1U 19" DMX RDM Merger

Instruction Manual

Models:

DXD-8NI

version 1.06.8 since 3 November 2025

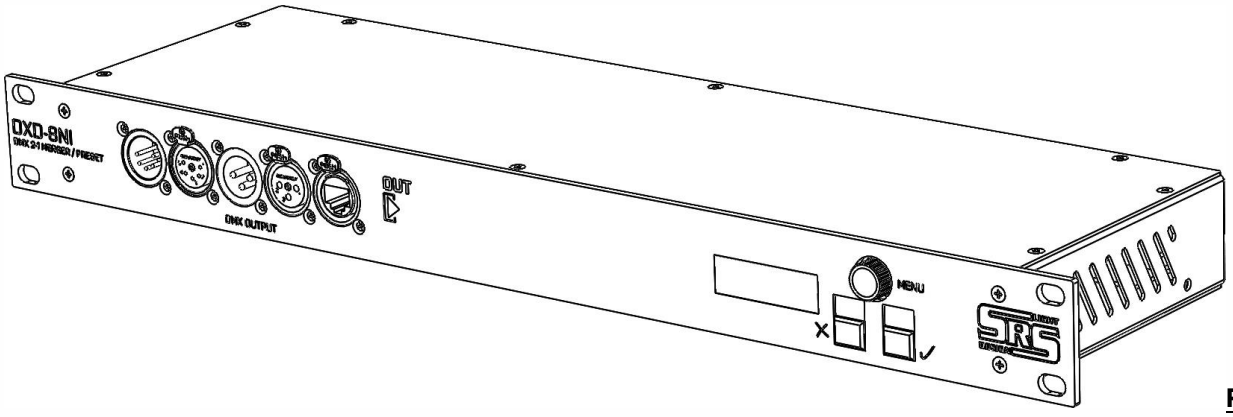
ATTENTION!

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.

DXD-8NI_en_manual_M238

DXD-8NI is a two-input DMX merger with HTP / LTP / DMX-A backup or DMX-B backup modes. It support full RDM specification and It is ideal for applications where merging of two DMX signals is needed. Examples of usage are two DMX consoles controlling one dimmer system or controlling of house light. Moreover, the unit can be used as a scene call device for calling of the minimum DMX value. This value is then sent to dimmer with connected LED lights in case the main console is disconnected or LED lights are flickering on low DMX value because of technical requirements of LEDs. DXD-8NI is equipped with a RJ45 update thru SRS Update cable for later software updates according to customer's needs. As addition to the DXD-8NI its also equipped with screw terminal for remote call of presets via buttons connected as keyboard.



Features:

- **3 x DMX512 optically isolated / boosted**
- **DMX RDM support**
- **Wide range of power supply (AC100-240V)**
- **Various modes:**
    - **HTP – Higher takes presence**
    - **LTP – Last takes presence**
    - **DMX-A backup by DMX-B**
    - **DMX-B backup by DMX-A**
    - **Shift of DMX start address on each input and also output**
    - **ALW.ON minimum setting on the DMX via the SCENE call**
    - **DMX PRS – call of DMX scenes via DMX**
    - **External control via buttons**
- **Easy to setup and control using the Encoder + 2 buttons**
- **12x2 LCD display**
- **Free firmware upgrade via SRS Firmware upgrade tool**

DMX input/output
USITT DMX 512, DMX 512A, RDM support

Power supply:
DC 12-36V, 160mA via external PSU

Dimensions & housing:
1U, 19" format, 482.5 x 44.5 x 145 mm, 2.23 kg

Package consists of:

- DXD-8NI device
- AC110-230V with multiple country plugs to DC15V power adapter
- Printed manual

IMPORTANT INSTRUCTIONS:

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

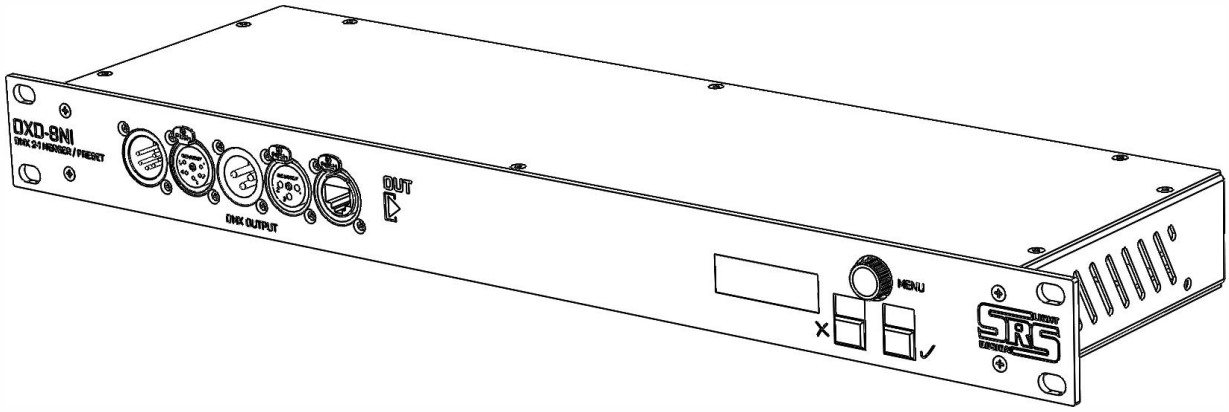
IMPORTANT SAFETY INFORMATION:

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 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.
Device must be connected to the secured circuit with circuit breaker or main switch of maximum 16A. The device does not contain any fuses and there are no serviceable parts inside.

Warranty:

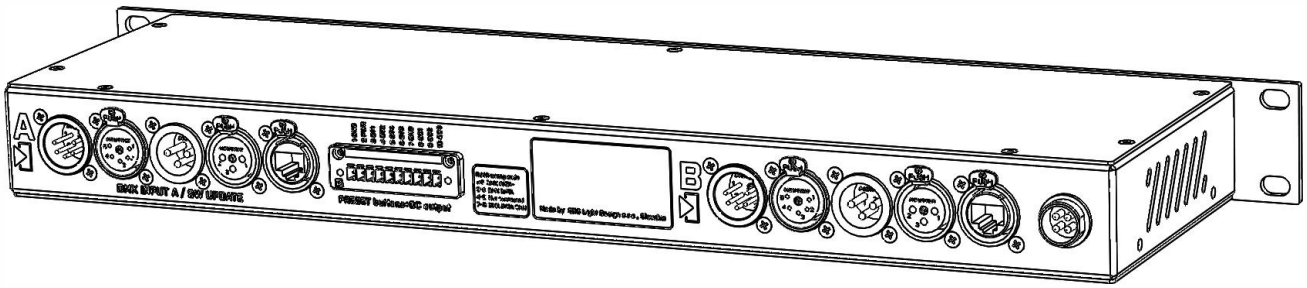
The product design should be varied to keep the product continuously updated. The product price should be subject to possible variations for eventual rises of production costs or duties. Claims for possible damages during the freight must be notified to the carrier. All claims must be notified to the distributor or manufacturer within 8 days from the receipt of goods. Buyer is responsible for the right installation and the use of the apparatus.
The apparatus is covered by a **TWO-YEAR** warranty from the date of purchase against defects of manufacture and components. Defects and breakages caused by wrong use/connection are not subject to warranty. For any dispute is competent the Tribunal of Bratislava, Slovak Republic.

Device front panel:



On the front panel, there is set of DMX output connectors and an Encoder with two buttons and an LCD display with 12x2 characters for orientation in the menu.

Device rear panel:

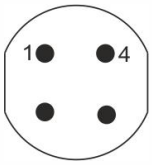


Rear panel features two groups of connectors marked as DMX INPUT A and DMX INPUT B that are merged. There is a DC power supply connector on the right. There is also screw terminal for connection of external switches or keyboard in matrix mode
All connectors are wired according to the wiring codes below.

