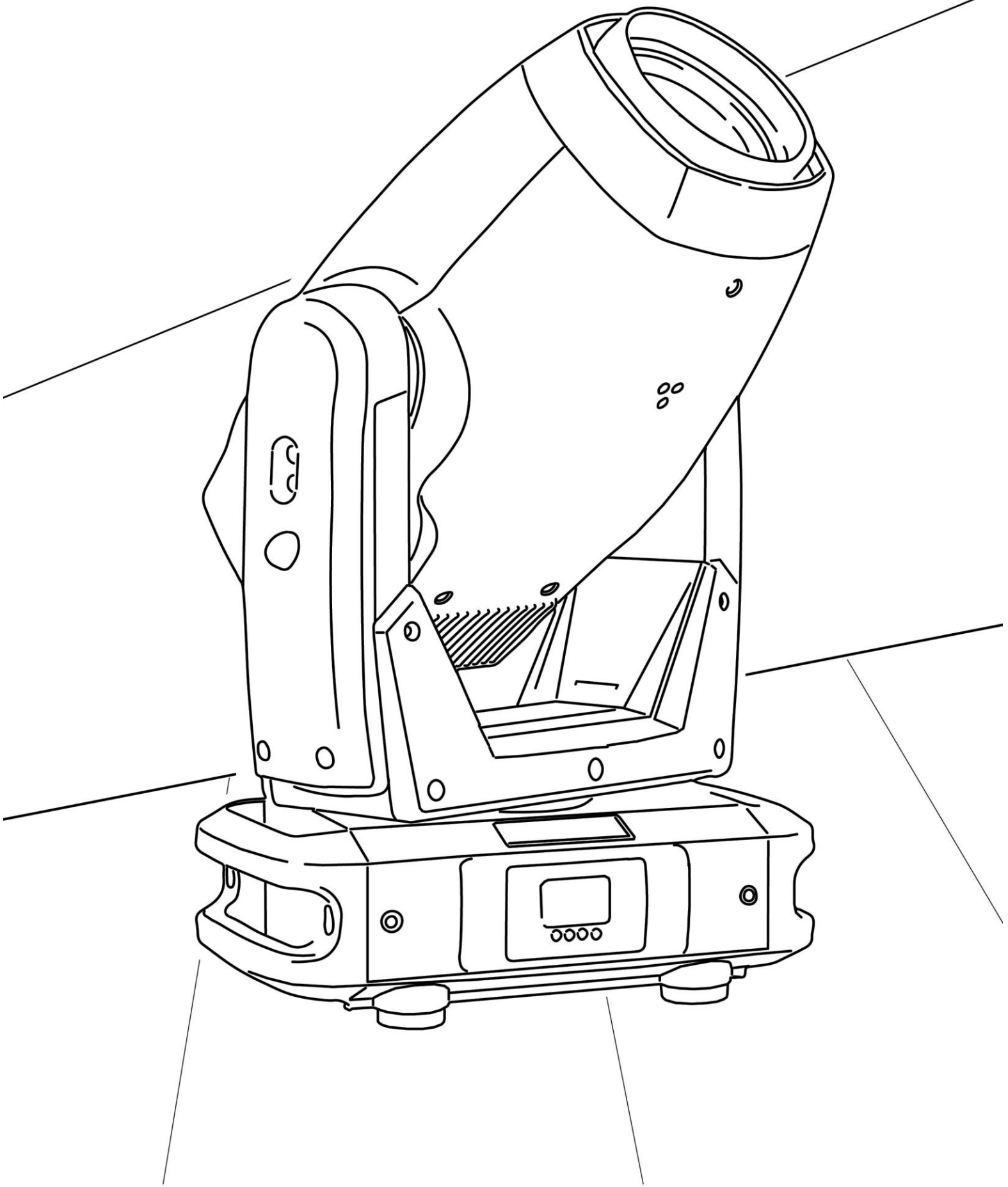
SYNERGY 5 PROFILE

USER'S MANUAL



INDEX:

1- SYMBOLS

Graphic symbols used on this manual:

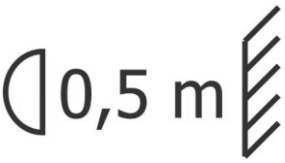
THIS SYMBOL INDICATES A HOT SURFACE

THIS SYMBOL INDICATES ELECTRIC SHOCK RISK

THIS SYMBOL INDICATES GENERAL RISK

THIS SYMBOL MEANS "SUITABLE FOR INDOOR USE ONLY"

THIS SYMBOL INDICATES THE MAXIMUM OPERATING AMBIENT TEMPERATURE



THIS SYMBOL INDICATES THE MINIMUM DISTANCE FROM THE OBJECTS AND THE PEOPLE LIT BY THE LIGHT BEAM

THIS SYMBOL MEANS "DO NOT STARE AT THE OPERATING LIGHT SOURCE"

THIS SYMBOL INDICATES PHOTOBIOLOGICAL SAFETY

THIS SYMBOL INDICATES THE EUROPEAN COMMUNITY DIRECTIVE 2012/19/EU ON WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)

THIS SYMBOL MEANS "DISPOSE THE INTERNAL BATTERY AT THE END OF ITS LIFE ACCORDING TO THE REGULATION IN FORCE"

2- GENERAL WARNING

Read the instruction contained in this user manual carefully, as they give important information regarding safety during installation, use and maintenance.
The unit is not for household use and must be installed by a qualified electrician or experienced person.
The device must always be equipped with an efficient ground connection.

WARNING!
NEVER EXPOSE THE FRONT LENS TO SUNLIGHT FROM ANY ANGLE TO AVOID DAMAGE OF HEAD INTERNAL PARTS.

Front lens could become powerful magnifying glass if exposed towards the sun or any strong artificial light source; this can cause damage of head internal parts, even for few seconds and even when the unit is off.
The last command before switch off: point the front lens down towards the ground.

3- GENERAL WARRANTY CONDITIONS

The unit is guaranteed for 36 months from the date of purchase against manufacturing material defects.

4- TECHNICAL FEATURES

DTS Product Code:
03.MP001 SYNERGY 5 PROFILE

OUTPUT
• 420 W pure white LED source (7000 K 16.500 Lumens output)
• Double CRI (DMX-selectable): CRI >90 or CRI >75
• Average LED life: 50,000 hours (70% lumen output)

OPTICAL GROUP
• 49.900 Lux (4.6°@ 5 m)
• 4.6° - 43° linear zoom with autofocus
• Linear soft frost filter (Medium and Heavy frost available on demand)
• Electronic dimmer / shutter / strobe (0.3 to 33.3 flash/sec)

COLOR GENERATION
• Linear CMY
• Linear CTO (3000 K – 7000 K)
• Gel filter emulation
• 6-color wheel
• Two-color generation

DYNAMIC EFFECTS
• Dynamove FX Engine
• Virtual Animation Wheel
• Customizable rotating 6-gobo wheel
• Circular 24-facet rotating prism
• Linear 6-facet rotating prism

ROTATING FRAMING SYSTEM
• 4-blade rotating framing system
• Real ‘curtain’ effect for each blade
• 60° rotation for each blade (+/- 30°)
• 90° full system rotation (+/- 45°)

CONTROL
• Art-Net 4, sACN, RDM/DMX 512 protocols

• LCD graphic display + 4 soft keys; Auto-flip; Key-lock function
• Internal operating system updatable via DTS dongle firmware uploader
• Li-Fe backup battery for controlling the display settings even when the unit is not powered

DMX
• 44 DMX channels (Default)
• 53 DMX channels
16 bit index for insertion and rotation of each blade
16 bit index for blade system rotation

PAN & TILT
• Pan: 540°: 2.7 sec.
• Tilt: 240°: 1.6 sec.
• Tri-phase stepper motor technology
• 16-bit resolution
• Selectable speed ranges
• Pan / Tilt lock

POWER SUPPLY
• Full-range 100-277Vac 50-60 Hz
• Power consumption: 550W max

CONNECTIONS
• DMX: XLR 3-pole and 5-pole In / Out panel connectors
• Power supply: powerCON TRUE1 In / Out panel connectors
• Art-Net / sACN: etherCON RJ45 panel connector

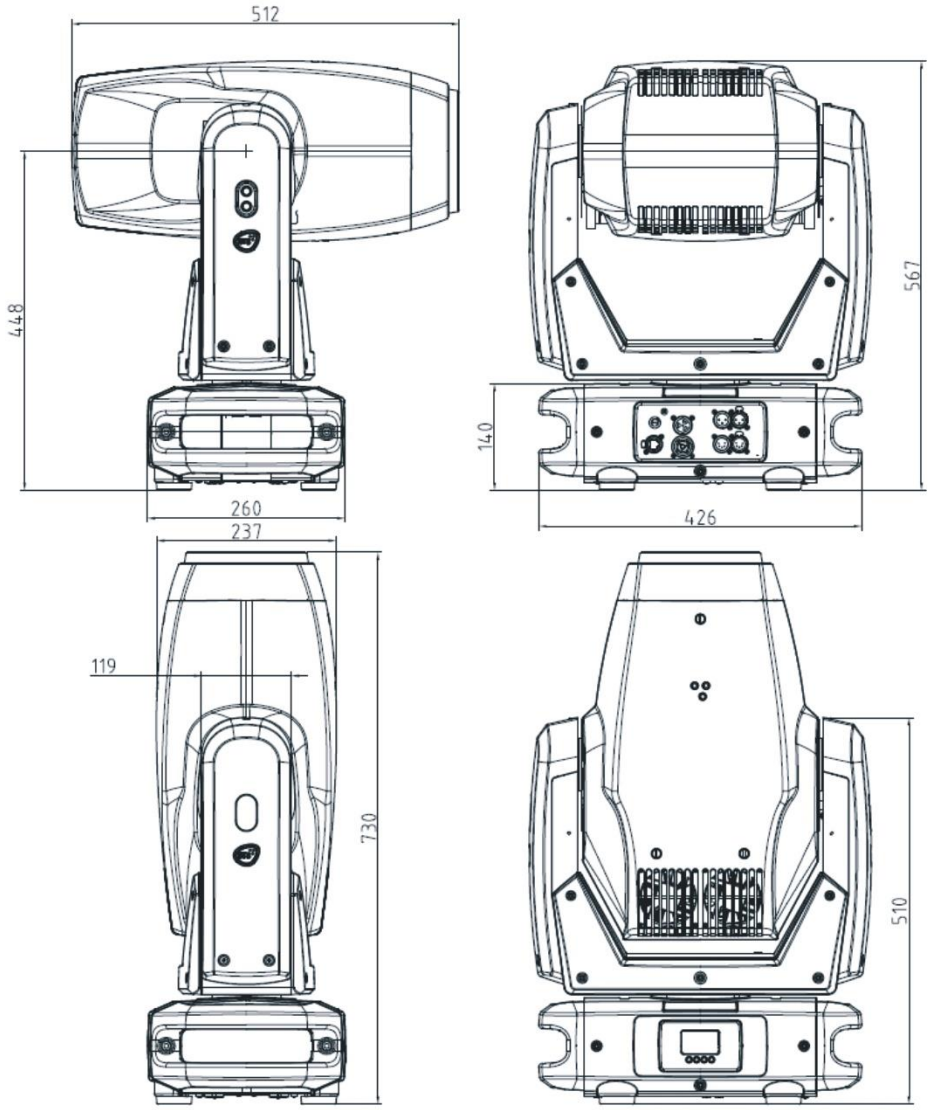
INTERNAL SAFETY DEVICES
Overvoltage and overtemperature circuits protection

OPERATING TEMPERATURE
-10° / 45°C

PHYSICAL
• IP20
• Weight: 35 Kg (77.1 lbs)
• Finishing: Black

CERTIFICATIONS
CE

Dimensions



5- ACCESSORIES

As standard

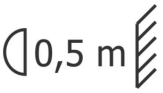
1 x Synergy EZ-shell – 560x490x670 mm – 2 pcs needed in each flightcase (Code 0512K146.1)
1 x Soft Frost filter kit – already mounted on the unit (Code 02SK0410)
1 x PowerCON TRUE1 female cable connector (Code 0520P066)
1 x XLR 5 pins female cable connector (Code 0508B147)
1 x XLR 5 pins female cable connector (Code 0508B148)
2 x Omega clamp with “Fast Lock” connection 1/4 turn (Code 02K00549)
1 x User’s manual

Optional (on request)

• Medium Frost filter kit (Code 02SK0428)
• Heavy Frost filter kit (Code 02SK0430)
• Flightcase for 2 units (Code 0521C073)
• Aliscaf clamp for tube diameter 48-51 mm (Max load 200 Kg) (code 0521A033) (indicated for any kind of loads vertical / horizontal)
• Professional Quick trigger clamp (Max load 100 Kg) (code 0521A037) (not indicated for horizontal load)
• Safety cable 5 x 600 mm (Max load 60 Kg) (code 0521A038)
• DTS Dongle firmware uploader (code 03.LA.206)

6- IMPORTANT SAFETY INFORMATION

6.1 Fire prevention:

-Minimum distance from the objects and the people lit by the light beam: 0,5 m. 

-Replace any blown or damaged fuses only with those of identical value (T 8A 250V). Refer to the wiring diagrams if there is any doubt.
-Connect the projector to mains power via a thermal magnetic circuit breaker.

6.2 Prevention of electric shock: 

-High voltage is present inside the unit.
Unplug the unit prior to performing any function which involves touching the inside of the moving head.
-The level of technology inherent in the SYNERGY 5 PROFILE requires the assistance of specialised personnel for all servicing. Please refer to an authorised DTS service centre.
-A good earth connection is essential for proper functioning of the projector.
-Never connect the unit without proper earth connection.
-The fixture should be located in places with a good air ventilation.

6.3 Safety: 

-Risk Group 2 product according to EN 62471. 

CAUTION. Do not look directly into the light output and do not view the light beam with optical instruments or any device that may concentrate the beam.
May be harmful to the eyes and skin.

-Do not stare at the operating light source. 
-The luminaire should be positioned so that prolonged staring into the luminaire at the distance of 33,56 m is not expected.
-The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.
-The unit is not for household use and must be installed by a qualified electrician or experienced person.
-The projector should always be installed with bolts, clamps and other tools that are capable of supporting the weight of the unit.
-Always use a safety cable to sustain the weight of the unit in case of the failure of the main fixing point.
-The external surface of the unit, at various points, may exceed 50°C. Never handle the unit until at least 5 minutes have elapsed since the unit was turned off. 
-Never install the fixture in an enclosed area lacking sufficient air flow.

The ambient temperature should not exceed 45°C. 

6.4 Level of protection against the penetration of solid and liquid objects:

-The projector is classified as an ordinary appliance and its protection level against the penetration of solid and liquid objects is IP20.

Suitable for indoor use only. 

6.5 Waste Electrical and Electronic Equipment (WEEE) directive:

- The projector, accessories and packaging should be sorted for environmental-friendly recycling.
For EC countries: according to the European Directive 2012/19/EU for Waste Electrical and Electronic Equipment and its implementation into national right, luminaires that are no longer usable must be collected separately and disposed of in an environmentally correct manner.

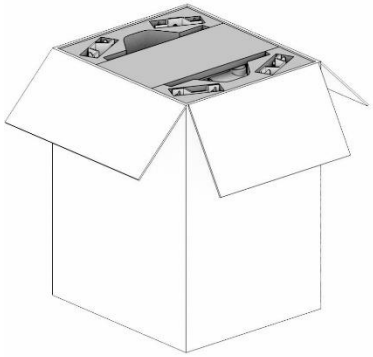
6.6 Long-life auto-charging buffer battery:

-The projector contains a rechargeable lead-acid or lithium iron tetraphosphate battery. To preserve the environment, please dispose the battery at the end of its life according to the regulation in force.

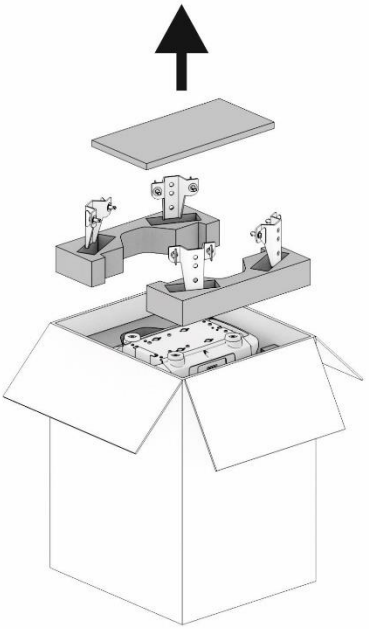
7- EZ-SHELL

How to reuse SYNERGY's foam shell:

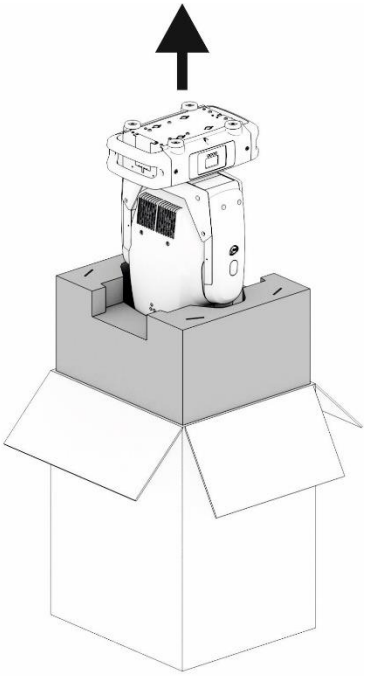
1) Open



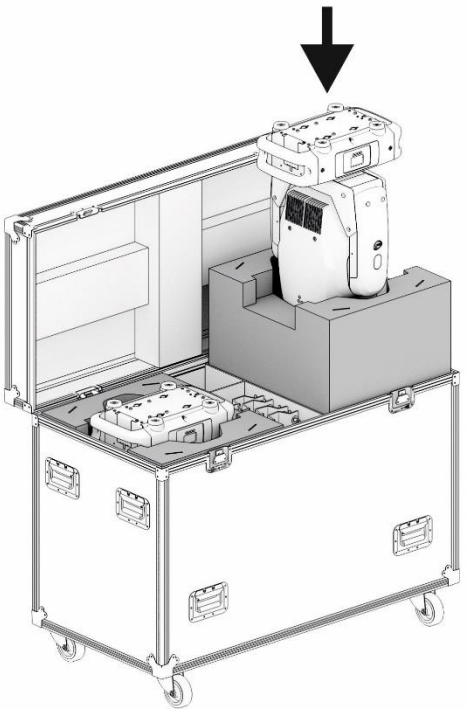
2) Extract cover and accessories



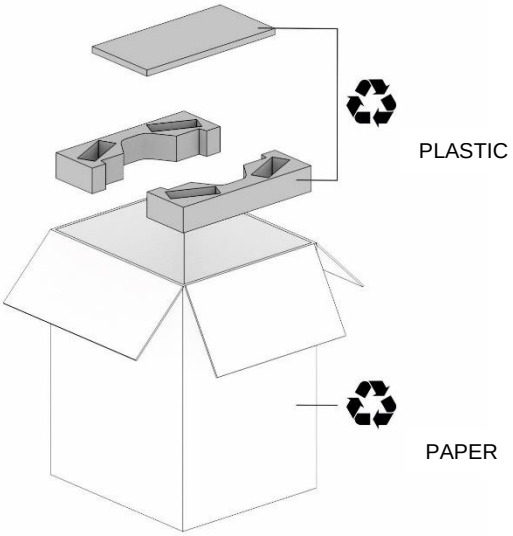
3) Extract SYNERGY and EZ-shell



4) Each flight case can contain 2 units and their EZ-shell

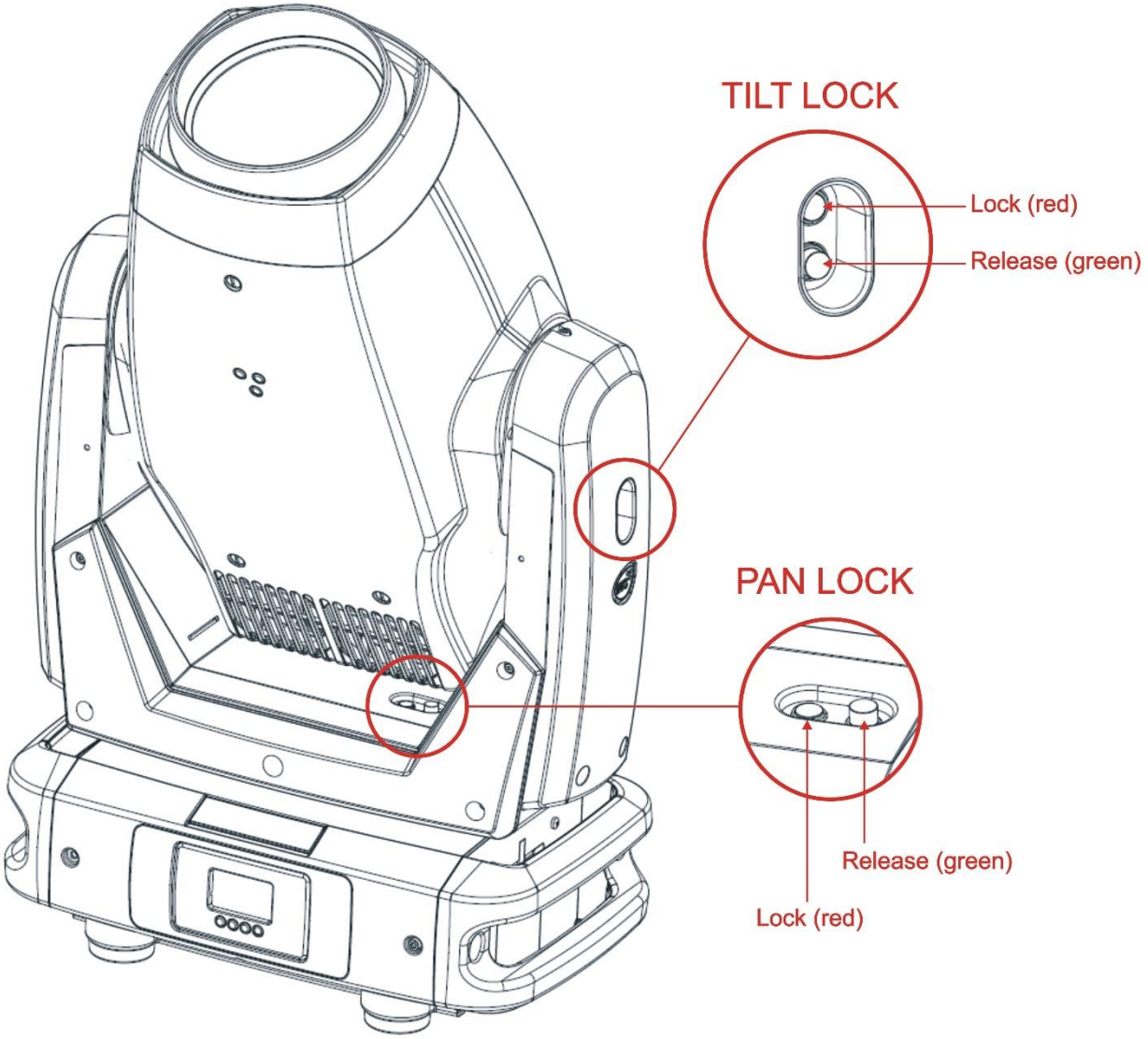


5) Don't forget to recycle



8- PAN / TILT LOCK

When moving or servicing the unit you can apply the Pan and Tilt lock.
To lock or release the Pan and Tilt refer to the picture below.



9- VOLTAGE AND FREQUENCY

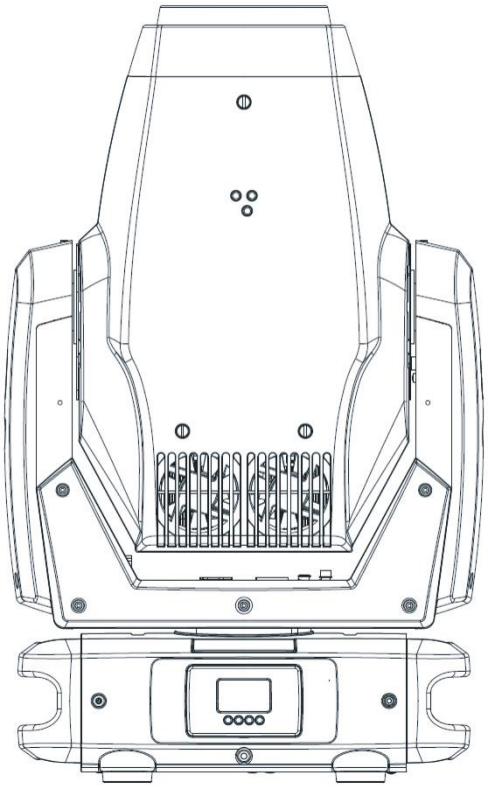
SYNERGY 5 PROFILE operates at 100-277Vac 50-60 Hz.

10- INSTALLATION

The unit is suitable for dry locations only.

SYNERGY 5 PROFILE may be either floor or ceiling mounted.

For floor mounting installations, SYNERGY 5 PROFILE is supplied with four rubber mounting feet on the base.



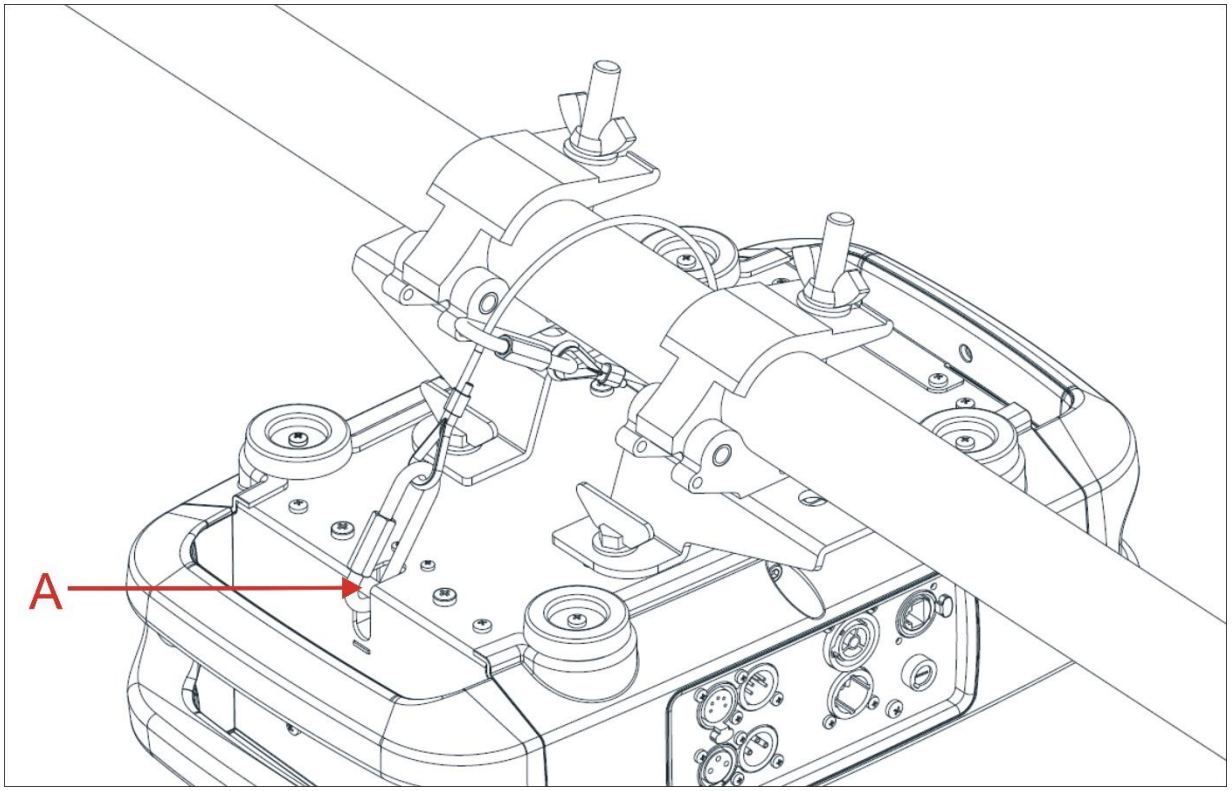
For ceiling mounted installations, we recommend the use of appropriate clamps to fix the unit to the mounting surface.

The supporting structure from which the unit is hung should be capable of bearing the weight of the unit, as should any clamps used to hang it.
The structure should also be sufficiently rigid so as not to move or shake whilst the SYNERGY 5 PROFILE is moving.

Four 1/4 turn Fast Locks connections placed in the base of the unit allow to hang the SYNERGY 5 PROFILE by using two Omega brackets (provided in the box) in conjunction with Aliscaf clamp (available on demand).

10.1- Safety cable

A safety cable must be securely fixed to the SYNERGY 5 PROFILE and to the suspension truss in order to avoid the fixture accidentally falling should the main fixing point fail.
Make sure that the safety cable or chain can bear the weight of the entire unit.
A suitable safety cable (code 0521A038) is available on demand.
You may attach the safety cable to the attachment point (A) located on the base of the fixture, as shown in the picture below.



10.2 Protection against liquids

The projector contains electric and electronic components which should under no circumstances come into contact with oil, water or any other liquid.
The proper unit functioning would be compromised should this occur.

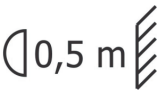
10.3- Movement

Pan: 540° rotation ; Tilt: 240° rotation.
Do not place any object in the path of the projector's movement.

10.4- Risk of fire

Each fixture produces heat and must be installed in a well-ventilated place.

Minimum distance from the objects and the people lit by the light beam: 0,5 m.



10.5- Forced ventilation

You will note, on inspection, that the unit features various air inlets and cooling fans located on both the base and head of the fixture.
These should, under no circumstances, be blocked or obstructed whilst the projector is in operation. Doing so could cause the fixture to seriously overheat thereby compromising its proper operation.

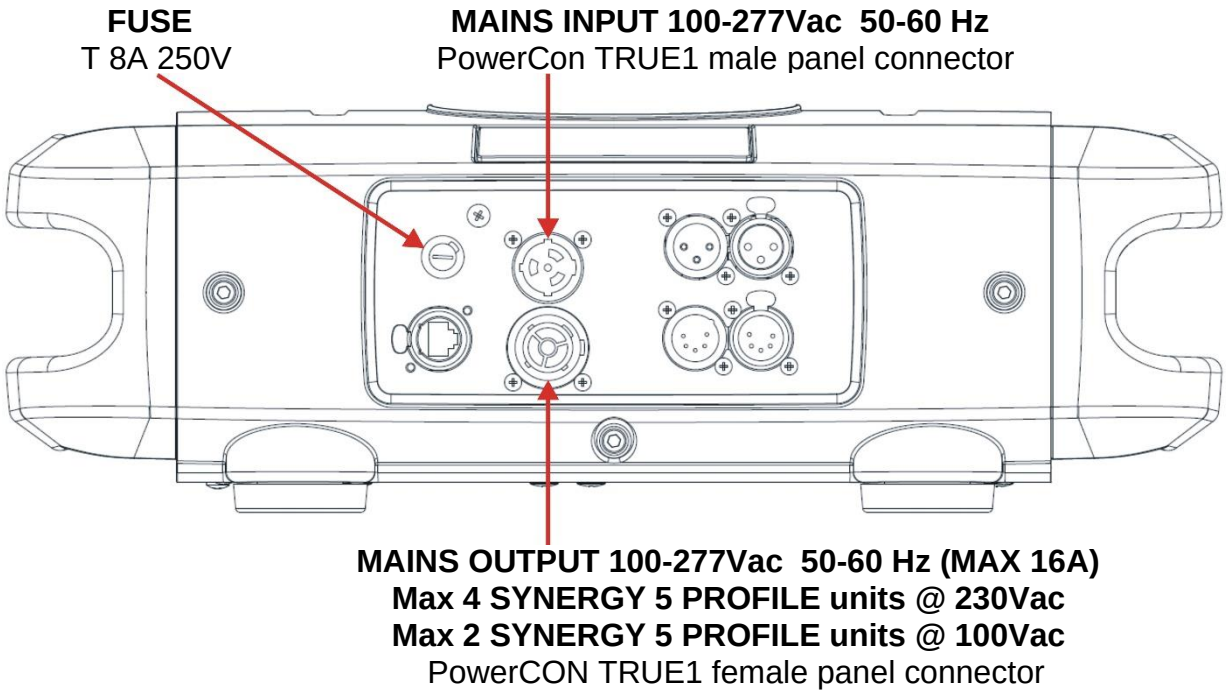
10.6- Ambient temperature

The projector should never be installed in places that lack a constant air flow.

The ambient temperature should not exceed 45°C. t_a 45°C

11- MAINS CONNECTION

SYNERGY 5 PROFILE operates at 100-277Vac 50-60 Hz.
Prior to connecting the unit to your mains supply, ensure that the model in your possession correctly matches the mains supply available.
For connection purposes, ensure that your plug is capable of supporting 3 amps at 230Vac or 6,5 amps at 100Vac each unit connected.
Strict adherence to regulatory norms is strongly recommended.



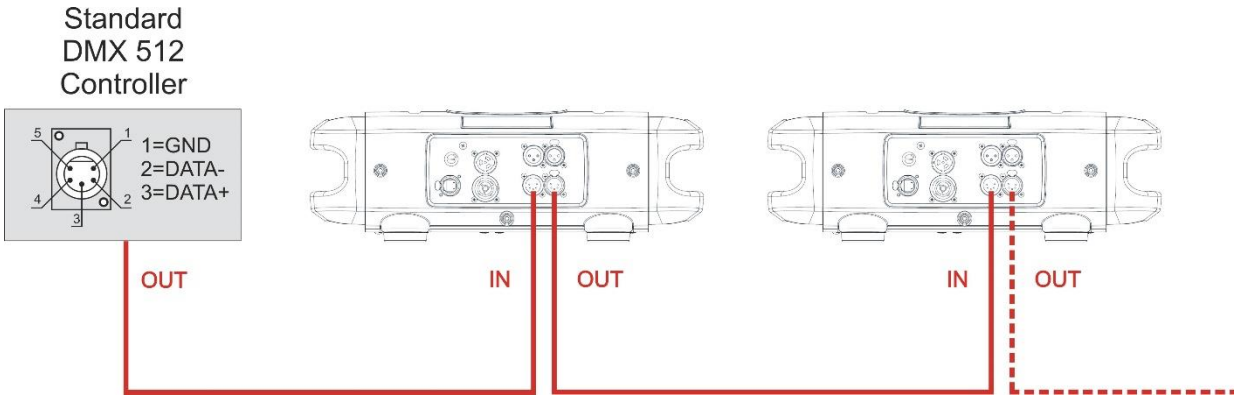
11.1- Protection

The use of a thermal magnetic circuit breaker is recommended for each SYNERGY 5 PROFILE.
A good earth connection is essential for the correct operation of the projector.

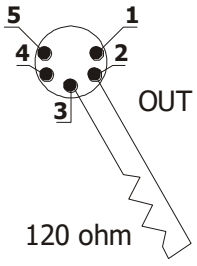
12- DMX SIGNAL CONNECTION

The unit operates using the digital DMX 512 signal.
Connection between the mixer and the projector or between projectors must be carried out using a two pair screened ø 0.5 mm cable and a XLR 5 or 3 pins connector.
Ensure that the conductors do not touch each other.
Do not connect the cable ground to the XLR chassy.
The plug housing must be isolated. Connect the mixer signal to the DMX IN projector plug and connect it to the next projector by connecting the DMX OUT plug on the first projector to the DMX IN plug of the second one.
This way, all the projectors are cascade connected.
NB. If the display showing the DMX address flashes, then one of the following errors has occurred:

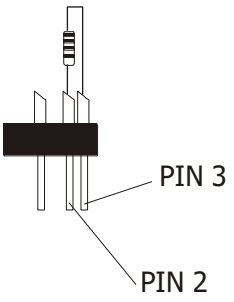
- DMX signal not present
- DMX address not valid
- DMX reception problem



For Installations where long distance DMX cable connections are needed, we suggest to use a DMX terminator.
The DMX terminator is a male XLR 3-5 pins connector with a 120 ohm resistor between pin 2 and 3.
The DMX terminator must be plugged into the last unit (DMX out panel connector) of the DMX line.



PLACE A 120 OHM RESISTOR BETWEEN PIN 2 AND 3 OF A MALE XRL CONNECTOR AND PLUG IT INTO THE DMX OUT PANEL CONNECTOR OF THE LAST UNIT CONNECTED TO THE DMX LINE



12.1-DMX Addresses

SYNERGY 5 PROFILE can be controlled with 44 DMX channels (Default) or 53 DMX channels.
In order to use the unit in 44 DMX channels mode (Default), set the following addresses on the mixer:

Projector 1	A001	
Projector 2	A045	If you want to select the next projector, just add “44”
Projector 3	A089	
…..	A….	
projector 6	A221	

12.2-Selecting the DMX address

1) Press the UP-DOWN key until you reach the required DMX channel. The numbers on the display will start to flash (but the new DMX address hasn't yet been set).
2) Press ENTER to confirm your selection. The numbers on the display will stop flashing and the projector is now setted to the new DMX address.

TRICKS:
If you keep pushed the UP or DOWN keys, the channels are calculated more quickly and you get a faster selection.

13- Art-Net / sACN SIGNAL CONNECTION

The unit operates using the Art-Net / sACN signal.
Connection between the mixer and the projector must be carried out using a category 5 network cable and a standard RJ45 connector.

