Sys One

User Guide

shift edit   quit enter   down up

Sys One

Table of Contents

Overview

As a decentralized power supply unit for large Ethernet or DMX controlled installations, the Sys One provides the C, B and L Series LED components with voltage and data simultaneously. However, it can also be used for smaller installations that have lower demands on the connected load.

The Sys One features a XLR-4pin output and two Data and Power outputs (red, in parallel with the XLR) for Series C products and LED Tiles B as well as two RGB outputs (blue) for LED strips of series L and B.

With convenient QuickPatch functions it is also possible to quickly reduce complicated systems to a few DMX channels. Internal programs such as manually adjustable colors allow simple commissioning of the LED components.

The Sys One can be controlled via Art-Net or DMX 512. The unit also features a built-in DMX-Recorder and -Player for the many occasions when a fully-featured DMX console is unnecessary. Data for the player can also be created using PixelPatch-, QuickTicker- or QuickColour software. Due to the fanless operation an application even in noise sensitive installations is possible.

Connections

The following connectors are
located to the rear of the unit:

Power
Data OUT 1
Molex Red

Power
Data OUT 1
XLR-4pin

DMX
through

Mains Input
230V

Power
Data OUT 2
Molex

Fuse

DMX IN

RGB+ Anode
OUT 2 Molex

Status
LED

Power
LED

Next

SD/
MMC

USB

RGB+ Anode
OUT 1 Molex
Blue

Network
Input

Reset

Card Error
LED
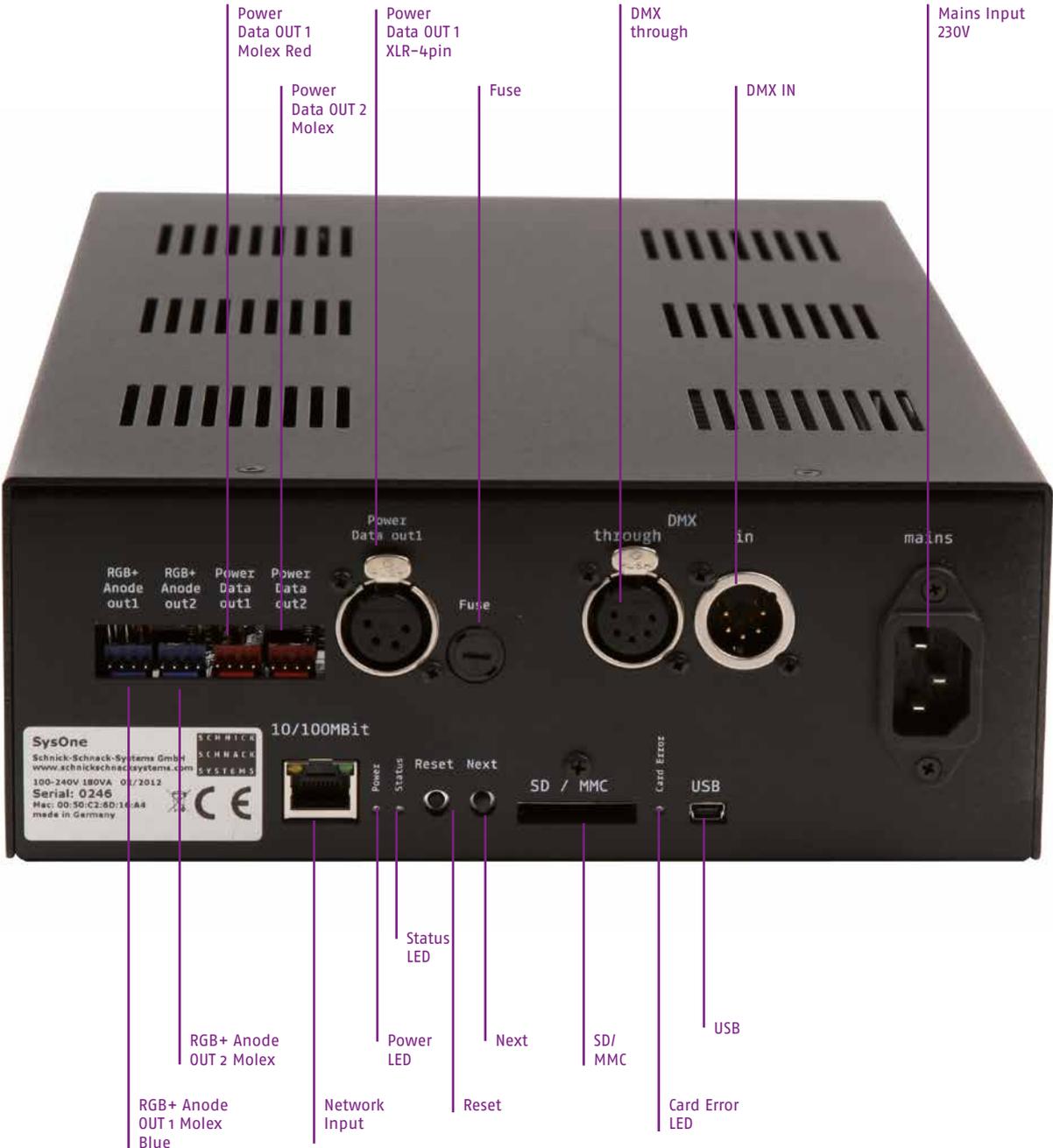
Installation

Inspect the Sys One immediately after unpacking for any damage that may have occurred during transit. Damaged equipment should not be used.

If the Sys One is moved from a cold to a warm environment then a period of three hours should be allowed to pass before use. That allows the evaporation of any condensation which may have formed as a result of the temperature change.