Connectors:

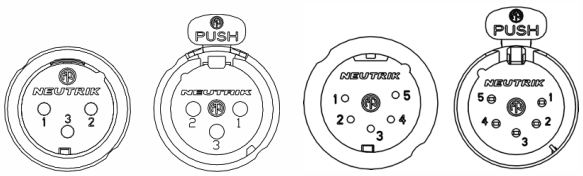
DC connector

Pin 1	DC12-36V
Pin 4	DC GND



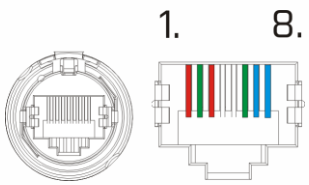
DMX IN / DMX OUT connector

Pin 1	Data CMN
Pin 2	Data -
Pin 3	Data +
Pin 4, 5	Not connected

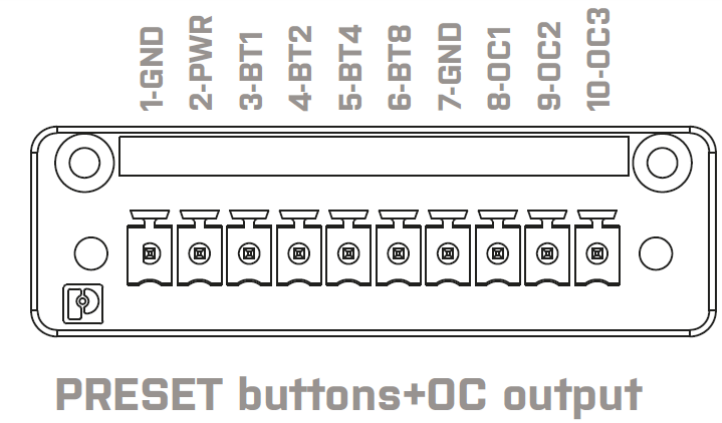


RJ45 IN / RJ45 OUT connector

Pin 1, 3	Data +
Pin 2, 6	Data -
Pin 4, 5	NC
Pin 7, 8	DATA CMN

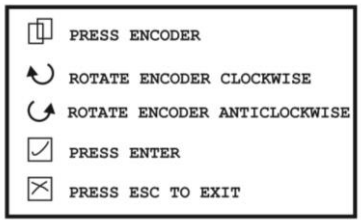


Preset buttons + OC outputs connector

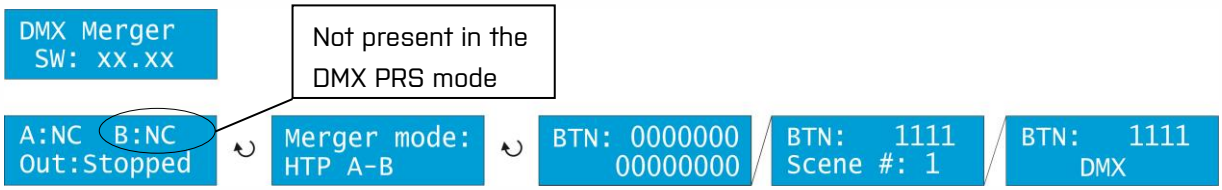


Device use:

Device is controlled by an Encoder (rotation and press) and 2 buttons: ESC and ENTER .
See the symbol description for orientation in the menu:



After the device is plugged in, home screen with the product type and SW version appears. The home screen is automatically replaced by the stand-by screen displayed below. The stand-by screen consists of several pages that can be seen by the rotation of Encoder.



Channels A/B:
NC: Not connected
OK: Correct DMX signal
ERR: Error on the DMX
RDM: RDM communication in progress

Output options:
Stopped / DATA / unknown / Scene / Preset / RDM / to 0% / to 100% / A HTP B / 0

Selected merger mode:
HTP A-B
LTP A-B
BKP B>A
BKP A>B
DMX PRS
DMX SFX

This screen appears in LATCH mode.

Information about active buttons BTN:
0: not active
1: active

Positions:
Bottom right representing button #1, from the right to the left bottom and then top line incrementing by 1

These screens appear in FLASH mode.

Information about active buttons on the input BTN:
0: not active
1: active

Bottom row shows the active scene number.

No scenes are active. DMX goes directly from input to output.

NAVIGATION IN THE MENU:
Press the Encoder to enter the menu.
In the menu, there are several options to choose from:

1. **Merger mode**
2. **Display**
3. **DMX settings**
4. **OC output**
5. **Buttons**
6. **Factory reset**

Press "ENTER" to enter the submenu.
Press "ESC" to escape from the submenu or to return to previous level of the menu.
Use buttons and the Encoder to proceed with the required function according to the schematics below.

Objects in yellow color indicate blinking and the position of the cursor.

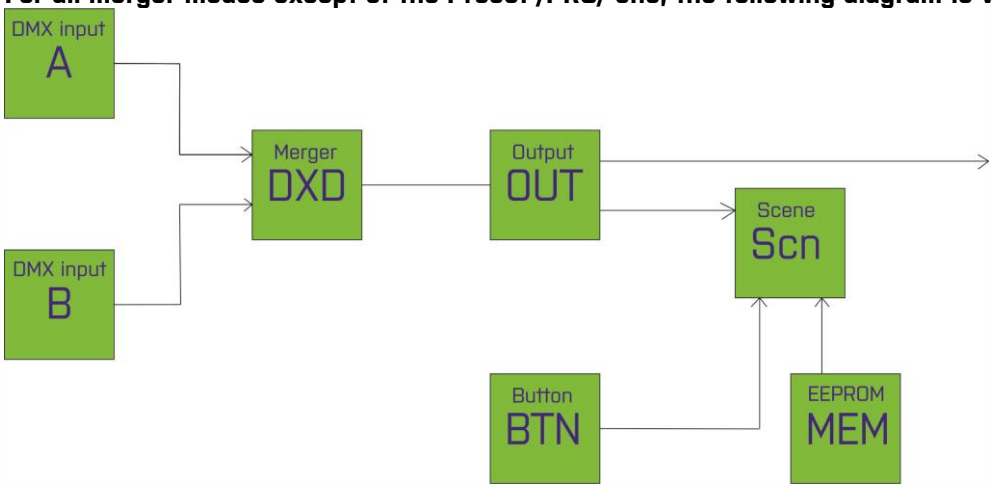
To confirm each setting, scroll down to "OK" and press "ENTER"

1. Merger mode

This submenu allows you to set the desired merger mode.
There are several modes of merging. One of the following modes can be chosen:

- **HTP A-B** Higher takes presence.
- **LTP A-B** Last takes presence.
- **BKP B>A** Backup by DMX B in case of signal loss on DMX A.
- **BKP A>B** Backup by DMX A in case of signal loss on DMX B.
- **DMX PRS** DMX preset function /More info below/.
- **DMX SFX** DMX safety function /More info in the SFX setup/.

For all merger modes except of the Preset /PRS/ one, the following diagram is valid:



DMX PRS /DMX preset/ is a function that allows its user to save and call scenes directly from a console using channels 1 to 16. The console is connected to the DXD device using the DMX INPUT B. Faders on channels 1 to 16 respectively, serve as controllers of the preset output intensity. Activating channel 17, the DXD unit ignores the DMX A input. Channel 18 is used to save the individual presets.

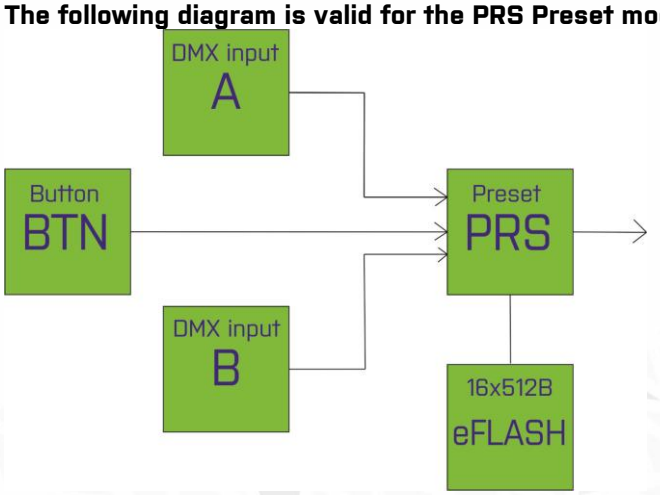
The DMX preset can also be controlled using an additional equipment of the DXD device. In this case, the presets are called using a single press of a corresponding button. They are saved when the button is held for more than 5 seconds.

