



DMX Switch Pack

Instruction Manual

Models:

SPU1210, SPU1213, SPU1216
SPU6010, SPU6013, SPU6016
version 3.0 since 3 February 2020

ATTENTION!

This instruction manual contains important information about the installation and the use of the equipment. Please read and follow these instructions carefully.

Always ensure that the power to the equipment is disconnected before opening the equipment or commencing any maintenance work.

General

IMPORTANT INSTRUCTIONS

All safety and operating instructions should be read before the equipment is installed or operated.

IMPORTANT SAFETY INFORMATION

The following general safety precautions have to be observed during all phases of operation, service, and the repair of this equipment. Failure to comply with these precautions or with specific warnings in this manual violates safety standards of design, manufacture, and the intended use of this equipment.

Do not operate in an explosive atmosphere!

Do not operate this equipment in the presence of flammable gases or fumes. Operation of any electrical instrument in such an environment constitutes a definite safety hazard. Do not operate this equipment near water or in areas with wet floors or in high humidity atmosphere where condensation forms on the equipment. It should never be placed near or over a heat register or other source of heated air and it should not be installed or operated without proper ventilation.

Power connections

This device must be earthed.

Let the device adapt the environment for at least 10 minutes after unpacking.

Connect the power cable – 5-way (3L+N+E) or CEE form input socket if required.

Output connection

The output terminals are located inside of the switch pack. Live, neutral and earth connections should be made to all load equipment. These instructions are valid for fixed installations.

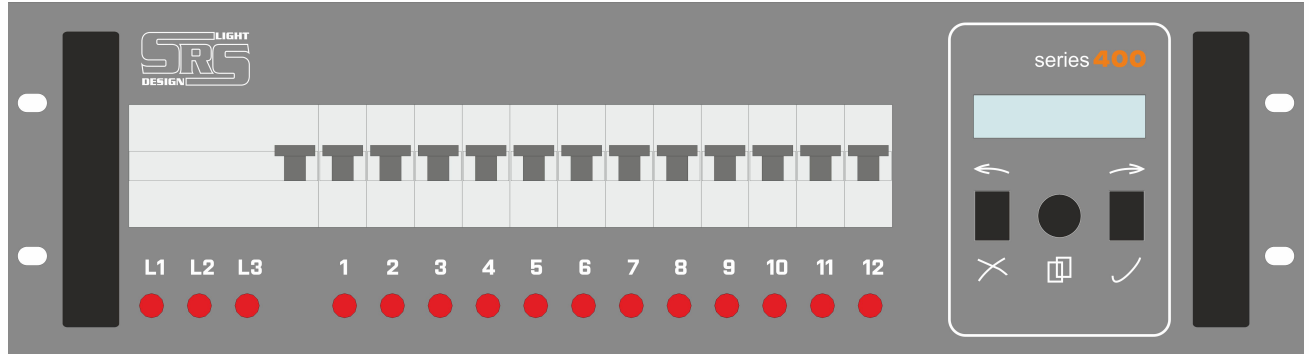
Input connection

Male and female DMX standard 3-/5-pin XLR connectors are provided on the rear panel for IN and OUT connections. These also facilitate the use of a low impedance terminator if the switch pack is the last equipment on the DMX line. DMX input is optically isolated.

Analog input (standard 0-10V) comes in form of SUB-HD socket. Pin #15 serves as a DC supply output with +20V, which can be used to power small lighting desks that consume less than 150mA supply current. This output is protected against short circuit with self-healing fuse.

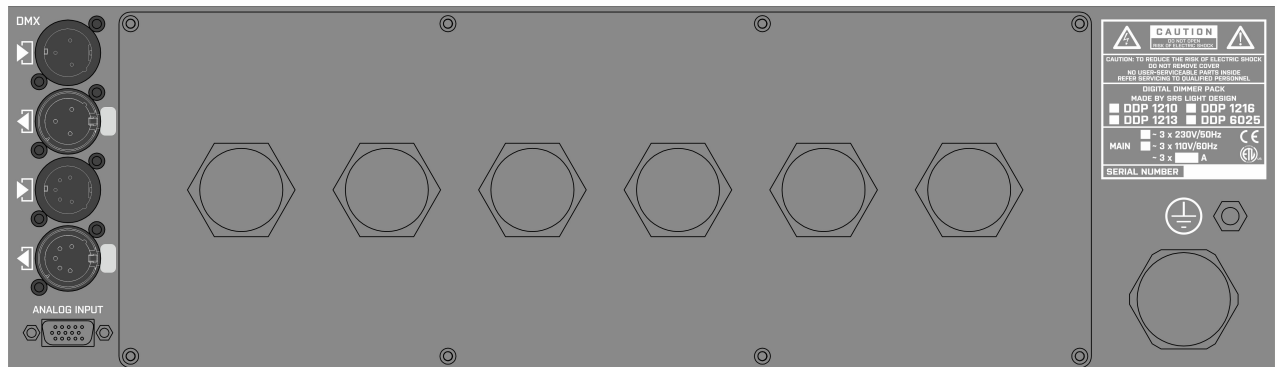
2. Functions and Control

Front panel:



1. GF163 or 80A, 30mA main switch / * B models
2. Indicator of main input
3. Circuit breakers **1P** for SPU model or **1P+N** for SPUN model
4. Output indication of each channel
5. ESC button
6. Encoder
7. OK button




Rear panel:

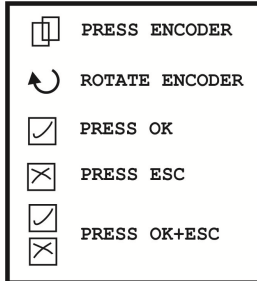


- DMX input/output
- Analog/Scene input – SUB HD15
- 6x Dimmer output
- Power cable 5G6mm² or 5G10mm²
- GND grounding point

3. Operation

The operation of SPU12xx is done using two pushbuttons and a 3-directional Encoder.