Connect the DMX IN and (if necessary) Thru' cables, followed by the LED outputs. Power up the Sys One by connecting the mains input connector. After approximately one second the unit is ready for use.

Do not operate the Sys One in direct sunlight. Do not use water or aggressive solvents to clean the Sys One. Heavy soiling may be removed using a mild detergent.

System Cabling

Cabling the Sys One is very simple but please be sure to observe the following advice:

The LED PCBs are connected together using four-pin cables which are small, light-weight, cost-effective and ideally suited for the purpose. However, the cross-sectional area of the cables used with these connectors, is insufficient for use in long distance runs. For such purposes, the XLR-4pin output should be used which has two cores with a larger cross sectional area, plus shielded conductors to carry the data.

The interface between the two types of cable serves to create a low-priced adap-torboard. Set and stage elements can now be completely equipped with their own, internal LED systems requiring only the application of power and data.

Please note: The length of the XLR-4pin cable between the System Power Supply and the adapterboard should not be longer than 20m. The total length of system PCB cable run from the System Power Supply should not exceed 6m.

· The total current drawn from all outputs of the Sys One should not exceed 6A.
· Each of the two Data Power Outs (red connector) can spend a maximum of 512 DMX channels or be charged with 3A.
· Each of the two RGB outputs (blue connectors) can be loaded with a maximum of 3A.

The exact number of the to be controlled LED products, cabling- and calculating examples can be found in the data sheets for each LED components.