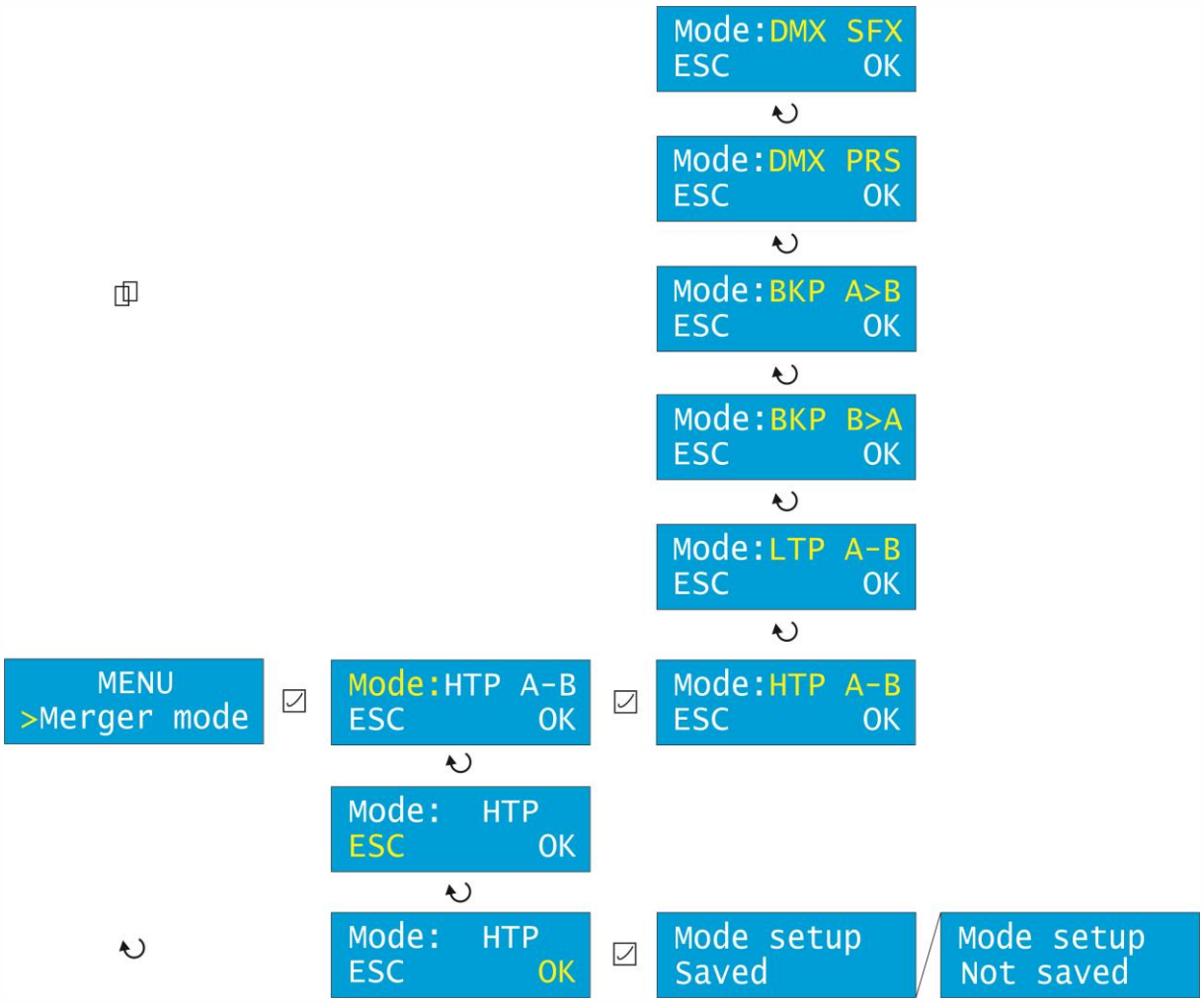
The following screen with the corresponding Preset number appears after the preset is saved:



and the device shows their values in the home screen.

The following diagram is valid for the PRS Preset mode:





Press "ENTER" to enter the *Merger mode*. Press "ENTER" again to adjust the merger mode. Scroll the Encoder to reach the desired option and confirm by "ENTER". Scroll down to "OK" and press "ENTER" to save the settings.

2. Display

This submenu allows you to set the *Sleep* function and the intensity of the *Backlight*.
Press "ENTER" to enter the *Display*. Scroll the Encoder to choose between the *Sleep* and *Backlight* setting and confirm by "ENTER".

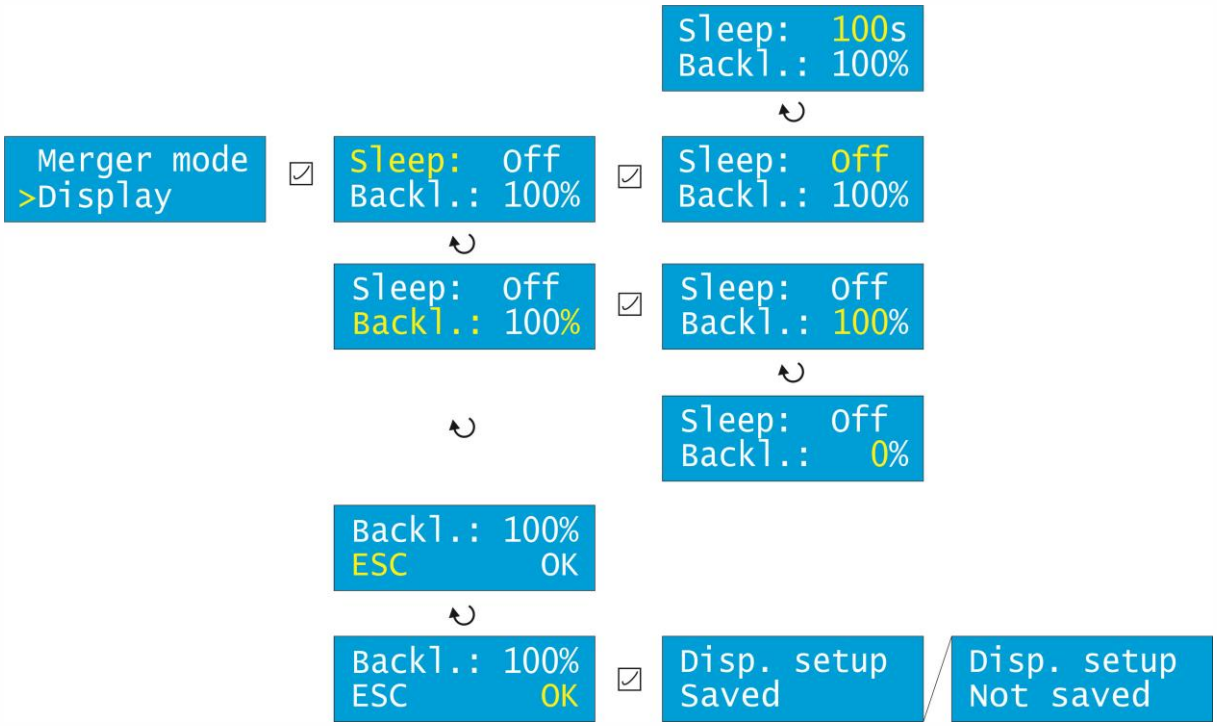
Sleep: Sets the time of inactivity (in seconds) after the device goes into sleep mode (display is off).

Off: Sleep mode disabled
Adjustable range: 5s-100s
Press any key to wake up.

Backlight: Sets the intensity of display light.

Adjustable range: 0-100%

Scroll the Encoder to choose the desired value and confirm by "ENTER". Scroll down to "OK" and press "ENTER" to save the settings.



3. DMX settings

This submenu allows you to set several values of the DMX.



