functions from being impaired, due to cracks or deep scratches.
- If the external cable is damaged, it has to be replaced by a qualified technician.
- 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 device fails to work properly, discontinue the use immediately. Pack the unit securely (preferably in the original packing material), and return it to your dealer for service.
- For adult use only. The device 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.
- This device is heavy. When handling, use a two-person lift to prevent injury.
- The user is responsible for correct positioning and operating of the device. 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.

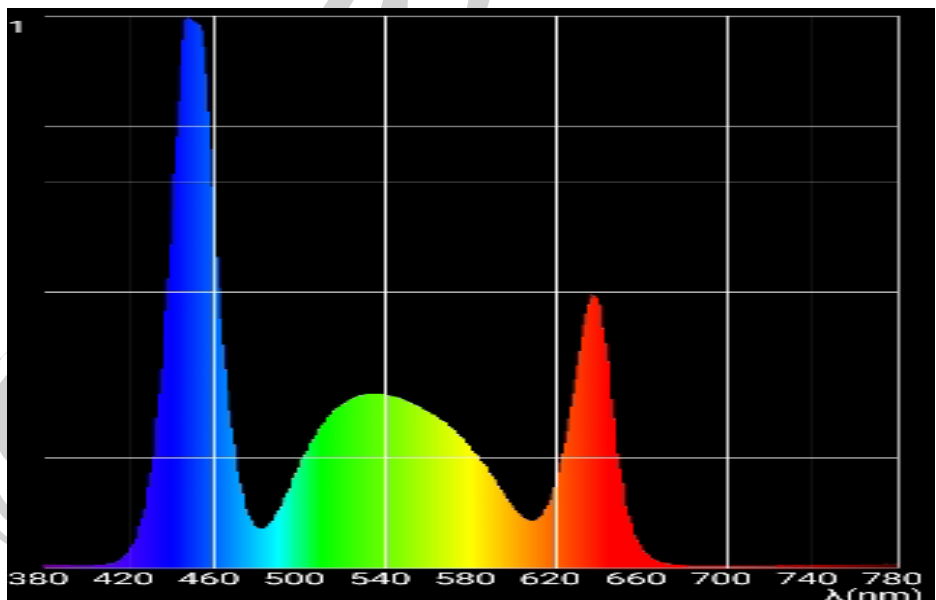
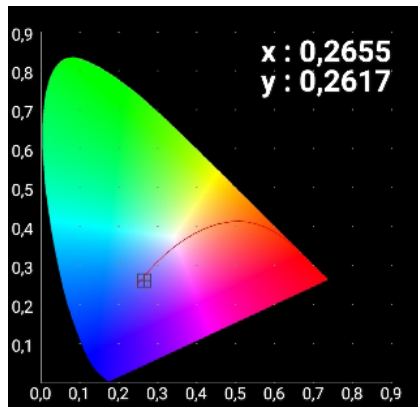
Rigging

This device is heavy. When handling, use a two-person lift to prevent injury. Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

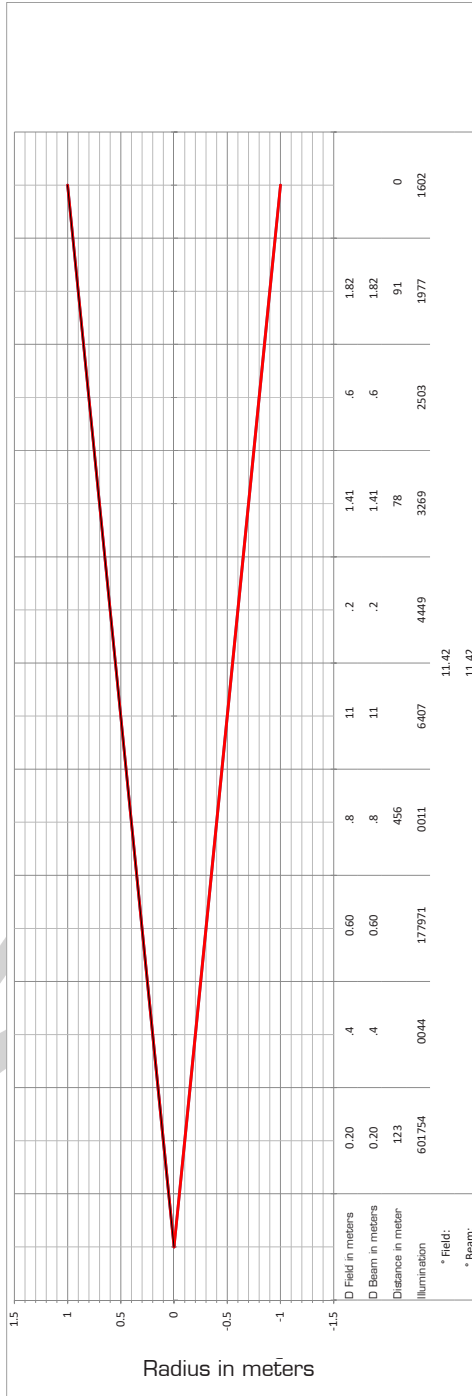
SPECTROMETRY

Distance 5 meters	
	Lux
White LED 11,5°	6400 lux
White LED 18°	4950 lux
White LED 24°	3150 lux