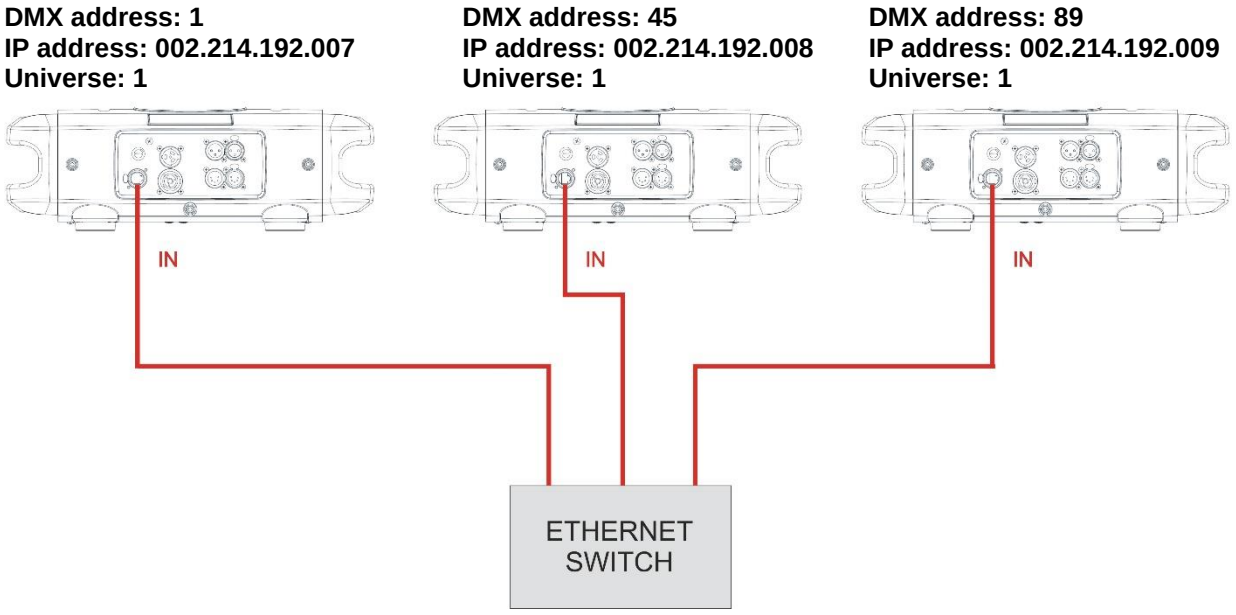
13.1-Direct Ethernet operation

sACN protocol has been implemented since Motors firmware release 22 and will only work from this release on.

For direct Ethernet operation connect the mixer Art-Net / sACN signal via Ethernet switch to each unit etherCON RJ45 input connector.

For each unit scroll till NETWORK menu (refer to DISPLAY FUNCTIONS for details):

- Select under INPUT menu “Art-Net” or “sACN” as input control signal.
- Select under IP ADDRESS MODE menu “Default” or “Static” mode.
- Select ETH TO DMX menu to OFF.
- Set the IP address and Net Mask. **IP address must be different for each unit on a network**.
- Set the Art-Net or sACN Universe.



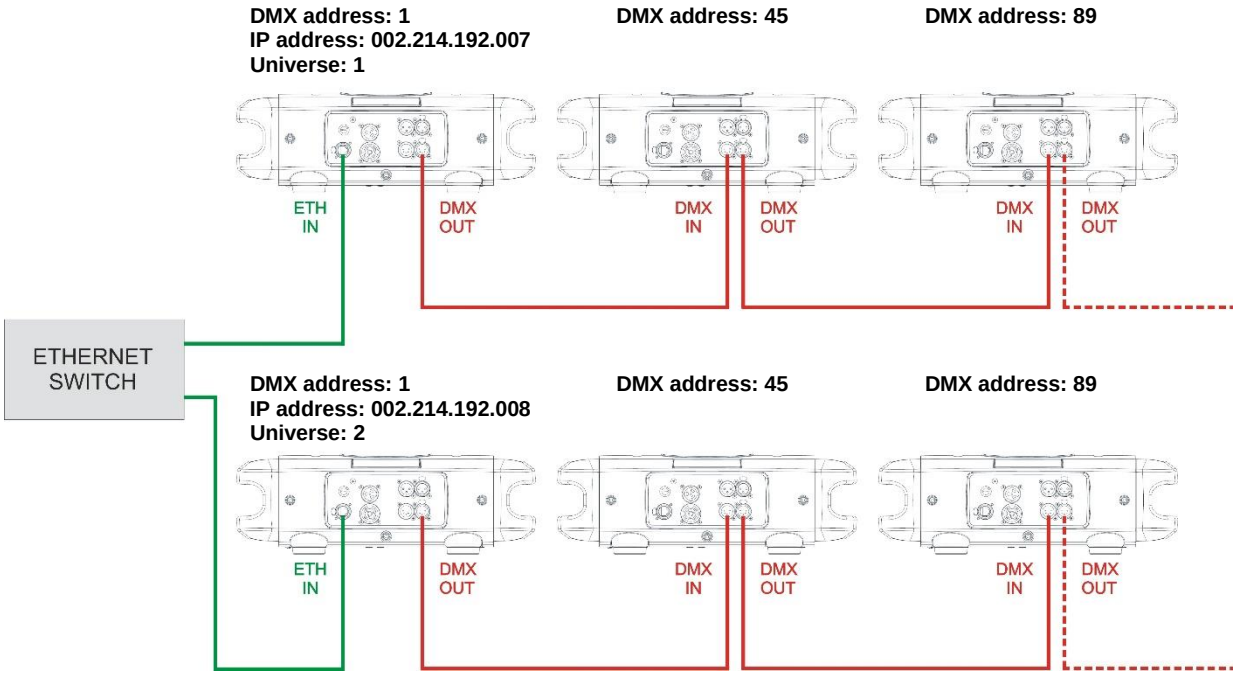
13.2-Ethernet to RDM/DMX operation

DMX Out by Art-Net has been implemented since Motors firmware release 22 and will only work from this release on.
RDM/DMX Out by Art-Net has been implemented since Motors firmware release 24 and will only work from this release on.

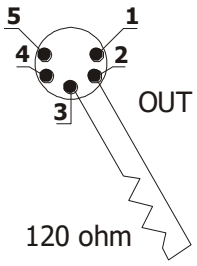
For Ethernet to RDM/DMX operation connect the mixer Art-Net / sACN signal via Ethernet switch to the etherCON RJ45 input connector of the first unit only.
In this configuration the first unit works as an Ethernet to DMX converter and sends RDM/DMX signal to its DMX output connector.
All the other units must be connected as a DMX chain with standard DMX settings.

Only for the first unit scroll till NETWORK menu (refer to DISPLAY FUNCTIONS for details):

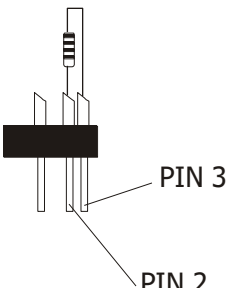
- Select under INPUT menu “Art-Net” or “sACN” as input control signal.
- Select under IP ADDRESS MODE menu “Default” or “Static” mode.
- Select ETH TO DMX menu to ON.
- Set the IP address and Net Mask. **IP address must be different for each unit on a network.**
- Set the Art-Net or sACN Universe.



For Installations where long distance DMX cable connections are needed, we suggest to use a DMX terminator.
The DMX terminator is a male XLR 3-5 pins connector with a 120 ohm resistor between pin 2 and 3.
The DMX terminator must be plugged into the last unit (DMX out panel connector) of the DMX line.



PLACE A 120 OHM RESISTOR BETWEEN PIN 2 AND 3 OF A MALE XRL CONNECTOR AND PLUG IT INTO THE DMX OUT PANEL CONNECTOR OF THE LAST UNIT CONNECTED TO THE DMX LINE



14- RDM FUNCTIONS

By using a RDM controller it is possible to read / set DMX address, DMX mode and other parameters.
SYNERGY 5 PROFILE accepts the following RDM commands:

SUPPORTED_PARAMETERS	List of all supported parameters
DEVICE_INFO	To read the following info: • RDM ID • Fixture type • Software version • DMX address • DMX mode • DMX channels • Total sensors
DEVICE_MODEL_DESCRIPTION	Fixture model
MANUFACTURER_LABEL	Manufacturer
SOFTWARE_VERSION_LABEL	Motors and LED Driver software version
DMX_PERSONALITY	To read / set the DMX mode
DMX_PERSONALITY_DESCRIPTION	Description / details of the DMX mode
DMX_START_ADDRESS	To read / set the DMX address
SENSOR_DEFINITION	List of sensors: **1: LED MODULE** LED temperature (°C). **2: LED DRIVER #1** White 1 and White 2 outputs of LED Driver board temperature (°C). **3: LED DRIVER #2** White 3 and White 4 outputs of LED Driver board temperature (°C). **4: MICRO** Micro controller temperature (°C). **5: DC SUPPLY** Power supply output voltage (48Vdc).
SENSOR_VALUE	To read / refresh the value of each sensor
DEVICE_HOURS	Fixture life time
LAMP_HOURS	LED life time
IDENTIFY_DEVICE	LED ON at max power to identify the fixture

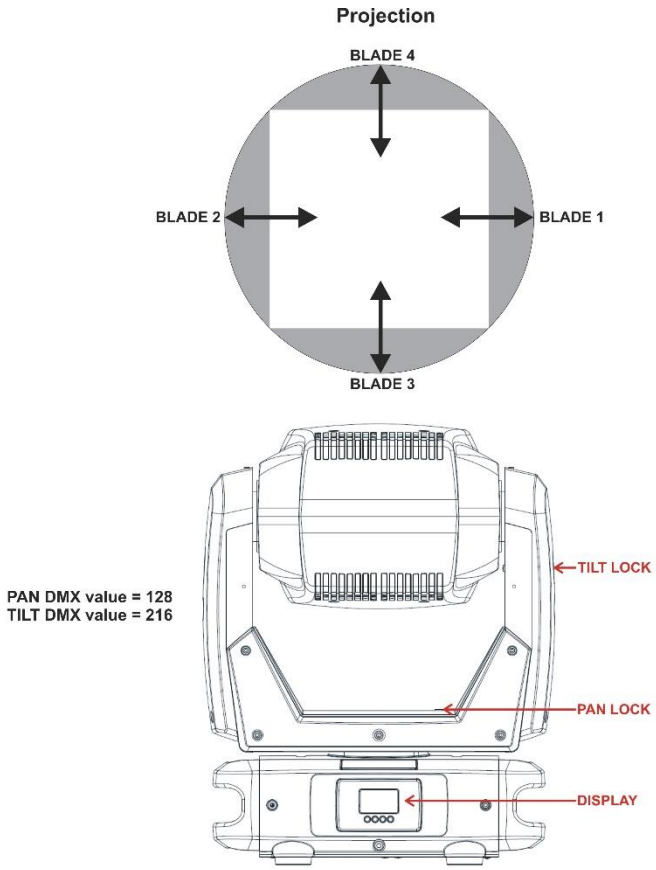
15- FIRMWARE UPDATING

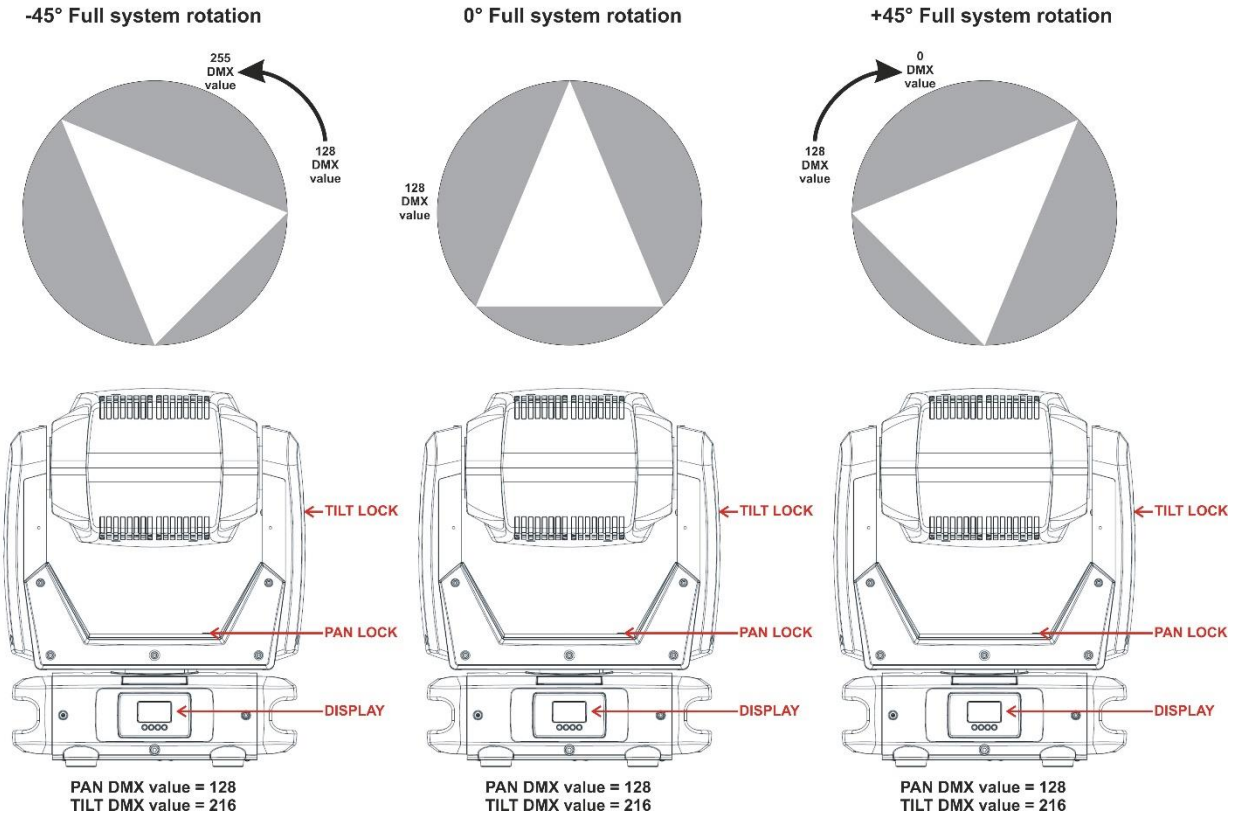
To update the firmware release of the SYNERGY 5 PROFILE you need:
- DTS Dongle Firmware Uploader (code 03.LA.206).
- “DTS Firmware Upgrade Utility v.2.02” program installed on PC.
- Latest firmware release available for SYNERGY 5 PROFILE unit.

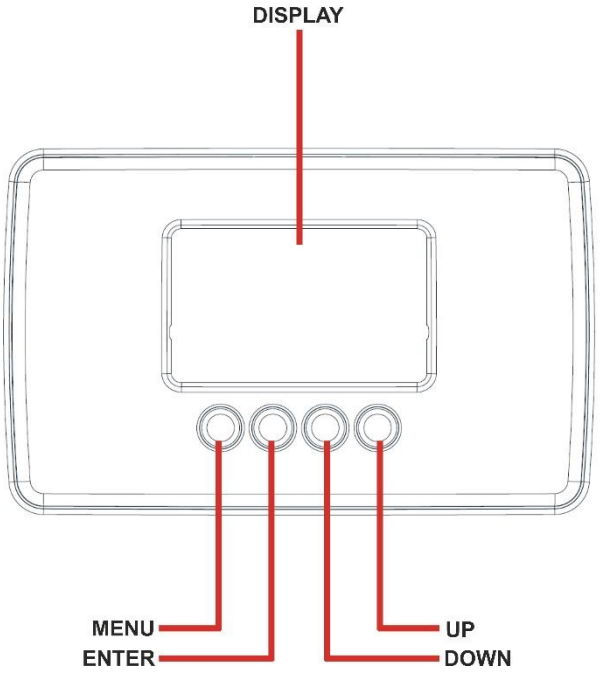
Updating the firmware release.
Please follow the procedure below to perform the update:
1. Connect the DTS Dongle Firmware Uploader to a spare USB port on the PC.
2. Connect the unit DMX input to the DTS Dongle Firmware Uploader DMX output with a standard DMX cable and turn ON the unit.
3. Send the new firmware release into the unit by using “DTS Firmware Upgrade Utility v.2.02” program. At the end of the procedure, the unit will reset.

For more information please refer to an authorised DTS service centre.

16- ROTATING FRAMING SYSTEM





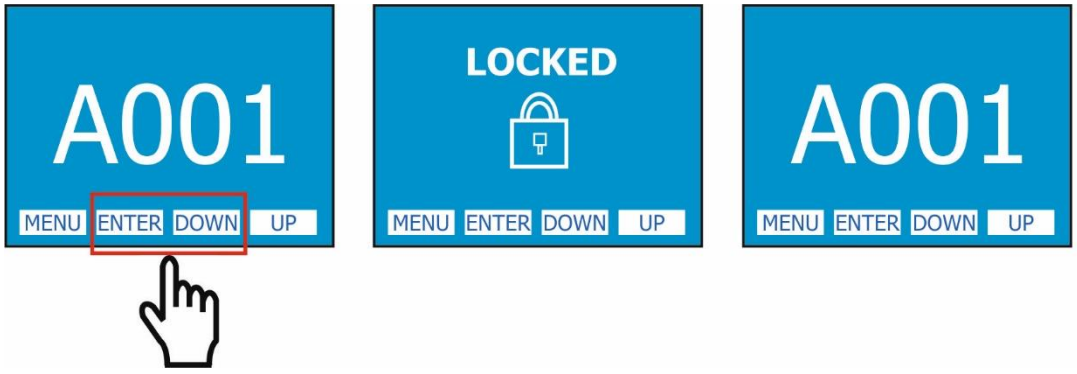


The SYNERGY 5 PROFILE display panel shows all the available functions. Using these functions, it is possible to change some of the parameters and add some functions. Changing the DTS setting can vary the functions of the unit so that it does not respond to the DMX 512 used to control it. Carefully follow the instructions below before carrying out any variations or selections.
NOTE: the symbol ☞ shows which key has to be pushed to obtain the desired function.

MOTORS FIRMWARE RELEASE	**24**
RDM Device Model ID	**0x0012**
DMX Personality IDs	**0x01 “44 CHANNELS”** **0x02 “53 CHANNELS”**

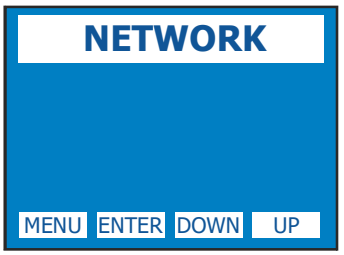
DISPLAY KEY-LOCK FUNCTION

Possibility to lock/unlock the display keys has been implemented since Motors firmware release 20.
This function can be enabled/disabled by pressing ENTER + DOWN keys at the same time for 3 seconds.



17- DISPLAY FUNCTIONS

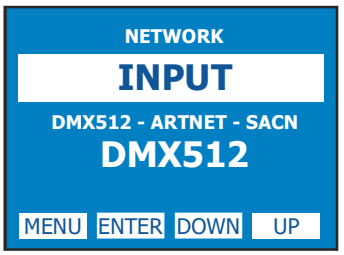
Menu Up-Down Network ENTER Up-Down



ENTER

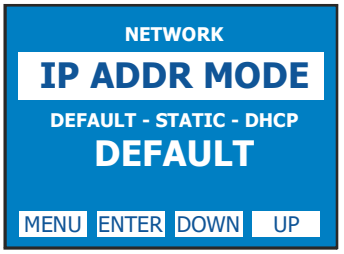
NETWORK

INPUT
This menu allows to select the input control signal protocol.
RDM/DMX 512 (Default), Art-Net or sACN protocol.



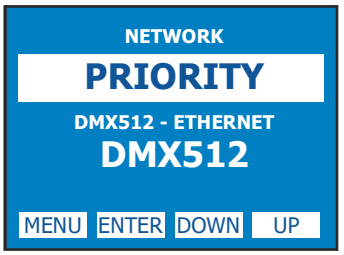
ENTER

IP ADDRESS MODE
This menu allows to select the mode to set the IP address and the Net Mask.
STATIC = Manual setting of IP address and Net Mask.
DEFAULT = Fixed IP address with manual setting of first byte only and fixed Net Mask (Default).
DHCP = Automatic setting of IP address and Net Mask (not yet implemented).



