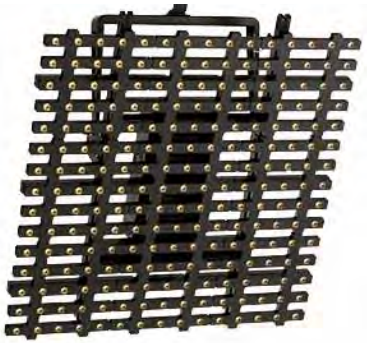
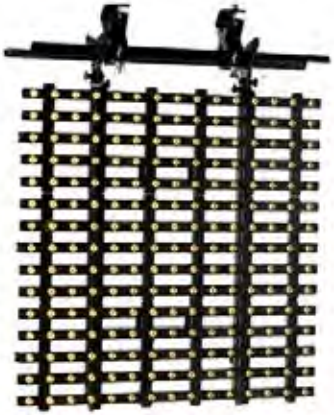
elidy

the led scream



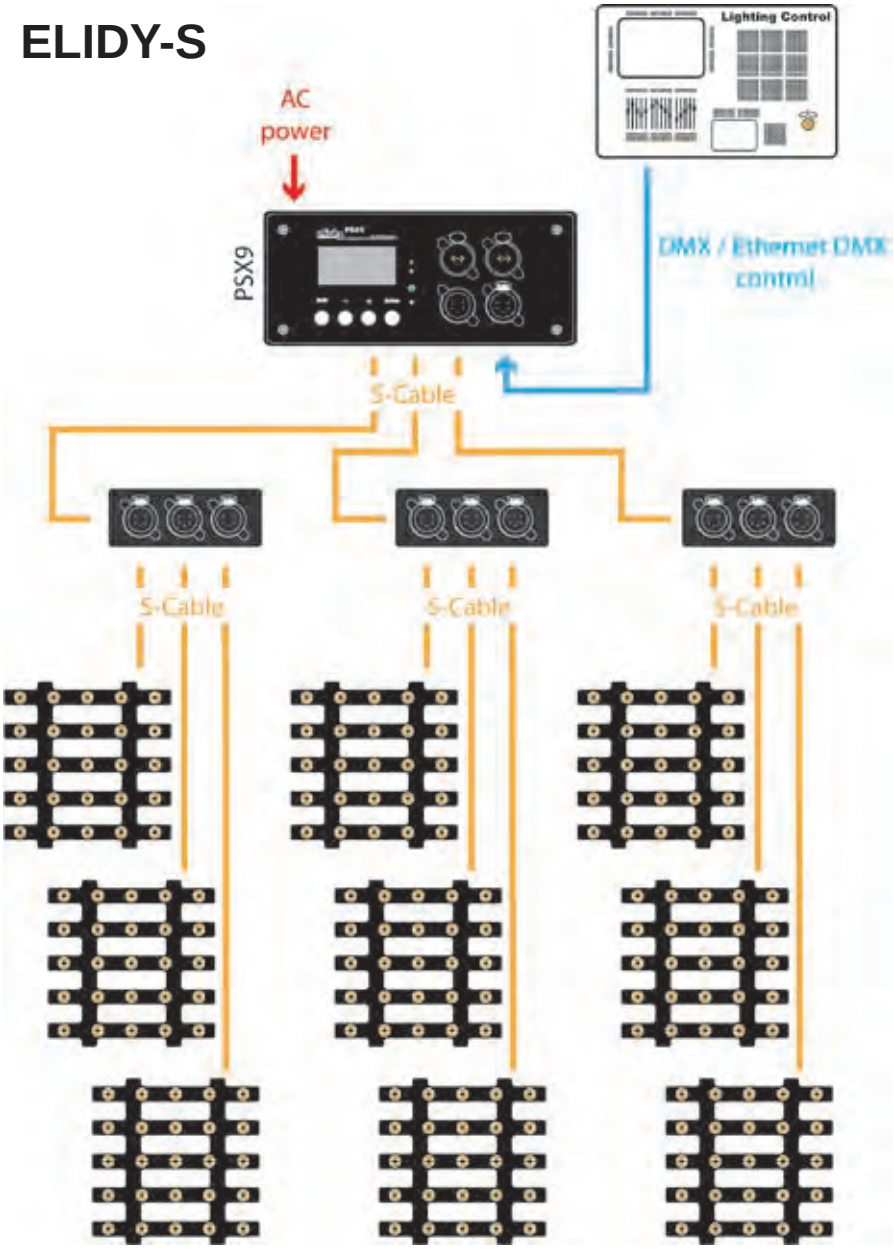


User Manual
V3.0 / Software V2.0

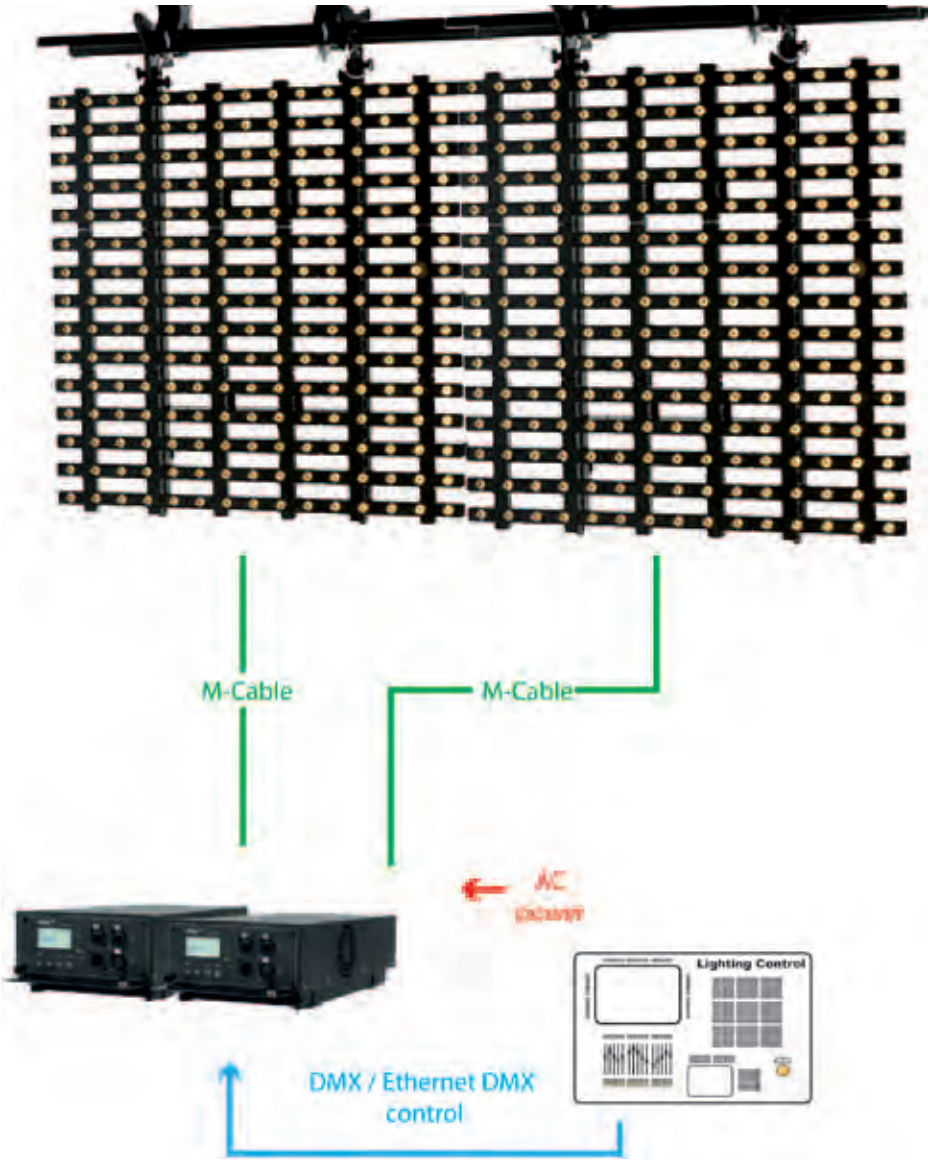
Chromlech
Conception de matériels d'éclairage scénique

Table of contents

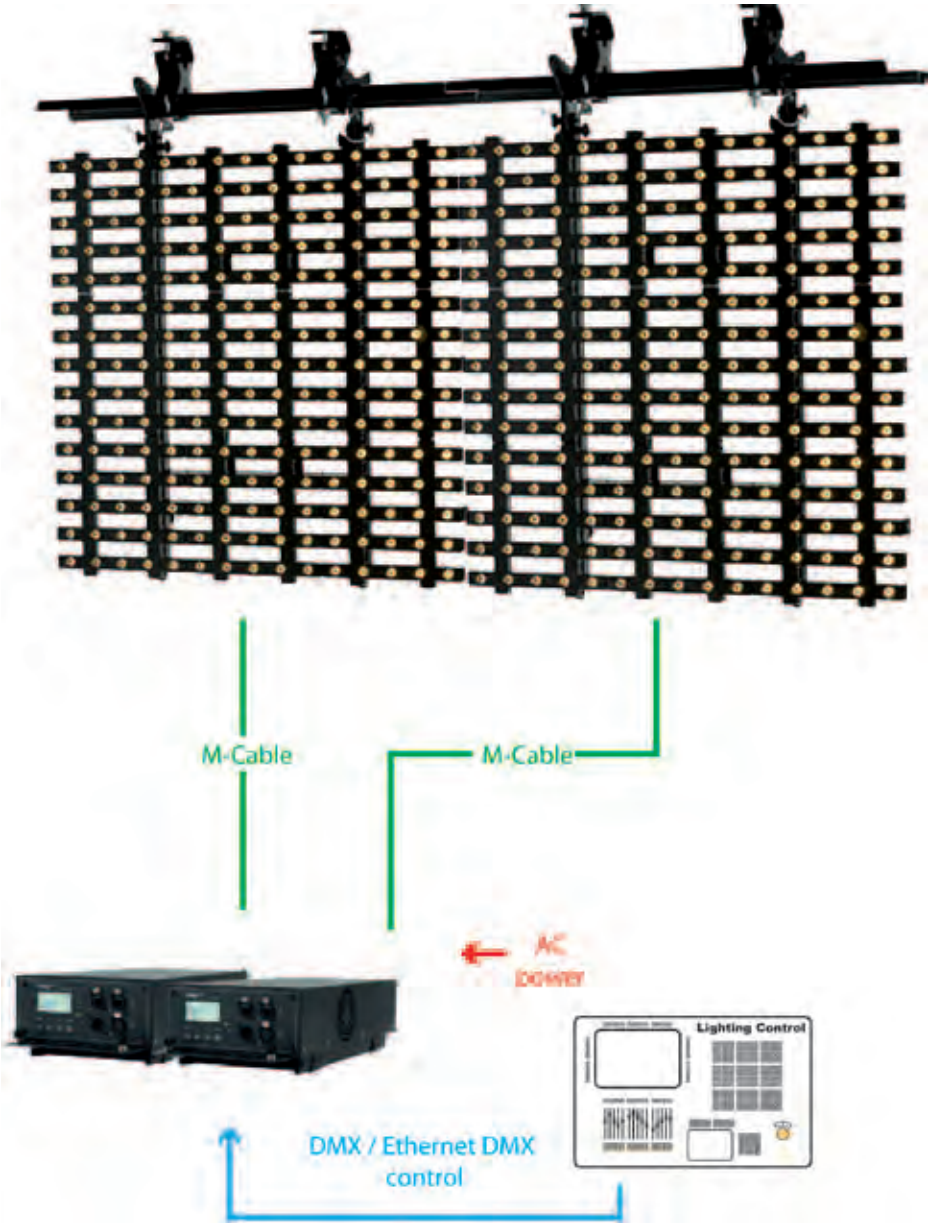
ELIDY-S


Lighting Control
AC
power
PSX9
DMX / Ethernet DMX
control
S-Cable
S-Cable
S-Cable
S-Cable

ELIDY-WALL


M-Cable
M-Cable
AC
Lighting Control
DMX / Ethernet DMX
control

Functional diagrams



Control

The Elidy combines 2 separate DMX machines, the ***Pixel Engine*** and the ***Animation Maker***.