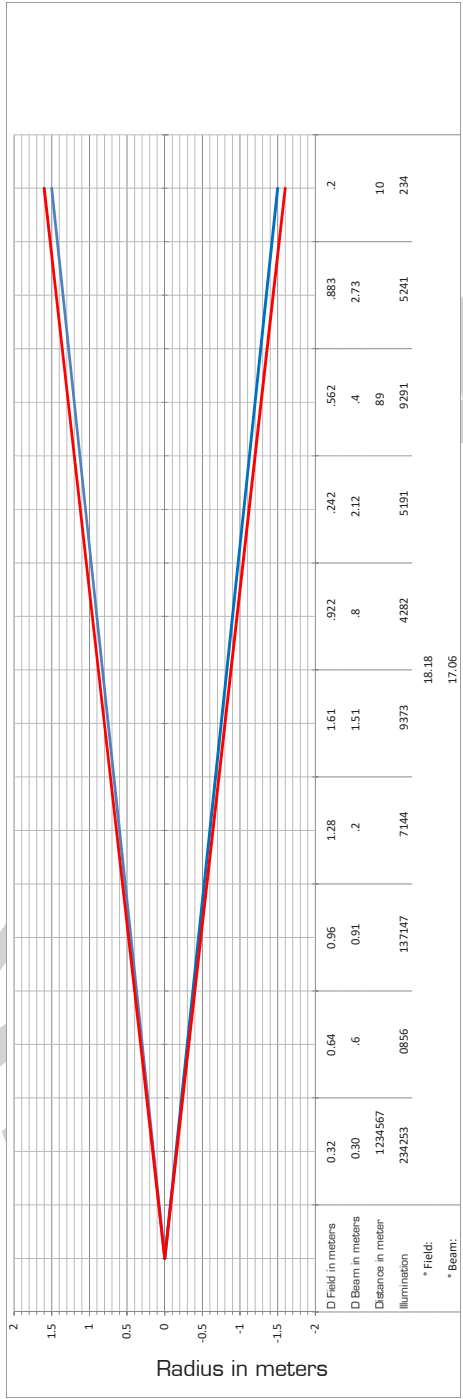
MEASUREMENTS MADE WITH *uSPECTRUM MK305S*