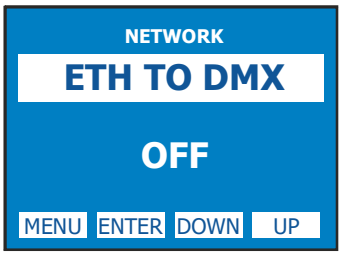
ENTER

PRIORITY
This menu allows to set the priority between input control signals when the unit is connected via DMX and via ETHERNET at the same time.
DMX 512 = RDM/DMX signal has the priority on the Art-Net / sACN signal (Default).
ETHERNET = Art-Net / sACN signal has the priority on the DMX signal.



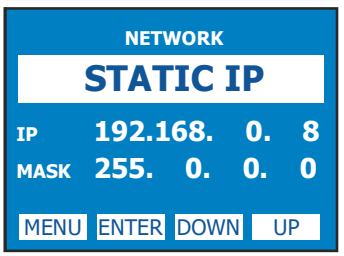
ENTER

ETHERNET TO DMX
This menu allows to enable ETHERNET to RDM/DMX operation.
ON = In this configuration the first unit works as an Ethernet to DMX converter and sends RDM/DMX signal to its DMX output connector.
OFF = Default.



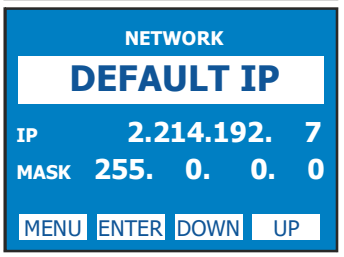
ENTER

STATIC IP
This menu allows to manually set all Bytes of IP address and Net Mask.
IP address must be different for each unit on a network.



ENTER

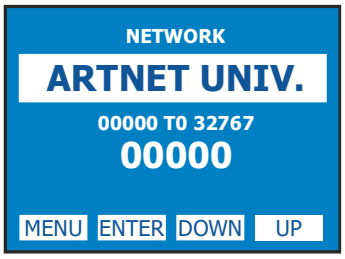
DEFAULT IP
Fixed IP address and Net Mask.
It is possible to set only first byte of the IP address.
IP address must be different for each unit on a network.



ENTER

17- DISPLAY FUNCTIONS

Menu Up-Down Network ENTER Up-Down



ENTER

NETWORK

ARTNET UNIVERSE
This menu allows to set the Art-Net Universe (range 0 ÷ 32767).

SACN UNIVERSE
This menu allows to set the sACN Universe (range 1 ÷ 63999).

ENTER

Menu Up-Down Pan Direction ENTER Up-Down

Pan movement
Normal or Reverse
Default = Normal

ENTER

PAN DIRECTION
This menu allows to set the Pan movement Normal or Reverse

Menu Up-Down Tilt Direction ENTER Up-Down

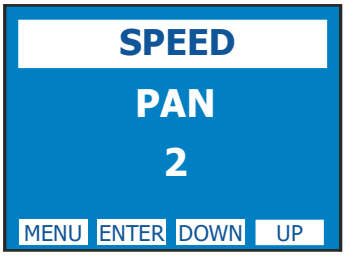
Tilt movement
Normal or Reverse
Default = Normal

ENTER

TILT DIRECTION
This menu allows to set the Tilt movement Normal or Reverse

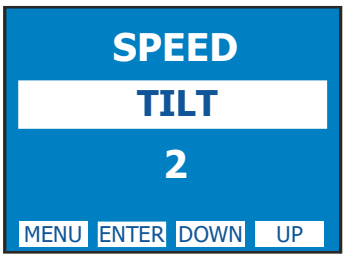
17- DISPLAY FUNCTIONS

Menu Up-Down Speed ENTER Up-Down



Pan Speed control (1-4)
Default = 2
ENTER

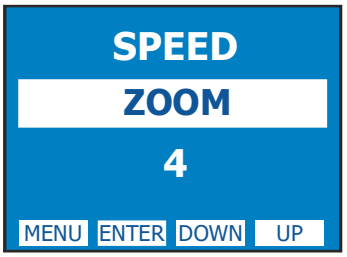
PAN SPEED
Pan Speed control (1-4)



Tilt Speed control (1-4)
Default = 2
ENTER

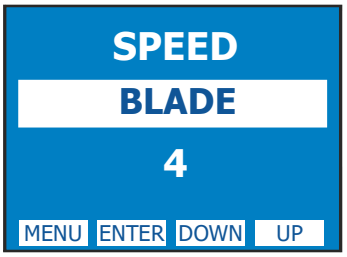
TILT SPEED
Tilt Speed control (1-4)

ZOOM SPEED
Zoom Speed control (1-4)



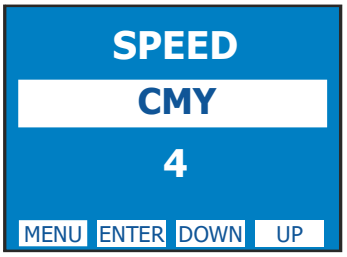
Zoom Speed control (1-4)
Default = 4
ENTER

BLADE SPEED
Blades Speed control (1-4)
WARNING! Speed value must not be set while blades are moving during programming.



Blades Speed control (1-4)
Default = 4
ENTER

CMY SPEED
CMY Speed control (1-4)
WARNING! Speed value must not be set while CMY filters are moving during programming.



CMY Speed control (1-4)
Default = 1
ENTER

17- DISPLAY FUNCTIONS

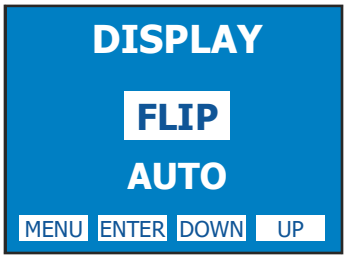
Menu Up-Down Display ENTER Up-Down

DISPLAY FLIP / STAND BY / CONTRAST

Display Flip:
Reverses display's reading depending on the mounting position
(Automatic, on the ground or suspended).

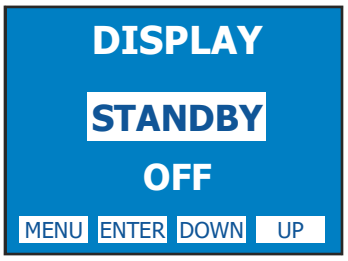
Display Standby:
To turn off the display (after 5 seconds) or leave it always on.

Display Contrast:
Display contrast regulation (20-35)



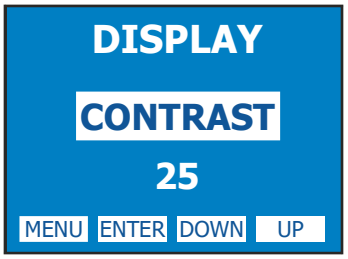
Display Flip
AUTO (Default)
ON THE GROUND
SUSPENDED

ENTER



Display Standby
OFF = Display Standby disabled (Default)
ON = Display goes OFF after 5 seconds

ENTER



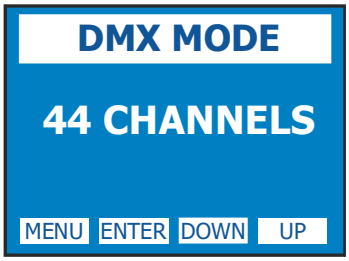
Display Contrast
20-35 (Default = 25)

ENTER

Menu Up-Down DMX Mode ENTER Up-Down

DMX MODE
To select DMX mode:
- 44 DMX channels (Default)
- 53 DMX channels

16 bit index for insertion and rotation of each blade
16 bit index for blade system rotation



DMX Mode
44 channels (Default)
53 channels

ENTER

17- DISPLAY FUNCTIONS

Menu Up-Down No DMX Action ENTER Up-Down

NO DMX ACTION
This menu allows to set the desired unit's behavior in case DMX signal is missing or not available.

KEEP LAST DMX
Keep last valid DMX signal.

PROGRAM
48 pre-programmed steps.
Speed time values (range 0.5x - 3x) selectable by user (default 1x).

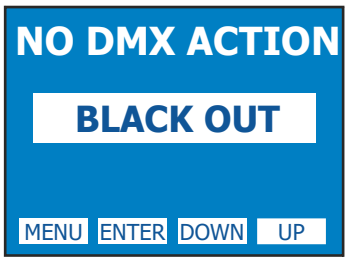
SINGLE CUE
Fixed cue with values selectable by user.

BLACK OUT
Black-out

ENTER

ENTER

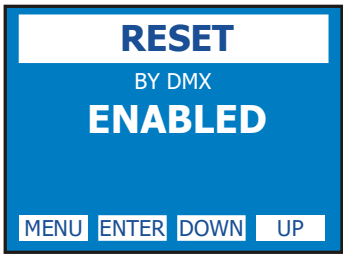
ENTER



ENTER

Menu Up-Down Reset ENTER Up-Down

RESET
Reset via DMX ENABLED / DISABLED and unit motors reset

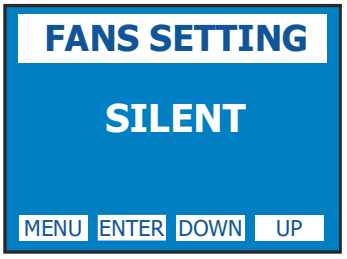


ENABLED = Reset via DMX enabled (Default)
DISABLED = Reset via DMX disabled
NOW = Instant unit motors reset

ENTER

Menu Up-Down Fans ENTER Up-Down

FANS SETTING
SILENT (Default), STANDARD or AUTOMATIC mode



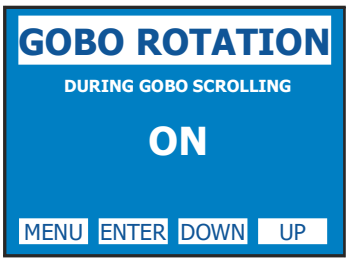
SILENT mode = Low fans speed for a very low noise operation. The LED may be dimmed in particular working conditions (Default).
STANDARD mode = High fans speed: The LED always works at maximum power.
AUTOMATIC mode = Automatic fans speed related to LED working conditions.

ENTER

17- DISPLAY FUNCTIONS

Menu Up-Down Gobo Rotation ENTER Up-Down

GOBO ROTATION
Gobo rotation during gobo scrolling for rotating gobo wheel



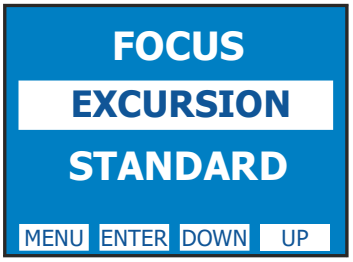
ON = Default
OFF

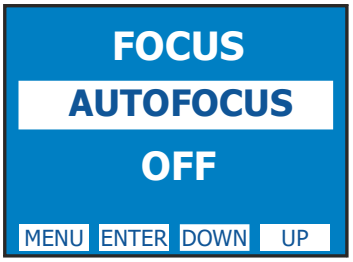
ENTER

Menu Up-Down Focus ENTER Up-Down

FOCUS EXCURSION
This menu allows to select the standard or extended range for Focus excursion.

AUTOFOCUS
This menu allows to enable the Automatic focus during Zoom excursion.





FOCUS EXCURSION
STANDARD = standard Focus range (Default).
EXTENDED = extended Focus range.

AUTOFOCUS
OFF = Default.
ON = to have the best resolution it is suggested the first time you focus to set Zoom at DMX value 100 (DMX range 0-255) or 39%.

ENTER

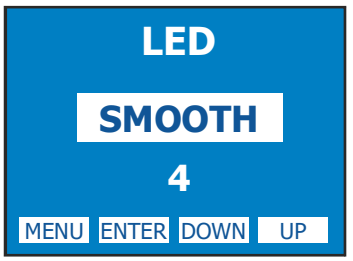
Menu Up-Down LED ENTER Up-Down

LED

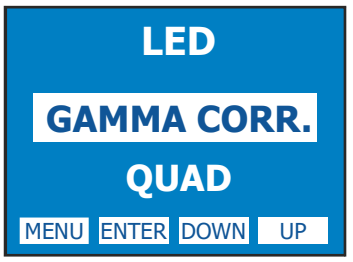
SMOOTH
This menu allows to select the value of delay (in milliseconds) for DIMMER channel reaction to DMX dimming command.
0 = Instant response
4 = 100 ms smooth response (Default)
20 = 500 ms smooth response

GAMMA CORRECTION
This menu allows to select between Linear current output or Quadratic current output for LED.
LINEAR = Linear current output
QUADRATIC = Linear light output (Default)

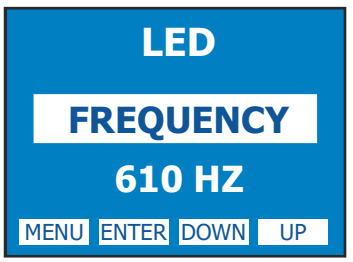
OUTPUT FREQUENCY
This menu allows to adjust the PWM Frequency value (Hz) in order to reduce flickering in the process of your camera recordings.
Range = 610 Hz – 20 KHz
Default = 610 Hz



ENTER



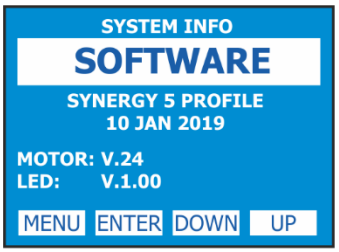
ENTER



ENTER

17- DISPLAY FUNCTIONS

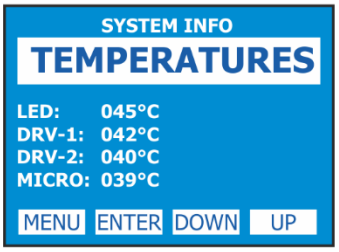
Menu Up-Down System Info ENTER Up-Down



ENTER

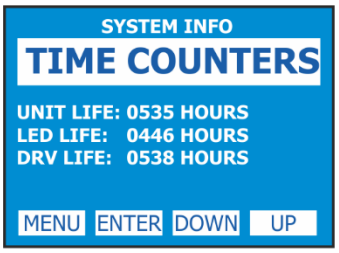
SYSTEM INFO

SOFTWARE
Unit model; Software release date; Motors boards and LED Driver board software version.



ENTER

TEMPERATURES
LED temperature monitoring.
DRV-1 = White1 and White 2 outputs of LED Driver board temperature monitoring.
DRV-2 = White 3 and White 4 outputs of LED Driver board temperature monitoring.
MICRO = Micro controller temperature monitoring.



TIME COUNTERS
Unit, LED module and LED Driver board life time.

ADDRESSES
RDM and MAC IDs.

17- DISPLAY FUNCTIONS

Menu Up-Down Reserved ENTER Up-Down

RESERVED
(Enter code = 100)

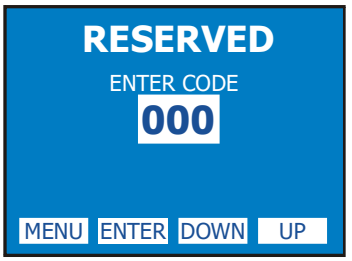
Pan lock-Tilt lock

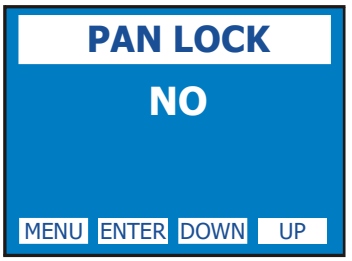
Pan free-Tilt free

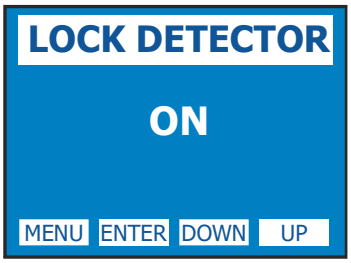
Lock Detector

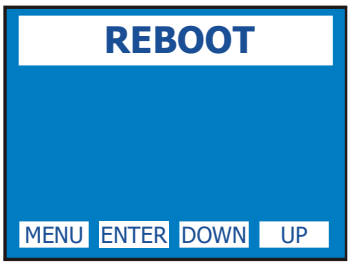
Reboot

Exit To Main









Pan Lock = Lock the Pan to the desired value ENTER

Tilt Lock = Lock the Tilt to the desired value

Pan Free = Remove power to Pan motor

Tilt Free = Remove power to Tilt motor

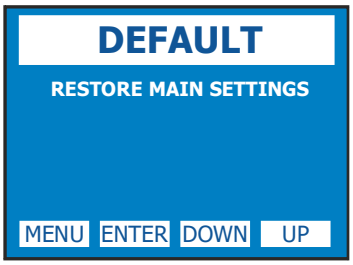
Lock Detector OFF
Lock Detector ON (Default):
This function lets the user to activate the Lock detector on Pan and Tilt.
When Lock detector is set to ON, the unit start the Pan&Tilt motors reset normally, but if for any reason there is something blocking the movement for Pan&Tilt motors during the initial reset (example unit into the flight case and power connected), it automatically will stop to reset Pan&Tilt motors after 5 seconds from the startup and a warning message (Pan locked-Tilt locked) will appear on unit display .