Press "ENTER" to enter the *DMX sett*.
In this submenu, there are several options to choose from:

a. **Loss of DMX**
b. **SFX setup**
c. **PRS Lock**
d. **Start address**
e. **Scene 1**
f. **Scene 2**
   ...
g. **Scene 8**

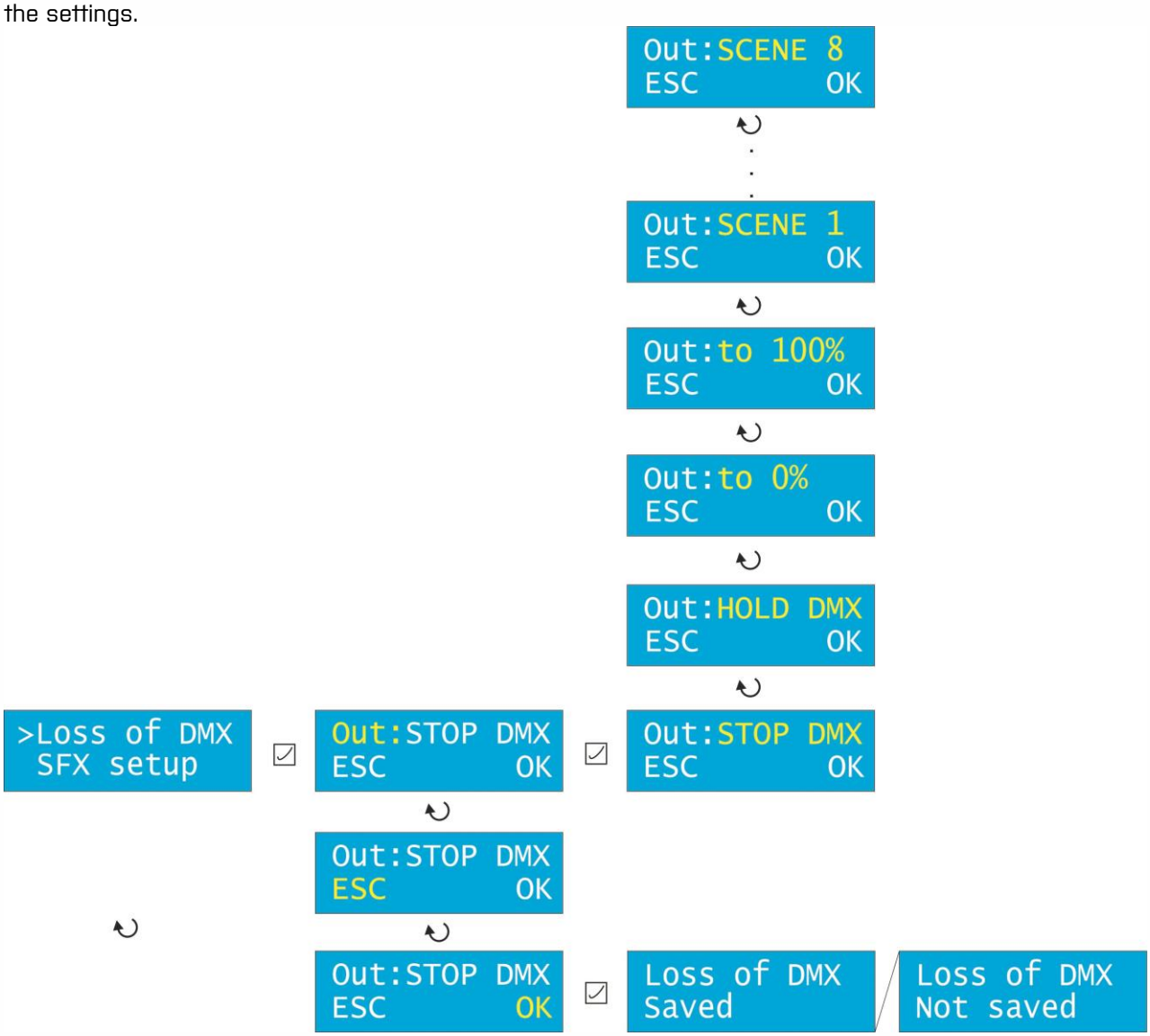
Use the Encoder to navigate in the submenu. Press "ENTER" to enter the submenu.

a. Loss of DMX

This submenu allows you to set an action that is executed in case the DMX signal is lost.
There are several options to choose from:

- **STOP** There is no DMX transmission on the output.
- **HOLD** Transmits last DMX data.
- **to 0%** Transmits DMX with values 0.
- **to 100%** Transmits DMX with values 255.
- **SCENE 1-8** Calls the preset scene that is being transmitted.

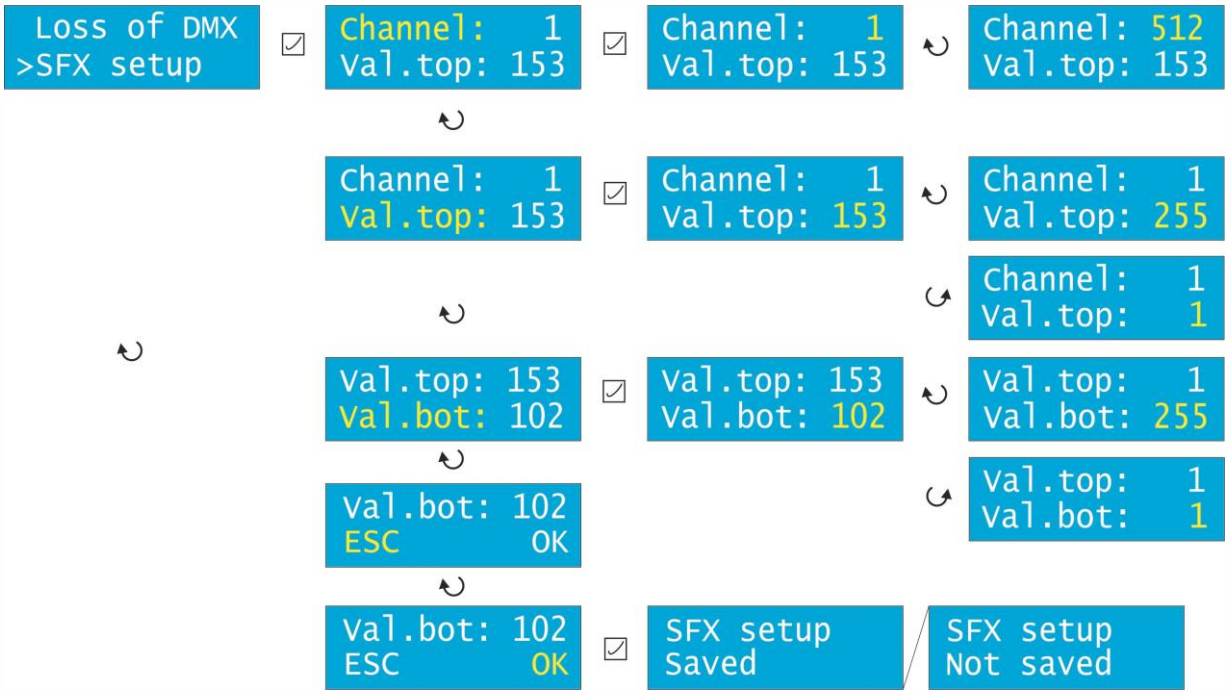
Press "ENTER" to enter the *Loss of DMX* submenu. Press "ENTER" again to adjust the option. Scroll the Encoder to reach the desired option and confirm by "ENTER". Scroll down to "OK" and press "ENTER" to save the settings.



b. SFX setup

This submenu allows you to set safety limits to the desired channel. For one channel (1-512), you can set the top and bottom values (range 1-255).

In the *SFX setup* submenu, rotate the Encoder to navigate between the *Channel*, *top* and *bottom value* and confirm by "ENTER." Rotate the Encoder to select the desired value and confirm by "ENTER." Scroll down to "OK" and press "ENTER" to save the settings.