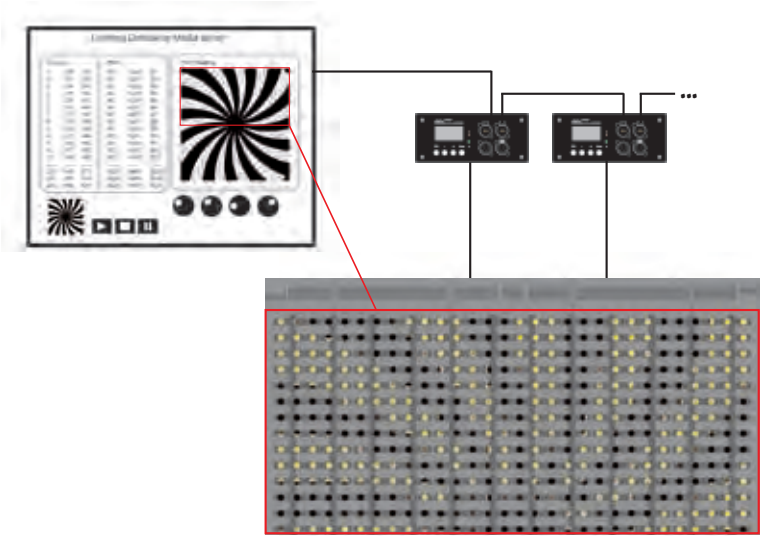
Each of the 2 machines features its own DMX address and can be controlled using the following protocols:
- DMX 512
- sACN
- ARTNET

Pixel Engine

Each Led can be controlled separately. Each PSX9 power unit can control up to 9 tiles with 25 Leds, thus 225 separate DMX channels.

1 Elidy Led (1 pixel) = 1 DMX address. To light the 9 Elidy-S or 1 Elidy-BIG/WALL connected to a power unit, fit the 225 channels on the console or media server.

The DMX channel number of each Led depends on the settings in the ***Patch Mode*** and ***Rotation*** menus ***(see sections P26 to 28)***



Animation Maker

Effects generator control built-in to the power unit. Each power unit can also control the 225 Leds, but with only 2, 4, 8 or 14 DMX channels.
The Elidy-S and Elidy-BIG/WALL are controlled by a lighting console and operate as robotic arrays, 9 Elidy-S or 1 Elidy-BIG/WALL per power unit.

Each of the 9 Elidy-S is controlled using:
- 1 Dimmer (16 Bits)
- 1 animation bank (65 fixed factory-configured animated GIF supplied with the power unit and 20 user animated GIF that can be downloaded into the power unit via the dedicated software)
- 1 GIF speed parameter
- 1 Shutter
- 1 Iris
- 1 Rotation effect
- 1 General fade out

Each Elidy-Big/Wall is controlled using:
- 1 Dimmer (16 Bits)
- 2 animation banks (65x2 fixed factory-configured animated GIF supplied with the power unit and 20x2 user animated GIF that can be downloaded into the power unit via the dedicated software)
- 2 GIF speed parameters
- 1 Crossfade between the 2 banks / Selection of the crossfade mode
- 1 Shutter
- 1 Iris
- 1 Bank of effects
- 1 Rotation effect
- 1 General fade out

Refer to Tutorial 9
Detail of the Anim maker effects

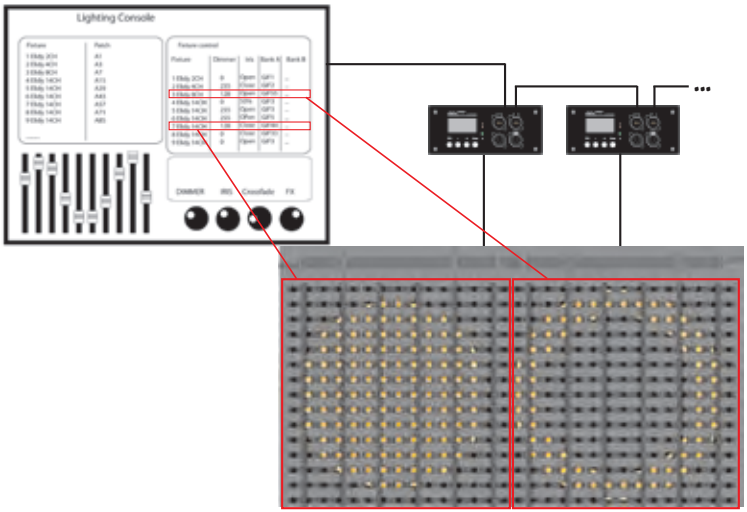
Animation Maker: Animations

The animations are created from animated GIF type files.
2 banks (A & B) are available for the user, with a series of 65 factory-configured GIF for each bank provided with the power unit and non-modifiable.

Refer to Tutorial 7
Factory-configured GIF library

It is possible to create your own GIF and load them into the PSX9 power unit, within the limit of 20 GIF per bank.

Refer to Tutorial 8
Procedure for the creation and loading of the user GIF



Sources and Controllers

The 2 Controllers of the PSX9 power unit can be monitored using different protocols, simultaneously.

Elidy performs a HTP merger between the 2 controller outputs.

The two controllers are independent, therefore:

- They can both be activated or disabled.
- They can both receive different protocols (DMX source, Artnet source, sACN source).
- Each mode supports up to two active sources simultaneously. If, for the same control mode, two sources are simultaneously active, Elidy also performs a HTP merger of these 2 sources.
- The protocol parameters are independent (DMX address, Mode, sACN and Artnet universe) and must be set for each control mode. However, a "link" mode allows to automatically copy the settings of the ***Pixel Engine*** mode towards the ***Animation Maker*** mode.

Use several sources for each controller

If for one (or both) controller(s), more than two sources are activated, then only two sources will be selected, according to the following order of priority:

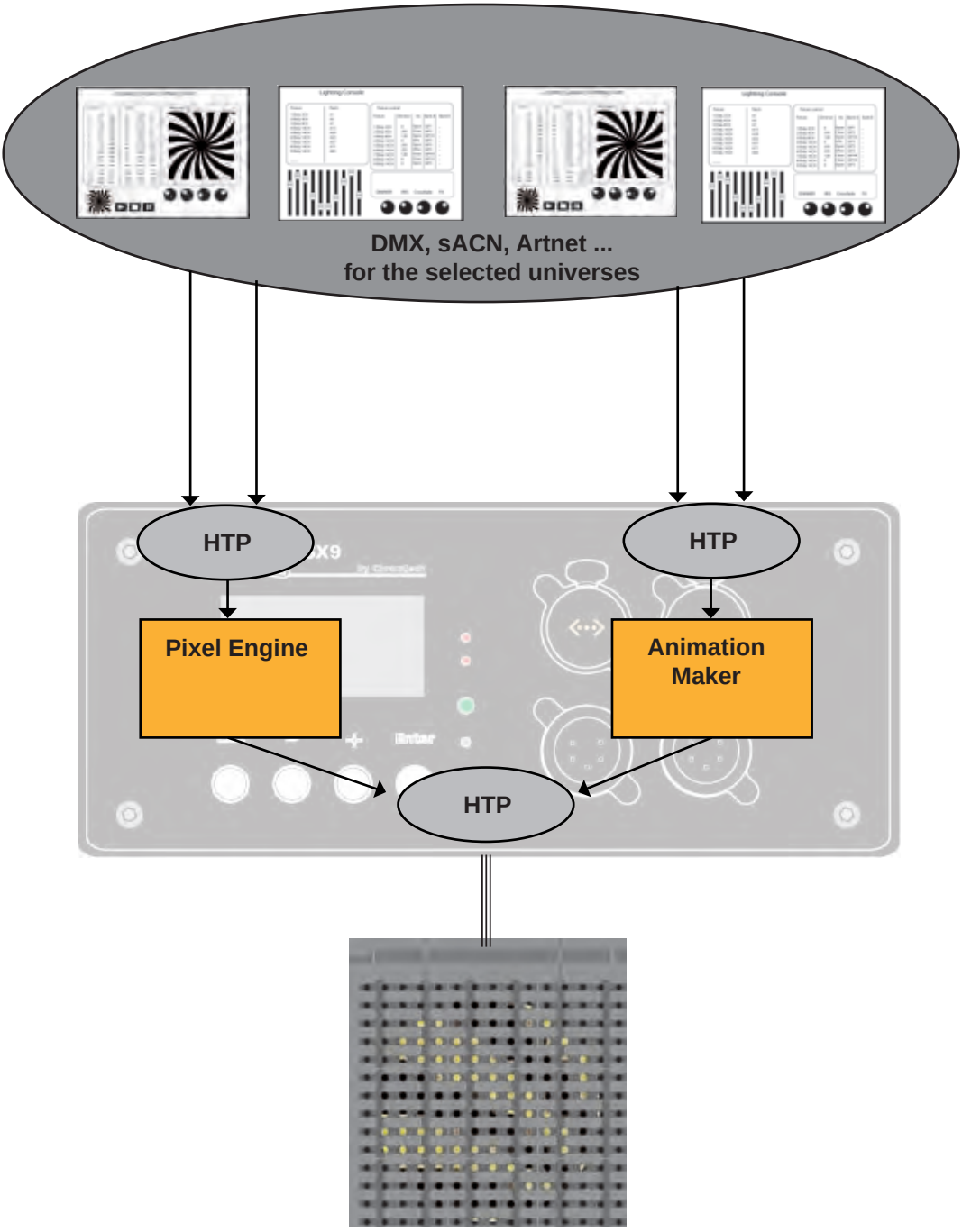
1: DMX
2: sACN
3: Artnet

If there are several sACN sources, the PSX9 considers the "priority" parameter set in the console. If the priority parameter is identical, the weakest source IP addresses (console) are given priority.

If there are several Artnet sources, the weakest source IP addresses (console) are given priority.

To be taken into account, a source must be active (transmit data) in the selected universe.

If a source no longer transmits data over a sufficiently long period of time, it is automatically replaced by another active source (according to the same priority rules). If the original source is reactivated, it is immediately taken into account (as per the same rules of priority).


DMX, sACN, Artnet ...
for the selected universes
HTP
HTP
Pixel Engine
Animation Maker
HTP

Menu detail

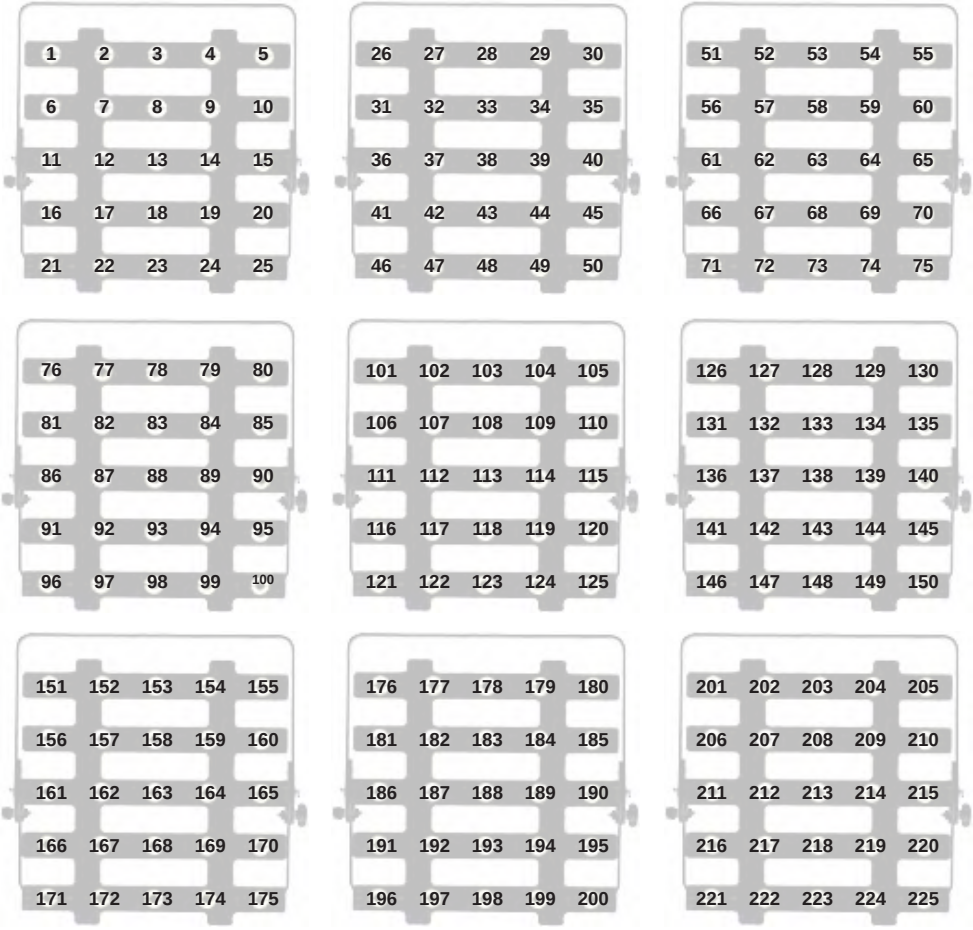
Menu 1	Menu 2	Menu 3	Function	Default value	Description page
SETUP	Patch mode		9x Elidy-S		*36*
			1x Big/Wall	✓	*37*
	Rotation		none	✓	*38-39*
			90 deg		
			180 deg		
			270 deg		
	Tile mapping		- - - - - - - - -		*40-43*
PIXEL ENGINE	Mode		OFF		*44*
			225 Channels	✓	
	DMX Address		XXX	*001*	*44-45*
	ARTNET Universe		x	*0*	*46*
	sACN Universe		x	*1*	
	Source		DMX On / Off	*On*	
			Artnet On / Off	*On*	
			sACN On / Off	*On*	
ANIMATION MAKER	Mode		Off		*49*
			2 channels		
			4 channels		
			8 channels (Patch mode: 9x Elidy-S) 14 channels (Patch mode: 1x Elidy-Big)	✓	
	LINK- Patch		Auto Link	*On*	*48*
			Manual		
	DMX Address		XXX	*226*	*50*
	ARTNET Universe		x	*0*	
	sACN Universe		x	*1*	
	Curve			*Legacy*	*51*
	Source		DMX On / Off	*On*	
			Artnet On / Off	*On*	
			sACN On / Off	*On*	

