

# **FUSION** 180

USER GUIDE 10661 - Version 1 / 03-2017

# 1 - Safety information

## Important safety information



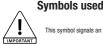
This unit is intended for indoor use only. Do not use it in a wet, or extremely cold/hot locations. Failure to follow these safety instructions could result in fire, electric shock, injury, or damage to this product or other property.



Any maintenance procedure must be performed by a CONTEST authorised technical service. Basic cleaning operations must thoroughly follow our safety instructions



This product contains non-isolated electrical components. Do not undertake any maintenance operation when it is switched on as it may result in electric shock.



This symbol signals an important safety precaution.



The WARNING symbol signals a risk to the user's physical integrity The product may also be damaged.



The CAUTION symbol signals a risk of product deterioration.

# CAUTION



WARNING: This unit contains no user-serviceable parts. Do not open the housing or attempt any maintenance by yourself. In the unlikely even your unit may require service, please contact vour nearest dealer

In order to avoid any electrical malfunction, please do not use any multi-socket, power cord extension or connecting system without making sure they are perfectly isolated and present no



## Warning

This product is equipped with Class 2 LEDs.

Please avoid looking directly at the beam as it may cause severe eve iniuries



#### Recycling your device

- · As HITMUSIC is really involved in the environmental cause, we only commercialise clean, ROHS compliant products.
- · When this product reaches its end of life, take it to a collection point designated by local authorities. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the

environment.

## Instructions and recommendations

#### 1 - Please read carefully :

We strongly recommend to read carefully and understand the safety instructions before attempting to operate this unit

#### 2 - Please keep this manual:

We strongly recommend to keep this manual with the unit for future reference

#### 3 - Operate carefully this product :

We strongly recommend to take into consideration every safety instruction

#### 4 - Follow the instructions:

Please carefully follow each safety instruction to avoid any physical harm or property damage.

#### 5 - Avoid water and wet locations :

Do not use this product in rain, or near washbasins or other wet locations.

#### 6 - Installation :

We strongly encourage you to only use a fixation system or support recommended by the manufacturer or supplied with this product. Carefully follow the installation instructions and use the adequate tools. Always ensure this unit is firmly fixed to avoid vibration and slipping while operating as it may result in physical injury

#### 7 - Ceiling or wall installation :

Please contact your local dealer before attempting any ceiling or wall installation.

The cooling vents ensure a safe use of this product, and avoid any overheating risk

Do not obstruct or cover these vents as it may result in overheating and potential physical injury or product damage. This product should never been operated in a closed non-ventilated area such as a flight case or a rack, unless cooling vents are provided for the purpose.

#### 9 - Heat exposure :

Sustained contact or proximity with warm surfaces may cause overheating and product damages. Please keep this product away from any heat source such as a heaters, amplifiers, hot plates, etc...

10 - Electric power supply :
This product can only be operated according to a very specific voltage. These information are specified on the label located at the rear of the product.

## 11 - Power cords protection:

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at lugs, convenience receptacles and the point where they exit from the fixture.

#### 12 - Cleaning precautions:

Unplug the product before attempting any cleaning operation. This product should be cleaned only with accessories recommended by the manufacturer. Use a damp cloth to clean the surface. Do not wash this product.

13 - Long periods of non use:
Disconnect the unit's main power during long periods of non use.

#### 14 - Liquids or objects penetration :

Do not let any object penetrate this product as it may result in electric shock or fire. Never spill any liquid on this product as it may infiltrate the electronic components and result in

electric shock or fire

#### 15 - This product should be serviced when :

- Please contact the qualified service personnel if:
- The power cord or the plug has been damaged.
- Objects have fallen or liquid has been spilled into the appliance.
- The appliance has been exposed to rain or water.
- The product does not appear to operate normally - The product has been damaged.

#### 16 - Inspection/maintenance :

Please do not attempt any inspection or maintenance by yourself.

Refer all servicing to qualified personnel.

## 17 - Operating environment :

Ambient temperature and humidity: +5 - +35°C, relative humidity must be less than 85% (when cooling vents are not obstructed).

Do not operate this product in a non-ventilated, very humid or warm place.

## 2 - Introduction

Thank you for choosing the FUSION180 moving head. You have now in your possession a high-quality, powerful and smart device, which will certainly bring radiance and joy to your parties, concert, etc...