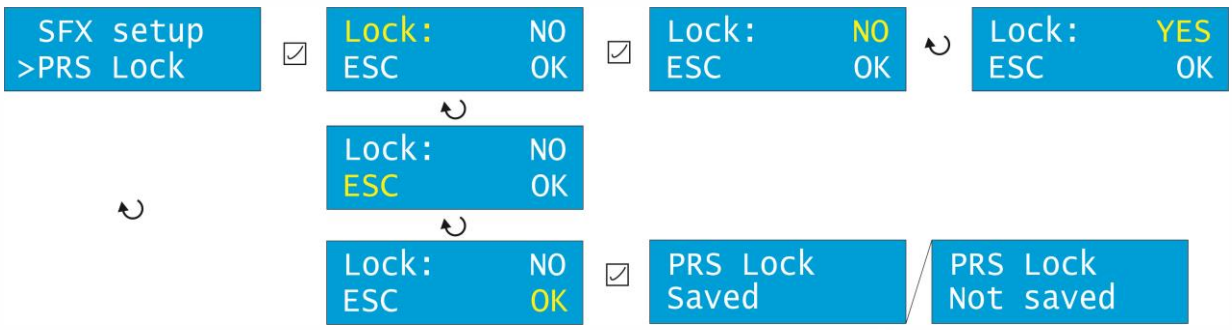


If the merger falls into tolerable range, the home screen shows: A:NC B:NC Out:DATA. If it is outside of the range, the home screen shows: A:NC B:NC Out:to 0. If both channels are functioning, there is a signal on both of them and the precedence is according to the HTP: A:NC B:NC Out: A HTP B.

c. PRS Lock

This submenu allows you to enable or disable the *Preset Lock*. The Preset Lock serves as a safety feature preventing from undesired button press on the preset equipment. When active, the SAVE function of the preset is disabled.

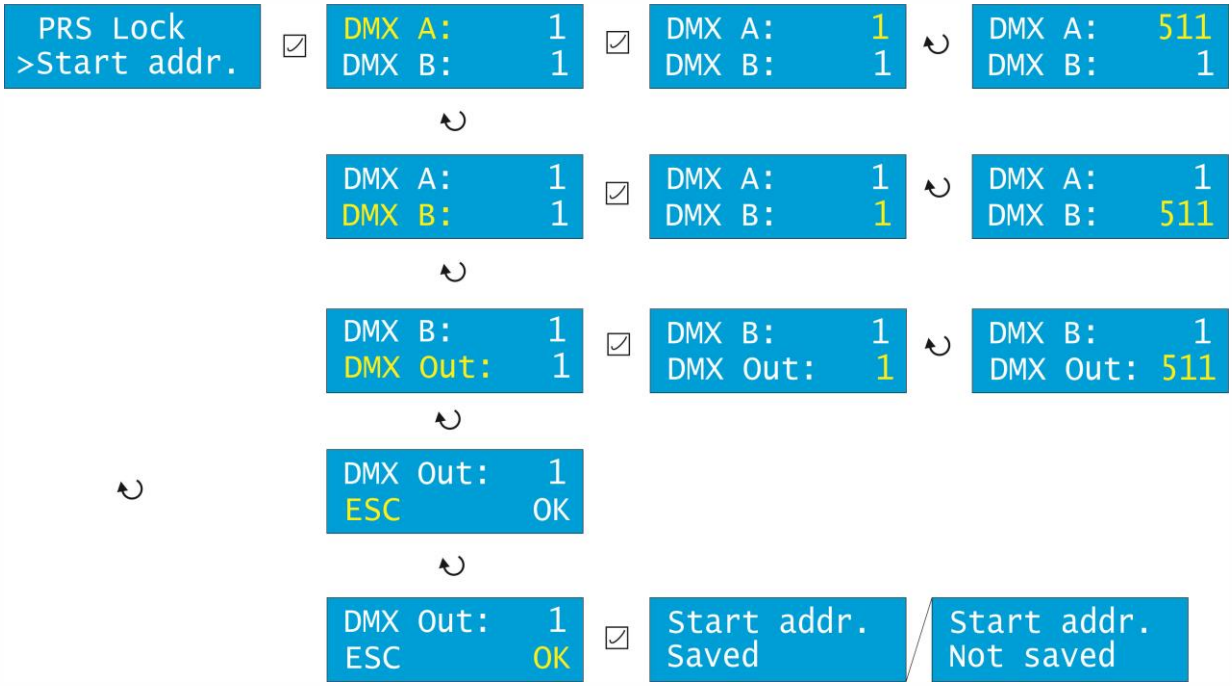
In the *PRS Lock* submenu, press "ENTER" to enter into the options. Rotate the Encoder to alter between YES and NO and confirm by "ENTER." Scroll down to "OK" and press "ENTER" to save the settings.



d. Start address

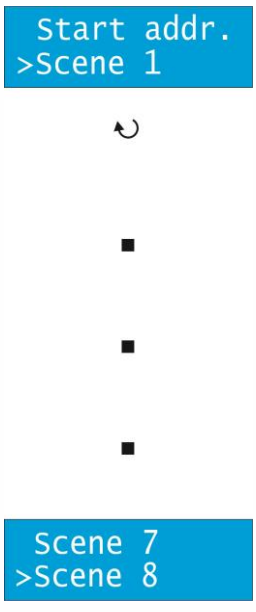
This submenu allows you to set the *Start address* of the DMX A and B Inputs and the Output. The address can be set in a range of 1 - 511.

In the *Start addr.* submenu, rotate the Encoder to select the desired input or output and press "ENTER" to confirm. Rotate the Encoder to choose the desired value and confirm by "ENTER." Scroll down to "OK" and press "ENTER" to save the settings.



e. Scene #

The last options of the *DMX settings* submenu are the settings of scenes 1-8. Scroll the Encoder to select the desired scene number to be adjusted and confirm by "ENTER."



The *Scene* submenu allows you to set up each scene and to load them into the DMX A & B inputs, respectively. There are the following options to choose from:

- **Setup**
- **Load DMXA**
- **Load DMXB**

In *Setup* submenu:

- every scene can be assigned one channel that loads it /scene is loaded proportionally/
- if more scenes are active, HTP and HTP DMX-A are made of them
- there is 1024 reserved bits for scene setting to the EEPROM
- memory is managed dynamically

Press "ENTER" to set up the scene. Scroll down to select one of the following options:

- **Mode**
- **Control channel**
- **Control button**
- **Start channel**
- **Size**

Mode

This option selects the mode of the scene. It can be OFF, ON, or ALWAYS ON.

OFF: Scene is turned off
ON: Scene is turned on
ALWAYS ON: Scene is always on and preheat is performed as follows:
Loaded value is a minimum value on the output and the rest (remaining to 255) is linearly divided. Range of DMX values is 0-255. Therefore, the highest load value is 255. This yields to a simple formula:

255 – channel load value = value of the preheat

Example: The channel load value is 100. 255 – 100 = **155.**
155 is the value of the preheat.

Scroll the Encoder to the desired option and confirm by "ENTER."

Control channel

This option allows you to select the control channel that calls the scene in a range of 1-512.
Scroll the Encoder to the desired option and confirm by "ENTER."