Menu

The following connections are located on the front
of the unit:
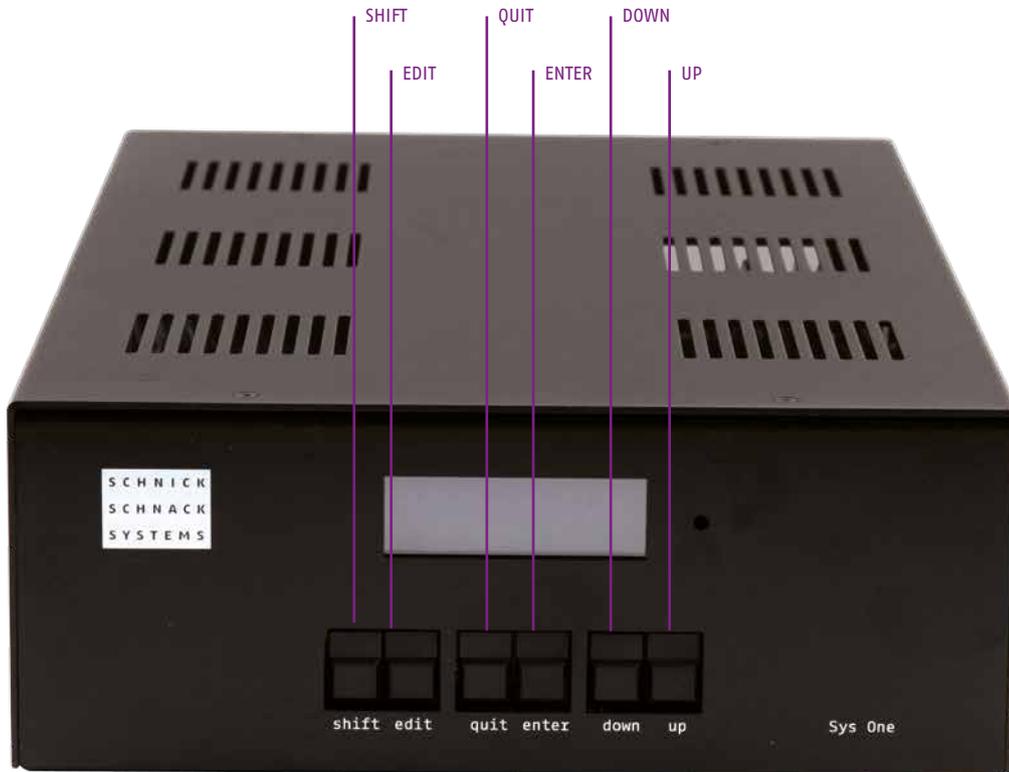
SHIFT+	used in conjunction with...
EDIT	to move the cursor backwards through the data fields
ENTER	to confirm certain actions
EDIT	moves the cursor through the data fields
QUIT	exists the currently-selected mode
ENTER	to confirm certain actions e. g. mode changes
UP	moves upward through the mode list. Increases the value in the selected data field
DOWN	moves downwards through the mode list. Decreases the value in the selected data field

Menu Order

Welcome to
Sys One

IP: ...   v: 1.16. ...

Main Menu:
Setup Menu

Main Menu:
Test Menu

Main Menu:
Factory Defaults

Main Menu:
Info

Main Menu:
Record

Main Menu:
Play

Main Menu:
Manual Patch

Main Menu:
QuickPatch ArtNet

Main Menu:
QuickPatch DMX

Menu Selection

To change the menu selection press the **QUIT** button and respond to the **CHANGE MODE?** by pressing **ENTER**.

Use the **UP/DOWN** buttons to scroll through the list and select the required mode by pressing **ENTER**. Press **QUIT** to return to the previous mode.

In most of the modes, for example QuickPatch Network and QuickPatch DMX, the configured settings will automatically be taken over. Input on the device is only necessary when changing set-up settings or switching within a new mode.

Change Mode?
Quit   Enter

Setup Menu

Setup Menu:
 Gain

Setup Menu:
 Recorder

Colour Gain

With this function the colour channels red, green and blue can be made darker. Thus, colour shifts can be compensated or created. The function is deactivated with 255.

Colour Gain (off: 255)
R: 255   G: 255   B: 255

Select Remote Channel

In this field you can change the DMX start channel for the function **RECORD**.

Select Remote Channel
 512

Test Menu

Test Menu:
`Manual RGB`

Test Menu:
`LED Firmware Update`

Test Menu:
`DMX Rig Check`

Test Menu:
`Output Rig Check`

Test Menu:
`Artnet Monitor`

Test Menu:
`Artnet TestTX`

Test Menu:
`Demo Slow`

Test Menu:
`Demo Fast`

Manual RGB

This mode allows a static, single colour to be set across all connected illuminants without the need for an incoming DMX signal.

Like the other modes use the **EDIT** button to select the required field and the **UP/DOWN** buttons to set the required values.

Manual Color Mode
R: 0   G: 0   B: 0

DMX Rig Check

Simulate a received DMX signal. The signal will be allocated to the outputs according to the selected mode and patch and is used to test settings.