# 3 - Technical specifications

#### Light source

- 180W I FD
- Expected lifespan of 50 000 hours
- Low temperature and power consumption, can be operated non-stop for many hours

#### Colours, gobos and effects

- 1 wheel with 10 dichroic colours with rainbow effect
- 1 wheel with 9 rotative interchangeable and indexable with gobo shake effect
- 1 wheel with 12 fixed gobos + 3 beam reducers with gobo shake effect
- · 8-facet circular rotative prism
- . 6-facet linear rotative prism
- · Progressive Frost filter for wash effects
- Linear zoom from 6° to 21° allowing you to switch from beam mode to spot mode in an instant
- Wash function from 34° to 60°
- Adjustable strobe from 1 to 25 flashes per second and random strobe
- Electronic dimmer from 0 to 100%
- Very precise motorized focus

#### Control

- Standard DMX-512
- 15, 17 or 20 DMX channels (3 modes: Basic, Standard or Expert)
- The patch can be assigned to any channel
- 9 built-in programs accessible via DMX menu
- · Built-in music-sensitive programs
- Automatic detection of DMX or Master / Slave mode
- Colour LCD display with drop-down menu to assign and choose modes
- Battery-operated memory settings to address devices and choose modes without 230V power supply unit
- RDM compatible, allowing console feedbacks

#### Movements

- 8 or 6-bit PAN and TILT resolutions
- Range: Pan 540 or 630° Tilt 256°

#### Optical 0 4 1

. Beam aperture from 6° to 21° via motorized zoom

#### Connectical

- DMX IN and OUT via 3 and 5-pin XLR,
- POWER IN/OUT via Powercon® sockets

#### Additional characteristics

- · Adjustable fan speed
- · Power consumption: 290W max.
- Power supply: 100/240V, AC 50/60Hz
- Net weight: 18 Kg

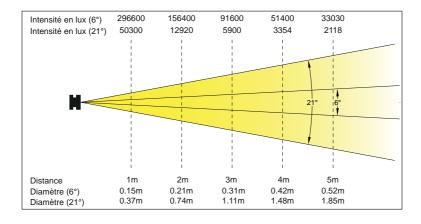
#### Package contents:

- Your FUSION180
- . The user quide
- 2 Quicklock fixation systems
- 1 2 poles+ earth / Powercon® power cord

#### NOTE:

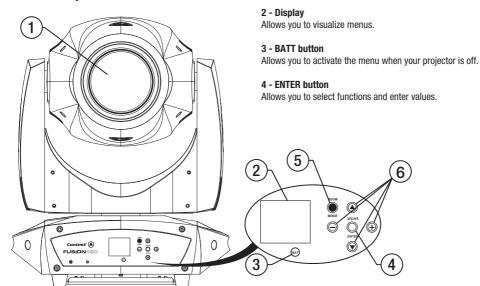
The internal software can be updated via DMX connection, with specific tools.

This update can only be performed by a qualified technician.



1 -Output lens

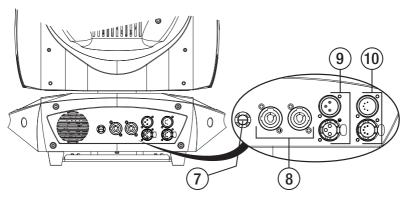
# 4 - Description



5 - MODE button

Allows you to enter/leave menus.

**6 - UP / DOWN / LEFT / RIGHT** navigation buttons Allows you to browse menus and modify values.



7 - Fuse

Fuse: T3.5AL - 250V; 5 x 20 mm

## 8 - Power Input / Output

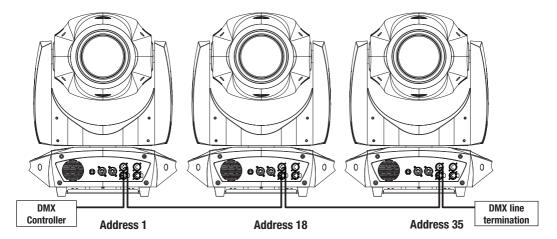
Powercon® Neutrik® IN and OUT sockets

9 - DMX input/output via 3-pin XLR 10 - DMX input/output via 5-pin XLR

## 5 - Cabling, addressing and daisy chaining

#### Connecting the DMX remote control:

Connect the female plug of your XLR cable to your DMX remote control XLR output, then connect your cable male output to the moving head. Daisy chain your moving heads with XLR cables.