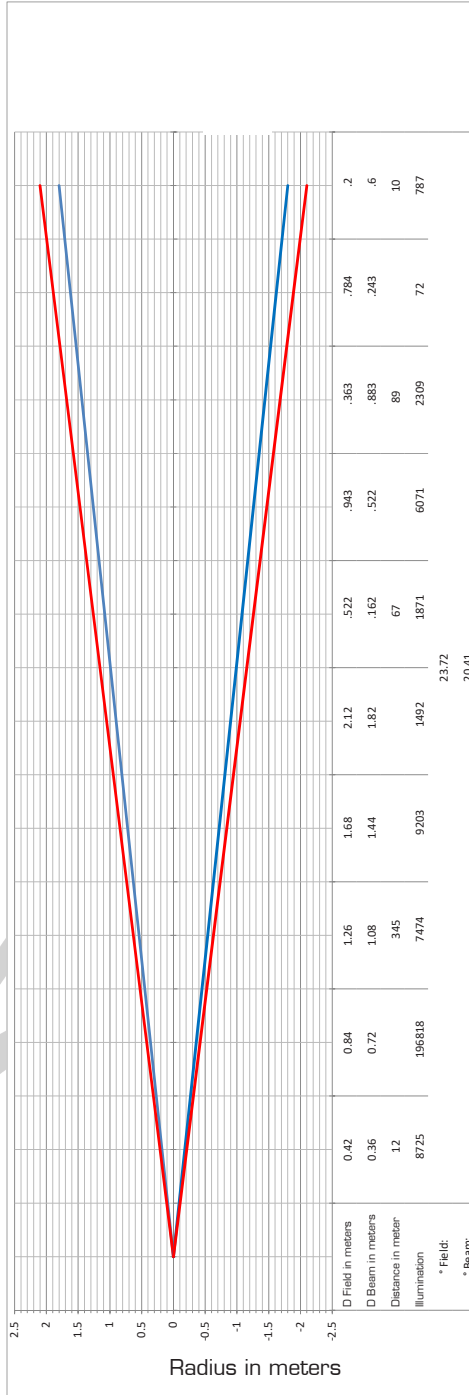
11°



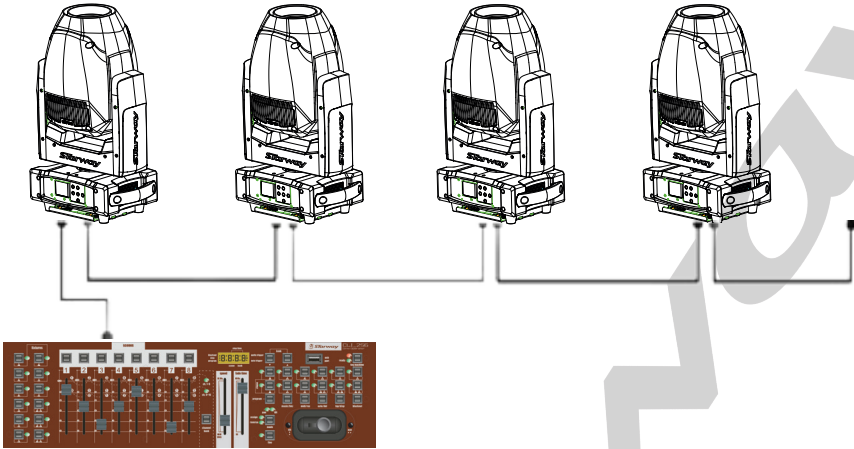
18°



24°



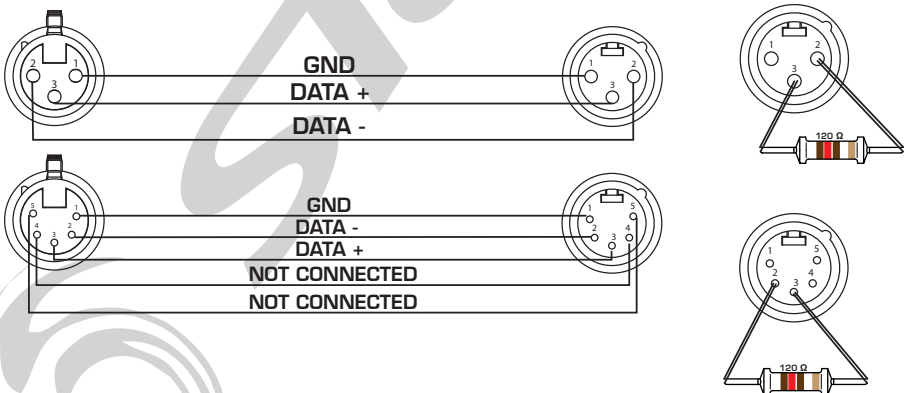
DMX CONNECTION:



The projectors are connected in series to a DMX console. Connect the projectors as shown in the diagram above.

- Connect the male side of the DMX cable to the output of the DMX512 console.
- Then connect the DMX output of the projector to the input of the next projector.
- Repeat the operation on the whole chain.

The use of a termination plug is strongly recommended. In some cases the absence of this termination is not problematic, on the other hand its presence is very strongly recommended in disturbed spaces (Stage, long line length, TV studio etc.). Its value is generally 120 Ohms. The plug is an XLR male plug into which a resistance of 120 Ohms $\frac{1}{4}$ of W. is welded between 2 and 3. This plug prevents the reflection of information transmitted when using long lengths of cable.



MENU

THE VALUES IN **RED** ARE DEFINED BY DEFAULT IN THE MENU AND RELOADED AS IN THE CASE OF «RELOAD DEFAULT SETTINGS»

Menu	SUB-Menu	Option		
Receive	Set Address	A001~AXXX		
User Mode	User Mode	Standard (17 C) - (16bit)		
		Basic (14 C) - (8bit)		
		Extend (20 C) - (16bit)		
		User A		
		User B		
	User C			
	Edit A	Max Channel		
Edit B	PAN, TILT,			
Edit C	:			
Function	Status	No DMX Mode	Hold /Auto/black	
		P.Reverse	ON/ OFF	
		T.Reverse	ON/ OFF	
		Pan Degree	630/ 540	
		Feedback	ON /OFF	
		Move.Spd	Speed 1~ 4	
		Hibernation	OFF , 01M~99M	
		C.G.P Mode	FS - Stop - SF	
	Temp. C/F	Celsius		°C
		Fahrenheit		°F
		SF - Stop - FS		

Function	Dim Curve	Linear Exp Log S-Curve		
	Frequency	900HZ/1000HZ/1100HZ/1200HZ/1300HZ/1400HZ/1500HZ/2500HZ		
	Fan Set	Head Fan	Auto	
			High	
			Low	
	LCD.Set	Backlight	02~60m <05m>	
		Flip Display	ON/ OFF	
		Key Lock	ON/ OFF	
		DispFlash	ON /OFF	
	Disp.Set	Chan.Value	PAN.....	
Slave Set		Slave1, Slave2, Slave3		
Auto.Prog		Master / Alone		
DFSE	ON/ OFF			
Information	Time.Info	CurrentTime	(HOUR)	
		Total Time	(HOUR)	
		Last Clear	(HOUR)	
		Timer PIN	PIN CODE	
		Clear Last	ON/OFF	
		Clear Total	ON/OFF	
		T: XXXF		
	Fan Speed	Fan1 : xxxRPM		
		Fan2 : xxxRPM		
	Error. Info	NONE/Pan,Tilt.....		
	Model. Info	225700 - Dino		
	Software.V	1U01 V1.0.2		
		2U01 V1.0.2		
3U01 V1.0.2				

Test	Reset.Motor	All	
		Pan&Tilt	
		Head	
	Test.Channel	Pan, Pan Fine, Tilt, Tilt Fine, Color, Fixed Gobo, Rotative Gobo, Gobo Rotation, Prism, PrismRot, Strobe, Dimmer, Dim Fine, Zoom, Focus, Frost, DimMode, P/T Speed.	
	Panel.Ctrl.	Pan, Pan Fine, Tilt, Tilt Fine, Color, Fixed Gobo, Rotative Gobo, Gobo Rotation, Prism, PrismRot, Strobe, Dimmer, Dim Fine, Zoom, Focus, Frost, DimMode, P/T Speed.	
		PAN =XXX , ...	
	Calibrate	Password	60
PAN, TILT, ...			

RECEIVE MENU

Address set:

Dino DMX address configuration

USER MODE MENU

User Mode:

Selection of the DMX mode of the Dino between the different modes such as:

- Basic 14 DMX channels - 8-bit mode
- Standard 17 DMX channels - 16-bit mode
- Extended 20 DMX Channels - Extended 16-Bit Mode
- User A - User mode 1
- User B - User mode 2
- User C - User mode 3

Edit A; Edit B; Edit C

In this submenu it is possible to create 3 channel assignments at the user discretion. In each "Edit A; Edit B and Edit C" it is possible to select the maximum number of channels, and to change the order of the DMX channels.

FUNCTION MENU

Status

In this submenu it is possible to modify the behavior of the Dino.