DMX Rig Check

DMX Rig Check
Channel: 1 @ 100%

Output Rig Check

Works as a DMX transmitter. Each separate DMX channel can beindividually controlled and dimmed.

Test and error detection functions in existing installations.

Output Rig Check

Output Rig Check
Output: 1
Channel: 1 @ 100%

ArtNet Monitor

Monitor indicates, with which frequency the adjusted universe sends. This feature allows to test the frame rate of the respective Art-Net signal.

ArtNet Monitor	0.0Hz
Monitor	0 0.0Hz

ArtNet Test Mode

In this mode the Sys One will function as an Art-Net data transmitter.

This function was implemented as a means of testing the cables and Ethernet switches used in a system without the need for an external Art-Net data source.

In this mode the Sys One performes no other functions. There is also no LED control. In this mode, the Sys One sends a strobe signal over Art-Net switching all channels on and off simultaneously.

ArtNet Test Mode			
Ton	Toff	#uni	State
0.50	1.00	255	Off

The following parameters can be adjusted:

Ton
The duration of the **ON-PULSE** of the strobe impulse in seconds

Toff
The duration of the **OFF-PULSE** of the strobe impulse in seconds

#uni
The number of the Art-Net universe over which data is being sent. In this mode the Sys One will default to the last-used universe.

The **STATE** field display in real time wheter an **ON** or **OFF** pulse is being sent

Since the Sys One only operates as an Art-Net transmitter in this setting, the strobe signal is not output on its own outputs.

Demo Fast/Slow

In this mode, all connected RGB luminaries show a repetitive predetermined colour change.

The two modes differ only in the throughput speed.

Demo Mode Fast

Demo Mode Slow

Factory Defaults

If you push **SHIFT+ENTER**, the device resets to factory default settings.

Restore Factory Defaults?
Quit   Enter

Info

This mode displays the installed software version, the IP address of the unit.

Welcome to
Sys One

IP: ...   v: 1.16. ...

Record

At first you will request to create a filename. With the buttons **UP/DOWN** you select the desired letter or number and with **EDIT** you skip.

After you put the filename approve with **ENTER**. Now you are on the starting window of the recorder.

There are two ways to start the record operation:

1. Press the **SHIFT+ENTER** keys to start the recording. To stop recording, press **SHIFT+QUIT**.

2. Set the brightness of the DMX channel 512 from 33% to 66%. To end the recording process set the brightness back to 33%.

You can assign the menu option **RECORDER** freely by choosing the DMX start channel in the setup menu.

> **Set Filename**
> SHOW001.s3s

Play

Use the **UP** and **DOWN** buttons to scroll through the available files. Press **ENTER** to select a file for playback.

Playback of the selected file will begin with the file name displayed in the upper part of the display and the remaining time in the lower part.

Press the **EDIT** key to return to the playback file selection menu. Press **QUIT** to exit the play menu. You will be asked if you wish- to stop playback of the file.

Press **ENTER** to stop playback the file will stop and remain in its current state. Press **QUIT** to continue playback of the file. Either selection will return you to the main menu from which other modes can be accessed.

> **Select Streamfile:**
> 1_Test-1.s3s
> 2_Test-2.s3s

> Playing: 2_Test-2.s3s
> Time: 00:00:00.00

Manual Patch

When changing from the QuickPatch mode into the Manual Patch mode the following display is shown:

This mode offers the user the opportunity to overwrite the DMX channels set by the QuickPatch mode with channels of their own choice. Please note that as this operation is irreversible. **SHIFT** and **ENTER** must be pushed together in order to confirm the channel selection otherwise press **QUIT** to exit the mode.

Setting values in Manual Patch Mode

To select the section you wish to work in – press the **EDIT**-Key.

Use the OUT field to select the output to be patched (1–4). Use the **CHANNEL (CH)** field to assign a DMX start address to the selected.

With T**ype: Int** you can allocate this channel a fixed, unchangeable intensity via value.

With **Type: DMX** will assign a DMX input channel to this DMX output channel.