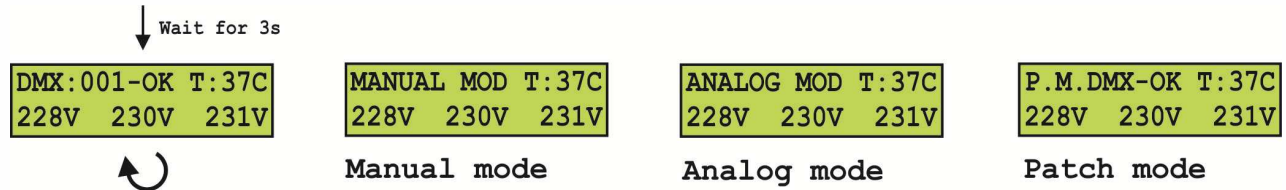
The left button is ESC , the right button is OK  and the Encoder  is in the middle of them. The following symbols state the type of action:



Introductory screen informs about the software version.



The home screen appears after 3 seconds and indicates the DMX start address, the temperature of use and the main voltages. In manual and analog modes, the mode is indicated. In the patch mode, the correctness of the DMX signal (OK/ERR) is indicated.



Rotate the Encoder to see the output levels.

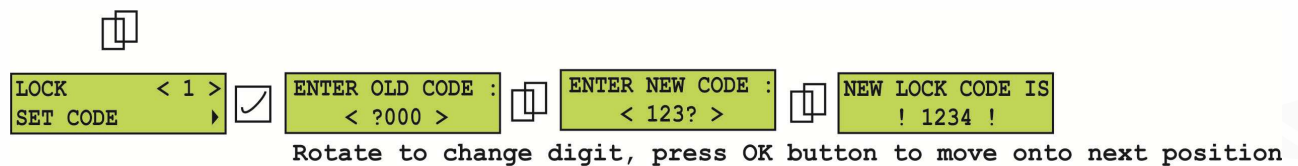


Press the Encoder to enter the menu. Rotate it to select one of the following options:

1. SET LOCK CODE
2. SETUP

3.1 Set Lock code

This submenu allows its user to set a code to prevent from undesired use of the device.



Enter the old code first (factory setting is 0000). Rotate the Encoder to change digit [0-9], press the OK button to move onto next position. Press the Encoder or OK button and enter a new code. Set the new code by a single press of the Encoder.

Locking of the menu is possible from the home screen. To lock the menu, press ESC and OK buttons at the same time in the main screen. To unlock it, press the Encoder and enter the code. Rotate the Encoder to change digit [0-9], press the OK button to move onto next position. Press the Encoder or OK button to confirm.

!MENU IS LOCKED!
 !MENU IS LOCKED!
 ENTER OLD CODE :
 MENU IS UNLOCKED
 < ?000 >

To unlock the menu, press the MENU button
 Rotate to change digit, press OK button to move onto next position

3.2 Setup

SETUP < 2 >
 PRESS ◀ ▶ PRESS

To enter the setup submenu, press ESC and OK buttons at the same time. There are several options to choose from:

1. DMX MODE
2. SEQUENCE MODE
3. ANALOG MODE
4. MANUAL MODE
5. PATCH MODE
6. SAFETY
7. LOST DMX
8. SWITCH VALUE
9. SEQUENCE SETUP
10. DMX PRESENCE SETUP
11. FACTORY RESET

Navigation in the options is done using the Encoder.

3.2.1 DMX mode

SETUP: < 1 >
 DMX MODE ▶

DMX START: <001>
 ESC ◀ ▶ ENTER

DMX ADDRESS
 - 001 - SAVED !

↻ Rotate to select the DMX start address and confirm

↻

DMX START: <002>
 ESC ◀ ▶ ENTER

DMX ADDRESS
 - 002 - SAVED !

Press the OK button to enter the submenu. Rotate the Encoder to select the DMX start address [between 001 and 512] and confirm by the OK button. Now the device works only using the DMX input.

3.2.2 Sequence mode

In order to change the unit into the sequence mode, enter the submenu by a single press of the OK button. Confirm by OK. Now the device works only using the sequence input.

SETUP: < 2 >
 SEQ MODE ▶

SWITCH TO SEQ
 ESC ◀ ▶ ENTER

After the change to the sequence mode, there are several options to choose from:

1. DMX INPUT
2. ANALOG INPUT
3. DMXPRESENCE

Rotate the Encoder to navigate between them.

The DMX Input setting allows its user to choose the DMX start address [001-512]. Rotate the Encoder to get the desired value and confirm by OK.

SEQ SETUP: < 1 > DMX INPUT DMX START: <001> ESC ← ENTER DMX ADDRESS - 001 - SAVED !

↻ Rotate to select the DMX start address and confirm

↻ DMX START: <002> ESC ← ENTER DMX ADDRESS - 002 - SAVED !