Control button

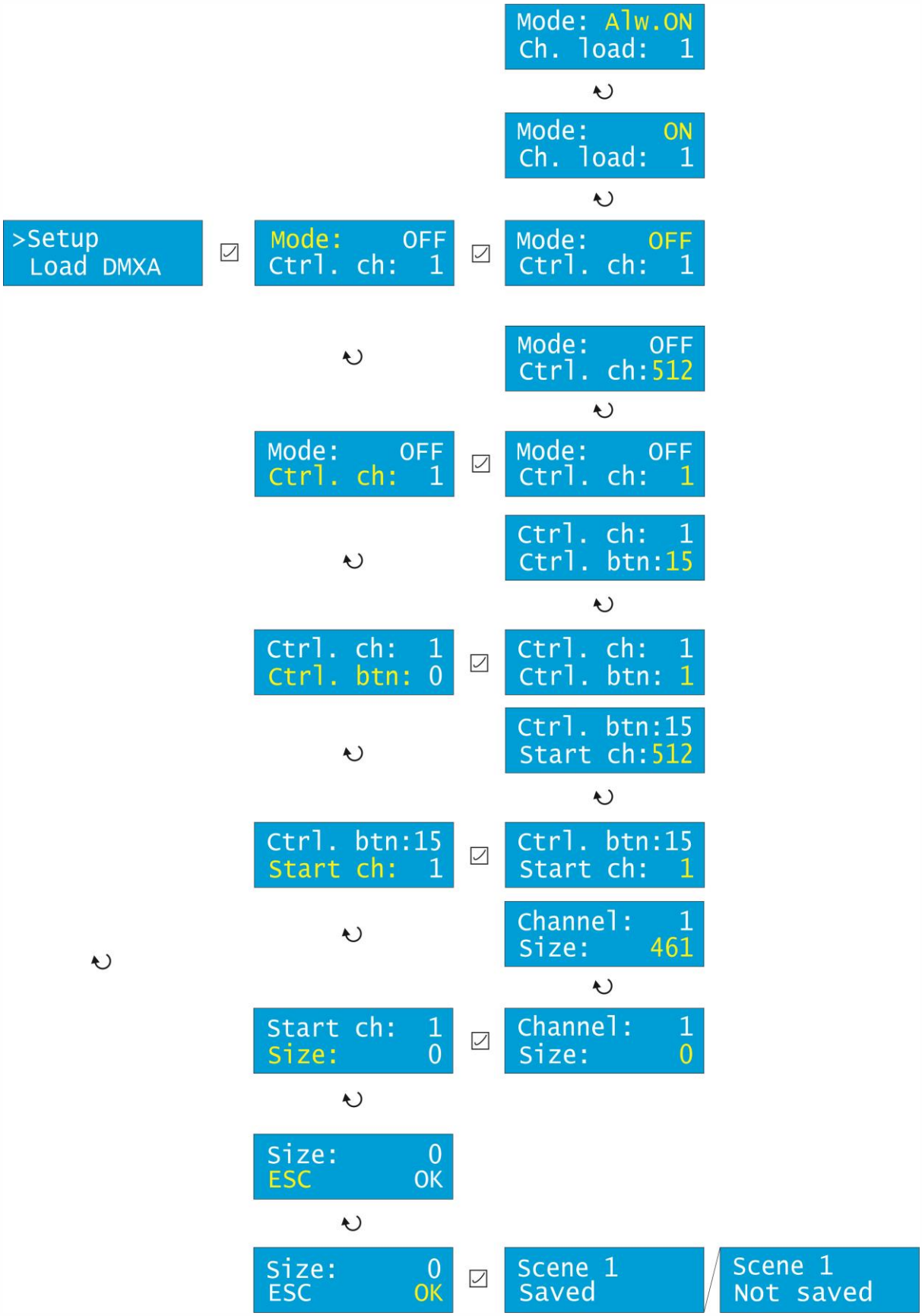
This option allows you to select the control button that calls the scene in a range of 1-15.
Scroll the Encoder to the desired option and confirm by "ENTER."
Due to the capability of the hardware, only buttons in a range of 1-7 can be used with this feature.

Start channel

This option allows you to select the start channel where the scene begins in a range of 1-512.
Scroll the Encoder to the desired option and confirm by "ENTER."

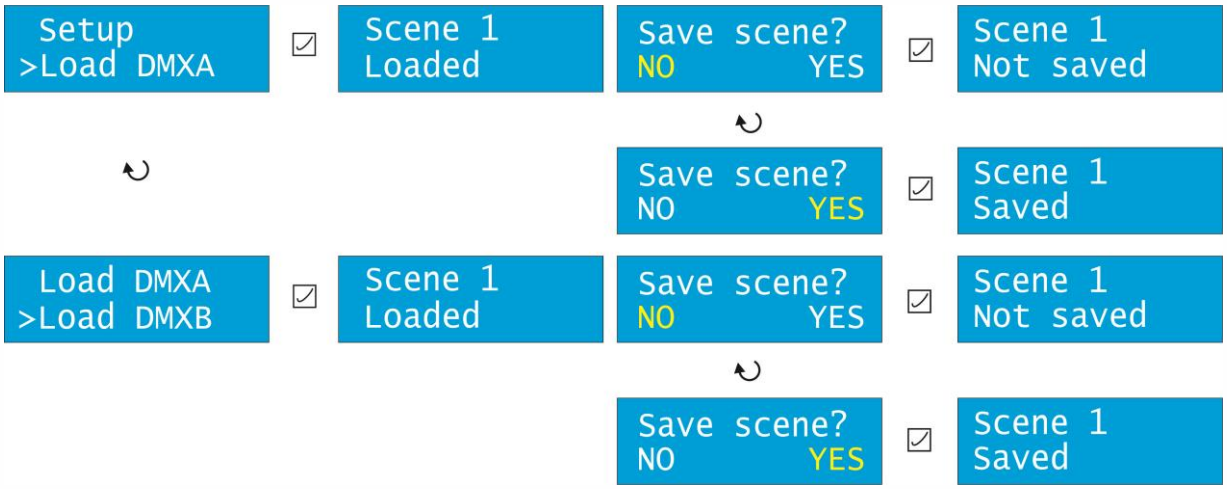
Size (in B):

This option allows you to set the number of channels that are assigned for a scene. **Maximum memory is 1024B for all scenes in total.** Use it wisely. Scene is saved to EEPROM.
Scroll the Encoder to the desired option and confirm by "ENTER."



Scroll down to "OK" and press "ENTER" to save the settings.
Each scene can be saved by a long press of a button (for more than 10 seconds.)
***Load DMXA/DMXB* submenu** is used to decide whether to load the scene from the DMX-A or the DMX-B to the memory. The scene is loaded right after the entry to this submenu. According to the chosen *Merger mode*, the resulting output value is generated and used for scene calculation on the output.

Scroll down to *Load DMXA* or *DMXB* respectively and press "ENTER" to load the corresponding scene from the DMX A or B input. Scroll the Encoder to accept (YES) or deny (NO) the setting and confirm by "ENTER."

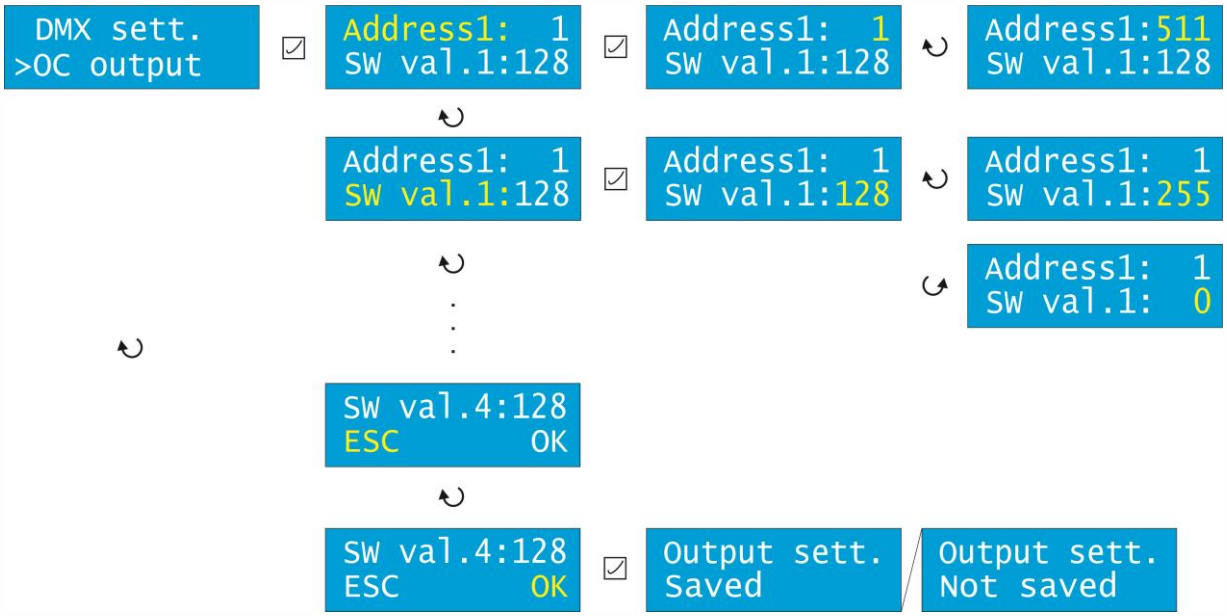


Press "ESC" to return to the main menu.

4. OC /Open Collector/ output /useful only in DXD-8NI version/

The DXD unit features 4 open collectors that serve as an additional switching equipment. For each of them, the DMX output address and the switch value can be selected.

Press "ENTER" to enter the *OC output* submenu. Scroll the Encoder to select one of Address and switching value. The number behind represents the corresponding open collector (1-4). Press "ENTER" to confirm and scroll the Encoder to select the desired value and confirm by "ENTER." Scroll down to "OK" and press "ENTER" to save the settings.