No DMX Mode

Modification of the Dino reaction during DMX signal loss:

- Hold: maintenance of the last DMX values received
- Auto: The Dino goes into Auto mode
- Black Out: The Dino goes into "Stand By" mode

P Reverse: ON / OFF - Pan inversion

T Reverse: ON / OFF - Tilt inversion

PAN degree: 630 ° Or 540 ° - Selection of the maximum angle of PAN (this value does not affect continuous rotation)

Feedback: ON / OFF - Activation or Deactivation of feedback motors (Copy)

Move Speed: Selection of movement speed between 1 and 4
1 - faster to 4 - slower

Hibernation: OFF - 01 Min to 99 Min - Selection of hibernation mode
Dino. OFF by default or from 1 minute to 99 minutes before switching to hibernation mode.

C.G.P Mode: Operation of the color wheel rotation, gobos, gobos and prism. From Fast to Slow - Stop - from Slow to fast by default or in slow to fast mode - Stop - From fast to slow to match version earlier than version 1.0.4

Temp C ° / F °

Submenu for selecting the Celsius or Fahrenheit system (default), for displaying the temperature.

Dim Curve

Submenu allowing the selection of the Dino dimmer curve between Curve 1 (default) and Curve 4

Frequen

Submenu allowing the selection of the refresh rate of the LED to avoid a possible «flicking» during the capture. Changeable values between 900Hz (default) and 2500Hz.



Fan Set - Head Fan

Submenu for selecting the head fan speed between Auto (default) and Low or High.

LCD Set

Submenu allowing to select the behavior of the Dino display.

Backlight - 02m to 60m - Selection of the display backlight retention time (without menu manipulation) from 2 minutes to 60 minutes. Time set to 5 minutes by default.

Flip Display - ON / OFF - Reversal of the display direction

KeyLock - ON / OFF - Lock the Dino buttons.

DispFlash - ON / OFF - Activation or not of the display flash when the Dino does not receive a DMX signal.

Disp.Set

Chan.Value - continuously displays the DMX values of all channels.

Slave Set - Selection of the slave mode of the Dino to «shift» the Dino when using the Master / Slave mode - between Slave 1, Slave2 and Slave 3.

Auto Prog - Selection of Master / Slave mode:

In MASTER mode the Dino transmits information to the Dino connected using a DMX cable and where Slave mode has been activated in the "Slave Set" submenu

In ALONE mode the Dino does not transmit information and executes its AUTO mode individually.

DFSE - ON / OFF - Reloading the Dino default parameters.

INFORMATION

Time.Info

CurrentTime: Display of usage time (in hours) since the last power-up

TotalTime: Display of the usage time (in hours) since the first power-up.

LastTime: Display of the usage time (in hours) since the last reset.

Time PIN: To access the reset of usage times you must enter a PIN code:

050 to reset the «CurrentTime»

060 to reset the «TotalTime»

ClearLast: ON / OFF to reset

Temp.Info - LED temperature display

T: xxx F or C - LED temperature display

Fan Speed - Fan speed display

Fan 1: xxx RPM

Fan 2: xxx RPM

Error.Info - Display of the last 10 error messages.

Model.Info - Model name display: 225700 - Dino

Software.V - Display of the version of the various processors

1U01 - Vx.x.x

2U01 - Vx.x.x

3U01 - Vx.x.x

TEST

Reset Motors

ALL: Reset of all motors

Pan & Tilt: Reset of Pan and Tilt motors

Head: Reset of all head motors

Test.Channel

Submenu allowing to test all the parameters of the Dino such as:

Pan, Pan Fine, Tilt, Tilt Fine, Color, Fixed Gobo, Rotative Gobo, Gobo Rotation, Prism, PrismRot, Strobe, Dimmer, Dim Fine, Zoom, Focus, Frost, DimMode, P / T Speed.

Panel.Ctrl.

Pan, Pan Fine, Tilt, Tilt Fine, Color, Fixed Gobo, Rotative Gobo, Gobo Rotation, Prism, PrismRot, Strobe, Dimmer, Dim Fine, Zoom, Focus, Frost, DimMode, P / T Speed.

Calibrate:

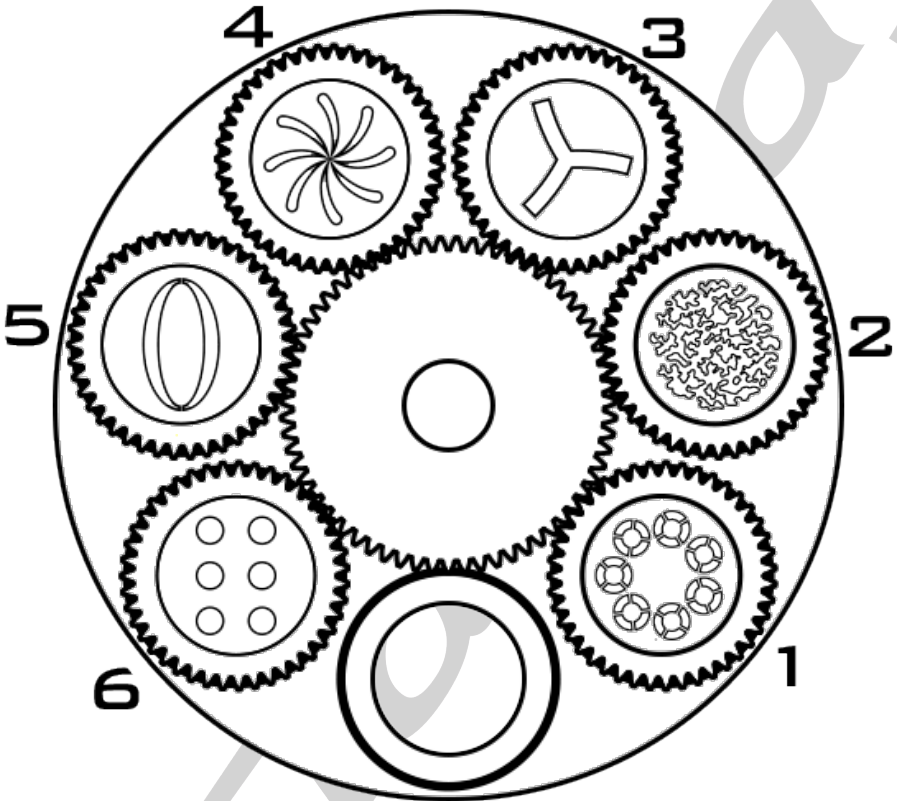
Submenu allowing to recalibrate the motors and the LED of the Dino to access this menu, enter the PIN code for unlocking this function.