Menu 1	Menu 2	Menu 3	Function	Default value	Description page
NETWORK	IP address	Auto	2.x.x.x	✓	*52*
			10.x.x.x		
		Manual	IP x.x.x.x Netmask x.x.x.x		
	Multicast	Multicast IGMP report	ON	✓	
			OFF		
TEST	Test Full		x (0-100%)		*53*
	Test Chase		"Run test"		
UTILITY	Data In		"Info"		*54*
	Memory	Bank-S factory	"Info"		
		Bank - user	"Info"		
		Bank A factory	"Info"		
		Bank A user	"Info"		
		Bank B factory	"Info"		
		Bank B user	"Info"		
	Display	Auto Off	Always ON	✓	
			Auto OFF		
		Back Light	x	*35*	
		Contrast	x	*80*	
	Fan Level		Low		
			Normal	✓	
			High		
	Measures	Voltages	"Info"		*55*
		Temperature	"Info"		
	Factory default		NO		
			YES		
EXPERT ***Access to the menu using a code***	Dot Calibration		x		*56*
	Tile Check		"Info"		

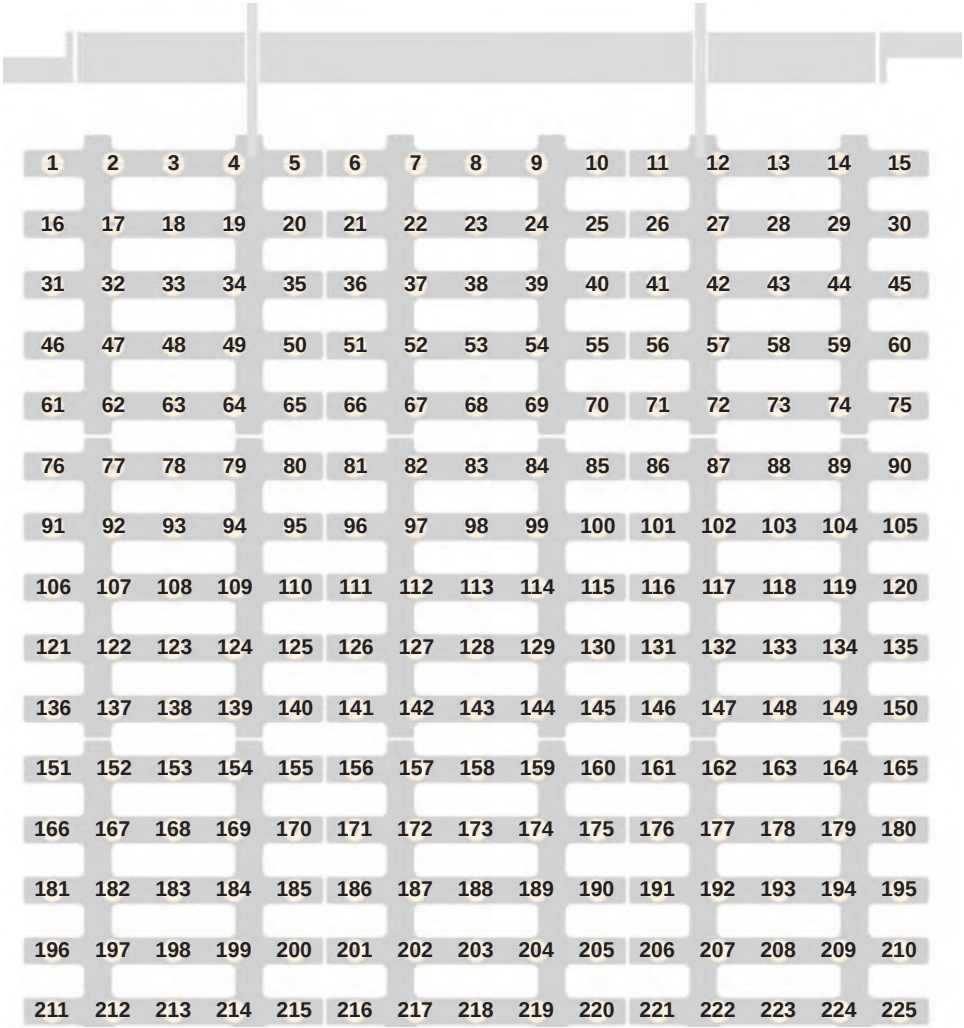
A PSX9 power unit can operate up to 9 active tiles, either separate, mounted on Elidy-S and Elidy-T, or assembled in a frame mounted in Elidy-Big and Elidy-WALL.

In the ***Patch Mode*** menu the user can chose between 2 modes: ***9x Elidy-S*** and ***1x Elidy-BIG/WALL***, that change the DMX assignment of each of the 225 available points of the Leds.