Overwrite Patch with QuickPatch?
Quit   Shift+Enter

Out: Universe: DMX
Ch: 1   Type: FIX   Val: OFF

QuickPatch ArtNet

For each output two data fields are shown on the display. The upper field displays the Art–Net universe as a decimal number.

The lower field displays the DMX start address for the universe in the data field above it (a universe may need to be patched across more than one output).

A control check mark in a square by each output number denotes the presence of valid Art–Net data at that output.

Output: OUT1   OUT2
Universe: ■   0   ■   5
Start-Ch: 1   1

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QuickPatch DMX

For each output two data fields are shown on the display.

Use the **EDIT** button to select the required field. The **DMX** field shows the status of the DMX signal. **NONE** shows that no DMX signal is being received. **GOOD** shows that a valid DMX signal is being received.

The upper field shows the **DMX start channel (start CH:)** for that output. The lower field offers the various repeat and combine options of the channels.

The table on the following page offers the various repeat and combine options for the system.

```
DMX: NONE      Out 1   Out 2
Start-Ch:        1       2
Combine:        OFF     OFF
```

Combine and Repeat Modes for QuickPatch DMX Combine

OFF:	no combine
ALL:	all LEDs are steered by three DMX channels
C2:	always two LEDs are interconnected
C3:	always three LEDs are interconnected
C4:	always four LEDs are interconnected
C5:	always five LEDs are interconnected
C6:	always six LEDs are interconnected
C7:	always seven LEDs are interconnected
C8:	always eight LEDs are interconnected
C9:	always nine LEDs are interconnected
C10:	always ten LEDs are interconnected
R2:	each second LED is interconnected
R3:	each third LED is interconnected
R4:	each fourth LED is interconnected
R5:	each fifth LED is interconnected
R6:	each sixth LED is interconnected
R7:	each seventh LED is interconnected
R8:	each eighth LED is interconnected
R9:	each ninth LED is interconnected
R10:	each tenth LED is interconnected
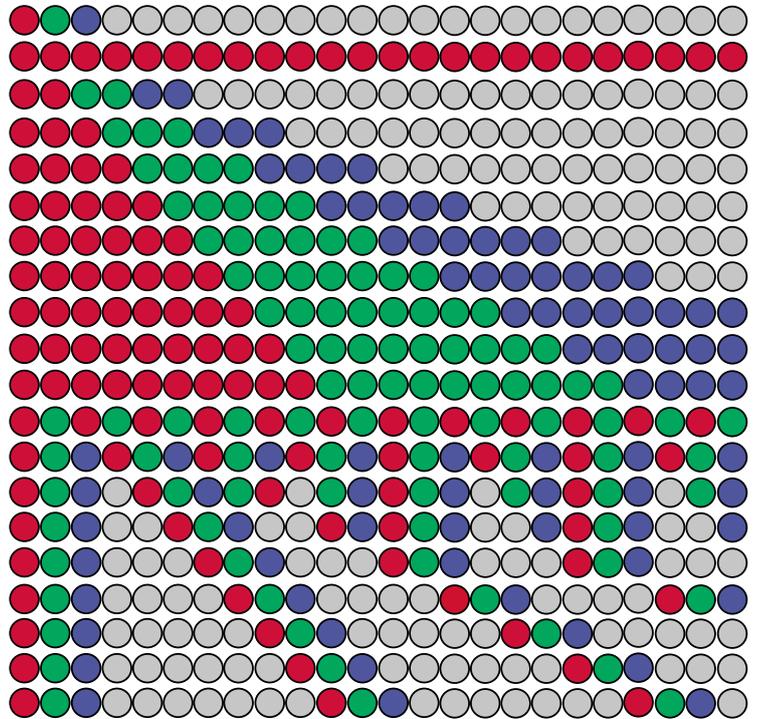
Combine and Repeat Modes C16

C16

· for LED−Tile C50
· for LED−Panels C60−50
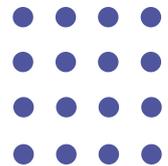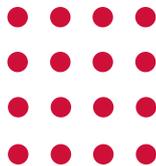
Software-Update

The software for the Sys One can be easily updated to the latest version with an SD Card.