Pin Code: 060

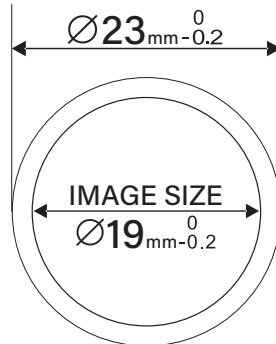
This gives access to the different parameters:

Pan, Pan Fine, Tilt, Tilt Fine, Color, Fixed Gobo, Rotative Gobo, Gobo Rotation, Prism, PrismRot, Strobe, Dimmer, Dim Fine, Zoom, Focus, Frost, DimMode, P / T Speed.

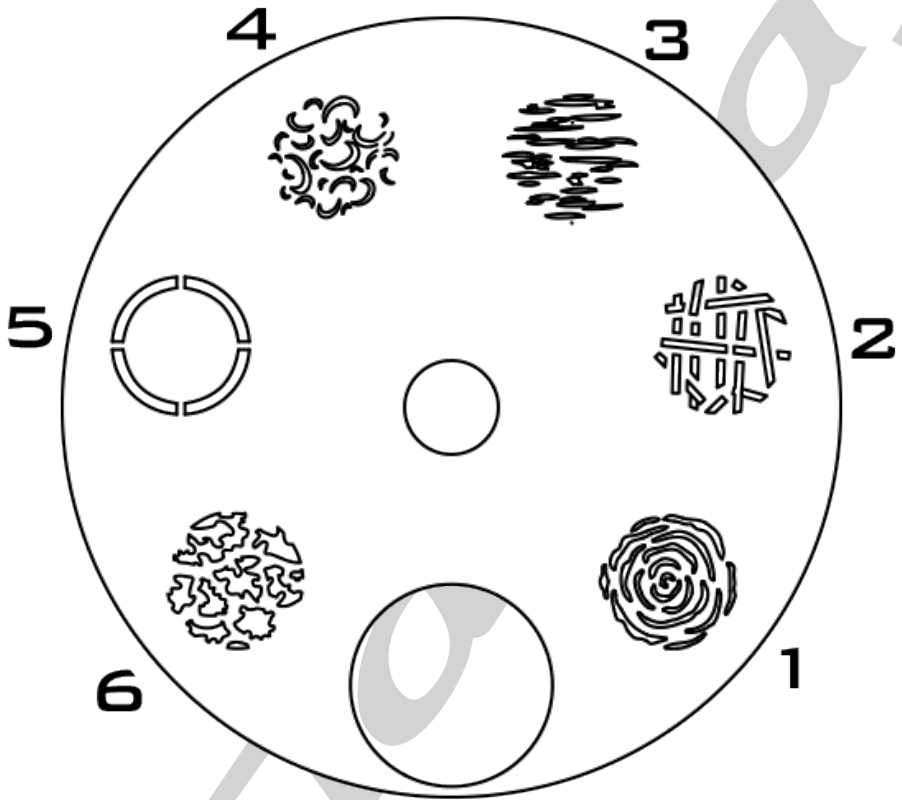
Rotating Gobo Wheel



GOBO SIZE



Fixed Gobo Wheel



DMX Map

Basic Mode - 8 Bits

CHANNEL	VALUES	DESCRIPTION
1	000-255	PAN
2	000-255	TILT
3	000-255	DIMMER 0% to 100%
4	SHUTTER	
	000-031	Shutter closed
	032-063	Shutter open
	064-095	Strobe slow to fast
	096-127	Shutter open
	128-159	Slow to fast pulse effect
	160-191	Shutter open
	192-223	Slow to fast random strobe
224-255	Shutter open	
5	COLOR WHEEL	
	000-005	Open
	006-011	Red
	012-017	Orange
	018-023	Yellow
	024-029	Green
	030-035	Dark Blue
	036-041	Purple
	042-047	Light Blue
	048-053	Magenta
	054-192	Colour Wheel Pos 0 - 360°
	193-223	Color Wheel Rotation Fast to Slow, CW
224-224	Color Wheel Rotation Stop	
225-255	Color Wheel Rotation Slow to Fast, CCW	
6	ROTATING GOBO WHEEL	
	000~005	Open
	006~020	Gobo 1
	021~035	Gobo 2
	036~050	Gobo 3
	051~065	Gobo 4
	066~080	Gobo 5
	081~095	Gobo 6
	096~110	Gobo 1 shake, from slow to fast
	111~125	Gobo 2 shake, from slow to fast
	126~140	Gobo 3 shake, from slow to fast
	141~155	Gobo 4 shake, from slow to fast
	153~170	Gobo 5 shake, from slow to fast
	171~185	Gobo 6 shake, from slow to fast
	186~192	Open
	193~223	Gobo Wheel Rotation Fast to Slow, CW
	224-224	Gobo Wheel Rotation Stop
225-255	Gobo Wheel Rotation Slow to Fast, CCW	