In the Analog Input setting, rotate the Encoder to get the desired output channel [1-12] and confirm by OK.

SEQ SETUP: < 2 > ANALOG INPUT ANALOG: <01> ESC ← ENTER SEQ ANALOG MODE SAVED

↻ Rotate to select the output and confirm

↻ ANALOG: <02> ESC ← ENTER SEQ ANALOG MODE SAVED

To choose the DMX Presence Mode, press the OK button.

SEQ SETUP: < 3 > DMXPRESENCE DMXPRES MODE SAVED !

3.2.3 Analog mode

In order to change the unit into the analog mode, enter the submenu by a single press of the OK button. Confirm by OK. Now the device works only using the analog input.

SETUP: < 3 > ANALOG MODE SWITCH TO ANALOG ECS ← ENTER ANALOG MODE SET!

3.2.4 Manual mode

In order to change the unit into the manual mode, enter the submenu by a single press of the OK button. Confirm by OK. Now the device works without inputs.

SETUP: < 4 > MANUAL MODE SWITCH TO MANUAL ECS ← ENTER <01> 000: | <02> 255: |

↻ Rotate to select between 0 and 255, use OK to select channel, press Encoder to return

↻ <01> 255: |

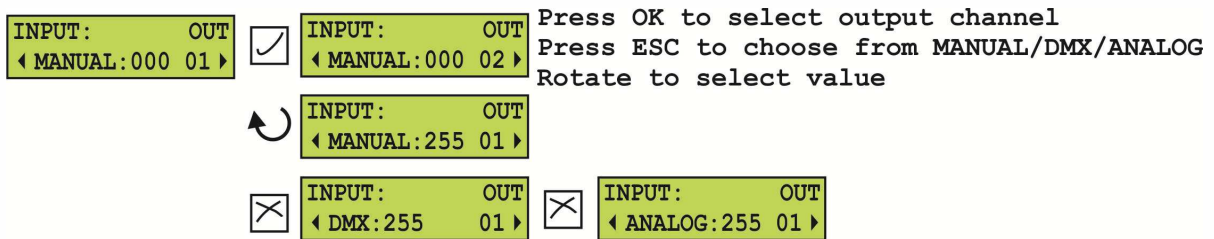
Rotate the Encoder to select between 000 and 255, press OK to move onto next channel. Active channel number is shown in the angle brackets < >. Press the Encoder to escape from the manual mode menu.

3.2.5 Patch mode

To change the unit into the patch mode, enter the submenu by a single press of the OK button. Confirm by OK.



The following screen appears:



Press the OK button to select the output channel [1-12]. The number of the active channel is shown in the bottom right corner of the display.

Press the ESC button to choose the controlling mode. MANUAL, DMX and ANALOG can be chosen for each channel. The selected mode is indicated in the bottom left corner.

Rotate the Encoder:

- to set the DMX address (in the DMX mode),
- to select the number of analog inputs (in the ANALOG mode) and
- to select the value of the output (in the MANUAL mode).

After all settings are done, press the Encoder and save settings using the OK button. To cancel, press ESC.



3.2.6 Safety



This submenu allows you to select several safety settings. Press the OK button to enter. A selection of one of the following options can be done using the Encoder:

1. ENABLE/DISABLE
2. CHANNEL 01
- ...
13. CHANNEL 12

3.2.6.1 Enable/Disable

If the safety is disabled, the following display appears. Otherwise the bottom line reads "DISABLE". If the scene is disabled, this option enables it; if it is enabled, the scene can be disabled here. To change the state, press the OK button and confirm by the OK button. To cancel, press ESC.

SAFETY < 01 > SAFETY ENABLE	<input checked="" type="checkbox"/>	ENABLE SAFETY ? ESC ◀ ▶ ENTER	<input checked="" type="checkbox"/>	ENABLE SAFETY ? SAFETY ENABLED
OR				
SCENE: < 01 > SAFETY DISABLE	<input checked="" type="checkbox"/>	DISABLE SAFETY ? ESC ◀ ▶ ENTER	<input checked="" type="checkbox"/>	DISABLE SAFETY ? SAFETY DISABLED

3.2.6.2-13 Channel

Rotate the Encoder to navigate to the desired channel number and press the OK button. Rotate the Encoder to select the address value [000-255] or OFF to disable it. The address value appears in the top right corner in the angle brackets. Press OK to save, ESC or Encoder to cancel it.

SAFETY < 02 > CHANN.01 (OFF)	<input checked="" type="checkbox"/>	ADDRESS: <OFF> ESC ◀ ▶ ENTER	<input checked="" type="checkbox"/>	ADDRESS: <OFF> SAVED !
---------------------------------	-------------------------------------	---------------------------------	-------------------------------------	---------------------------



·

ADDRESS: <001> ESC ◀ ▶ ENTER	<input checked="" type="checkbox"/>	ADDRESS: <001> SAVED !
---------------------------------	-------------------------------------	---------------------------

· Rotate the Encoder to select the address value (000-255) or OFF at channel 1. Confirm by OK.

SAFETY < 13 > CHANN.12 (OFF)	<input checked="" type="checkbox"/>	ADDRESS: <OFF> ESC ◀ ▶ ENTER	<input checked="" type="checkbox"/>	ADDRESS: <OFF> SAVED !
---------------------------------	-------------------------------------	---------------------------------	-------------------------------------	---------------------------



ADDRESS: <001> ESC ◀ ▶ ENTER	<input checked="" type="checkbox"/>	ADDRESS: <001> SAVED !
---------------------------------	-------------------------------------	---------------------------

· Rotate the Encoder to select the address value (000-255) or OFF at channel 12. Confirm by OK.