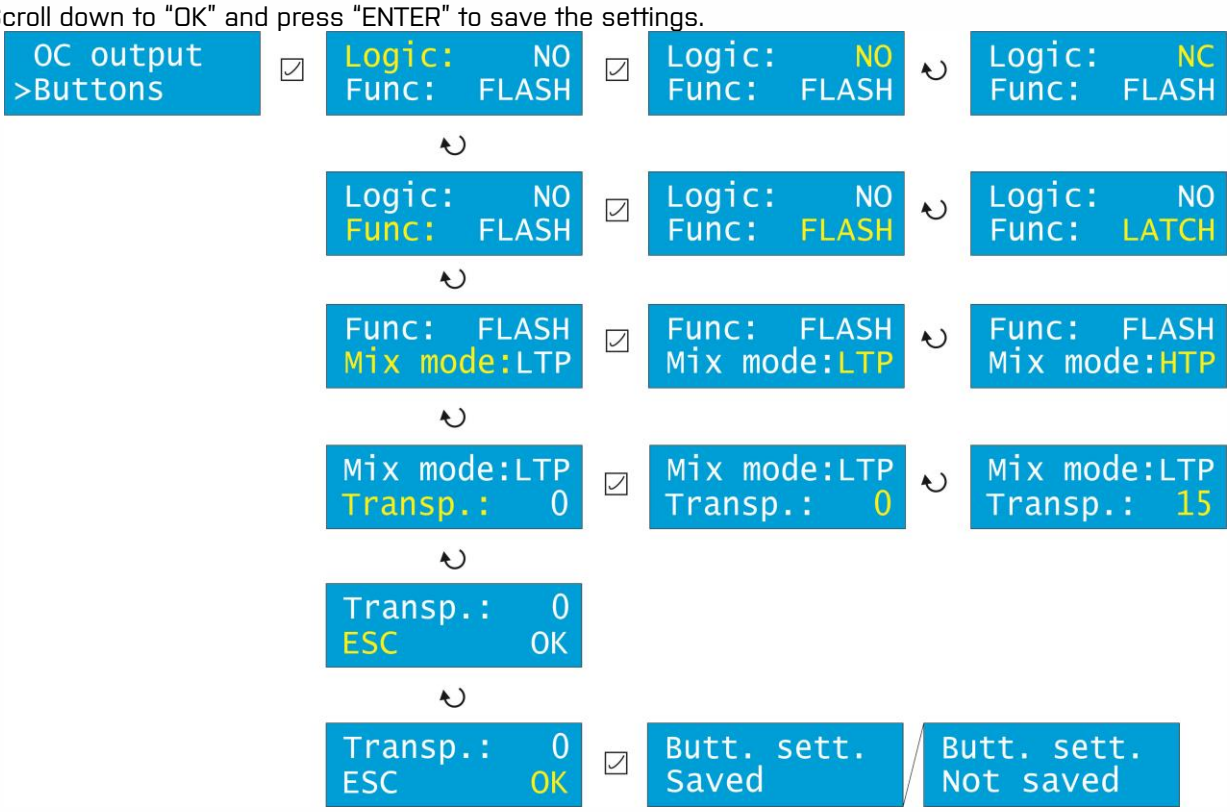


5. Buttons

DXD-8NI device features the network interface that serves as a platform for additional buttons. BT on the NI.
This submenu allows you to set the buttons.
Press "ENTER" to enter the *Logic*. Scroll the Encoder to choose between *NO* (Normally Open) and *NC* (Normally Closed) and confirm by "ENTER".
Scroll down to *Function* to choose between *FLASH* and *LATCH*.

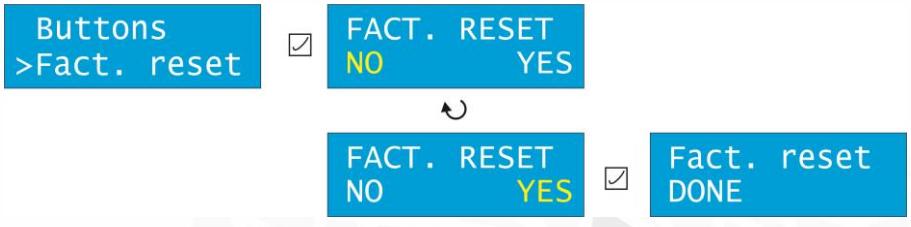
FLASH allows you to activate one button at a time. By activating another button, the previous button is deactivated. To deactivate all buttons, activate the *Transparent scene* button.
LATCH allows you to activate as many buttons as you wish by pressing them. Press each button again to deactivate it and so on.

Confirm by "ENTER".
Scroll down to the *Mix mode* to choose between *LTP* and *HTP* mode in case both button and fader are active.
Confirm by "ENTER".
Scroll down to the *Transparent scene* to choose value between *0* and *15*. This is the button number that is used to deactivate all scenes. Confirm by "ENTER".
Scroll down to "OK" and press "ENTER" to save the settings.