Reboot = Unit Reboot without needing of turning OFF the unit

Exit To Main = Exit from Reserved menu

17- DISPLAY FUNCTIONS

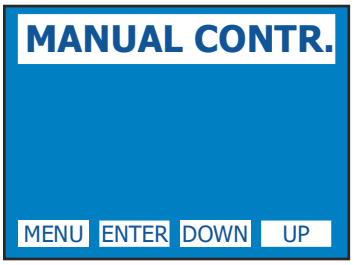
Menu Up-Down Default ENTER Up-Down



ENTER

DEFAULT
To restore factory settings

Menu Up-Down Manual control ENTER Up-Down

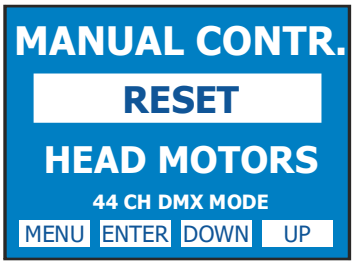


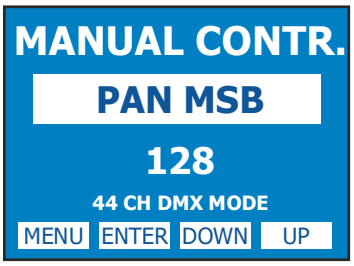
ENTER

MANUAL CONTROL
Manual mode with functions value selectable by user

RESET
To reset head motors only, Pan and Tilt or all motors

RESTORE DEFAULT
To restore parameters default settings



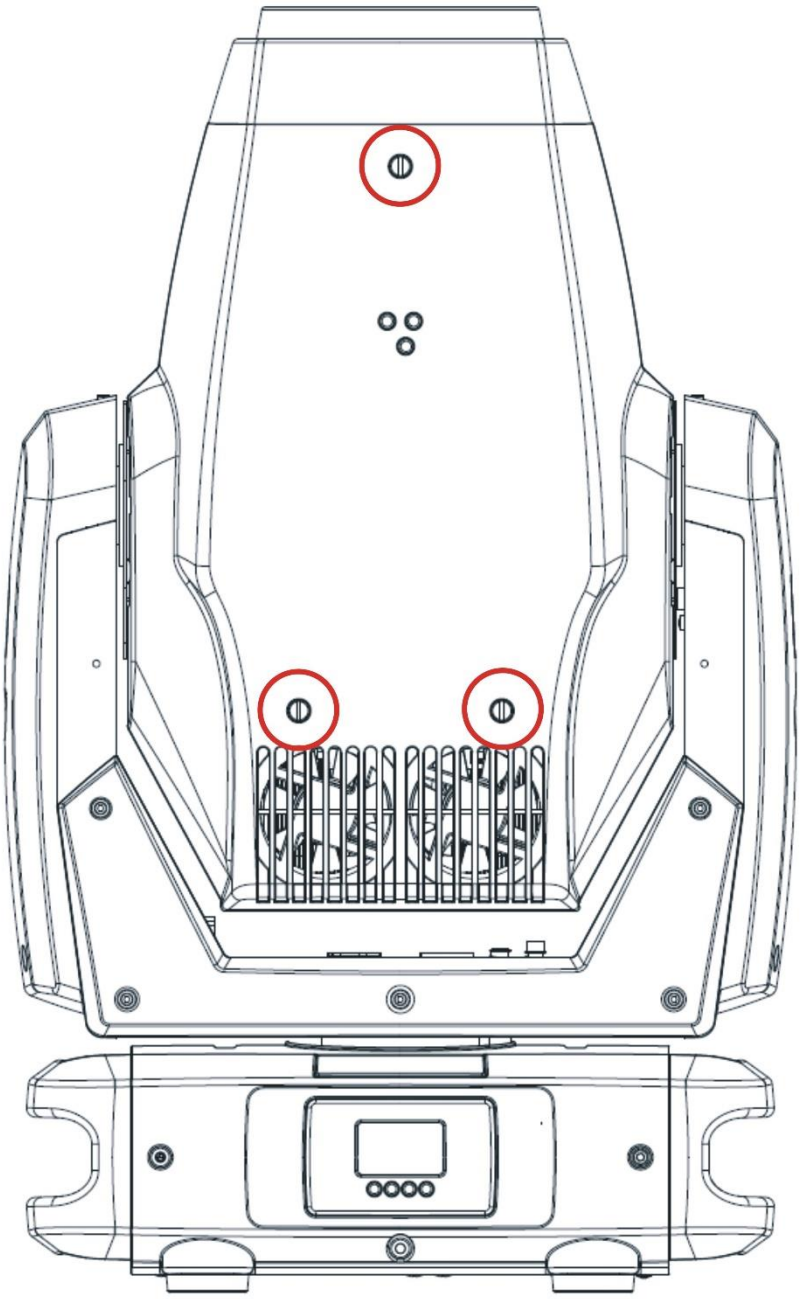


18- OPENING THE PROJECTOR HOUSING

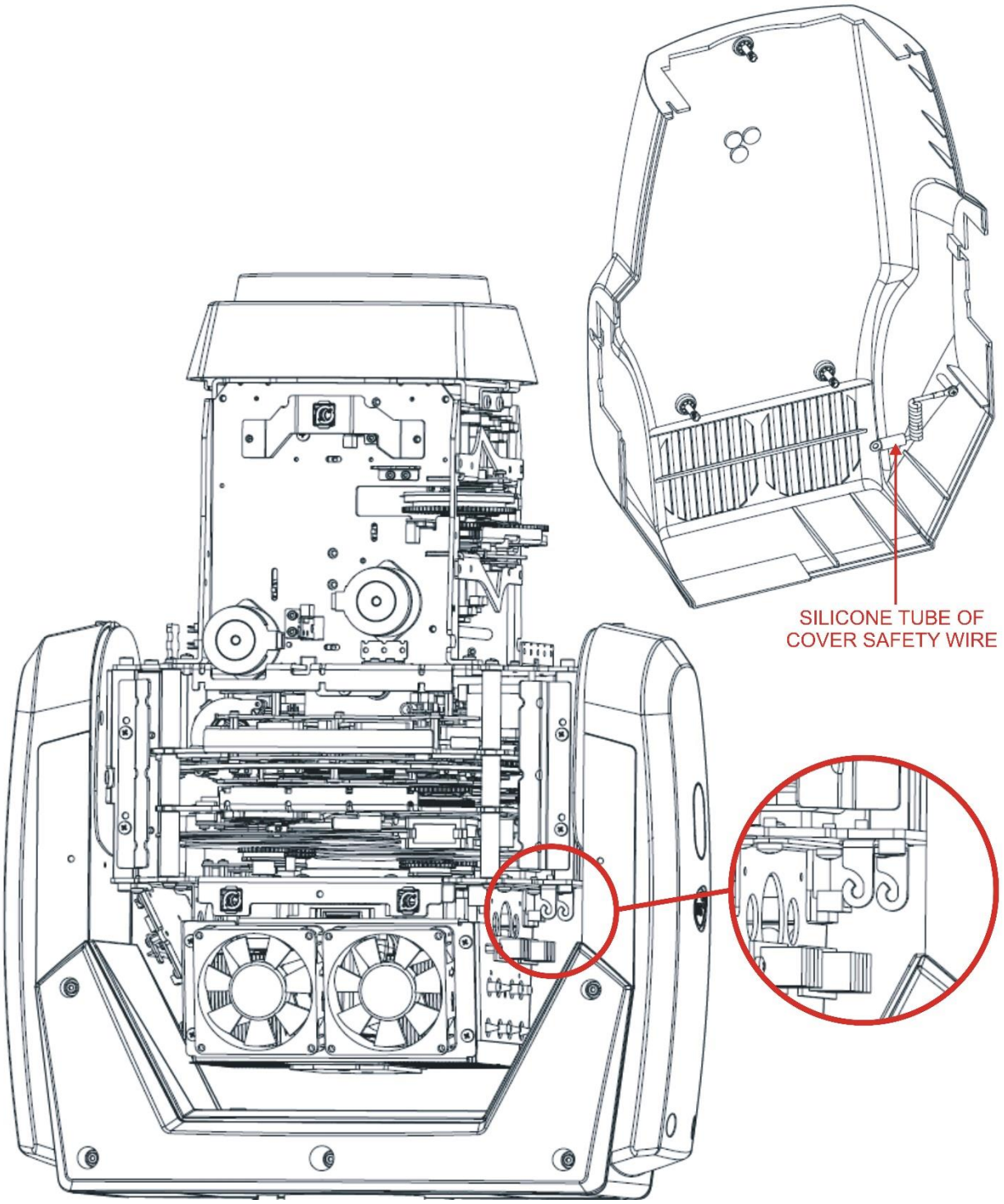
It is possible to inspect the inside of the projector by removing the cover as indicated below.

ATTENTION
REMOVE MAINS POWER PRIOR TO ACCESSING THE PROJECTOR'S INTERNAL COMPONENTS.

1) Using a flat bladed screwdriver loose the 3 "¼ turn" screws which fix the head covers on both sides.

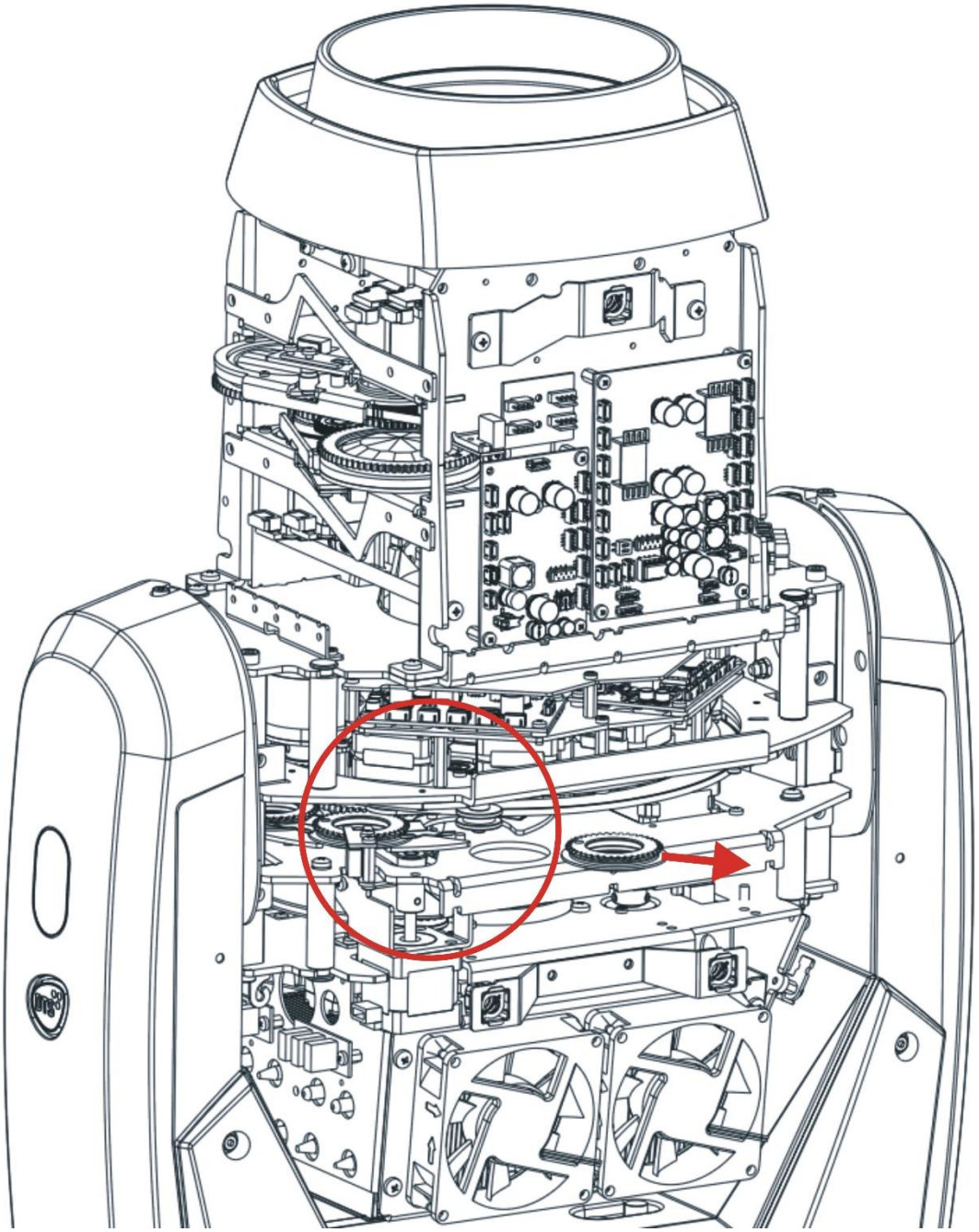


2) Lift each cover, slide the silicone tube down and unhook the safety wire to access the internal head components.



19- REMOVING / REPLACING THE ROTATING GOBOS

SYNERGY 5 PROFILE uses a mechanical system which allows the fixture's gobos to be removed without the use of special tools.
When replacing gobos, ensure that the projector is switched off.
Open the projector housing as described on page 31 and pull out the gobo holder from the rotating gobo wheel as shown in the picture below.

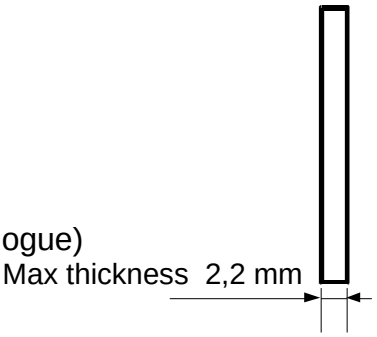


REPLACEMENT GOBOS

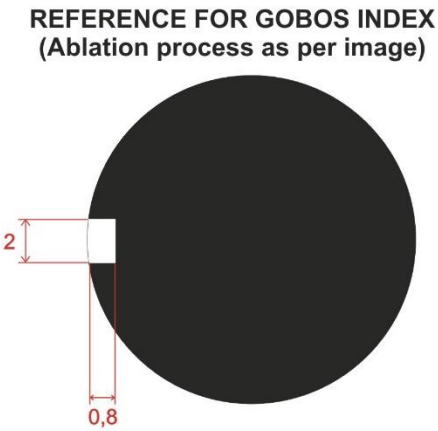
Replacement gobos should be made in either dichroic glass or metal.

Gobo dimensions are as follows:

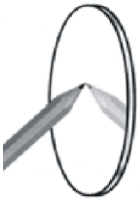
Rotating gobos
ø external (ED) = 27.9 mm + 0 / - 0,1 mm
ø of image (ID) = 21.0 mm
thickness = from 0.2 to 2,2 mm (see catalogue)



Ø external (ED) = 27.9 mm
Ø of image (ID) = 21.0 mm



Coated side
When an object is held up the coated side of the glass gobo there is no space between the object and its reflection.



Coated side

Uncoated side
When an object is held up the uncoated side of the glass gobo there is a space between the object and its reflection.

Uncoated side

Load with coated surface toward the light source.

20- PERIODIC CLEANING

20.1- Lenses and reflectors

Even a fine layer of dust can reduce the luminous output substantially.
Regularly clean all lenses and the reflector using a soft cotton cloth, dampened with a specialist lens cleaning solution.

20.2- Fans and air passages

The fans and air passages must be cleaned approximately every 6 weeks.
This periodic cleaning will depend of course, on the conditions in which the projector is operating.
Suitable instruments for performing this type of maintenance are a brush and a common vacuum cleaner or an air compressor.
If necessary, clean the fans and air passages more frequently.

21- PERIODIC CONTROLS

Attention 

Disconnect mains power prior to opening the projector housing.

Mechanical parts

Periodically check all mechanical parts, gears, guides, belts, etc. for wear and tear, replacing them if necessary.
Periodically check the lubrification of all components, particularly the parts subject to high temperatures.
If necessary, lubrificate with suitable lubrificant, available from your DTS distributor.
Check the tension of the belts and adjust it if necessary.

Electrical components 

Check all electrical components for correct earthing and proper connection of all connectors, refastening if necessary.

Fuse replacement

Locate the fuse, which protects the lamp and electronics, in the base of SYNERGY 5 PROFILE.
Using a multimeter, test the condition of the fuse, replacing it with one of equivalent type (T 8A 250V) if necessary.

22- DMX PROTOCOL

MOTORS FIRMWARE RELEASE	**24**
RDM Device Model ID	**0x0012**
DMX Personality IDs	**0x01 “44 CHANNELS”** **0x02 “53 CHANNELS”**

44 CHANNELS MODE (DEFAULT)

1	PAN msb
2	PAN lsb
3	TILT msb
4	TILT lsb
5	SPEED MOVEMENT
6	*reserved*
7	DIMMER msb
8	DIMMER lsb
9	SHUTTER
10	COLOUR WHEEL
11	COLOUR MODE
12	CYAN
13	MAGENTA
14	YELLOW
15	CTO
16	GEL FILTERS EMULATION
17	GOBO
18	GOBO ROTATION/INDEX msb
19	GOBO ROTATION/INDEX lsb
20	GOBO SHAKE
21	BLADES SYSTEM ROTATION
22	BLADE 1 INSERTION
23	BLADE 1 ROTATION
24	BLADE 2 INSERTION
25	BLADE 2 ROTATION
26	BLADE 3 INSERTION
27	BLADE 3 ROTATION
28	BLADE 4 INSERTION
29	BLADE 4 ROTATION
30	BLADE EFFECTS
31	DYNAMOVES MACROS
32	BLADES EFFECTS SPEED / DYNAMOVE MACROS SPEED
33	PRISM MODE
34	PRISM 1 POSITION
35	PRISM 1 ROTATION/INDEX
36	PRISM 2 POSITION
37	PRISM 2 ROTATION/INDEX
38	SOFTEN FILTER
39	FROST
40	FOCUS msb
41	FOCUS lsb
42	ZOOM
43	FIXTURE CONTROL
44	RESET

DMX CHANNEL	1	Parameter: **PAN msb**
DMX CHANNEL	2	Parameter: **PAN lsb**

DMX CHANNEL	3	Parameter: **TILT msb**
DMX CHANNEL	4	Parameter: **TILT lsb**

DMX CHANNEL	5	Parameter: **SPEED MOVEMENT**
DMX value	**Function**	
000-009	Fast movement	
010-025	Standard movement	
026-127	Vector mode from fast to slow	
128-247	Variable time reaction to dmx signal (fast to slow)	
248-255	Silent movement	

DMX CHANNEL	7	Parameter: **DIMMER msb**
DMX CHANNEL	8	Parameter: **DIMMER lsb**

DMX CHANNEL	9	Parameter: **SHUTTER**
DMX value	**Function**	
000-009	Black Out	
010-019	Open	
020-029	Black Out	
030-119	Strobe (from 3,27s to 30ms)	
120-149	Pulse up (from 42,6s to 120ms)	
150-179	Pulse down (from 42,6s to 120ms)	
180-189	Random strobe	
190-199	reserved	
200-209	Gobo/Colour wheel in Black Out while rotating	
210-219	Pan/Tilt in Black Out while moving	
220-222	Blades in Black Out while inserting	
223-224	Frost/Prism in Black Out while inserting	
225-226	Zoom in Black Out while moving	
227-229	Gobo/Colour wheel/Blades/Frost/Prism/Zoom in Black Out while moving	
230-255	Open	

DMX CHANNEL	10	Parameter: **COLOUR WHEEL**

FULL COLOUR (if channel 11 "COLOUR MODE" = DMX range value 0-63)

DMX value	Function
000-009	Open
010-049	Colour 1
050-089	Colour 2
090-129	Colour 3
130-169	Colour 4
170-209	Colour 5
210-255	Colour 6

HALF COLOUR (if channel 11 "COLOUR MODE" = DMX range value 64-127)

DMX value	Function
000-009	Open
010-044	Colour 0-1
045-079	Colour 1-2
080-114	Colour 2-3
115-149	Colour 3-4
150-184	Colour 4-5
185-219	Colour 5-6
220-255	Colour 6-0

PROPORTIONAL COLOUR (if channel 11 "COLOUR MODE" = DMX range value 128-191)

DMX value	Function
000-009	Open
010-255	Proportional colour
027	Colour 0-1
044	Colour 1 center
062	Colour 1-2
079	Colour 2 center
097	Colour 2-3
114	Colour 3 center
132	Colour 3-4
150	Colour 4 center
167	Colour 4-5
185	Colour 5 center
202	Colour 5-6
220	Colour 6 center
237	Colour 6-0

RAINBOW (if channel 11 "COLOUR MODE" = DMX range value 192-255)

DMX value	Function
000-009	Open
010-127	CW rotation speed from max to min
128-137	Stop
138-255	CCW rotation speed from min to max

DMX CHANNEL	11	Parameter: **COLOUR MODE**

DMX value	Function
000-063	Full colour
064-127	Half colour
128-191	Proportional colour
192-255	Rainbow

DMX CHANNEL	12	Parameter: **CYAN**

DMX value	Function
000-255	Proportional colour

DMX CHANNEL	13	Parameter: **MAGENTA**

DMX value	Function
000-255	Proportional colour

DMX CHANNEL	14	Parameter: **YELLOW**
DMX value	**Function**	
000-255	Proportional colour	

DMX CHANNEL	15	Parameter: **CTO**
DMX value	**Function**	
000-255	Linear CTO from min to max	