3.2.7 Lost DMX

This option sets what the device does when the DMX signal is lost.

```

SETUP: < 7 >
LOST DMX >
  
```

Press the OK button and navigate to one of the following options rotating the Encoder.

```

LOST DMX: < 1 > [✓] LOSS OF DMX
DMX HOLD > [✓] DMX HOLD
  
```



```

LOST DMX: < 2 > [✓] LOSS OF DMX
OUT TO 0% > [✓] SET TO 0%
  
```



```

LOST DMX: < 3 > [✓] LOSS OF DMX
DMX TO 100% > [✓] SET TO 100%
  
```

Choose the desired option and press OK to confirm.

3.2.8 Switch value

This submenu allows you to set the desired switch value. Press the OK button to enter. Rotate the Encoder to select the switch value (001-255) and confirm by OK.

```

SETUP: < 8 > [✓] SW. VALUE: <001> [✓] SW. VALUE: <001>
SWITCH VALUE > [✓] ESC < > ENTER [✓] SAVED !
  
```

Rotate to select the switch value (001-255) and confirm by OK.



```

SW. VALUE: <002> [✓] SW. VALUE: <002>
ESC < > ENTER [✓] SAVED !
  
```

3.2.9 Sequence setup

This submenu allows its user set the delays of sequences on each output. The time is in seconds and counts from the moment the device is reset.

```

SETUP: < 9 > [✓] SEQ: OUT
SEQ SETUP > [✓] < 00.0 sec 01 >
  
```

Press the OK button to enter. The number in the bottom right corner shows the number of the output channel. In the bottom left corner is the time of the delay in seconds (0-25.5).

```

[✓] SEQ: OUT Press OK to go to next output channel
< 00.0 sec 02 > Press ESC to go to previous output channel
[✗] SEQ: OUT Rotate to select the delay value (0-25.5sec)
< 00.0 sec 12 >
[✓] SEQ: OUT
< 00.1 sec 01 >
  
```

Press the OK and ESC buttons to move onto the next or previous output channel, respectively. Rotate the Encoder to select the required time in seconds [0-25.5].

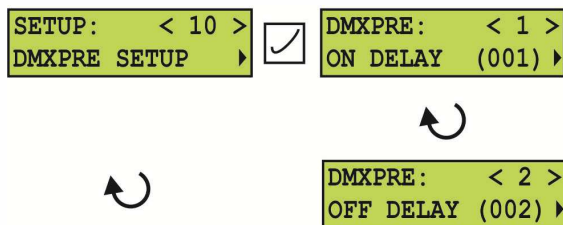
After all settings are done, press the Encoder and save settings using the OK button. To cancel, press ESC.



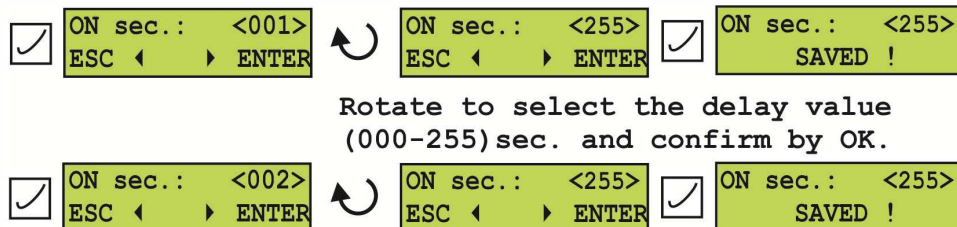
3.2.10 DMX Presence setup

This option allows its user to set a switching delay from the moment DMX signal is present on the input. To be able to use this function, the Sequence mode must be set to DMXPRE MODE. See section 3.2.2 Sequence mode for info on how to set the Sequence mode.

To set the delay, press the OK button. Rotate the Encoder to choose between the ON and OFF DELAY setting and confirm by the OK button.



Rotate the Encoder to choose the desired delay value [0-255 sec.] and confirm by the OK button.