9x Elidy-S/T:



1x Elidy-BIG/WALL:



Pixel Engine

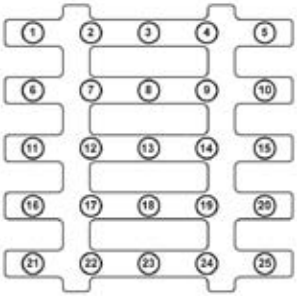
Menu — Pixel Engine — Mode

This menu allows to activate or disable the ***Pixel Engine.***
In the Off position, the following menus are no longer active.

Menu — Pixel Engine — DMX Address

This Menu allows to determine the DMX address (N) of the ***Pixel Engine***.

In 9x Elidy-S/T ***Patch Mode***:
An active tile has 25 LEDs which are factory-addressed as follows.



Factory assignment of an active tile

N = DMX address of the PSX9 power unit.

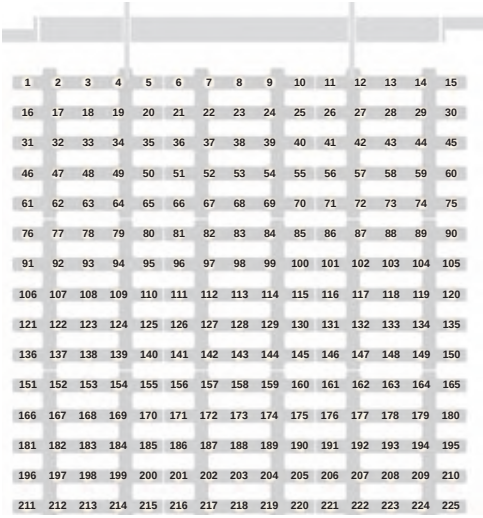
DMX address of the PSX9 power unit: N (N=287 max)									
Allocation of active tiles (Mapping menu)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
DMX address of each Elidy-S	**N+1**	**N+26**	**N+51**	**N+76**	**N+101**	**N+126**	**N+151**	**N+176**	**N+201**

Up to 2 PSX9 power units can be patched on the same DMX universe.

Refer to Tutorial 1
Standard addressing of an Elidy-S or Elidy-T kit

In 1x Elidy-BIG/WALL ***Patch Mode***:

Consider the assembly of the 9 tiles as a large tile of 15 x 15 pixels. Once they are correctly assigned in the ***Tile Mapping*** menu, the BIG/WALL is assigned as follows:

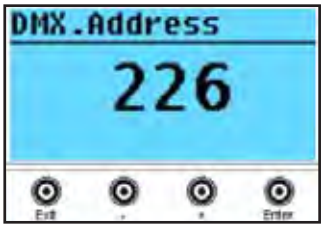


Assignment of a Big/Wall with standard mapping

Up to 2 PSX9 power units can be patched on the same DMX universe.

Refer to Tutorial 2
Standard addressing of an Elidy-Big/Wall kit

To change the allocation of the PSX9 power unit:

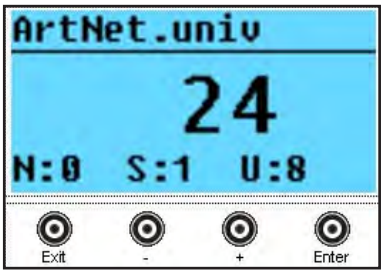


Give a value between 1 and 512 using the + and - keys.
Confirm by pressing ENTER.
Then press EXIT twice to exit from the menu.

Tip: Pressing + and - simultaneously resets the value to 1 or 226.

Menu — Pixel Engine — Artnet

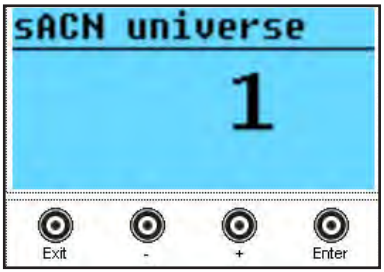
This menu allows to determine the Artnet universe number of the PSX9 power unit.
The number given is a variable between 0 and 32767 (Standard Artnet 3), the lower line indicates the Net, Subnet and Universes values.



Refer to Tutorial 3 Assigning Artnet universes

Menu — Pixel Engine — sACN

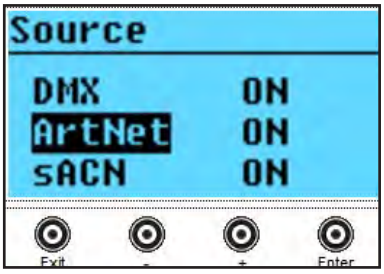
This menu allows to determine the sACN universe number of the PSX9 power unit.
The number given is a variable between 0 and 64000.



Menu — Pixel Engine — Source

This menu allows to activate or disable the DMX512, Artnet and sACN data reception that will affect the ***Pixel Engine.***

Each controller can indeed deactivate one or several sources to prevent possible conflicts if several protocols are used simultaneously in complex networks.



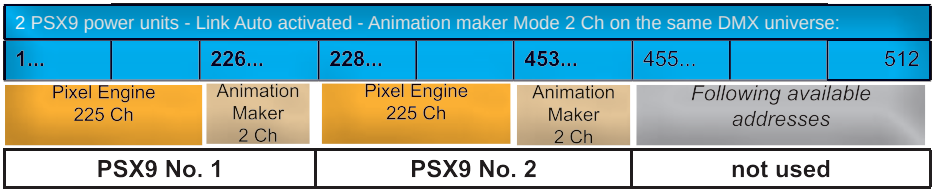
By default, all the sources are activated

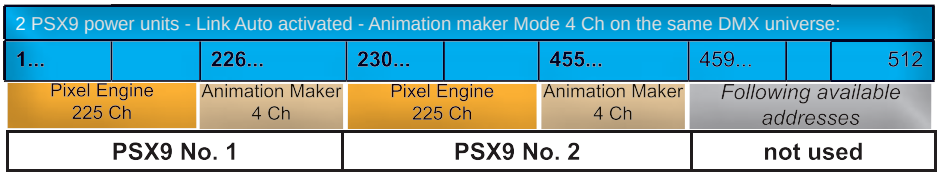
Animation Maker

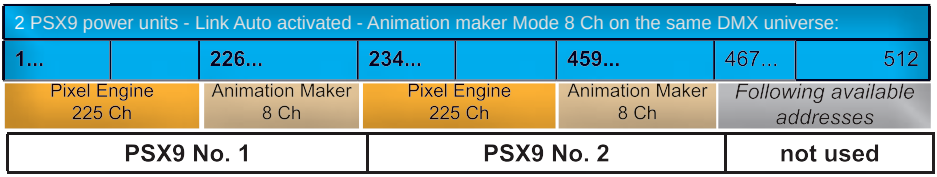
The purpose of this menu is to simplify the addressing of the PSX9 power unit. It allows to link the ***Animation Maker*** after the ***Pixel Engine,*** with the 2 controllers activated.