7	GOBO ROTATION	
	000-005	Rotation OFF
	006-127	INDEX Position 0° ... 540°
	128-191	Rotation, Fast to Slow, CW
	192-192	Rotation Stop
	193-255	Rotation, Slow to Fast, CCW
8	FIXED GOBO WHEEL	
	000-005	Open
	006-020	Gobo 1
	021-035	Gobo 2
	036-050	Gobo 3
	051-065	Gobo 4
	066-080	Gobo 5
	081-095	Gobo 6
	096-110	Gobo 1 shake, from slow to fast
	111-125	Gobo 2 shake, from slow to fast
	126-140	Gobo 3 shake, from slow to fast
	141-155	Gobo 4 shake, from slow to fast
	156-170	Gobo 5 shake, from slow to fast
	171-185	Gobo 6 shake, from slow to fast
	186-192	Open
	193-223	Gobo Wheel Rotation Fast to Slow, CW
	224-224	Gobo Wheel Rotation Stop
	225-255	Gobo Wheel Rotation Slow to Fast, CCW
9	ZOOM	
	000-255	11° to 24°
10	FOCUS	
	000-255	0% to 100%
11	PRISM	
	000-005	Open
	006-127	Prism 1
	128-255	Prism 2

12	PRISM ROTATION	
	000-005	Rotation OFF
	006-127	INDEX Position 0° ... 540°
	128-191	Rotation, Fast to Slow, CW
	192-192	Rotation Stop
13	FROST	
	000-255	0% to 100%
14	CONTROL	
	000-005	Idle
	006-015	Blackout while Moving on (Hold 3s)
	016-025	Blackout while Moving off (Hold 3s)
	026-035	Invert Pan on (Hold 3s)
	036-045	Invert Pan off (Hold 3s)
	046-055	Invert Tilt on (Hold 3s)
	056-065	Invert Tilt off (Hold 3s)
	066-075	Fan Speed Set Auto (Hold 3s)
	076-085	Fan Speed Set Low (Hold 3s)
	086-095	Fan Speed Set High (Hold 3s)
	096-205	Idle
	206-215	Reset Pan / Tilt (Hold 3s)
	216-225	Reset Head only (Hold 3s)
	226-235	Reset All Functions (Hold 3s)
236-245	Gobo Change Normal (Hold 3s)	
246-255	Gobo Change to ANY Position (Hold 3s)	

Standard Mode - 16 Bits

CHANNEL	VALUES	DESCRIPTION
1	000-255	PAN
2	000-255	PAN Fine
3	000-255	TILT
4	000-255	TILT fine
5	000-255	DIMMER 0% to 100%
6	000-255	Dimmer Fine
7	SHUTTER	
	000-031	Shutter closed
	032-063	Shutter open
	064-095	Strobe slow to fast
	096-127	Shutter open
	128-159	Slow to fast pulse effect
	160-191	Shutter open
	192-223	Slow to fast random strobe
224-255	Shutter open	
8	COLOR WHEEL	
	000-005	Open
	006-011	Red
	012-017	Orange
	018-023	Yellow
	024-029	Green
	030-035	Dark Blue
	036-041	Purple
	042-047	Light Blue
	048-053	Magenta
	054-192	Colour Wheel Pos 0 - 360°
	193-223	Color Wheel Rotation Fast to Slow, CW
	224-224	Color Wheel Rotation Stop
225-255	Color Wheel Rotation Slow to Fast, CCW	

9	ROTATING GOBO WHEEL	
	000~005	Open
	006~020	Gobo 1
	021~035	Gobo 2
	036~050	Gobo 3
	051~065	Gobo 4
	066~080	Gobo 5
	081~095	Gobo 6
	096~110	Gobo 1 shake, from slow to fast
	111~125	Gobo 2 shake, from slow to fast
	126~140	Gobo 3 shake, from slow to fast
	141~155	Gobo 4 shake, from slow to fast
	153~170	Gobo 5 shake, from slow to fast
	171~185	Gobo 6 shake, from slow to fast
	186~192	Open
	193~223	Gobo Wheel Rotation Fast to Slow, CW
	224~224	Gobo Wheel Rotation Stop
225~255	Gobo Wheel Rotation Slow to Fast, CCW	
10	GOBO ROTATION	
	000-005	Rotation OFF
	006-127	INDEX Position 0° ... 540°
	128-191	Rotation, Fast to Slow, CW
	192-192	Rotation Stop
193-255	Rotation, Slow to Fast, CCW	
11	FIXED GOBO WHEEL	
	000-005	Open
	006-020	Gobo 1
	021-035	Gobo 2
	036-050	Gobo 3
	051-065	Gobo 4
	066-080	Gobo 5
	081-095	Gobo 6
	096-110	Gobo 1 shake, from slow to fast
	111-125	Gobo 2 shake, from slow to fast
	126-140	Gobo 3 shake, from slow to fast
	141-155	Gobo 4 shake, from slow to fast
	156-170	Gobo 5 shake, from slow to fast
	171-185	Gobo 6 shake, from slow to fast
	186-192	Open
193-223	Gobo Wheel Rotation Fast to Slow, CW	
224-224	Gobo Wheel Rotation Stop	
225-255	Gobo Wheel Rotation Slow to Fast, CCW	
12	ZOOM	
	000-255	11° to 24°
13	FOCUS	
	000-255	0% to 100%