DMX CHANNEL	16	Parameter: **GEL FILTERS EMULATION**
DMX value	**Function**	
000-009	No function	
010-020	19 FIRE	
021-025	20 MEDIUM AMBER	
026-030	25 SUNSET RED	
031-035	68 SKY BLUE	
036-040	101 YELLOW	
041-045	104 DEEP AMBER	
046-050	105 ORANGE	
051-055	106 PRIMARY RED	
056-060	111 DARK PINK	
061-065	113 MAGENTA	
066-070	117 STEEL BLUE	
071-075	118 LIGHT BLUE	
076-080	122 FERN GREEN	
081-085	126 MAUVE	
086-090	132 MEDIUM BLUE	
091-095	136 PALE LAVENDER	
096-100	137 LAVENDER	
101-105	138 PALE GREEN	
106-110	139 PRIMARY GREEN	
111-115	147 APRICOT	
116-120	151 GOLD TINT	
121-125	154 PALE ROSE	
126-130	156 CHOCOLATE	
131-135	181 CONGO BLUE	
136-140	200 DOUBLE CT BLUE	
141-145	201 FULL CT BLUE	
146-150	204 FULL CT ORANGE	
151-155	341 PLUM	
156-255	reserved	

DMX CHANNEL	17	Parameter: **GOBO**
DMX value	**Function**	
000-009	Open	
010-042	Gobo 1	
043-075	Gobo 2	
076-108	Gobo 3	
109-141	Gobo 4	
142-174	Gobo 5	
175-207	Gobo 6	
208-213	Speed rotation 1 min	
214-219	Speed rotation 2	
220-225	Speed rotation 3	
226-231	Speed rotation 4	
232-237	Speed rotation 5	
238-243	Speed rotation 6	
244-249	Speed rotation 7	
250-255	Speed rotation 8 max	

DMX CHANNEL	18	Parameter: **GOBO ROTATION/INDEX msb**
DMX CHANNEL	19	Parameter: **GOBO ROTATION/INDEX lsb**
DMX value	**Function**	
MSB.LSB-MSB.LSB INT16-INT16		
000.000-127.255 00000-32767	Proportional index 0°-360°	
128.000-180.255 32768-46335	CCW gobo rotation (max to min)	
181.000-202.255 46336-51967	Stop	
203.000-255.255 51968-65535	CW gobo rotation (min to max)	

DMX CHANNEL	20	Parameter: **GOBO SHAKE**
DMX value	**Function**	
000-009	Stop	
010-019	Gobo shake R-L speed 1	
020-029	Gobo shake R-L speed 2	
030-039	Gobo shake R-L speed 3	
040-049	Gobo shake R-L speed 4	
050-059	Gobo shake R-L speed 5	
060-069	Gobo shake R-L speed 6	
070-079	Gobo shake R-L speed 7	
080-089	Gobo shake R-L speed 8	
090-099	Gobo shake R-L speed 9	
100-109	Gobo shake R-L speed 10	
110-126	Gobo shake R-L speed 11	
127-138	Stop	
139-148	Gobo shake L-R speed 1	
149-158	Gobo shake L-R speed 2	
159-168	Gobo shake L-R speed 3	
169-178	Gobo shake L-R speed 4	
179-188	Gobo shake L-R speed 5	
189-198	Gobo shake L-R speed 6	
199-208	Gobo shake L-R speed 7	
209-218	Gobo shake L-R speed 8	
219-228	Gobo shake L-R speed 9	
229-238	Gobo shake L-R speed 10	
239-255	Gobo shake L-R speed 11	

DMX CHANNEL	21	Parameter: **BLADES SYSTEM ROTATION**
DMX value	**Function**	
000-126	Position from -45° to 0°	
127-128	0° position	
129-255	Position from 0° to 45°	

DMX CHANNEL	22	Parameter: **BLADE 1 INSERTION**
DMX value	**Function**	
000-255	Open to fully inserted	

DMX CHANNEL	23	Parameter: **BLADE 1 ROTATION**
DMX value	**Function**	
000-127	Position from -30° to 0°	
128	0° position	
129-255	Position from 0° to 30°	

DMX CHANNEL	24	Parameter: **BLADE 2 INSERTION**
DMX value	**Function**	
000-255	Open to fully inserted	

DMX CHANNEL	25	Parameter: **BLADE 2 ROTATION**
DMX value	**Function**	
000-127	Position from -30° to 0°	
128	0° position	
129-255	Position from 0° to 30°	

DMX CHANNEL	26	Parameter: **BLADE 3 INSERTION**
DMX value	**Function**	
000-255	Open to fully inserted	

DMX CHANNEL	27	Parameter: **BLADE 3 ROTATION**
DMX value	**Function**	
000-127	Position from -30° to 0°	
128	0° position	
129-255	Position from 0° to 30°	

DMX CHANNEL	28	Parameter: **BLADE 4 INSERTION**
DMX value	**Function**	
000-255	Open to fully inserted	

DMX CHANNEL	29	Parameter: **BLADE 4 ROTATION**
DMX value	**Function**	
000-127	Position from -30° to 0°	
128	0° position	
129-255	Position from 0° to 30°	

DMX CHANNEL	30	Parameter: **BLADES EFFECTS**	
DMX value	**Function**	**DMX value**	**Function**
000-009	No function	110-111	Macro 51
010-011	Macro 1	112-113	Macro 52
012-013	Macro 2	114-115	Macro 53
014-015	Macro 3	116-117	Macro 54
016-017	Macro 4	118-119	Macro 55
018-019	Macro 5	120-121	Macro 56
020-021	Macro 6	122-123	Macro 57
022-023	Macro 7	124-125	Macro 58
024-025	Macro 8	126-127	Macro 59
026-027	Macro 9	128-129	Macro 60
028-029	Macro 10	130-131	Macro 61
030-031	Macro 11	132-133	Macro 62
032-033	Macro 12	134-135	Macro 63
034-035	Macro 13	136-137	Macro 64
036-037	Macro 14	138-139	Macro 65
038-039	Macro 15	140-141	Macro 66
040-041	Macro 16	142-143	Macro 67
042-043	Macro 17	144-145	Macro 68
044-045	Macro 18	146-147	Macro 69
046-047	Macro 19	148-149	Macro 70
048-049	Macro 20	150-151	Macro 71
050-051	Macro 21	152-153	Macro 72
052-053	Macro 22	154-155	Macro 73
054-055	Macro 23	156-157	Macro 74
056-057	Macro 24	158-159	Macro 75
058-059	Macro 25	160-161	Macro 76
060-061	Macro 26	162-163	Macro 77
062-063	Macro 27	164-165	Macro 78
064-065	Macro 28	166-167	Macro 79
066-067	Macro 29	168-169	Macro 80
068-069	Macro 30	170-171	Macro 81
070-071	Macro 31	172-173	Macro 82
072-073	Macro 32	174-175	Macro 83
074-075	Macro 33	176-177	Macro 84
076-077	Macro 34	178-179	Macro 85
078-079	Macro 35	180-181	Macro 86
080-081	Macro 36	182-183	Macro 87
082-083	Macro 37	184-185	Macro 88
084-085	Macro 38	186-187	Macro 89
086-087	Macro 39	188-255	reserved
088-089	Macro 40		
090-091	Macro 41		
092-093	Macro 42		
094-095	Macro 43		
096-097	Macro 44		
098-099	Macro 45		
100-101	Macro 46		
102-103	Macro 47		
104-105	Macro 48		
106-107	Macro 49		
108-109	Macro 50		

DMX CHANNEL	31	Parameter: **DYNAMOVES MACROS** (Macros up to Macro 45 are replicated for future FX implemetation)

DMX value	Function	Automatic channels (44 DMX channels mode)
000-009	No function	
010-011	Macro 1	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
012-013	Macro 2 (same as Macro 1)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
014-015	Macro 3 (same as Macro 1)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
016-017	Macro 4	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
018-019	Macro 5 (same as Macro 4)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
020-021	Macro 6 (same as Macro 4)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
022-023	Macro 7	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
024-025	Macro 8 (same as Macro 7)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
026-027	Macro 9 (same as Macro 7)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
028-029	Macro 10	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
030-031	Macro 11 (same as Macro 10)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
032-033	Macro 12 (same as Macro 10)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
034-035	Macro 13	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
036-037	Macro 14 (same as Macro 13)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
038-039	Macro 15 (same as Macro 13)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
040-041	Macro 16	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
042-043	Macro 17 (same as Macro 16)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
044-045	Macro 18 (same as Macro 16)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
046-047	Macro 19	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
048-049	Macro 20 (same as Macro 19)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
050-051	Macro 21 (same as Macro 19)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42

DMX CHANNEL	31	Parameter: **DYNAMOVES MACROS** (Macros up to Macro 45 are replicated for future FX implemetation)

DMX value	Function	Automatic channels (44 DMX channels mode)
052-053	Macro 22	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
054-055	Macro 23 (same as Macro 22)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
056-057	Macro 24 (same as Macro 22)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
058-059	Macro 25	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 21; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
060-061	Macro 26 (same as Macro 25)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 21; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
062-063	Macro 27 (same as Macro 25)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 21; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
064-065	Macro 28	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
066-067	Macro 29 (same as Macro 28)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
068-069	Macro 30 (same as Macro 28)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
070-071	Macro 31	CH 10; CH 11; CH 17; CH 18; CH 33; CH 34; CH 35; CH 40; CH 41; CH 42
072-073	Macro 32 (same as Macro 31)	CH 10; CH 11; CH 17; CH 18; CH 33; CH 34; CH 35; CH 40; CH 41; CH 42
074-075	Macro 33 (same as Macro 31)	CH 10; CH 11; CH 17; CH 18; CH 33; CH 34; CH 35; CH 40; CH 41; CH 42
076-077	Macro 34	CH 10; CH 11; CH 17; CH 18; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
078-079	Macro 35 (same as Macro 34)	CH 10; CH 11; CH 17; CH 18; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
080-081	Macro 36 (same as Macro 34)	CH 10; CH 11; CH 17; CH 18; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
082-083	Macro 37	CH 10; CH 11; CH 17; CH 18; CH 21; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
084-085	Macro 38 (same as Macro 37)	CH 10; CH 11; CH 17; CH 18; CH 21; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
086-087	Macro 39 (same as Macro 37)	CH 10; CH 11; CH 17; CH 18; CH 21; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
088-089	Macro 40	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
090-091	Macro 41 (same as Macro 40)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
092-093	Macro 42 (same as Macro 40)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
094-095	Macro 43	CH 10; CH 11; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
096-097	Macro 44	CH 10; CH 11; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42

	(same as Macro 43)	

DMX CHANNEL	31	Parameter: **DYNAMOVES MACROS** (Macros up to Macro 45 are replicated for future FX implemetation)

DMX value	Function	Automatic channels (44 DMX channels mode)
098-099	Macro 45 (same as Macro 43)	CH 10; CH 11; CH 17; CH 18; CH 33; CH 34; CH 35; CH 36; CH 37; CH 40; CH 41; CH 42
100-101	Macro 46	CH 10; CH 11; CH 17; CH 18; CH 19; CH 20; CH 33; CH 34; CH 35; CH 40; CH 41; CH 42
102-103	Macro 47	CH 10; CH 11; CH 17; CH 18; CH 19; CH 20; CH 33; CH 34; CH 35; CH 40; CH 41; CH 42
104-105	Macro 48	CH 10; CH 11; CH 17; CH 18; CH 19; CH 20; CH 33; CH 34; CH 35; CH 40; CH 41; CH 42
106-107	Macro 49	CH 10; CH 11; CH 17; CH 18; CH 19; CH 20; CH 33; CH 34; CH 35; CH 40; CH 41; CH 42
108-109	Macro 50	CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 37
110-111	Macro 51	CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 37
112-113	Macro 52	CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 37
114-115	Macro 53	CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37
116-117	Macro 54	CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 37
118-119	Macro 55	CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 37
120-121	Macro 56	CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 37
122-123	Macro 57	CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 37
124-125	Macro 58	CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 35
126-127	Macro 59	CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 37
128-129	Macro 60	CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 37
130-131	Macro 61	CH 10; CH 11; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35
132-133	Macro 62	CH 10; CH 11; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37
134-135	Macro 63	CH 10; CH 11; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 33; CH 34; CH 35; CH 36; CH 37
136-255	reserved	

DMX CHANNEL	32	Parameter: **BLADES EFFECTS SPEED / DYNAMOVE MACROS SPEED**

DMX value	Function
000-010	1X
011-050	1.1X to 5X (step 0.1X)
051-090	4.9X to 1X (step 0.1X)
091-159	1X
160-169	0.9X
170-179	0.8X
180-189	0.7X
190-199	0.6X
200-209	0.5X
210-219	0.4X
220-229	0.3X
230-239	0.2X
240-255	0.1X

DMX CHANNEL	33	Parameter: **PRISM MODE**

DMX value	Function	
000-009	No function	
010-049	Prism 1 inserted	after zoom lens
050-089	Prism 2 inserted	after zoom lens
090-129	Prism 1+2 inserted	after zoom lens
130-169	Prism 1 inserted	between focus and zoom lenses
170-209	Prism 2 inserted	between focus and zoom lenses

210-255	Prism 1+2 inserted between focus and zoom lenses

DMX CHANNEL	34	Parameter: **PRISM 1 POSITION**
DMX value	**Function**	
000-009	Centre	
010-127	Outward left to centre	
128-137	Centre	
138-255	Centre to outward right	

DMX CHANNEL	35	Parameter: **PRISM 1 ROTATION/INDEX**
DMX value	**Function**	
000-127	Proportional index 0°-360°	
128-180	CW rotation from fast to slow	
181-202	Stop	
203-255	CCW rotation from slow to fast	

DMX CHANNEL	36	Parameter: **PRISM 2 POSITION**
DMX value	**Function**	
000-009	Centre	
010-127	Outward right to centre	
128-137	Centre	
138-255	Centre to outward left	

DMX CHANNEL	37	Parameter: **PRISM 2 ROTATION/INDEX**
DMX value	**Function**	
000-127	Proportional index 0°-360°	
128-180	CW rotation from fast to slow	
181-202	Stop	
203-255	CCW rotation from slow to fast	

DMX CHANNEL	38	Parameter: **SOFTEN FILTER**
DMX value	**Function**	
000-009	No function	
010-255	Soften filter	

DMX CHANNEL	39	Parameter: **FROST**
DMX value	**Function**	
000-009	No function	
010-255	Frost Filter linear from min to max	

DMX CHANNEL	40	Parameter: **FOCUS msb**
DMX CHANNEL	41	Parameter: **FOCUS lsb**
DMX value	**Function**	
000-255	Linear focus	

DMX CHANNEL	42	Parameter: **ZOOM**
DMX value	**Function**	
000-255	Linear zoom	

DMX CHANNEL	43	Parameter: **FIXTURE CONTROL**
DMX value	**Function**	
000-009	0 - No effect	
010-024	1 - SMOOTH DIMMING OFF	
025-026	2 - SMOOTH DIMMING 1	
027-028	3 - SMOOTH DIMMING 2	
029-030	4 - SMOOTH DIMMING 3	
031-032	5 - SMOOTH DIMMING 4 (DEFAULT)	
033-034	6 - SMOOTH DIMMING 5	
035-036	7 - SMOOTH DIMMING 6	
037-038	8 - SMOOTH DIMMING 7	
039-040	9 - SMOOTH DIMMING 8	
041-042	10 - SMOOTH DIMMING 9	
043-044	11 - SMOOTH DIMMING 10	
045-046	12 - SMOOTH DIMMING 11	
047-048	13 - SMOOTH DIMMING 12	
049-050	14 - SMOOTH DIMMING 13	
051-052	15 - SMOOTH DIMMING 14	
053-054	16 - SMOOTH DIMMING 15	
055-056	17 - SMOOTH DIMMING 16	
057-058	18 - SMOOTH DIMMING 17	
059-060	19 - SMOOTH DIMMING 18	
061-062	20 - SMOOTH DIMMING 19	
063-064	21 - SMOOTH DIMMING 20	
065-074	22 - GAMMA CORRECTION QUADRATIC (DEFAULT)	
075-084	23 - GAMMA CORRECTION LINEAR	
085-104	24 - OUTPUT FREQUENCY 610 Hz (DEFAULT)	
105	25 - OUTPUT FREQUENCY 800 Hz	
106	26 - OUTPUT FREQUENCY 1000 Hz	
107	27 - OUTPUT FREQUENCY 1500 Hz	
108	28 - OUTPUT FREQUENCY 2000 Hz	
109	29 - OUTPUT FREQUENCY 2500 Hz	
110	30 - OUTPUT FREQUENCY 3000 Hz	
111	31 - OUTPUT FREQUENCY 3500 Hz	
112	32 - OUTPUT FREQUENCY 4000 Hz	
113	33 - OUTPUT FREQUENCY 4500 Hz	
114	34 - OUTPUT FREQUENCY 5000 Hz	
115	35 - OUTPUT FREQUENCY 5500 Hz	
116	36 - OUTPUT FREQUENCY 6000 Hz	
117	37 - OUTPUT FREQUENCY 6500 Hz	
118	38 - OUTPUT FREQUENCY 7000 Hz	
119	39 - OUTPUT FREQUENCY 7500 Hz	
120	40 - OUTPUT FREQUENCY 8000 Hz	

DMX CHANNEL	43	Parameter: **FIXTURE CONTROL**
DMX value	**Function**	
121	41 - OUTPUT FREQUENCY 8500 Hz	
122	42 - OUTPUT FREQUENCY 9000 Hz	
123	43 - OUTPUT FREQUENCY 9500 Hz	
124	44 - OUTPUT FREQUENCY 10000 Hz	
125	45 - OUTPUT FREQUENCY 11000 Hz	
126	46 - OUTPUT FREQUENCY 12000 Hz	
127	47 - OUTPUT FREQUENCY 13000 Hz	
128	48 - OUTPUT FREQUENCY 14000 Hz	
129	49 - OUTPUT FREQUENCY 15000 Hz	
130	50 - OUTPUT FREQUENCY 16000 Hz	
131	51 - OUTPUT FREQUENCY 17000 Hz	
132	52 - OUTPUT FREQUENCY 18000 Hz	
133	53 - OUTPUT FREQUENCY 19000 Hz	
134	54 - OUTPUT FREQUENCY 20000 Hz	
135-136	55 - CMY / CTO SPEED 1 **(Speed value must not be set while CMY filters are moving during programming)**	
137-138	56 - CMY / CTO SPEED 2 **(Speed value must not be set while CMY filters are moving during programming)**	
139-140	57 - CMY / CTO SPEED 3 **(Speed value must not be set while CMY filters are moving during programming)**	
141-142	58 - CMY / CTO SPEED 4(DEFAULT) **(Speed value must not be set while CMY filters are moving during programming)**	
143-144	59 - BLADES SPEED 1 **(Speed value must not be set while blades are moving during programming)**	
145-146	60 - BLADES SPEED 2 **(Speed value must not be set while blades are moving during programming)**	
147-148	61 - BLADES SPEED 3 **(Speed value must not be set while blades are moving during programming)**	
149-150	62 - BLADES SPEED 4 (DEFAULT) **(Speed value must not be set while blades are moving during programming)**	
151-152	63 - FOCUS EXCURSION EXTENDED	
153-154	64 - FOCUS EXCURSION STANDARD (DEFAULT)	
155-164	65 - DISPLAY STANDBY DISABLE (DEFAULT)	
165-174	66 - DISPLAY STANDBY ENABLE	
175-176	67 - NO DMX ACTION - KEEP LAST DMX (DEFAULT)	
177-178	68 - NO DMX ACTION - BLACK OUT	
179-180	69 - RESERVED	
181-182	70 - NO DMX ACTION - DEMO PROGRAM (STEPS 01..48)	
183-184	71 - NO DMX ACTION - SINGLE CUE	
185-194	72 - PAN NORMAL (DEFAULT)	
195-204	73 - PAN REVERSE	
205-214	74 - TILT NORMAL (DEFAULT)	
215-224	75 - TILT REVERSE	
225-227	76 - AUTOFOCUS ON **(To have the best resolution it is suggested the first time you focus to set Zoom at DMX value 100(range0-255)or 39%)**	
228-230	77 - RESERVED	
231-234	78 - AUTOFOCUS OFF (DEFAULT)	
235-237	79 - FAN MODE STANDARD	
238-240	80 - FAN MODE AUTO	
241-244	81 - FAN MODE SILENT (DEFAULT)	
245-246	82 - ZOOM SPEED 1	
247-248	83 - ZOOM SPEED 2	
249-250	84 - ZOOM SPEED 3	
251-252	85 - ZOOM SPEED 4 (DEFAULT)	
253-255	86 - SET FUNCTION TO DEFAULT: -SMOOTH DIMMING = 4 -GAMMA = QUADRATIC -FREQUENCY = 610 Hz -CMY/CTO SPEED = 4 -BLADES SPEED = 4	