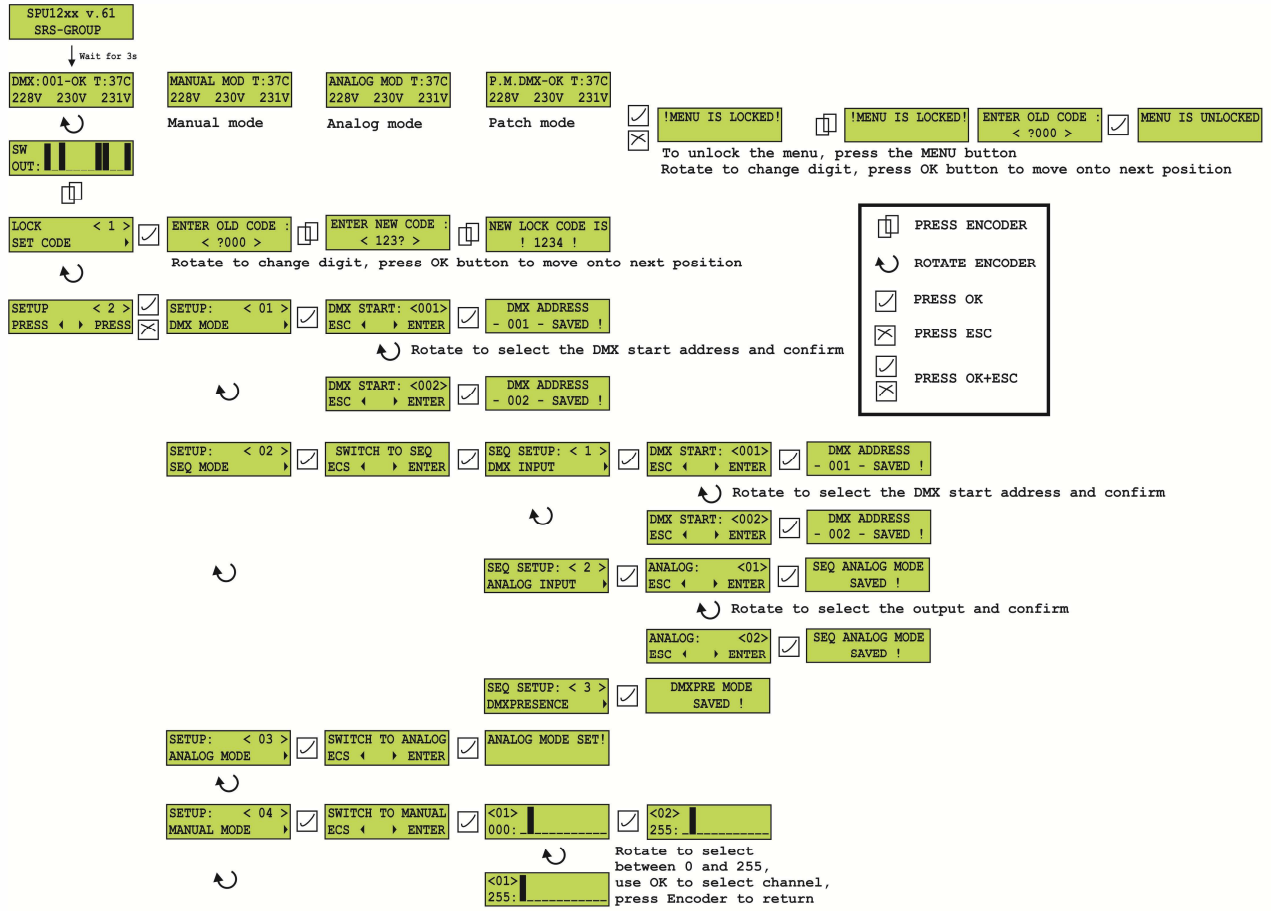


3.2.11 Factory reset

This option sets all values and settings of menu to the default state when the device was run for the first time. To perform this action, press the OK button and confirm by the OK button. After the reboot, menu starts at the very beginning. To cancel, press the ESC button.



4. Menu tree



SETUP: < 05 > SWITCH TO PATCH INPUT: OUT INPUT: OUT
 PATCH ECS ENTER MANUAL:000 01 MANUAL:000 02
 Press OK to select output channel
 Press ESC to choose from MANUAL/DMX/ANALOG
 Rotate to select value
 Press Encoder to exit

INPUT: OUT INPUT: OUT
 MANUAL:255 01
 SAVE SETTINGS? SAVED!
 ESC ENTER ENTER

INPUT: OUT INPUT: OUT
 DMX:255 01 ANALOG:255 01

SETUP: < 06 > SAFETY < 01 > ENABLE SAFETY ? ENABLE SAFETY ?
 SAFETY SAFETY ENABLE ESC ENTER SAFETY ENABLED
 OR
 SCENE: < 01 > DISABLE SAFETY ? DISABLE SAFETY ?
 SAFETY DISABLE ESC ENTER SAFETY DISABLED

SAFETY < 02 > ADDRESS: <OFF> ADDRESS: <OFF>
 CHANN.01 (OFF) ESC ENTER SAVED !

ADDRESS: <001> ADDRESS: <001>
 ESC ENTER SAVED !

Rotate the Encoder to select the address value
 (000-255) or OFF at channel 1. Confirm by OK.
 Press Encoder or ESC to exit

SAFETY < 13 > ADDRESS: <OFF> ADDRESS: <OFF>
 CHANN.12 (OFF) ESC ENTER SAVED !

ADDRESS: <001> ADDRESS: <001>
 ESC ENTER SAVED !

Rotate the Encoder to select the address value
 (000-255) or OFF at channel 12. Confirm by OK.
 Press Encoder or ESC to exit

SETUP: < 07 > LOST DMX: < 1 > LOSS OF DMX
 DMX HOLD DMX HOLD DMX HOLD

LOST DMX: < 2 > LOSS OF DMX
 OUT TO 0% SET TO 0%

LOST DMX: < 3 > LOSS OF DMX
 DMX TO 100% SET TO 100%

SETUP: < 08 > SW. VALUE: <001> SW. VALUE: <001>
 SWITCH VALUE ESC ENTER SAVED !

Rotate to select the switch value
 (001-255) and confirm by OK.

SW. VALUE: <002> SW. VALUE: <002>
 ESC ENTER SAVED !