#### Using a DMX line termination:

When long runs of cable are used (more than 100m), you may need to use a terminator on the last unit to avoid erratic behavior. A terminator is a 110-120 ohm 1/4 watt resistor which is connected between pins 2 and 3 of a male XLR connector. This unit is inserted in the female XLR connector of the last unit in your daisy chain to terminate the line.



#### Adressing the units:

Every unit must have a DMX address in order to respond to DMX signals. The address corresponds to the channel number on which the unit receives an incoming DMX signal sent by the DMX remote control. The DMX addressing can be performed by programming the channel number via the display located on the base of the unit.

You can either assign the same address to your units so they all react to the same signal, or assign a unique address per unit to control them independently.

In the example above, FUSION180 uses 17 channels.

You must skip 17 channels between each address you assign.

The address of the first unit will be 1, the second unit will be 18(1+17), the third unit will be 35 (18+17) and so on.

NB: Once switched on, the FUSION180 automatically detects any incoming DMX signal, and the display indicates"A.001" (the unit DMX address). If the unit does not receive any DMX signal, the display will flash. In such a case, please make sure the cable is properly plugged into the DMX input of your moving head, your remote control is switched on and the cables used are not defective.

## Warning:



You cannot use the same chain to supply more than 11 FUSION180 at 220V. When using a 12th moving head, please use a new power source

## 6 - Menus

Menus allow you to configure your projector in order to adapt it to any kind of situation.

## Press MODE to access menus.

Use the navigation buttons to navigate through menus and sub-menus. Press ENTER to access a menu.

## Press ENTER to save changes.

You can go up the menu tree or leave menus by pressing MODE.

#### Please note:

Values in bold are the default values.

- Press BATT for 2 seconds to access menus when your projector is deactivated.
- The display automatically turns off after a 1-minut period of inactivity.
- When browsing menus, values in white are the current values. When entering a new value, it will appear red as long as this
  choice as not been validated by pressing ENTER.

## 6.1 Function menu

This menu allows you to set the initial DMX address, visualize the DMX values of each channel and select the current mode.

Sub-menus	Values		Description
Address	Set Address	From <b>A001</b> to AXXX	Configures the DMX address. The projector automatically enters DMX mode upon configuration of its DMX address.
Address	Slave Set	Slave 1, Slave 2, Slave 3	Allows you to determine the behaviour of your projector in slave mode.
Drowers	Auto	Alone, Master	Determines if your projector will operate Alone or as Master unit upon entering Auto mode.
Program	Sound	Alone, Master	Determines if your projector will operate Alone or as Master unit upon entering music-sensitive mode.

## 6.2 INFORMATION menu

Allows you to visualize the total uptime of your projector, its temperature and the current software version.

Sub-menus	Sub-sub-menus	Values	Description
	Current	XXXX (hours)	Uptime since last initialization.
	Total Time	XXXX (hours)	Total uptime since the first initialization.
Time. Info	Last Clear	XXXX (hours)	Uptime since last timer reset.
	Timer PIN	PIN = 038	Password allowing you to reset the Last Run Time.
	Clear Last	ON/OFF	Allows you to reset the Last Run Time.
Temp. Info	Head. Temp	XXX °C/°F	Temperature of the projector head in degrees
Software. V	1U01 V1.03 2U01 V1.03 3U01 V1.03 4U01 V1.03		Software versions
Model. Info	FUSION180		Displays the product name
Error. Info	Pan, Tilt,		Displays errors

## 6.3 PERSONALITY menu

Allows you to adjust certain parameters such as ventilation, display customization and functions reinitialization.

Sub-menus	Sub-sub-menus	Values	Description
	Remote. Add	ON/OFF	Activates addressing via DMX controller.
	No DMX Mode	Close/ <b>Hold</b> /Auto/Music	Configures the projector behaviour in case of DMX signal interruption:  • Clos: Blacks out  • Hold: holds onto the last information received  • Auto: enters auto mode via built-in programs  • Music: enters music-sensitive mode
Status Settings	Pan Reverse	ON/ <b>OFF</b>	Reverses PAN movements.
	TiltReverse	ON/ <b>0FF</b>	Reverses TILT movements.
	Pan Degree	<b>Pan 540</b> Pan 630	Sets PAN movements range: • Pan540 : Rotates over 540° (1, 5 turns) • Pan630 : Rotates over 630° (1, 75 turns)
	Feedback	ON/OFF	Sends movement feedbacks