New software versions keep equipment updated with the latest features and can be downloaded from our website at: www.schnickschnacksystems.com

Please read the readme.txt file for details on how to correctly format data on an SD Card.

Updating the Software

· Power down the Sys One
· Insert the SD Card with the latest software into the SD Card
· slot at the rear of the unit
· Power up the Sys One
· The Sys One will recognise the new software version. The software will then be installed and the display will show the following message: PLEASE WAIT.
· When the software installation has finished the display will show a welcome message along with the number of the new software version
· The Sys One is ready for use once again
· Please remove the SD card, otherwise an update is performed when switching on the device

Error Message

If one of the fuses protecting the outputs should fail the display will flash and show the following type of message.

```
Output Error
              Out 1  Out 2
Fuse:          BAD    OK
```

Technical Data

Dimensions	ca. 224×86×400mm (W×H×D)
Input Volt	100–250V AC, 50–60Hz
Power Consumption	150VA
Output Current	total maximum 6A

Pin Connection

DMX

1	2	3	4	5	Gehäuse
Data GND	Data–	Data+	n/c	n/c	n/c

XLR-4pin Output

1	2	3	4	Gehäuse
GND	Data–	Data+	+24V	n/c

System Connector Red

1	2	3	4
Mass	DMX–	DMX+	VCC 244

System Connector Blue

1	2	3	4
Green	Red	Anode	Blue

Conversion table Art–Net Universes

Art–Net™ Standard (Hexadecimal Numbering)		Schnick–Schnack–Systems (Decimal Numbering)	MA–Lighting Numbering
Subnet	Universe		
0	0	0	1
0	1	1	2
0	2	2	3
0	3	3	4
0	4	4	5
0	5	5	6
0	6	6	7
0	7	7	8
0	8	8	9
0	9	9	10
0	A	10	11
0	B	11	12
0	C	12	13
0	D	13	14
0	E	14	15
0	F	15	16
1	0	16	17
1	1	17	18
1	2	18	19
1	3	19	20
1	4	20	21
1	5	21	22
1	6	22	23
1	7	23	24
1	8	24	25
1	9	25	26
1	A	26	27
1	B	27	28
1	C	28	29
1	D	29	30
1	E	30	31
1	F	31	32
2	0	32	33
2	1	33	34
2	2	34	35
2	3	35	36
2	4	36	37
2	5	37	38
2	6	38	39

Art-Net™ Standard (Hexadecimal Numbering)		Schnick-Schnack-Systems (Decimal Numbering)	MA-Lighting Numbering
Subnet	Universe		
2	7	39	40
2	8	40	41
2	9	41	42
2	A	42	43
2	B	43	44
2	C	44	45
2	D	45	46
2	E	46	47
2	F	47	48
3	0	48	49
3	1	49	50
3	2	50	51
3	3	51	52
3	4	52	53
3	5	53	54
3	6	54	55
3	7	55	56
3	8	56	57
3	9	57	58
3	A	58	59
3	B	59	60
3	C	60	61
3	D	61	62
3	E	62	63
3	F	63	64
4	0	64	65
4	1	65	66
4	2	66	67
4	3	67	68
4	4	68	69
4	5	69	70
4	6	70	71
4	7	71	72
4	8	72	73
4	9	73	74
4	A	74	75
4	B	75	76
4	C	76	77
4	D	77	78

Art–Net™ Standard (Hexadecimal Numbering)		Schnick–Schnack–Systems (Decimal Numbering)	MA–Lighting Numbering
Subnet	Universe		
4	E	78	79
4	F	79	80
5	0	80	81
5	1	81	82
5	2	82	83
5	3	83	84
5	4	84	85
5	5	85	86
5	6	86	87
5	7	87	88
5	8	88	89
5	9	89	90
5	A	90	91
5	B	91	92
5	C	92	93
5	D	93	94
5	E	94	95
5	F	95	96
6	0	96	97
6	1	97	98
6	2	98	99
6	3	99	100
6	4	100	101
6	5	101	102
6	6	102	103
6	7	103	104
6	8	104	105
6	9	105	106
6	A	106	107
6	B	107	108
6	C	108	109
6	D	109	110
6	E	110	111
6	F	111	112
7	0	112	113
7	1	113	114
7	2	114	115
7	3	115	116
7	4	116	117