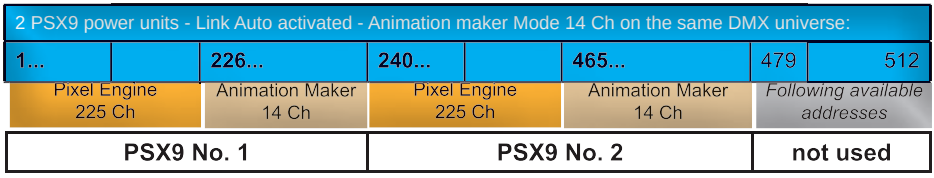
When Link is in ***Auto Link*** mode, the user only needs to enter one DMX address and one single active source menu (***Animation Maker / DMX Address*** and ***Animation Maker / Source*** are greyed out, only the ***Pixel Engine / DMX Address*** and ***Pixel Engine / Source*** menus are active)

In this mode, the DMX addresses are the following:









Menu — Animation Maker — Mode

Several modes are available. They can be different depending on the selected ***Patch Mode.***

Detail of the parameters, refer to Tutorial 6

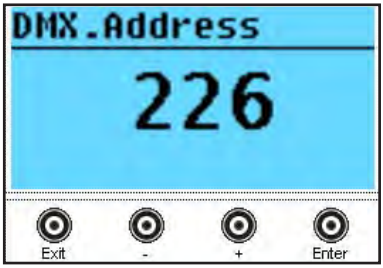
Patch Mode	1x Big/Wall

Anim. modes	Parameter Name	DMX Chan
14 Ch mode / 2 Ch	Dimmer	1
	Dimmer Fine	2
14 Ch mode / 4 Ch mode	Shutter	3
	Iris	4
	Mixer A/B	5
14 Ch mode	Mixer Type	6
	Bank A	7
	Bank A Speed	8
	Bank B	9
	Bank B Speed	10
	Symmetry	11
	Effect	12
	Effect Value	13
	Fade Out	14

Patch Mode	9x Elidy-S

Anim. modes	Parameter Name	DMX Chan
8 Ch mode / 2 Ch	Dimmer	1
		2
8 Ch mode / 4 Ch mode	Shutter	3
	Iris	4
8 Ch mode	Bank A	5
	Bank A Speed	6
	Symmetry	7
	Fade Out	8

Menu — Animation Maker — DMX address



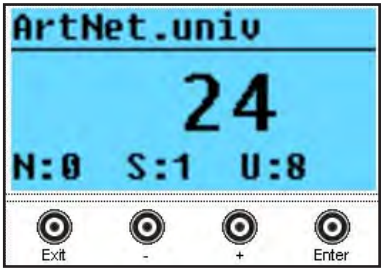
This Menu allows to determine the DMX (N) address of the ***Pixel Engine***.

To change the assignment of the PSX9 power unit:

CONTROL / ENTER / ADDR / ENTER.
Give a value between 1 and 287 using the + and - keys.
Confirm by pressing ENTER.
Then press EXIT twice to exit from the menu.

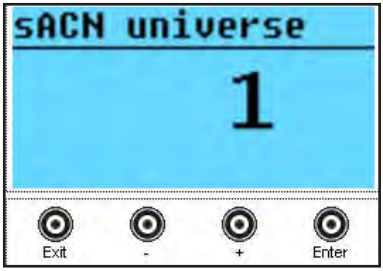
Tip: Pressing + and - simultaneously resets the value to 1 or 226.

Menu — Pixel Engine — Artnet



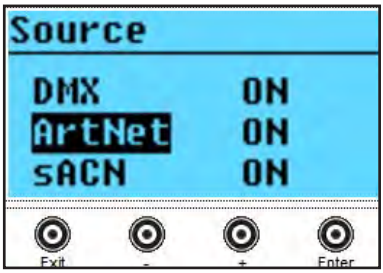
This menu allows to determine the Artnet universe number of the PSX9 power unit.
The number given is a variable between 0 and 32767 (Standard Artnet 3), the lower line indicates the Net, Subnet and Universes values.
See Annex 3: assigning Artnet universes

Menu — Pixel Engine — sACN



This menu allows to determine the sACN universe number of the PSX9 power unit.
The number given is a variable between 0 and 64000.

This menu allows to activate or disable the DMX512, Artnet and sACN data reception that will affect the ***Animation Maker.***



Each controller can indeed deactivate one or several sources to prevent possible conflicts if several protocols are used simultaneously in complex networks.

By default, all the sources are activated

Network Menu

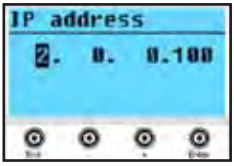
Menu — Network — IP Address

The PSX9 power unit can be controlled via different protocols operating in a computer network type architecture. It is thus necessary to assign a unique IP address to the power unit, and a subnet mask.

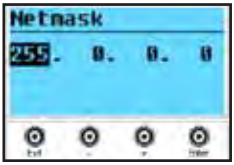
Menu — Network — IP Address — Auto

By default, the PSX9 power unit is parametrised with an automatic IP address, the user can only choose between 2 types of addresses:
2.x.x.x and 10.x.x.x / subnet mask 255.0.0.0 according to the Artnet standard
This automatic address is generated from a number specific to each PSX9 power unit, which makes it unique.

Menu — Network — IP Address — Manual



As for any computer network item, it is possible to assign an IP address and a subnet mask to the power unit.



Tip:
The following type of addresses are typically used for the Artnet: 2.X.X.X or 10.X.X.X subnet mask 255.0.0.0.
The sACN accepts any type of IP addresses.

Menu — Network — Multicast — IGMP report

In an advanced MULTICAST type network configuration, it may be necessary for the receiver (here it is the PSX9 power unit) to send back the routing information, named *IGMP report* to the transmitter (router or switch) every 10 seconds.