## 6.3 PERSONALITY menu

Sub-menus	Sub-sub-menus	Values	Description
	Mov Speed	Speed <b>1</b> ~ 4	Allows you to configure the auto movements speed AUTO: 1 = fast; 4 = slower
	Mic Sens	0 ~ 99%	Adjusts the microphone sensitivity for music-sensitive modes
Status Settings	Stand By	OFF 01m ~99m <b>(05m)</b>	Configures the amount of time without DMX signal before entering stand-by mode.  Upon reception of another signal, your projector will re-initialize before being operational.  Default value is 15 minutes.
	ServicePIN		Password to access ServicePIN: 050
Fixture ID	RDM PID		ID code for this projector in order to identify it for DMX remote settings.  The RDM protocols uses information packets transmitted via DMX. The PID RDM depends on the RDM compatible controller used.
Fans. Set	Head Fan		Allows you to configure the ventilation of the head of your projector.  - Auto: The projector controls its own temperature (default value).  - High: Forces maximum ventilation.  - Low: Slower ventilation. Especially useful when the room requires silence.
	Base Fan		Allows you to adjust the ventilation of the body of your projector90% / 75% / 50%
	ShutoffTime	02 ~60m <b>(05m)</b>	Sets the amount of time without activity before the menu enters stand-by mode.
LCD. Set	Display Rev	ON/ <b>OFF</b>	Rotates the display by 180°
LCD. Set	Key Lock	ON/ <b>OFF</b>	Allows you to lock buttons after a 15-second period of inactivity. Buttons can be unlocked by pressing MENU for 3 seconds.
	Disp Flash ON/ <b>0FF</b>		Activates display flashes in case of DMX signal interruption.
Temp. C/F	Celsius / Fahrenheit		Sélection de l'unité d'affichage de la température.
Init. Status	Service PIN = XXX Auto Pro = XXX PAN = XXX etc		Allows you to set the position of each function upon initialization of your projector.
DFSE	ON/ <b>OFF</b>		Resets back to factory settings. NOTE: All user programs will be erased.

## 6.4 Reset Function menu

Allows you to re-initialize motors one by one.

Sub-menus	Description
Reset ALL	Resets all motors
ResetPanTilt	Resets PAN and TILT motors
ResetColorWheel	Resets colour wheel motors
ResetRotGobo	Resets rotative gobo wheel motors
ResetFixedGobo	Resets fixed gobo wheel motors
ResetZoomFocus	Resets zoom and focus

## 6.5 User Mode menu

Allows you to select a DMX mode (number of channels used) or edit your own patch (the order and number of channels used).

The followin chart indicates the DMX value of each channel and their function.

Sub-menus	Values	Description
	Standard	Basic DMX mode, featuring 17 channels and most functions.
	Basic	15-channel mode, featuring all essential functions.
User Mode	Extend	20-channel mode, allowing you to control advanced functions
	User A	User mode A
	User B	User mode B
	User C	User mode C
Edit A	Max Chan = XX PAN = CHXX etc	User mode A edition: - Max Channel determines the number of channels used PAN = CHXX determines the channel assigned th PAN function. Once a function has been moved, it will be replaced by the former function using its channel
Edit B	Max Chan = XX PAN = CHXX etc	Identical
Edit C	Max Chan = XX PAN = CHXX etc	Identical

## 6.6 Edit Program menu

Allows you to select programs assigned to each program groups, edit the 9 built-in programs and the 250 scenes composing these programs.

Your FUSION180 can be assigned to 3 slave groups (Slave mode from the Function menu)

The Master unit sends programs with groups information.

Programs are sent in a loop as follows:

Slave units receive whole programs but will only react to programs assigned to their group.

A unit assigned to Slave group 2 will only react to Pro Part2 programs.