SETUP: < 09 > SEQ: OUT SEQ: OUT
 SEQ SETUP 00.0 sec 01 00.0 sec 02
 Press OK to go to next output channel
 Press ESC to go to previous output channel
 Rotate to select the delay value (0-25.5 sec)
 Press Encoder to exit

SEQ: OUT SEQ: OUT
 00.0 sec 12 SAVE SETTINGS? SAVED!
 ESC ENTER ENTER

SEQ: OUT SEQ: OUT
 00.1 sec 01

SETUP: < 10 > DMXPRE: < 1 > ON sec.: <001> ON sec.: <255> ON sec.: <255>
 DMXPRE SETUP ON DELAY (001) ESC ENTER ESC ENTER SAVED !

Rotate to select the delay value
 (000-255)sec. and confirm by OK.

DMXPRE: < 2 > ON sec.: <002> ON sec.: <255> ON sec.: <255>
 OFF DELAY (002) ESC ENTER ESC ENTER SAVED !

SETUP: < 11 > RESET DEVICE ? PLEASE WAIT
 FACTORY RESET ESC ENTER FOR REBOOT

5. Technical data

Switching element: Mechanical relay with high inrush rate cca100A

Capacity:

SPUx1210	12x10A	12x2.3kW
SPUx1213	12x13A	12x3kW
SPUx1216	12x16A	12x3.7kW
SPUx6010	6x10A	6x2.3kW
SPUx6013	6x13A	6x3kW
SPUx6016	6x16A	6x3,7kW
SPUx6025	6x25A	6x5.7kW
SPUx6032	6x32A	6x7.3kW

Housing and dimensions:

Steel housing with gray powder coating
482.5 x 132 x 420 mm, 20kg

Pin out for the XLR connectors:

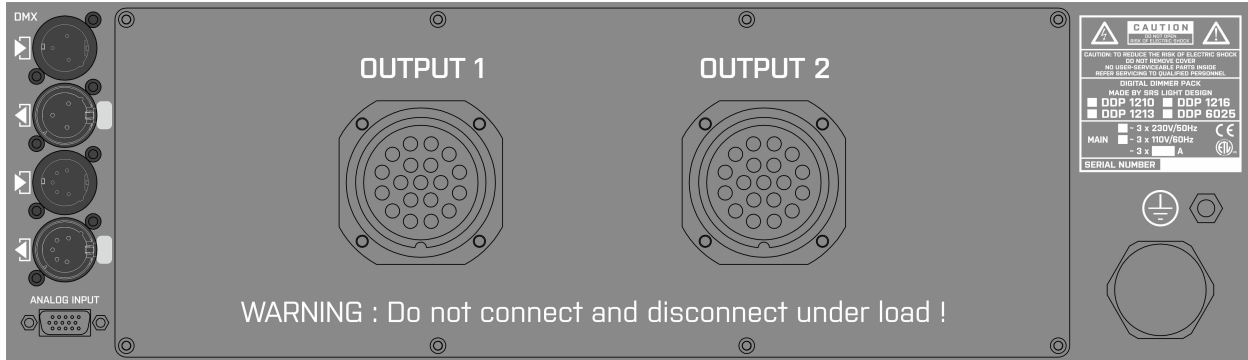
Pin 1	Data CMN (not connected to earth)
Pin 2	Data -
Pin 3	Data +
Pin 4, 5	Not connected

The DMX Input and Output are wired in ratio 1:1.

Pin out for the SUB-HD connector:

Pins 1-12	Channels 1-12, analog input (0-10V)
Pins 13-14	DC - pole
Pin 15	DC out +20V, 150mA

Pin out for the SOCAPEX connectors:



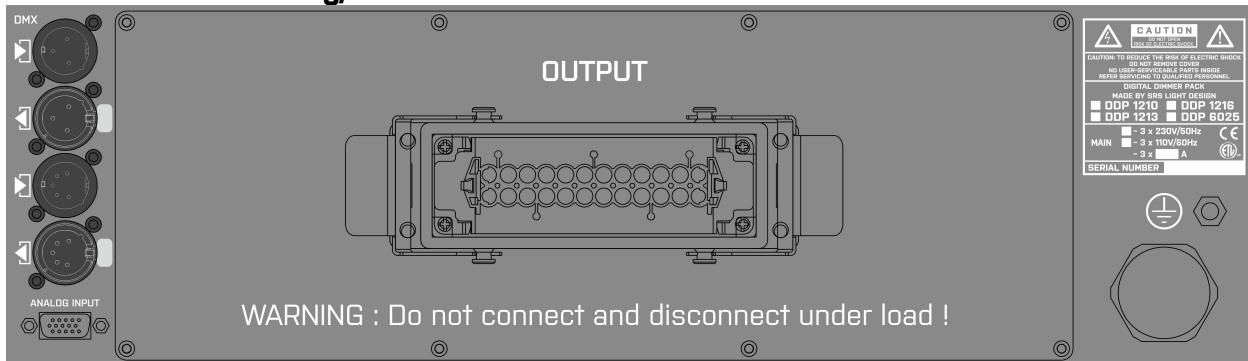
Output 1:

Pin 1,3,5,7,9,11 Phase 1,2,3,4,5,6
 Pin 2,4,6,8,10,12 Neutral
 Pins 13-19 Earth

Output 2:

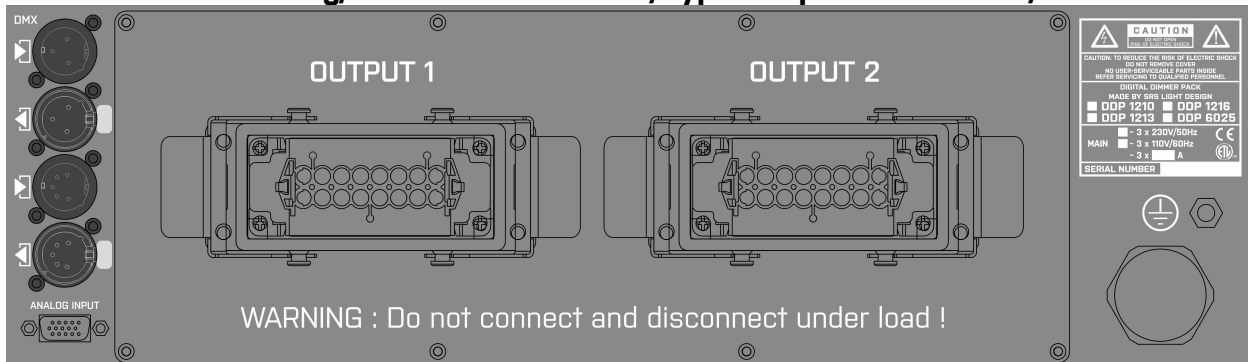
Pin 1,3,5,7,9,11 Phase 7,8,9,10,11,12
 Pin 2,4,6,8,10,12 Neutral
 Pins 13-19 Earth

Pin out for the Harting/ILME 24 connectors:



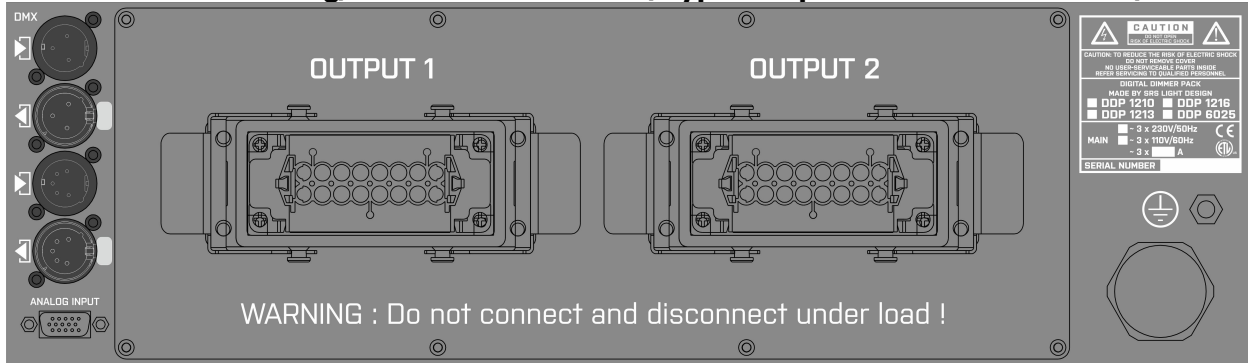
Pins 1-12 Phases 1-12
 Pins 13-24 Neutral

Pin out for the Harting/ILME 16 connectors /Type A – phase + neutral/



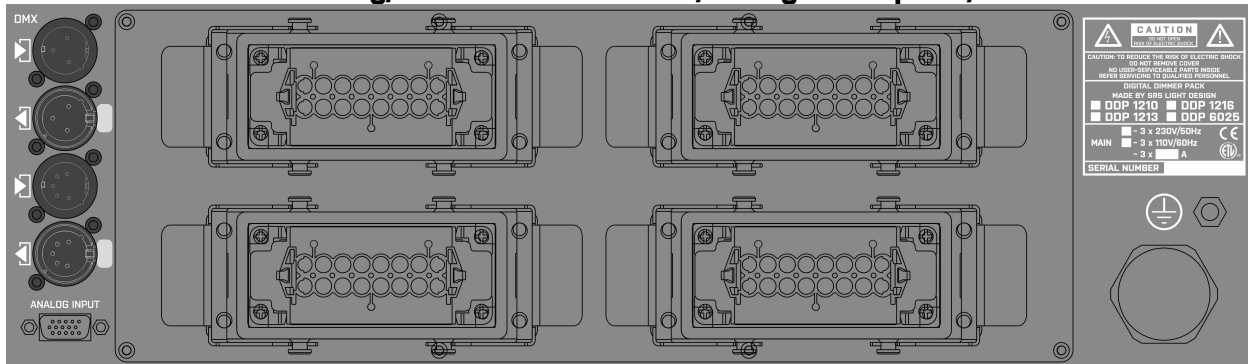
Pins 1-6 Phases 1-6/7-12
 Pins 9-14 Neutral