14	PRISM	
	000-005	Open
	006-127	Prism 1
	128-255	Prism 2
15	PRISM ROTATION	
	000-005	Rotation OFF
	006-127	INDEX Position 0° ... 540°
	128-191	Rotation, Fast to Slow, CW
	192-192	Rotation Stop
	193-255	Rotation, Slow to Fast, CCW
16	FROST	
	000-255	0% to 100%
17	CONTROL	
	000-005	Idle
	006-015	Blackout while Moving on (Hold 3s)
	016-025	Blackout while Moving off (Hold 3s)
	026-035	Invert Pan on (Hold 3s)
	036-045	Invert Pan off (Hold 3s)
	046-055	Invert Tilt on (Hold 3s)
	056-065	Invert Tilt off (Hold 3s)
	066-075	Fan Speed Set Auto (Hold 3s)
	076-085	Fan Speed Set LOW (Hold 3s)
	086-095	Fan Speed Set HIGH (Hold 3s)
	096-205	Idle
	206-215	Reset Pan / Tilt (Hold 3s)
	216-225	Reset Head only (Hold 3s)
	226-235	Reset All Functions (Hold 3s)
	236-245	Gobo Change Normal (Hold 3s)
246-255	Gobo Change to ANY Position (Hold 3s)	

Extended Mode - 16 Bits

CHANNEL	VALUES	DESCRIPTION
1	000-255	PAN
2	000-255	PAN Fine
3	000-255	TILT
4	000-255	TILT fine
5	000-255	PAN/Tilt Speed Fast to Slow
6	PAN/TILT MACRO	
	000-005	Idle
	006-040	PAN «small > big»
	041-075	TILT «small > big»
	076-110	PAN / TILT «small > big»
	111-145	PAN / TILT (invers) «small > big»
	146-180	Circle «small > big»
	181-215	Circle (invers) «small > big»
216-255	Random «small > big»	
7	000-255	Dimmer 0% to 100%
8	000-255	Dimmer Fine
9	SHUTTER	
	000-031	Shutter closed
	032-063	Shutter open
	064-095	Strobe slow to fast
	096-127	Shutter open
	128-159	Slow to fast pulse effect
	160-191	Shutter open
	192-223	Slow to fast random strobe
224-255	Shutter open	
10	COLOR WHEEL	
	000-005	Open
	006-011	Red
	012-017	Orange
	018-023	Yellow
	024-029	Green
	030-035	Dark Blue
	036-041	Purple
	042-047	Light Blue
	048-053	Magenta
	054-192	Colour Wheel Pos 0 - 360°
	193-223	Color Wheel Rotation Fast to Slow, CW
	224-224	Color Wheel Rotation Stop
225-255	Color Wheel Rotation Slow to Fast, CCW	

		ROTATING GOBO WHEEL	
11	000~005	Open	
	006~020	Gobo 1	
	021~035	Gobo 2	
	036~050	Gobo 3	
	051~065	Gobo 4	
	066~080	Gobo 5	
	081~095	Gobo 6	
	096~110	Gobo 1 shake, from slow to fast	
	111~125	Gobo 2 shake, from slow to fast	
	126~140	Gobo 3 shake, from slow to fast	
	141~155	Gobo 4 shake, from slow to fast	
	153~170	Gobo 5 shake, from slow to fast	
	171~185	Gobo 6 shake, from slow to fast	
	186~192	Open	
	193~223	Gobo Wheel Rotation Fast to Slow, CW	
	224~224	Gobo Wheel Rotation Stop	
225~255	Gobo Wheel Rotation Slow to Fast, CCW		
		GOBO ROTATION	
12	000-005	Rotation OFF	
	006-127	INDEX Position 0° ... 540°	
	128-191	Rotation, Fast to Slow, CW	
	192-192	Rotation Stop	
	193-255	Rotation, Slow to Fast, CCW	
		FIXED GOBO WHEEL	
13	000-005	Open	
	006-020	Gobo 1	
	021-035	Gobo 2	
	036-050	Gobo 3	
	051-065	Gobo 4	
	066-080	Gobo 5	
	081-095	Gobo 6	
	096-110	Gobo 1 shake, from slow to fast	
	111-125	Gobo 2 shake, from slow to fast	
	126-140	Gobo 3 shake, from slow to fast	
	141-155	Gobo 4 shake, from slow to fast	
	156-170	Gobo 5 shake, from slow to fast	
	171-185	Gobo 6 shake, from slow to fast	
	186-192	Open	
	193-223	Gobo Wheel Rotation Fast to Slow, CW	
	224-224	Gobo Wheel Rotation Stop	
225-255	Gobo Wheel Rotation Slow to Fast, CCW		

14	ZOOM	
	000-255	11° to 24°
15	FOCUS	
	000-255	0% to 100%
16	PRISM	
	000-005	Open
	006-127	Prism 1
	128-255	Prism 2
17	PRISM ROTATION	
	000-005	Rotation OFF
	006-127	INDEX Position 0° ... 540°
	128-191	Rotation, Fast to Slow, CW
	192-192	Rotation Stop
	193-255	Rotation, Slow to Fast, CCW
18	FROST	
	000-255	0% to 100%
19	AUTO PROGRAM	
	000-005	OFF
	006-067	Show 1 (slow -> fast)
	068-129	Show 2 (slow -> fast)
	130-191	Show 3 (slow -> fast)
	192-255	Show 4 (slow -> fast)
20	CONTROL	
	000-005	Idle
	006-015	Blackout while Moving on (Hold 3s)
	016-025	Blackout while Moving off (Hold 3s)
	026-035	Invert Pan on (Hold 3s)
	036-045	Invert Pan off (Hold 3s)
	046-055	Invert Tilt on (Hold 3s)
	056-065	Invert Tilt off (Hold 3s)
	066-075	Fan Speed Set Auto (Hold 3s)
	076-085	Fan Speed Set Low (Hold 3s)
	086-095	Fan Speed Set High (Hold 3s)
	096-205	Idle
	206-215	Reset Pan / Tilt (Hold 3s)
	216-225	Reset Head only (Hold 3s)
226-235	Reset All Functions (Hold 3s)	
236-245	Gobo Change Normal (Hold 3s)	
246-255	Gobo Change to ANY Position (Hold 3s)	