Sub-menus	Valu	es	Description
Select. Pro	Pro Part1 = Program 1 ~ Pro Part2 = Program 1 ~ Pro Part3 = Program 1 ~	10 ( <b>Program 2)</b>	Allows you to assign one of the 9 built-in programs to each Pro Part X
EditProgram	Program 1 Program 2  Program 10	• Pro Test • Step 01 ~ 64	Allows you to select scenes assigned to programs. Assign a scene by pressing ENTER and moving onto the next scene. The same scene can be assigned to different steps of the program. Assign the End scene at the end of your program to complete it. Use the <b>Pro Test</b> sub-menu to check which scenes are assigned to the program being edited.
Edit. Sce	Scene 001 Scene 002  Scene 250	Auto Program,     PAN, TILT Fine,     Scene Time     Fade Time     Input By Outside	Allows you to edit one of the 250 scenes. Select a scene, then press ENTER. Select each function (PAN, TILT,etc), save with ENTER, then assign it a value between 000 and 255. You will then be required to assign a duration and fade time to your scene. The Input By Outside function allows to receive a scene from a DMX controller.
Sce. Input	XXX - XXX		Allows you to record scenes from a DMX controller. You can store up to 250 scenes. You can determine the number of scene by marking the first and last scene. Use the left and right arrows to set the first scene. Use the up and down arrows to set the last scene. Press ENTER, your projector is now awaiting scenes from a DMX controller.

## More details about program groups and their scenes

Example:

Program 2 contains scenes 10, 11, 12 and 13

Program 4 contains scenes 8, 9 and 10

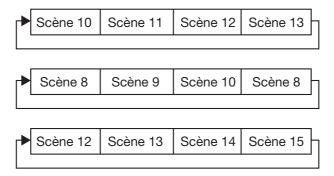
Program 6 contains scenes 12, 13, 14 and 15

Pro Part 1 is assigned to program 2

Pro Part 2 is assigned to program 4

Pro Part 3 is assigned to program 6

All 3 slave groups will use the same number of steps to generates these programs. The following pattern indicates their behaviour.



## 6.7 Effect menu

Allows you to test functions, pilot them manually and calibrate PAN and TILT movements.

Sub-menus	Values	Description
Test. Chan	AUTO PAN etc	Tests each function individually
Manual. Ctrl	AUTO = XXX PAN = XXX etc	Manually controls each function
Calibrata	-Password-	Password to access calibration functions = 050
Calibrate	PAN = XXX TILT = XXX	Allows you to precisely configure initial PAN and TILT positions (after resetting or upon initialization)

# 7 -DMX channels and their functions

Your FUSION180 moving head features 3 DMX modes:

The Basic mode features 15 channels, while the Standard mode features 17 and the Expert mode features 20.

The following chart indicates DMX values of each channels.

Note: St = Standard, Ba = Basique and Ex = Extended.

## 7.1 DMX modes and values

Mod	Modes / Channels		DMX values	Functions and effects
St	Ba	Ex		
_		_	8-bit PAN movements	
1	1 1	1	000 - 255	PAN movements
2		_	16-bit PAN movements	
		2	000 - 255	Precise PAN movements
3	2	3	8-bit TILT moveme	ents
3		3	000 - 255	TILT movements
4		4	16-bit TILT movem	ents
4		4	000 - 255	Precise TILT movements
			PAN/TILT speed ar	d behaviour during movements and wheels rotation
			000 - 225	Fast to slow speedsettings
5	3	5	226 - 235	Black out during PAN and TILT movements
			236 - 245	Black out during wheels rotation
			246 - 255	No function, maximum speed
6	4	6	Dimmer	
0	7	Ů	000 - 255	Dimmer settings from 0 to 100%
		7	16-bit dimmer	
		,	000 - 255	Precise dimmer settings
			Strobe	
			000 - 031	Shutter closed
			032 - 063	No functions, shutter open
			064 - 095	Slow to fast strobe
7	5	8	096 - 127	No functions, shutter open
			128 - 159	Slow to fast pulse effect
			160 - 191	No functions, shutter open
			192 - 223	Slow to fast random strobe
			224 - 255	No functions, shutter open
			Colour wheel	
			000 - 015	Open
			016 - 030	Colour 1
			031 - 045	Colour 2
			046 - 060	Colour 3
			061 - 075	Colour 4
8	6	9	076 - 090	Colour 5
			091 - 105	Colour 6
			106 - 120	Colour 7
			121 - 135	Colour 8
			136 - 150	Colour 9
			151 - 165	Colour 10
			166 - 255	Fast to slow rainbow colour