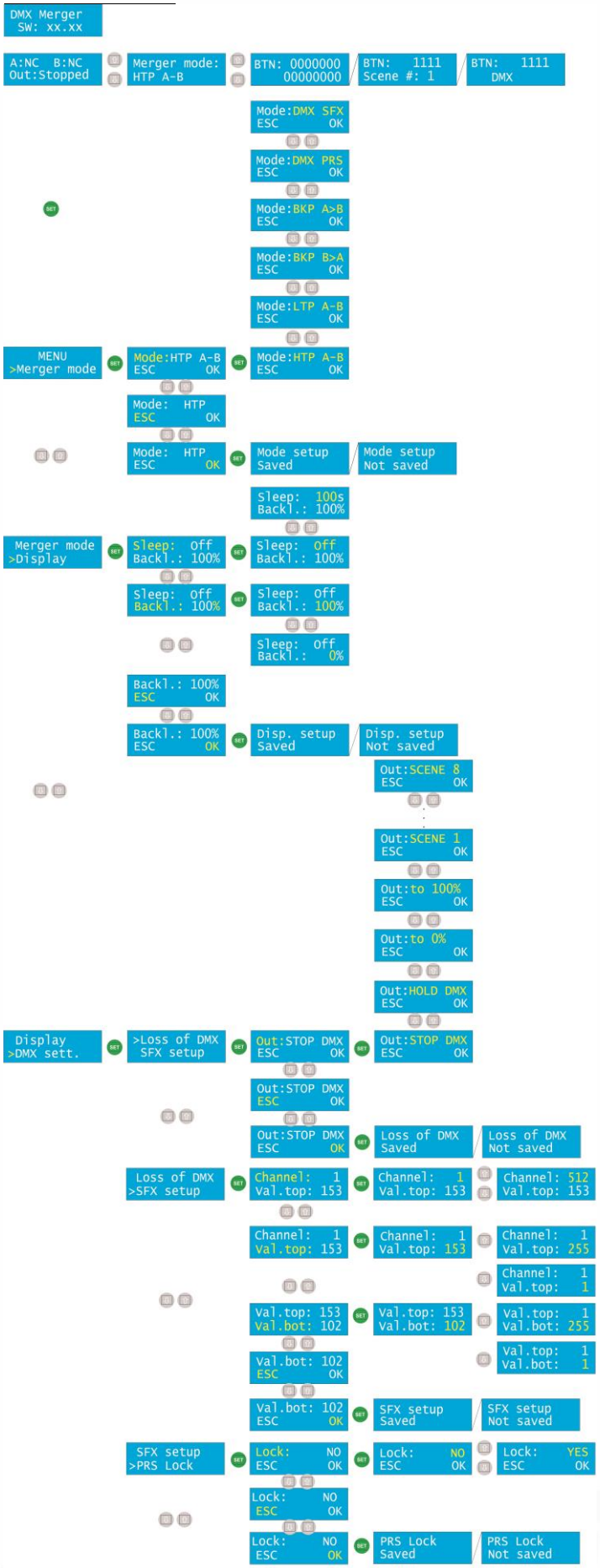


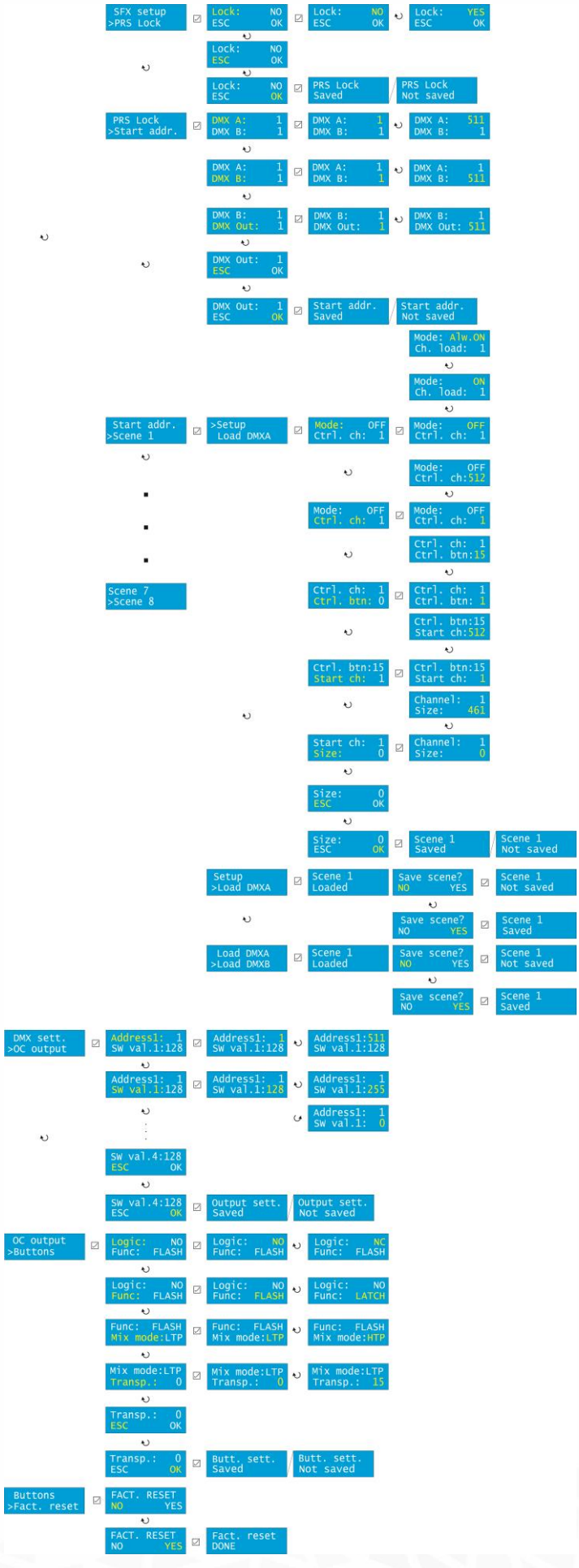
6. Factory reset

This submenu allows you to reset the unit to the factory defaults.
THIS OPTION WILL DELETE ALL YOUR SETTINGS AND SAVED SCENES!!!
Scroll the Encoder to *YES* and confirm by "ENTER".



MENU structure:



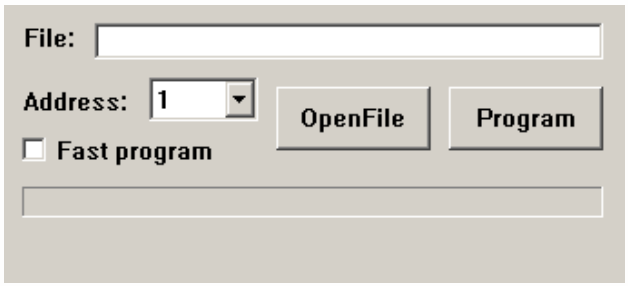

SFX setup
>PRS Lock
Lock: NO
ESC OK
Lock: NO
ESC OK
Lock: YES
ESC OK
Lock: NO
ESC OK
Lock: NO
ESC OK
PRS Lock
Saved
PRS Lock
Not saved
PRS Lock
>Start addr.
DMX A: 1
DMX B: 1
DMX A: 1
DMX B: 1
DMX A: 511
DMX B: 1
DMX A: 1
DMX B: 1
DMX A: 1
DMX B: 1
DMX A: 1
DMX B: 511
DMX B: 1
DMX Out: 1
DMX B: 1
DMX Out: 1
DMX B: 1
DMX Out: 511
DMX Out: 1
ESC OK
DMX Out: 1
ESC OK
Start addr.
Saved
Start addr.
Not saved
Mode: Alw.ON
Ch. load: 1
Mode: ON
Ch. load: 1
Start addr.
>Scene 1
>Setup
Load DMXA
Mode: OFF
Ctrl. ch: 1
Mode: OFF
Ctrl. ch: 1
Mode: OFF
Ctrl. ch:512
Mode: OFF
Ctrl. ch: 1
Mode: OFF
Ctrl. ch: 1
Ctrl. ch: 1
Ctrl. btn:15
Scene 7
>Scene 8
Ctrl. ch: 1
Ctrl. btn: 0
Ctrl. ch: 1
Ctrl. btn: 1
Ctrl. btn:15
Start ch:512
Ctrl. btn:15
Start ch: 1
Ctrl. btn:15
Start ch: 1
Channel: 1
Size: 461
Start ch: 1
Size: 0
Channel: 1
Size: 0
Size: 0
ESC OK
Size: 0
ESC OK
Scene 1
Saved
Scene 1
Not saved
Setup
>Load DMXA
Scene 1
Loaded
Save scene?
NO YES
Scene 1
Not saved
Save scene?
NO YES
Scene 1
Saved
Load DMXA
>Load DMXB
Scene 1
Loaded
Save scene?
NO YES
Scene 1
Not saved
Save scene?
NO YES
Scene 1
Saved
DMX sett.
>OC output
Address1: 1
SW val.1:128
Address1: 1
SW val.1:128
Address1:511
SW val.1:128
Address1: 1
SW val.1:128
Address1: 1
SW val.1:128
Address1: 1
SW val.1:255
Address1: 1
SW val.1: 0
SW val.4:128
ESC OK
SW val.4:128
ESC OK
Output sett.
Saved
Output sett.
Not saved
OC output
>Buttons
Logic: NO
Func: FLASH
Logic: NO
Func: FLASH
Logic: NC
Func: FLASH
Logic: NO
Func: FLASH
Logic: NO
Func: FLASH
Logic: NO
Func: LATCH
Func: FLASH
Mix mode:LTP
Func: FLASH
Mix mode:LTP
Func: FLASH
Mix mode:HTP
Mix mode:LTP
Transp.: 0
Mix mode:LTP
Transp.: 0
Mix mode:LTP
Transp.: 15
Transp.: 0
ESC OK
Transp.: 0
ESC OK
Butt. sett.
Saved
Butt. sett.
Not saved
Buttons
>Fact. reset
FACT. RESET
NO YES
FACT. RESET
NO YES
Fact. reset
DONE

USB SW update:

For Windows XP/7/8, the following drivers from FTDI are required:
http://www.ftdichip.com/Drivers/D2XX.htm

Installation manual can be found here:
http://www.ftdichip.com/Support/Documents/InstallGuides.htm

Flashing window:



1. Connect the SW-UPG-x USB to RS485 cable to the computer and the DMX-A port of DXD-8NI.
2. Run the boot loader.
3. Click on the Open file button and select the file with firmware you wish to flash.
4. Select Address to 1 and tick Fast Program.
5. Click Program and you will see the progress of flashing.
6. After the flash, one of two messages appears on the display of DXD-8NI:
    a. BOOTLOADER DONE – flashing went correctly
    b. BOOTLOADER ERROR – wrong firmware: press ESC and SET at the same time and try again.

For help, check firmware or contact manufacturer at sales@srs-group.com.

DECLARATION OF CONFORMITY

According to guidelines 89/336 EEC and 92/31 EEC:

Name of producer: SRS Group s.r.o.

Address of producer: Rybnicna 38/B, SK- 83106 Bratislava, Slovak Republic

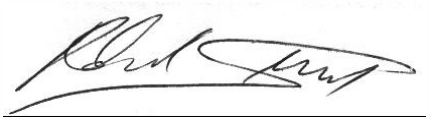
Declares that the product

Name of product: DMX Merger
Type: DXD-8NI

Corresponds to the following product specifications:

Safety: EN60065, resp. EN 60950
EMC: EN55103-1, EN55103-2, EN50082-1, EN50081-1

Bratislava, 7 May 2016



Robert Sloboda

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