Pin out for the Harting/ILME 16 connectors /Type B – phases + neutral inline/

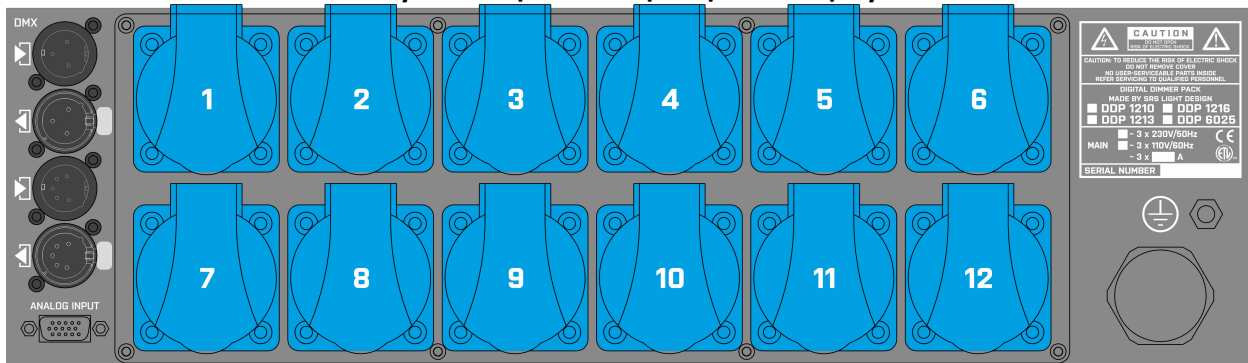


Pin 1,3,5,7,9,11 Phases 1-6/7-12
 Pin 2,4,6,8,10,12 Neutral

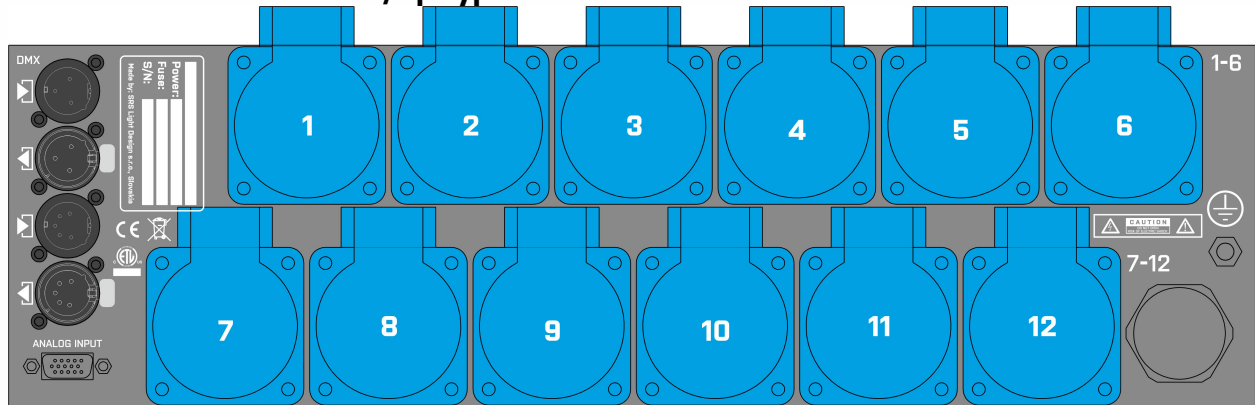
Pin out for the 4x Harting/ILME 16 connectors /wiring on request/



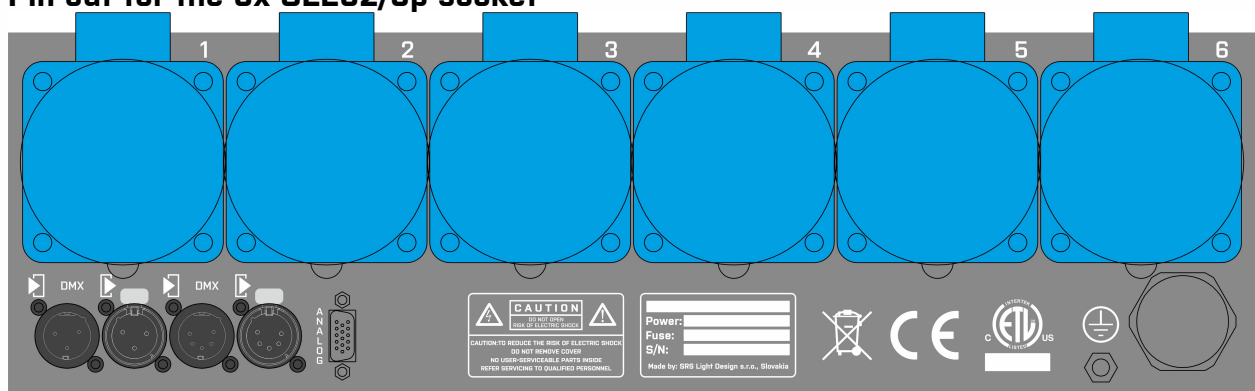
Pin out for the 12x Socket /French, Schuko, UK, Danish,.../



Pin out for the 12x CEE16/3p type 17 socket



Pin out for the 6x CEE32/3p socket



Pin out for the ILME 6 connectors:

Output 1:

Pin 1,2,3 Phase 1,2,3
 Pin 2,4,6 Neutral

Output 2:

Pin 1,2,3 Phase 4,5,6
 Pin 2,4,6 Neutral



Declaration of conformity

We hereby declare that the equipment described below conforms to its design, type and version introduced by us to the fundamental safety and health requirements of the EU Guidelines Machines.

Manufacturer:

SRS Group
Rybničná 36/D
83106 Bratislava
Slovakia

Declares the product

Name of product:

DMX controlled switch pack

Type/version:

SPU12xx, SPUN12xx, SPU60xx, SPUN60xx

Correspond to the specification:

EN 60-950-1:2003

EN 55103-1:2000

EN 55103-2:2000

EN 60-598-2-17 1989 including amendments 1/2

EN 60-598-1 1992 including amendment 1

CE marking directive 93/68 EEC

Low voltage directive [2006/95/EG]

EMC directive [2004/108/EWG]

Bratislava, 29 April 2012

Robert Sloboda



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2020



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