	T	1		
			Rotative gobo whe	el
			000 - 003	Open
			004 - 007	Rotative gobo 1
			008 - 011	Rotative gobo 2
			012 - 015	Rotative gobo 3
			016 - 019	Rotative gobo 4
			020 - 023	Rotative gobo 5
			024 - 027	Rotative gobo 6
			028 - 031	Rotative gobo 7
			032 - 035	Rotative gobo 8
			036 - 039	Rotative gobo 9
9	7	10	040 - 049	Slow to fast Gobo 1 shake effect
			050 - 059	Slow to fast Gobo 2 shake effect
			060 - 069	Slow to fast Gobo 3 shake effect
			070 - 079	Slow to fast Gobo 4 shake effect
			080 - 089	Slow to fast Gobo 5 shake effect
			090 - 099	Slow to fast Gobo 6 shake effect
			100 - 109	Slow to fast Gobo 7 shake effect
			110 - 119	Slow to fast Gobo 8 shake effect
			120 - 129	Slow to fast Gobo 9 shake effect
			130 - 190	Fast to slow, clockwise rainbow effect with all gobos
			191 - 194	No rotation
			195 - 255	Slow to fast, counterclockwise rainbow effect with all gobos
			Gobos rotation	Slow to last, counterclockwise railbow effect with all godos
			000 - 127	Gobos indexation
10	8	11	128 - 189	Fast to slow, clockwise rotative gobos rotation
10	"		190 - 193	No rotation
			194 - 255	Slow to fast, counterclockwise rotative gobos rotation
			Fixed gobo wheel	Slow to last, counterclockwise rotative godos rotation
			000 - 003	Open
			004 - 007	Beam filter 1
			008 - 011	Beam filter 2
			012 - 015	Beam filter 3
			016 - 019	Fixed gobo 1
			020 - 023	Fixed gobo 2
			024 - 027	Fixed gobo 3
			028 - 031	Fixed gobo 4
			032 - 035	Fixed gobo 5
			036 - 039	Fixed gobo 6
			040 - 043	Fixed gobo 7
			044 - 047	Fixed gobo 8
11	9	12	048 - 051	Fixed gobo 9
''	9	12	052 - 055	Fixed gobo 10
				Fixed gobo 11
			056 - 059	
			060 -063	Fixed gobo 12
			064 - 073	Beam filter 1 shake effect
			074 - 083	Beam filter 2 shake effect
			084 - 093	Beam filter 3 shake effect
			094 - 103	Fixed gobo 1 shake effect
			104 - 113	Fixed gobo 2 shake effect
			114 - 123	Fixed gobo 3 shake effect
			124 - 133	Fixed gobo 4 shake effect
			134 - 143	Fixed gobo 5 shake effect
			144 - 153	Fixed gobo 6 shake effect
1	1	1	154 - 163	Fixed gobo 7 shake effect