	-DISPLAY STANDBY = DISABLE -NO DMX ACTION = KEEP LAST DMX -FAN = SILENT MODE -ZOOM SPEED = 4 -AUTOFOCUS = OFF -FOCUS EXCURSION = STANDARD

DMX CHANNEL	44	Parameter: **RESET**
DMX value	**Function**	
000-009	No effect	
010-075	PAN TILT reset	
076-095	HEAD MOTORS reset	
096-115	Gobo wheel reset	
116-135	Colour wheel reset	
136-155	CMY/CTO reset	
156-175	Blades reset	
176-195	Prism reset	
196-215	Frost - Smooth reset	
216-239	Focus/Zoom reset	
240-255	Total unit reset (PAN TILT + HEAD MOTORS)	

53 CHANNELS MODE

1	**PAN msb**
2	**PAN lsb**
3	**TILT msb**
4	**TILT lsb**
5	**SPEED MOVEMENT**
6	*reserved*
7	**DIMMER msb**
8	**DIMMER lsb**
9	**SHUTTER**
10	**COLOUR WHEEL**
11	**COLOUR MODE**
12	**CYAN**
13	**MAGENTA**
14	**YELLOW**
15	**CTO**
16	**GEL FILTERS EMULATION**
17	**GOBO**
18	**GOBO ROTATION/INDEX msb**
19	**GOBO ROTATION/INDEX lsb**
20	**GOBO SHAKE**
21	**BLADES SYSTEM ROTATION msb**
22	**BLADES SYSTEM ROTATION lsb**
23	**BLADE 1 INSERTION msb**
24	**BLADE 1 INSERTION lsb**
25	**BLADE 1 ROTATION msb**
26	**BLADE 1 ROTATION lsb**
27	**BLADE 2 INSERTION msb**
28	**BLADE 2 INSERTION lsb**
29	**BLADE 2 ROTATION msb**
30	**BLADE 2 ROTATION lsb**
31	**BLADE 3 INSERTION msb**
32	**BLADE 3 INSERTION lsb**
33	**BLADE 3 ROTATION msb**
34	**BLADE 3 ROTATION lsb**
35	**BLADE 4 INSERTION msb**
36	**BLADE 4 INSERTION lsb**
37	**BLADE 4 ROTATION msb**
38	**BLADE 4 ROTATION lsb**
39	**BLADE EFFECTS**
40	**DYNAMOVES MACROS**
41	**BLADES EFFECTS SPEED / DYNAMOVE MACROS SPEED**
42	**PRISM MODE**
43	**PRISM 1 POSITION**
44	**PRISM 1 ROTATION/INDEX**
45	**PRISM 2 POSITION**
46	**PRISM 2 ROTATION/INDEX**
47	**SOFTEN FILTER**
48	**FROST**
49	**FOCUS msb**
50	**FOCUS lsb**
51	**ZOOM**
52	**FIXTURE CONTROL**

53 RESET

DMX CHANNEL	1	Parameter: **PAN msb**
DMX CHANNEL	2	Parameter: **PAN lsb**

DMX CHANNEL	3	Parameter: **TILT msb**
DMX CHANNEL	4	Parameter: **TILT lsb**

DMX CHANNEL	5	Parameter: **SPEED MOVEMENT**
DMX value	**Function**	
000-009	Fast movement	
010-025	Standard movement	
026-127	Vector mode from fast to slow	
128-247	Variable time reaction to dmx signal (fast to slow)	
248-255	Silent movement	

DMX CHANNEL	7	Parameter: **DIMMER msb**
DMX CHANNEL	8	Parameter: **DIMMER lsb**

DMX CHANNEL	9	Parameter: **SHUTTER**
DMX value	**Function**	
000-009	Black Out	
010-019	Open	
020-029	Black Out	
030-119	Strobe (from 3,27s to 30ms)	
120-149	Pulse up (from 42,6s to 120ms)	
150-179	Pulse down (from 42,6s to 120ms)	
180-189	Random strobe	
190-199	reserved	
200-209	Gobo/Colour wheel in Black Out while rotating	
210-219	Pan/Tilt in Black Out while moving	
220-222	Blades in Black Out while inserting	
223-224	Frost/Prism in Black Out while inserting	
225-226	Zoom in Black Out while moving	
227-229	Gobo/Colour wheel/Blades/Frost/Prism/Zoom in Black Out while moving	
230-255	Open	

DMX CHANNEL	10	Parameter: **COLOUR WHEEL**

FULL COLOUR (if channel 11 "COLOUR MODE" = DMX range value 0-63)

DMX value	Function
000-009	Open
010-049	Colour 1
050-089	Colour 2
090-129	Colour 3
130-169	Colour 4
170-209	Colour 5
210-255	Colour 6

HALF COLOUR (if channel 11 "COLOUR MODE" = DMX range value 64-127)

DMX value	Function
000-009	Open
010-044	Colour 0-1
045-079	Colour 1-2
080-114	Colour 2-3
115-149	Colour 3-4
150-184	Colour 4-5
185-219	Colour 5-6
220-255	Colour 6-0

PROPORTIONAL COLOUR (if channel 11 "COLOUR MODE" = DMX range value 128-191)

DMX value	Function
000-009	Open
010-255	Proportional colour
027	Colour 0-1
044	Colour 1 center
062	Colour 1-2
079	Colour 2 center
097	Colour 2-3
114	Colour 3 center
132	Colour 3-4
150	Colour 4 center
167	Colour 4-5
185	Colour 5 center
202	Colour 5-6
220	Colour 6 center
237	Colour 6-0

RAINBOW (if channel 11 "COLOUR MODE" = DMX range value 192-255)

DMX value	Function
000-009	Open
010-127	CW rotation speed from max to min
128-137	Stop
138-255	CCW rotation speed from min to max

DMX CHANNEL	11	Parameter: **COLOUR MODE**

DMX value	Function
000-063	Full colour
064-127	Half colour
128-191	Proportional colour
192-255	Rainbow

DMX CHANNEL	12	Parameter: **CYAN**

DMX value	Function
000-255	Proportional colour

DMX CHANNEL	13	Parameter: **MAGENTA**

DMX value	Function
000-255	Proportional colour

DMX CHANNEL	14	Parameter: **YELLOW**
DMX value	**Function**	
000-255	Proportional colour	

DMX CHANNEL	15	Parameter: **CTO**
DMX value	**Function**	
000-255	Linear CTO from min to max	

DMX CHANNEL	16	Parameter: **GEL FILTERS EMULATION**
DMX value	**Function**	
000-009	No function	
010-020	19 FIRE	
021-025	20 MEDIUM AMBER	
026-030	25 SUNSET RED	
031-035	68 SKY BLUE	
036-040	101 YELLOW	
041-045	104 DEEP AMBER	
046-050	105 ORANGE	
051-055	106 PRIMARY RED	
056-060	111 DARK PINK	
061-065	113 MAGENTA	
066-070	117 STEEL BLUE	
071-075	118 LIGHT BLUE	
076-080	122 FERN GREEN	
081-085	126 MAUVE	
086-090	132 MEDIUM BLUE	
091-095	136 PALE LAVENDER	
096-100	137 LAVENDER	
101-105	138 PALE GREEN	
106-110	139 PRIMARY GREEN	
111-115	147 APRICOT	
116-120	151 GOLD TINT	
121-125	154 PALE ROSE	
126-130	156 CHOCOLATE	
131-135	181 CONGO BLUE	
136-140	200 DOUBLE CT BLUE	
141-145	201 FULL CT BLUE	
146-150	204 FULL CT ORANGE	
151-155	341 PLUM	
156-255	reserved	

DMX CHANNEL	17	Parameter: **GOBO**
DMX value	**Function**	
000-009	Open	
010-042	Gobo 1	
043-075	Gobo 2	
076-108	Gobo 3	
109-141	Gobo 4	
142-174	Gobo 5	
175-207	Gobo 6	
208-213	Speed rotation 1 min	
214-219	Speed rotation 2	
220-225	Speed rotation 3	
226-231	Speed rotation 4	
232-237	Speed rotation 5	
238-243	Speed rotation 6	
244-249	Speed rotation 7	
250-255	Speed rotation 8 max	

DMX CHANNEL	18	Parameter: **GOBO ROTATION/INDEX msb**
DMX CHANNEL	19	Parameter: **GOBO ROTATION/INDEX lsb**
DMX value	**Function**	
MSB.LSB-MSB.LSB INT16-INT16		
000.000-127.255 00000-32767	Proportional index 0°-360°	
128.000-180.255 32768-46335	CCW gobo rotation (max to min)	
181.000-202.255 46336-51967	Stop	
203.000-255.255 51968-65535	CW gobo rotation (min to max)	

DMX CHANNEL	20	Parameter: **GOBO SHAKE**
DMX value	**Function**	
000-009	Stop	
010-019	Gobo shake R-L speed 1	
020-029	Gobo shake R-L speed 2	
030-039	Gobo shake R-L speed 3	
040-049	Gobo shake R-L speed 4	
050-059	Gobo shake R-L speed 5	
060-069	Gobo shake R-L speed 6	
070-079	Gobo shake R-L speed 7	
080-089	Gobo shake R-L speed 8	
090-099	Gobo shake R-L speed 9	
100-109	Gobo shake R-L speed 10	
110-126	Gobo shake R-L speed 11	
127-138	Stop	
139-148	Gobo shake L-R speed 1	
149-158	Gobo shake L-R speed 2	
159-168	Gobo shake L-R speed 3	
169-178	Gobo shake L-R speed 4	
179-188	Gobo shake L-R speed 5	
189-198	Gobo shake L-R speed 6	
199-208	Gobo shake L-R speed 7	
209-218	Gobo shake L-R speed 8	
219-228	Gobo shake L-R speed 9	
229-238	Gobo shake L-R speed 10	
239-255	Gobo shake L-R speed 11	

DMX CHANNEL	21	Parameter: **BLADES SYSTEM ROTATION msb**
DMX CHANNEL	22	Parameter: **BLADES SYSTEM ROTATION lsb**
DMX value	**Function**	
000/000-126/255 00000-32511	Position from -45° to 0°	
127/000-128/255 32512-33023	0° position	
129/000-255/255 33024-65535	Position from 0° to 45°	

DMX CHANNEL	23	Parameter: **BLADE 1 INSERTION msb**
DMX CHANNEL	24	Parameter: **BLADE 1 INSERTION lsb**
DMX value	**Function**	
000/000-255/255 00000-65535	Open to fully inserted	

DMX CHANNEL	25	Parameter: **BLADE 1 ROTATION msb**
DMX CHANNEL	26	Parameter: **BLADE 1 ROTATION lsb**
DMX value	**Function**	
000/000-127/255 00000-32767	Position from -30° to 0°	
128/000 32768	0° position	
128/001-255/255 32769-65535	Position from 0° to 30°	

DMX CHANNEL	27	Parameter: **BLADE 2 INSERTION msb**
DMX CHANNEL	28	Parameter: **BLADE 2 INSERTION lsb**
DMX value	**Function**	
000/000-255/255 00000-65535	Open to fully inserted	

DMX CHANNEL	29	Parameter: **BLADE 2 ROTATION msb**
DMX CHANNEL	30	Parameter: **BLADE 2 ROTATION lsb**
DMX value	**Function**	
000/000-127/255 00000-32767	Position from -30° to 0°	
128/000 32768	0° position	
128/001-255/255 32769-65535	Position from 0° to 30°	

DMX CHANNEL	31	Parameter: **BLADE 3 INSERTION msb**
DMX CHANNEL	32	Parameter: **BLADE 3 INSERTION lsb**
DMX value	**Function**	
000/000-255/255 00000-65535	Open to fully inserted	

DMX CHANNEL	33	Parameter: **BLADE 3 ROTATION msb**
DMX CHANNEL	34	Parameter: **BLADE 3 ROTATION lsb**
DMX value	**Function**	
000/000-127/255 00000-32767	Position from -30° to 0°	
128/000 32768	0° position	
128/001-255/255 32769-65535	Position from 0° to 30°	

DMX CHANNEL	35	Parameter: **BLADE 4 INSERTION msb**
DMX CHANNEL	36	Parameter: **BLADE 4 INSERTION lsb**
DMX value	**Function**	
000/000-255/255 00000-65535	Open to fully inserted	

DMX CHANNEL	37	Parameter: **BLADE 4 ROTATION msb**
DMX CHANNEL	38	Parameter: **BLADE 4 ROTATION lsb**
DMX value	**Function**	
000/000-127/255 00000-32767	Position from -30° to 0°	
128/000 32768	0° position	
128/001-255/255 32769-65535	Position from 0° to 30°	

DMX CHANNEL	39	Parameter: **BLADES EFFECTS**	
DMX value	**Function**	**DMX value**	**Function**
000-009	No function	110-111	Macro 51
010-011	Macro 1	112-113	Macro 52
012-013	Macro 2	114-115	Macro 53
014-015	Macro 3	116-117	Macro 54
016-017	Macro 4	118-119	Macro 55
018-019	Macro 5	120-121	Macro 56
020-021	Macro 6	122-123	Macro 57
022-023	Macro 7	124-125	Macro 58
024-025	Macro 8	126-127	Macro 59
026-027	Macro 9	128-129	Macro 60
028-029	Macro 10	130-131	Macro 61
030-031	Macro 11	132-133	Macro 62
032-033	Macro 12	134-135	Macro 63
034-035	Macro 13	136-137	Macro 64
036-037	Macro 14	138-139	Macro 65
038-039	Macro 15	140-141	Macro 66
040-041	Macro 16	142-143	Macro 67
042-043	Macro 17	144-145	Macro 68
044-045	Macro 18	146-147	Macro 69
046-047	Macro 19	148-149	Macro 70
048-049	Macro 20	150-151	Macro 71
050-051	Macro 21	152-153	Macro 72
052-053	Macro 22	154-155	Macro 73
054-055	Macro 23	156-157	Macro 74
056-057	Macro 24	158-159	Macro 75
058-059	Macro 25	160-161	Macro 76
060-061	Macro 26	162-163	Macro 77
062-063	Macro 27	164-165	Macro 78
064-065	Macro 28	166-167	Macro 79
066-067	Macro 29	168-169	Macro 80
068-069	Macro 30	170-171	Macro 81
070-071	Macro 31	172-173	Macro 82
072-073	Macro 32	174-175	Macro 83
074-075	Macro 33	176-177	Macro 84
076-077	Macro 34	178-179	Macro 85
078-079	Macro 35	180-181	Macro 86
080-081	Macro 36	182-183	Macro 87
082-083	Macro 37	184-185	Macro 88
084-085	Macro 38	186-187	Macro 89
086-087	Macro 39	188-255	reserved
088-089	Macro 40		
090-091	Macro 41		
092-093	Macro 42		
094-095	Macro 43		
096-097	Macro 44		
098-099	Macro 45		
100-101	Macro 46		
102-103	Macro 47		
104-105	Macro 48		
106-107	Macro 49		
108-109	Macro 50		

DMX CHANNEL	40	Parameter: **DYNAMOVES MACROS** (Macros up to Macro 45 are replicated for future FX implemetation)

DMX value	**Function**	**Automatic channels (53 DMX channels mode)**
000-009	No function	
010-011	Macro 1	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
012-013	Macro 2 (same as Macro 1)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
014-015	Macro 3 (same as Macro 1)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
016-017	Macro 4	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
018-019	Macro 5 (same as Macro 4)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
020-021	Macro 6 (same as Macro 4)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
022-023	Macro 7	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
024-025	Macro 8 (same as Macro 7)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
026-027	Macro 9 (same as Macro 7)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
028-029	Macro 10	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
030-031	Macro 11 (same as Macro 10)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
032-033	Macro 12 (same as Macro 10)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
034-035	Macro 13	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
036-037	Macro 14 (same as Macro 13)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
038-039	Macro 15 (same as Macro 13)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
040-041	Macro 16	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
042-043	Macro 17 (same as Macro 16)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
044-045	Macro 18 (same as Macro 16)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
046-047	Macro 19	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
048-049	Macro 20 (same as Macro 19)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
050-051	Macro 21 (same as Macro 19)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51

DMX CHANNEL	40	Parameter: **DYNAMOVES MACROS** (Macros up to Macro 45 are replicated for future FX implemetation)

DMX value	Function	Automatic channels (53 DMX channels mode)
052-053	Macro 22	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
054-055	Macro 23 (same as Macro 22)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
056-057	Macro 24 (same as Macro 22)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
058-059	Macro 25	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 21; CH 22; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
060-061	Macro 26 (same as Macro 25)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 21; CH 22; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
062-063	Macro 27 (same as Macro 25)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 21; CH 22; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
064-065	Macro 28	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
066-067	Macro 29 (same as Macro 28)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
068-069	Macro 30 (same as Macro 28)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
070-071	Macro 31	CH 10; CH 11; CH 17; CH 18; CH 42; CH 43; CH 44; CH 49; CH 50; CH 51
072-073	Macro 32 (same as Macro 31)	CH 10; CH 11; CH 17; CH 18; CH 42; CH 43; CH 44; CH 49; CH 50; CH 51
074-075	Macro 33 (same as Macro 31)	CH 10; CH 11; CH 17; CH 18; CH 42; CH 43; CH 44; CH 49; CH 50; CH 51
076-077	Macro 34	CH 10; CH 11; CH 17; CH 18; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
078-079	Macro 35 (same as Macro 34)	CH 10; CH 11; CH 17; CH 18; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
080-081	Macro 36 (same as Macro 34)	CH 10; CH 11; CH 17; CH 18; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
082-083	Macro 37	CH 10; CH 11; CH 17; CH 18; CH 21; CH 22; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
084-085	Macro 38 (same as Macro 37)	CH 10; CH 11; CH 17; CH 18; CH 21; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50;CH 51
086-087	Macro 39 (same as Macro 37)	CH 10; CH 11; CH 17; CH 18; CH 21; CH 22; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
088-089	Macro 40	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
090-091	Macro 41 (same as Macro 40)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
092-093	Macro 42 (same as Macro 40)	CH 12; CH 13; CH 14; CH 15; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51

DMX CHANNEL	40	Parameter: **DYNAMOVES MACROS** (Macros up to Macro 45 are replicated for future FX implemetation)