Art-Net™ Standard (Hexadecimal Numbering)		Schnick-Schnack-Systems (Decimal Numbering)	MA-Lighting Numbering
Subnet	Universe		
7	5	117	118
7	6	118	119
7	7	119	120
7	8	120	121
7	9	121	122
7	A	122	123
7	B	123	124
7	C	124	125
7	D	125	126
7	E	126	127
7	F	127	128
8	0	128	129
8	1	129	130
8	2	130	131
8	3	131	132
8	4	132	133
8	5	133	134
8	6	134	135
8	7	135	136
8	8	136	137
8	9	137	138
8	A	138	139
8	B	139	140
8	C	140	141
8	D	141	142
8	E	142	143
8	F	143	144
9	0	144	145
9	1	145	146
9	2	146	147
9	3	147	148
9	4	148	149
9	5	149	150
9	6	150	151
9	7	151	152
9	8	152	153
9	9	153	154
9	A	154	155
9	B	155	156

Art-Net™ Standard (Hexadecimal Numbering)		Schnick-Schnack-Systems (Decimal Numbering)	MA-Lighting Numbering
Subnet	Universe		
9	C	156	157
9	D	157	158
9	E	158	159
9	F	159	160
A	0	160	161
A	1	161	162
A	2	162	163
A	3	163	164
A	4	164	165
A	5	165	166
A	6	166	167
A	7	167	168
A	8	168	169
A	9	169	170
A	A	170	171
A	B	171	172
A	C	172	173
A	D	173	174
A	E	174	175
A	F	175	176
B	0	176	177
B	1	177	178
B	2	178	179
B	3	179	180
B	4	180	181
B	5	181	182
B	6	182	183
B	7	183	184
B	8	184	185
B	9	185	186
B	A	186	187
B	B	187	188
B	C	188	189
B	D	189	190
B	E	190	191
B	F	191	192
C	0	192	193
C	1	193	194
C	2	194	195

Art-Net™ Standard (Hexadecimal Numbering)		Schnick-Schnack-Systems (Decimal Numbering)	MA-Lighting Numbering
Subnet	Universe		
C	3	195	196
C	4	196	197
C	5	197	198
C	6	198	199
C	7	199	200
C	8	200	201
C	9	201	202
C	A	202	203
C	B	203	204
C	C	204	205
C	D	205	206
C	E	206	207
C	F	207	208
D	0	208	209
D	1	209	210
D	2	210	211
D	3	211	212
D	4	212	213
D	5	213	214
D	6	214	215
D	7	215	216
D	8	216	217
D	9	217	218
D	A	218	219
D	B	219	220
D	C	220	221
D	D	221	222
D	E	222	223
D	F	223	224
E	0	224	225
E	1	225	226
E	2	226	227
E	3	227	228
E	4	228	229
E	5	229	230
E	6	230	231
E	7	231	232
E	8	232	233
E	9	233	234

Art–Net™ Standard (Hexadecimal Numbering)		Schnick–Schnack–Systems (Decimal Numbering)	MA–Lighting Numbering
Subnet	Universe		
E	A	234	235
E	B	235	236
E	C	236	237
E	D	237	238
E	E	238	239
E	F	239	240
F	0	240	241
F	1	241	242
F	2	242	243
F	3	243	244
F	4	244	245
F	5	245	246
F	6	246	247
F	7	247	248
F	8	248	249
F	9	249	250
F	A	250	251
F	B	251	252
F	C	252	253
F	D	253	254
F	E	254	255
F	F	255	256

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Why Schnick Schnack Systems?

As installation times become increasingly shorter the complexity of systems simultaneously increases as do the requirements of customers.

We are a supplier who delivers high-quality reliable systems – under tight deadline constraints that are not only quick to install but also simple to operate and service.

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