164	,	·	,	·	,,
1				164 - 173	Fixed gobo 8 shake effect
11				174 - 183	Fixed gobo 9 shake effect
	l	_		184 - 193	Fixed gobo 10 shake effect
part   part	1	1 -	ı	194 - 203	Fixed gobo 11 shake effect
212 - 232   Fast to slow, clockwise fixed gobo wheel rotation   235 - 255   Slow to fast, counterclockwise fixed gobo wheel rotation   235 - 255   Slow to fast, counterclockwise fixed gobo wheel rotation	,	,	,	204 - 211	Fixed gobo 12 shake effect
10	part)	part)	part)	212 - 232	Fast to slow, clockwise fixed gobo wheel rotation
10	İ			233 - 234	No rotation
12					Slow to fast, counterclockwise fixed gobo wheel rotation
10					
10				}	·
18	12	10	13	·	<u>*</u>
194 - 255   No function					*
13					*
13				-	
13					** <del>-</del>
190 - 193   No rotation   194 - 255   Slow to fast, counterclockwise prism rotation   200m   000-010   Zoom from 6° to 21°	13	11	14		<u> </u>
14   12   15   200m	"	l		}	<u> </u>
14				}	*
14					i Slow to rast, counterclockwise prism rotation
16	14	12	15		700m from 6° to 21°
16					200111101110 1021
15			16		Procise zooms settings
18					1 Teolae 200ma actunga
18	15	13	17	ļ	Facus cattings
18					1 ocus settings
16			18		Project focus cattings
16				-	Fredise locus settings
14				·	Front from 0 to 1000/
15   20   236 - 245   Slow to fast closing pulse effect   246 - 255   Frost at 100%	16	14	10		*
15   20   246 - 255   Frost at 100%	10	14	19		*
15				·	*
15   15   20					
15   15   20					*
15   15   20				·	* <del></del>
15   15   20				}	+
15					<b>*</b>
15					<u> </u>
15   20     091 - 093   Resets rotative gobo wheel motors   094 - 096   Resets fixed gobo wheel motors   097 - 099   Resets other motors   100 - 119   Built-in program 1 (scenes 1 to 8 from the memory)   120 - 139   Built-in program 2 (scenes 9 to 16 from the memory)   140 - 159   Built-in program 3 (scenes 17 to 24 from the memory)   160 - 179   Built-in program 4 (scenes 25 to 32 from the memory)   180 - 199   Built-in program 5 (scenes 33 to 40 from the memory)   200 - 219   Built-in program 6 (scenes 41 to 48 from the memory)   220 - 239   Built-in program 7 (scenes 49 to 56 from the memory)				}	<u> </u>
15				·	*
17					+
100 - 119   Built-in program 1 (scenes 1 to 8 from the memory)   120 - 139   Built-in program 2 (scenes 9 to 16 from the memory)   140 - 159   Built-in program 3 (scenes 17 to 24 from the memory)   160 - 179   Built-in program 4 (scenes 25 to 32 from the memory)   180 - 199   Built-in program 5 (scenes 33 to 40 from the memory)   200 - 219   Built-in program 6 (scenes 41 to 48 from the memory)   220 - 239   Built-in program 7 (scenes 49 to 56 from the memory)	17	15	20	}	*
120 - 139 Built-in program 2 (scenes 9 to 16 from the memory) 140 - 159 Built-in program 3 (scenes 17 to 24 from the memory) 160 - 179 Built-in program 4 (scenes 25 to 32 from the memory) 180 - 199 Built-in program 5 (scenes 33 to 40 from the memory) 200 - 219 Built-in program 6 (scenes 41 to 48 from the memory) 220 - 239 Built-in program 7 (scenes 49 to 56 from the memory)	"			}	*
140 - 159 Built-in program 3 (scenes 17 to 24 from the memory) 160 - 179 Built-in program 4 (scenes 25 to 32 from the memory) 180 - 199 Built-in program 5 (scenes 33 to 40 from the memory) 200 - 219 Built-in program 6 (scenes 41 to 48 from the memory) 220 - 239 Built-in program 7 (scenes 49 to 56 from the memory)					* <del></del>
160 - 179 Built-in program 4 (scenes 25 to 32 from the memory) 180 - 199 Built-in program 5 (scenes 33 to 40 from the memory) 200 - 219 Built-in program 6 (scenes 41 to 48 from the memory) 220 - 239 Built-in program 7 (scenes 49 to 56 from the memory)					*
180 - 199 Built-in program 5 (scenes 33 to 40 from the memory) 200 - 219 Built-in program 6 (scenes 41 to 48 from the memory) 220 - 239 Built-in program 7 (scenes 49 to 56 from the memory)				}	+
200 - 219 Built-in program 6 (scenes 41 to 48 from the memory) 220 - 239 Built-in program 7 (scenes 49 to 56 from the memory)				160 - 179	*
220 - 239 Built-in program 7 (scenes 49 to 56 from the memory)				180 - 199	
				200 - 219	Built-in program 6 (scenes 41 to 48 from the memory)
240 - 255 Music-sensitive mode (Program 1 scenes)				220 - 239	Built-in program 7 (scenes 49 to 56 from the memory)
				240 - 255	Music-sensitive mode (Program 1 scenes)

## 8 - Error messages

Upon activation, your projector will first initialize. The message « Error channel is XX » may appear on the display as the results or problems occurring with one or several channels.

Your device will then generate an order or re-initialization and all motors will go back to their initial position.

If the message keeps appearing after 3 re-initialization, this may means there are more than 3 errors, in which case the DMX channels cannot operate properly. If there are less than 3 mistakes, the problematic channels only will be deactivated.

Error channel is 01: PAN movement error (yoke).

This message may appear upon initialization if the PAN magnetic sensor is defective.

Error channel is 03: TILT movement error (head).

This message may appear upon initialization if the TILT magnetic sensor is defective.

Errors may have diverse origins. Sensors allow to calibrate the position of motors.

Either the magnetic sensors are defective, or misplaced.

The problem might also come from from a defective motor or the improper electronic control of said motor.

Please note the error name displayed on the screen and contact your retailer to engage in a maintenance procedure.

## 9 - Dimensions

