System Power Supply 4
User Guide
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Situation at August 2017: All technical data as well as the weight and dimension information were carefully created – errors reserved. Any colour deviations are printing-related.

We reserve the right to make changes that serve further improvement.
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Overview

This device is a power supply with an integrated DMX router. It supplies the LED components of series B and L with power and data, and is the perfect solution for medium-sized and large systems.

The control signal can be freely patched across the four outputs. Addressing of the components takes place directly at the system supply. As the addressing of the finalised LEDs takes place centrally, the installation and maintenance of the LED systems is much easier. For the maintenance of individual LED components, only the LEDs need to be replaced.

A new addressing process is not necessary. This task can be easily performed even without knowledge of the system.

Internal programmes such as a slow colour gradation or a manually adjusted colour enable the easy commissioning of the LED components even without addressing and DMX source.
Connectivity

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

- DMX in- and output: Neutrik XLR-5pin
- LED output 1-4: Neutrik XLR-4pin, maximum 6A
- Power connection: IEC plug
- Fuse: safety 5mm × 20mm, slow, 6.3A

Do not cover the air inlets and clean them regularly.
Installation

Check the device for any damage incurred during transit immediately after unpacking. A damaged unit should not be used.

If the System Power Supply 4 has been taken from a cold environment into a warm interior, allow at least three hours for it to warm up before it is put into operation. This allows possibly formed condensation to evaporate and therefore the electronics are not endangered.

When installing into a rack, ensure that there is sufficient circulating air supply to the front and rear sides. The supply air temperature should not exceed 35°C.

The System Power Supply 4 is to be fitted into the rack installation using the appropriate rails so that the rack-bars take the load off the front panel of the System Power Supply and the unit is clearly accessible for maintenance. Be sure to successively lock the cable connections for the DMX in- and output as well as the necessary LED outputs, when connecting cables. After all connections are made, turn on the device, ensuring that any power is also turned on at the sub-distribution. After approximately one hour the System Power Supply 4E is ready for use.

Keep the unit out of direct sunlight at all times. Never clean the device with aggressive cleaners. For cleaning purposes, the wiping of the device with a moist cloth is sufficient.

In the case of stubborn dirt, a mild cleaner can be used on the moistened cloth.

Cleaning of air filters

No tools are necessary in order to clean the air filters.

The fan guard can be removed easily by hand. After that the filter cartridge can be removed and cleaned using compressed air for example. The filter cartridge can then be replaced before refitting the fan guard. Please only use original filters.

Please fit filter cartridges only for main voltage of about 200V!
System Cabling

Cabling of system is very simple although the following points should be considered:

Schnick-Schnack-Systems’ LED illuminants connect to each another using four pin PCB connectors, which are small, lightweight and ideal for this purpose. The conductor cross-section and the mechanical quality of these cables are not suitable for long and durable leads.

Therefore, rugged XLR4-pin cables are be used, that have two wires with large cross-section as well as a shielded twisted pair for data connection. The interface between both cable types serves as a costeffective adapter board. Decorative features can be fitted with LED panels internally and fed externally with XLR cables.

Please note: The length of the XLR-4pin cable between the System Power Supply 4 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.

- Each output of System Power Supply 4 can supply up to 4 x 60 DMX-Kanäle.
- Each output of the adapterboard supply up to 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 connectors are located at the front of the unit:

- **SHIFT+** used in conjunction with...
- **EDIT** to move backwards through the data fields
- **ENTER** to confirm certain actions
- **QUIT** exits the currently-selected mode or the sub menu
- **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

Main Menu:
- QuickPatch

Main Menu:
- Manual RGB

Main Menu:
- Demo Fast

Main Menu:
- Demo Slow

Main Menu:
- Manual Patch

Main Menu:
- Info
Menu Selection

To change mode, press the QUIT button. The display will show CHANGE MODE?

Use the UP/DOWN button to select the desired mode and confirm the action by pressing the ENTER button or cancel by pressing the QUIT button again.

QuickPatch

There are two setup entries for each output.

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.

This function offers the possibility to control several LEDs with a few DMX channels.

The table on the following page offers the various repeat and combine options for the system.
Combine and Repeat Modes for QuickPatch

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
Manual RGB

In this menu option, it's possible to set a colour for all output channels in a very easy way by using the System Power Supply 4.

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

<table>
<thead>
<tr>
<th>Manual Color Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>R: 001</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Demo Mode Fast</th>
</tr>
</thead>
</table>

| Demo Mode Slow |
Manual Patch

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

In this case it’s possible to apply the QuickPatch values with the manual patch. This step is irreversible. That’s why you must hit the SHIFT–Key and the ENTER–Key to confirm. If you don’t want to proceed with this step, you can exit with QUIT.

Setup–Options in Manual Patch:

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

To select the desired XLR output (1–4) use OUTPUT (OUT). To select the desired channel use CHANNEL (CH).

With Type: Int can allocate this channel a fixed, unchangeable intensity via value.

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

Info

The menu function Info shows information on the unit type and the version of the software on the display.

Error Messages

If one of the fuses that protects the outputs from overload is blown, the display flashes and shows the message seen to the right.

In the example output 1 is failed. The other outputs function further. In this case please change the safety of the relevant output.
Technical Data

Case
19 inch, two height unit

Dimensions
483 × 88 × 430mm (W × H × D)

Input voltage
110-240V AC, 50-60Hz

Input current
700VA

Power consumption
maximum 6A per channel

Main connector
IEC plug, lockable

DMX protocol
DMX 512 A-1990 USITT

DMX IN
Neutrik XLR-5pin

DMX THROUGH
Neutrik XLR-5pin

LED outputs 1-4
4 × Neutrik XLR-4pin,
maximum 6A

Weight
7,7kg

Pin connection

DMX

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Case</th>
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<tbody>
<tr>
<td></td>
<td>Data GND</td>
<td>Data-</td>
<td>Data+</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

XLR4-pin output

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>GND</td>
<td>Data-</td>
<td>Data+</td>
<td>+24V</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>
Declaration of EU Conformity

I hereby declare that the product


(Name of product, type or model, batch or serial number)

meets the essential requirements referred to in Article 3 of the Council Directive 99/5/EC.

The following harmonized standards have been applied:

EN 60950-1:2003
EN 55015:2000

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Koeln, 7th. February 2005

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(Name in block letters)
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.