Extended Mode 2 - 16 Bits

CHANNEL	VALUES	DESCRIPTION
1	000-255	PAN
2	000-255	PAN Fine
3	000-255	TILT
4	000-255	TILT fine
5	000-255	PAN/Tilt Speed Fast to Slow
6	PAN/TILT MACRO	
	000-005	Idle
	006-040	PAN «small > big»
	041-075	TILT «small > big»
	076-110	PAN / TILT «small > big»
	111-145	PAN / TILT (invers) «small > big»
	146-180	Circle «small > big»
	181-215	Circle (invers) «small > big»
216-255	Random «small > big»	
7	000-255	Dimmer 0% to 100%
8	000-255	Dimmer Fine
9	SHUTTER	
	000-031	Shutter closed
	032-063	Shutter open
	064-095	Strobe slow to fast
	096-127	Shutter open
	128-159	Slow to fast pulse effect
	160-191	Shutter open
	192-223	Slow to fast random strobe
224-255	Shutter open	
10	COLOR WHEEL	
	000-005	Open
	006-011	Red
	012-017	Orange
	018-023	Yellow
	024-029	Green
	030-035	Dark Blue
	036-041	Purple
	042-047	Light Blue
	048-053	Magenta
	054-192	Colour Wheel Pos 0 - 360°
	193-223	Color Wheel Rotation Fast to Slow, CW
	224-224	Color Wheel Rotation Stop
225-255	Color Wheel Rotation Slow to Fast, CCW	

		ROTATING GOBO WHEEL	
11	000~005	Open	
	006~020	Gobo 1	
	021~035	Gobo 2	
	036~050	Gobo 3	
	051~065	Gobo 4	
	066~080	Gobo 5	
	081~095	Gobo 6	
	096~110	Gobo 1 shake, from slow to fast	
	111~125	Gobo 2 shake, from slow to fast	
	126~140	Gobo 3 shake, from slow to fast	
	141~155	Gobo 4 shake, from slow to fast	
	153~170	Gobo 5 shake, from slow to fast	
	171~185	Gobo 6 shake, from slow to fast	
	186~192	Open	
	193~223	Gobo Wheel Rotation Fast to Slow, CW	
	224~224	Gobo Wheel Rotation Stop	
225~255	Gobo Wheel Rotation Slow to Fast, CCW		
12	000~255	Gobo Wheel Fine	
		GOBO ROTATION	
13	000~005	Rotation OFF	
	006~127	INDEX Position 0° ... 540°	
	128~191	Rotation, Fast to Slow, CW	
	192~192	Rotation Stop	
	193~255	Rotation, Slow to Fast, CCW	
14	000~255	Rotation fine	
		FIXED GOBO WHEEL	
15	000~005	Open	
	006~020	Gobo 1	
	021~035	Gobo 2	
	036~050	Gobo 3	
	051~065	Gobo 4	
	066~080	Gobo 5	
	081~095	Gobo 6	
	096~110	Gobo 1 shake, from slow to fast	
	111~125	Gobo 2 shake, from slow to fast	
	126~140	Gobo 3 shake, from slow to fast	
	141~155	Gobo 4 shake, from slow to fast	
	156~170	Gobo 5 shake, from slow to fast	
	171~185	Gobo 6 shake, from slow to fast	
	186~192	Open	
	193~223	Gobo Wheel Rotation Fast to Slow, CW	
	224~224	Gobo Wheel Rotation Stop	
225~255	Gobo Wheel Rotation Slow to Fast, CCW		

16	000-255	Gobo Wheel Fine
17	ZOOM	
	000-255	11° to 24°
18	FOCUS	
	000-255	0% to 100%
19	PRISM	
	000-005	Open
	006-127	Prism 1
	128-255	Prism 2
20	PRISM ROTATION	
	000-005	Rotation OFF
	006-127	INDEX Position 0° ... 540°
	128-191	Rotation, Fast to Slow, CW
	192-192	Rotation Stop
	193-255	Rotation, Slow to Fast, CCW
21	FROST	
	000-255	0% to 100%
22	AUTO PROGRAM	
	000-005	OFF
	006-067	Show 1 (slow -> fast)
	068-129	Show 2 (slow -> fast)
	130-191	Show 3 (slow -> fast)
	192-255	Show 4 (slow -> fast)
23	CONTROL	
	000-005	Idle
	006-015	Blackout while Moving on (Hold 3s)
	016-025	Blackout while Moving off (Hold 3s)
	026-035	Invert Pan on (Hold 3s)
	036-045	Invert Pan off (Hold 3s)
	046-055	Invert Tilt on (Hold 3s)
	056-065	Invert Tilt off (Hold 3s)
	066-075	Fan Speed Set Auto (Hold 3s)
	076-085	Fan Speed Set Low (Hold 3s)
	086-095	Fan Speed Set High (Hold 3s)
	096-205	Idle
	206-215	Reset Pan / Tilt (Hold 3s)
	216-225	Reset Head only (Hold 3s)
	226-235	Reset All Functions (Hold 3s)
236-245	Gobo Change Normal (Hold 3s)	
246-255	Gobo Change to ANY Position (Hold 3s)	



Starway

STARWAY

Paris Nord 2
78 Allée des Érables
93420 Villepinte
France
Tél. : +33 (0)820 230 007