DMX value	Function	Automatic channels (53 DMX channels mode)
094-095	Macro 43	CH 10; CH 11; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
096-097	Macro 44 (same as Macro 43)	CH 10; CH 11; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
098-099	Macro 45 (same as Macro 43)	CH 10; CH 11; CH 17; CH 18; CH 42; CH 43; CH 44; CH 45; CH 46; CH 49; CH 50; CH 51
100-101	Macro 46	CH 10; CH 11; CH 17; CH 18; CH 19; CH 20; CH 42; CH 43; CH 44; CH 49; CH 50; CH 51
102-103	Macro 47	CH 10; CH 11; CH 17; CH 18; CH 19; CH 20; CH 42; CH 43; CH 44; CH 49; CH 50; CH 51
104-105	Macro 48	CH 10; CH 11; CH 17; CH 18; CH 19; CH 20; CH 42; CH 43; CH 44; CH 49; CH 50; CH 51
106-107	Macro 49	CH 10; CH 11; CH 17; CH 18; CH 19; CH 20; CH 42; CH 43; CH 44; CH 49; CH 50; CH 51
108-109	Macro 50	CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 46
110-111	Macro 51	CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 46
112-113	Macro 52	CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 46
114-115	Macro 53	CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46
116-117	Macro 54	CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 46
118-119	Macro 55	CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 46
120-121	Macro 56	CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 46
122-123	Macro 57	CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 46
124-125	Macro 58	CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 44
126-127	Macro 59	CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 46
128-129	Macro 60	CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 46
130-131	Macro 61	CH 10; CH 11; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38;CH 42; CH 43; CH 44
132-133	Macro 62	CH 10; CH 11; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46
134-135	Macro 63	CH 10; CH 11; CH 23; CH 24; CH 25; CH 26; CH 27; CH 28; CH 29; CH 30; CH 31; CH 32; CH 33; CH 34; CH 35; CH 36; CH 37; CH 38; CH 42; CH 43; CH 44; CH 45; CH 46
136-255	reserved	

DMX CHANNEL	41	Parameter: **BLADES EFFECTS SPEED / DYNAMOVE MACROS SPEED**

DMX value	Function
000-010	1X
011-050	1.1X to 5X (step 0.1X)
051-090	4.9X to 1X (step 0.1X)
091-159	1X
160-169	0.9X
170-179	0.8X
180-189	0.7X
190-199	0.6X
200-209	0.5X
210-219	0.4X
220-229	0.3X

230-239	0.2X
240-255	0.1X

DMX CHANNEL	42	Parameter: **PRISM MODE**
DMX value	**Function**	
000-009	No function	
010-049	Prism 1 inserted	after zoom lens
050-089	Prism 2 inserted	after zoom lens
090-129	Prism 1+2 inserted	after zoom lens
130-169	Prism 1 inserted	between focus and zoom lenses
170-209	Prism 2 inserted	between focus and zoom lenses
210-255	Prism 1+2 inserted	between focus and zoom lenses

DMX CHANNEL	43	Parameter: **PRISM 1 POSITION**
DMX value	**Function**	
000-009	Centre	
010-127	Outward left to centre	
128-137	Centre	
138-255	Centre to outward right	

DMX CHANNEL	44	Parameter: **PRISM 1 ROTATION/INDEX**
DMX value	**Function**	
000-127	Proportional index 0°-360°	
128-180	CW rotation from fast to slow	
181-202	Stop	
203-255	CCW rotation from slow to fast	

DMX CHANNEL	45	Parameter: **PRISM 2 POSITION**
DMX value	**Function**	
000-009	Centre	
010-127	Outward right to centre	
128-137	Centre	
138-255	Centre to outward left	

DMX CHANNEL	46	Parameter: **PRISM 2 ROTATION/INDEX**
DMX value	**Function**	
000-127	Proportional index 0°-360°	
128-180	CW rotation from fast to slow	
181-202	Stop	
203-255	CCW rotation from slow to fast	

DMX CHANNEL	47	Parameter: **SOFTEN FILTER**
DMX value	**Function**	
000-009	No function	
010-255	Soften filter	

DMX CHANNEL	48	Parameter: **FROST**
DMX value	**Function**	
000-009	No function	
010-255	Frost Filter linear from min to max	

DMX CHANNEL	49	Parameter: **FOCUS msb**
DMX CHANNEL	50	Parameter: **FOCUS lsb**
DMX value	**Function**	
000-255	Linear focus	

DMX CHANNEL	51	Parameter: **ZOOM**
DMX value	**Function**	
000-255	Linear zoom	

DMX CHANNEL	52	Parameter: **FIXTURE CONTROL**
DMX value	**Function**	
000-009	0 - No effect	
010-024	1 - SMOOTH DIMMING OFF	
025-026	2 - SMOOTH DIMMING 1	
027-028	3 - SMOOTH DIMMING 2	
029-030	4 - SMOOTH DIMMING 3	
031-032	5 - SMOOTH DIMMING 4 (DEFAULT)	
033-034	6 - SMOOTH DIMMING 5	
035-036	7 - SMOOTH DIMMING 6	
037-038	8 - SMOOTH DIMMING 7	
039-040	9 - SMOOTH DIMMING 8	
041-042	10 - SMOOTH DIMMING 9	
043-044	11 - SMOOTH DIMMING 10	
045-046	12 - SMOOTH DIMMING 11	
047-048	13 - SMOOTH DIMMING 12	
049-050	14 - SMOOTH DIMMING 13	
051-052	15 - SMOOTH DIMMING 14	
053-054	16 - SMOOTH DIMMING 15	
055-056	17 - SMOOTH DIMMING 16	
057-058	18 - SMOOTH DIMMING 17	
059-060	19 - SMOOTH DIMMING 18	
061-062	20 - SMOOTH DIMMING 19	
063-064	21 - SMOOTH DIMMING 20	
065-074	22 - GAMMA CORRECTION QUADRATIC (DEFAULT)	
075-084	23 - GAMMA CORRECTION LINEAR	
085-104	24 - OUTPUT FREQUENCY 610 Hz (DEFAULT)	
105	25 - OUTPUT FREQUENCY 800 Hz	
106	26 - OUTPUT FREQUENCY 1000 Hz	
107	27 - OUTPUT FREQUENCY 1500 Hz	
108	28 - OUTPUT FREQUENCY 2000 Hz	
109	29 - OUTPUT FREQUENCY 2500 Hz	
110	30 - OUTPUT FREQUENCY 3000 Hz	
111	31 - OUTPUT FREQUENCY 3500 Hz	
112	32 - OUTPUT FREQUENCY 4000 Hz	
113	33 - OUTPUT FREQUENCY 4500 Hz	
114	34 - OUTPUT FREQUENCY 5000 Hz	
115	35 - OUTPUT FREQUENCY 5500 Hz	
116	36 - OUTPUT FREQUENCY 6000 Hz	
117	37 - OUTPUT FREQUENCY 6500 Hz	
118	38 - OUTPUT FREQUENCY 7000 Hz	
119	39 - OUTPUT FREQUENCY 7500 Hz	
120	40 - OUTPUT FREQUENCY 8000 Hz	

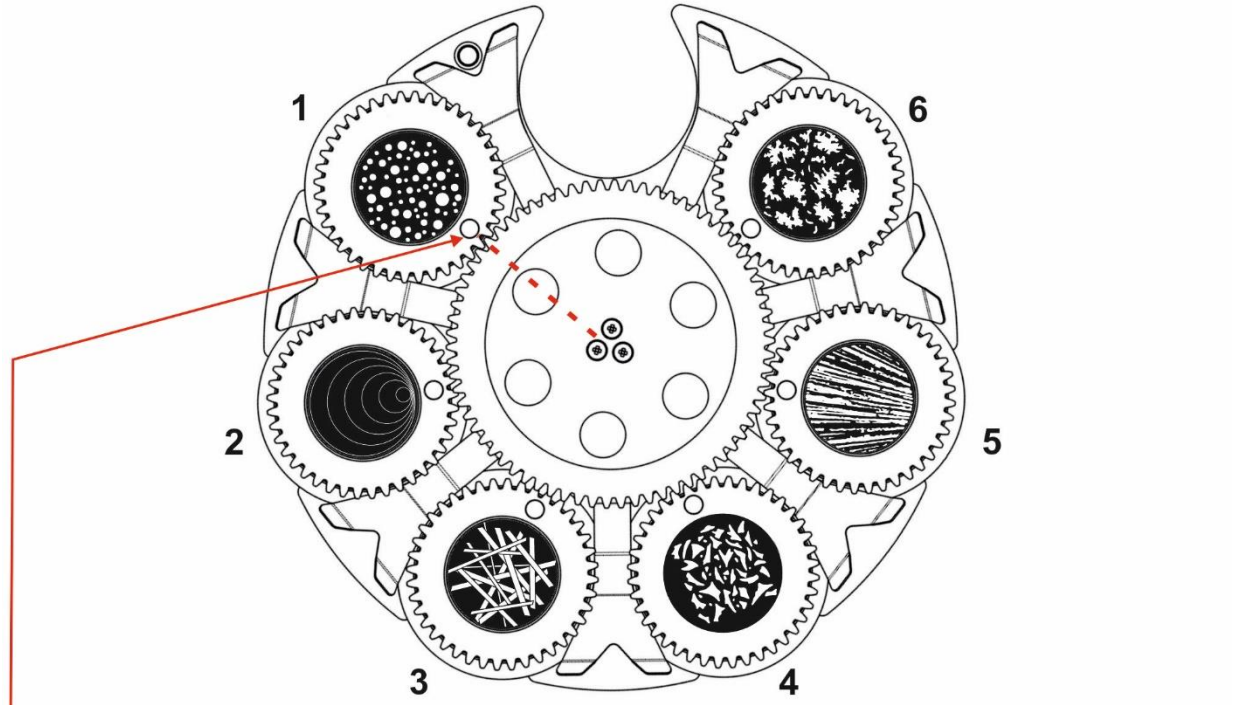
DMX CHANNEL	52	Parameter: **FIXTURE CONTROL**
DMX value	**Function**	
121	41 - OUTPUT FREQUENCY 8500 Hz	
122	42 - OUTPUT FREQUENCY 9000 Hz	
123	43 - OUTPUT FREQUENCY 9500 Hz	
124	44 - OUTPUT FREQUENCY 10000 Hz	
125	45 - OUTPUT FREQUENCY 11000 Hz	
126	46 - OUTPUT FREQUENCY 12000 Hz	
127	47 - OUTPUT FREQUENCY 13000 Hz	
128	48 - OUTPUT FREQUENCY 14000 Hz	
129	49 - OUTPUT FREQUENCY 15000 Hz	
130	50 - OUTPUT FREQUENCY 16000 Hz	
131	51 - OUTPUT FREQUENCY 17000 Hz	
132	52 - OUTPUT FREQUENCY 18000 Hz	
133	53 - OUTPUT FREQUENCY 19000 Hz	
134	54 - OUTPUT FREQUENCY 20000 Hz	
135-136	55 - CMY / CTO SPEED 1 **(Speed value must not be set while CMY filters are moving during programming)**	
137-138	56 - CMY / CTO SPEED 2 **(Speed value must not be set while CMY filters are moving during programming)**	
139-140	57 - CMY / CTO SPEED 3 **(Speed value must not be set while CMY filters are moving during programming)**	
141-142	58 - CMY / CTO SPEED 4(DEFAULT) **(Speed value must not be set while CMY filters are moving during programming)**	
143-144	59 - BLADES SPEED 1 **(Speed value must not be set while blades are moving during programming)**	
145-146	60 - BLADES SPEED 2 **(Speed value must not be set while blades are moving during programming)**	
147-148	61 - BLADES SPEED 3 **(Speed value must not be set while blades are moving during programming)**	
149-150	62 - BLADES SPEED 4 (DEFAULT)**(Speed value must not be set while blades are moving during programming)**	
151-152	63 - FOCUS EXCURSION EXTENDED	
153-154	64 - FOCUS EXCURSION STANDARD (DEFAULT)	
155-164	65 - DISPLAY STANDBY DISABLE (DEFAULT)	
165-174	66 - DISPLAY STANDBY ENABLE	
175-176	67 - NO DMX ACTION - KEEP LAST DMX (DEFAULT)	
177-178	68 - NO DMX ACTION - BLACK OUT	
179-180	69 - RESERVED	
181-182	70 - NO DMX ACTION - DEMO PROGRAM (STEPS 01..48)	
183-184	71 - NO DMX ACTION - SINGLE CUE	
185-194	72 - PAN NORMAL (DEFAULT)	
195-204	73 - PAN REVERSE	
205-214	74 - TILT NORMAL (DEFAULT)	
215-224	75 - TILT REVERSE	
225-227	76 - AUTOFOCUS ON **(To have the best resolution it is suggested the first time you focus to set Zoom at DMX value 100(range0-255)or 39%)**	
228-230	77 - RESERVED	
231-234	78 - AUTOFOCUS OFF (DEFAULT)	
235-237	79 - FAN MODE STANDARD	
238-240	80 - FAN MODE AUTO	
241-244	81 - FAN MODE SILENT (DEFAULT)	
245-246	82 - ZOOM SPEED 1	
247-248	83 - ZOOM SPEED 2	
249-250	84 - ZOOM SPEED 3	
251-252	85 - ZOOM SPEED 4 (DEFAULT)	
253-255	86 - SET FUNCTION TO DEFAULT: -SMOOTH DIMMING = 4 -GAMMA = QUADRATIC -FREQUENCY = 610 Hz -CMY/CTO SPEED = 4 -BLADES SPEED = 4 -DISPLAY STANDBY = DISABLE	

	-NO DMX ACTION = KEEP LAST DMX -FAN = SILENT MODE -ZOOM SPEED = 4 -AUTOFOCUS = OFF -FOCUS EXCURSION = STANDARD

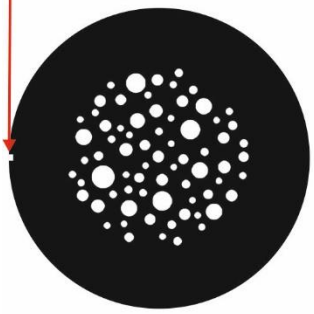
DMX CHANNEL	53	Parameter: **RESET**
DMX value	**Function**	
000-009	No effect	
010-075	PAN TILT reset	
076-095	HEAD MOTORS reset	
096-115	Gobo wheel reset	
116-135	Colour wheel reset	
136-155	CMY/CTO reset	
156-175	Blades reset	
176-195	Prism reset	
196-215	Frost - Smooth reset	
216-239	Focus/Zoom reset	
240-255	Total unit reset (PAN TILT + HEAD MOTORS)	

23- ROTATING GOBO WHEEL

Rotating gobos need to be installed by following the references shown in the picture below to have a properly indexing:
Each gobo must be mounted into its gobo holder by keeping the notch on the edge towards the gobo holder magnet.
Magnet of gobo holder must be oriented towards the center of the wheel.

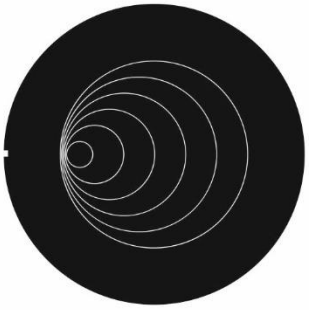


GOBO 1 DICRO



0516G136

GOBO 2 DICRO



0516G137

GOBO 3 DICRO

0516G138

GOBO 4 DICRO

0516G139

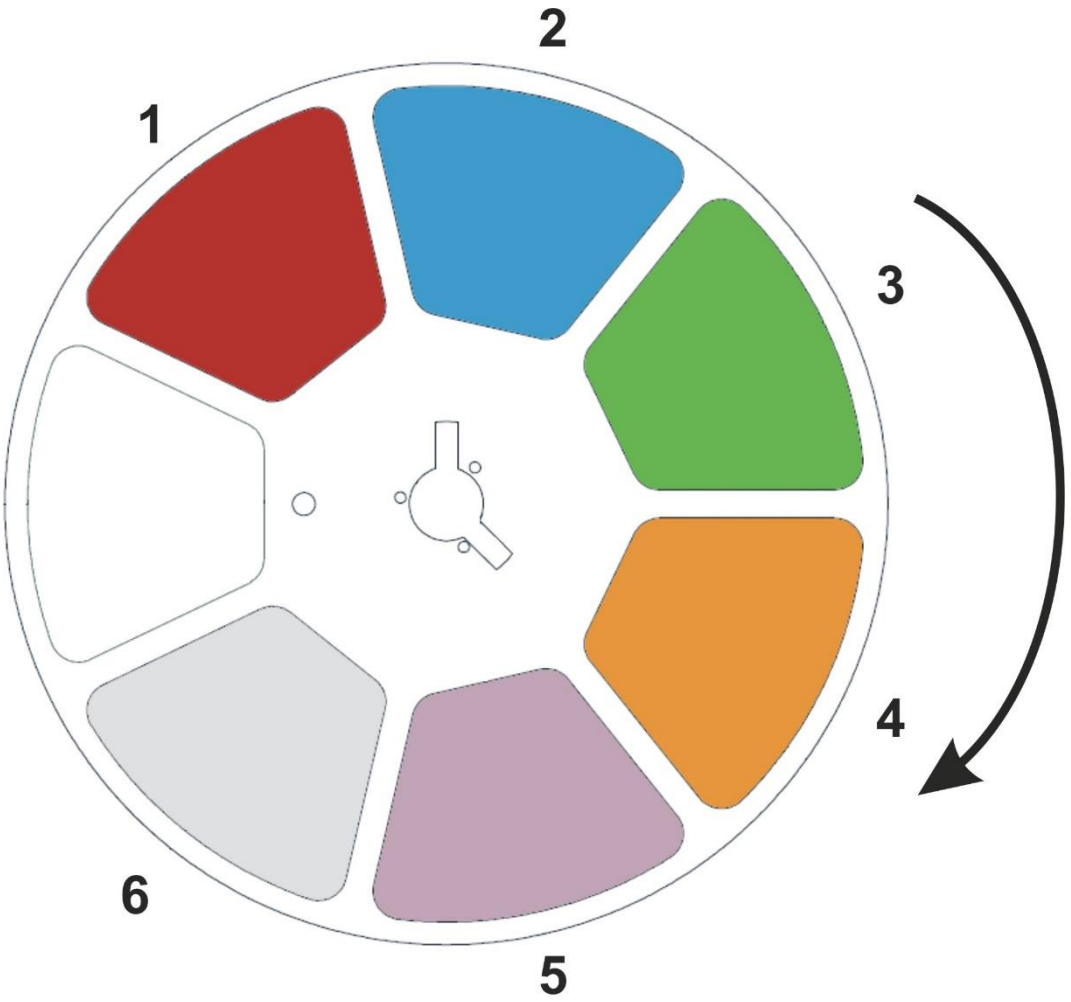
GOBO 5 DICRO

0516G140

GOBO 6 DICRO

0516G141

24- COLOUR WHEEL



COLOUR 1	COLOUR 2	COLOUR 3	COLOUR 4	COLOUR 5	COLOUR 6
DARK RED	NAVY BLUE	DARK GREEN	AMBER	PURPLE	HIGHER CRI
0507C059.D23	0507C077.D23	0507C067.D23	0507C066.D23	0507C078.D23	0507K010.D23

NOTES

NOTES

NOTES

ISO 9001:2015

DTS quality system is certified to the ISO 9001:2015 standard.

DTS

ITALIAN
PROFESSIONAL
LIGHTING

D.T.S. Illuminazione S.r.l.
via Fagnano Selve, 12/14
47843 Misano adriatico (RN) Italy
+39 0541 611131
www.dts.lighting - info@dts-lighting.it