TUTORIAL 1: Addressing the Pixel Engines with an Elidy-S/T kit

Elidy-S / Elidy-T No.	PSX9	DMX Universe	Address
1	PSX9 1	1	1
2			26
3			51
4			76
5			101
6			126
7			151
8			176
9			201
10	PSX9 2		226
11			251
12			276
13			301
14			326
15			351
16			376
17			401
18			426
19	PSX9 3	2	1
20			26
21			51
22			76
23			101
24			126
25			151
26			176
27			201
28	PSX9 4		226
29			251
30			276
31			301
32			326
33			351
34			376
35			401
36			426
37	PSX9 5	3	1
...	...	...	26
			...

TUTORIAL 2: Addressing the Pixel Engine with an Elidy-Big/Wall kit

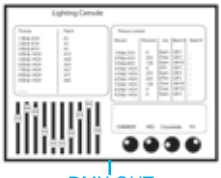
Elidy-Big / Wall	PSX9	DMX Universe	Address
1	PSX9 1	1	1
2	PSX9 2	1	226
3	PSX9 3	2	1
4	PSX9 4	2	226
5	PSX9 5	3	1
...	...	...	226

TUTORIAL 3: Assigning the Artnet universes

Universe No.	Net.Subnet.ID (Artnet 3)
0	0.0.0
1	0.0.1
2	0.0.2
3	0.0.3
4	0.0,4
5	0.0.5
6	0.0.6
7	0.0.7
8	0.0.8
9	0.0.9
10	0.0.10
11	0.0.11
12	0.0.12
13	0.0.13
14	0.0.14
15	0.0.15
16	0.1.0
17	0.1.1
...	...
64000	127.15.15

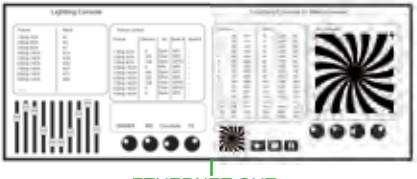
TUTORIAL 4: Case study of 12 Elidy-Wall controlled by 3 sources

- *Main lighting console*
- *Media server*
- *Backup lighting console*



DMX OUT

2- **Backup DMX consoles:**
Universe DMX 1
12 x 14CH



ETHERNET OUT

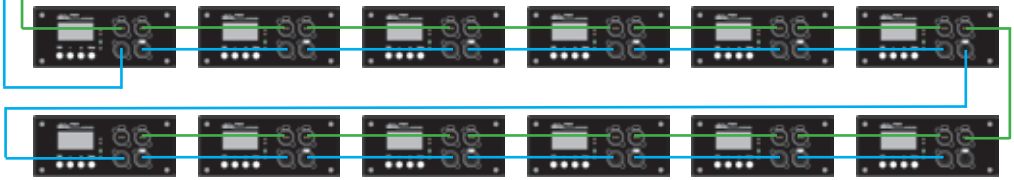
1- **Media server:**
Universe Artnet 1: 12 x 14CH
Universe Artnet 2: 225 x 2 CH
Universe Artnet 3: 225 x 2 CH
Universe Artnet 4: 225 x 2 CH
Universe Artnet 5: 225 x 2 CH
Universe Artnet 6: 225 x 2 CH
Universe Artnet 7: 225 x 2 CH

ETHERNET OUT

3- **Media server:**
Universe sACN 1: 225 x 2 CH
Universe sACN 2: 225 x 2 CH
Universe sACN 3: 225 x 2 CH
Universe sACN 4: 225 x 2 CH
Universe sACN 5: 225 x 2 CH
Universe sACN 6: 225 x 2 CH

Ethernet Switch

Power units:
Patch Mode: 1x Elidy Big/Wall
Link Auto: Off



Pix Engine Addr 001 sACN 1 / Artnet 2 **Anim mkr** Addr 226 Artnet 1

Pix Engine Addr 240 sACN 1 / Artnet 2 **Anim mkr** Addr 465 Artnet 1

Pix Engine Addr 001 sACN 2 / Artnet 3 **Anim mkr** Addr 226 Artnet 1

Pix Engine Addr 240 sACN 2 / Artnet 3 **Anim mkr** Addr 465 Artnet 1

Pix Engine Addr 001 sACN 3 / Artnet 4 **Anim mkr** Addr 226 Artnet 1

Pix Engine Addr 240 sACN 3 / Artnet 4 **Anim mkr** Addr 465 Artnet 1

Pix Engine Addr 001 sACN 4 / Artnet 5 **Anim mkr** Addr 226 Artnet 1

Pix Engine Addr 240 sACN 4 / Artnet 5 **Anim mkr** Addr 465 Artnet 1

Pix Engine Addr 001 sACN 5 / Artnet 6 **Anim mkr** Addr 226 Artnet 1

Pix Engine Addr 240 sACN 5 / Artnet 6 **Anim mkr** Addr 465 Artnet 1

Pix Engine Addr 001 sACN 6 / Artnet 7 **Anim mkr** Addr 226 Artnet 1

Pix Engine Addr 240 sACN 6 / Artnet 7 **Anim mkr** Addr 465 Artnet 1

TUTORIAL 6: Animation Maker

Description and options of parameters 1-6

(Dimmer - Shutter - Iris - Mix A/B - Mix Type)

Parameter	Description	DMX values				Default (Dec.)
		Dec.		%		
Dimmer Course Dimmer Fine	Set the global brightness of the animations generated by the Animation maker	0	65535	0	100	0
Shutter	Set the shutter value, open or 5 variable speed stroboscopes	0	255	0	100	0
	Open	0	4	0	2	
	Strobe	5	66	2	26	
	Open	67	69	26	27	
	Pulse	70	131	27	51	
	Random	132	193	52	76	
	Random Pulse	194	255	76	100	
Iris	Set the size of the Iris effect, 2 round, 2 square	0	255	0	100	0
	Round White	0	64	0	25	
	Round Black	65	128	25	50	
	Square White	129	191	51	75	
	Square Black	192	255	75	100	
Mix A/B	Set the transfer between GIF bank A and bank B	0	255	0	100	0
	A -> A+B	0	127	0	50	
	A+B	128	128	50	50	
	A+B->B	129	255	51	100	
Mix Type	Allows to select the Mix A/B transfer mode, 12 modes are available	0	95	0	37	0
	Detail: Refer to Tutorial 9					
	Crossfade	0	7	0	3	
	Manual fade	8	15	3	6	
	White fade	16	23	6	9	
	Black fade	24	31	9	12	
	Mask	32	39	13	15	
	A NOR B	40	47	16	18	