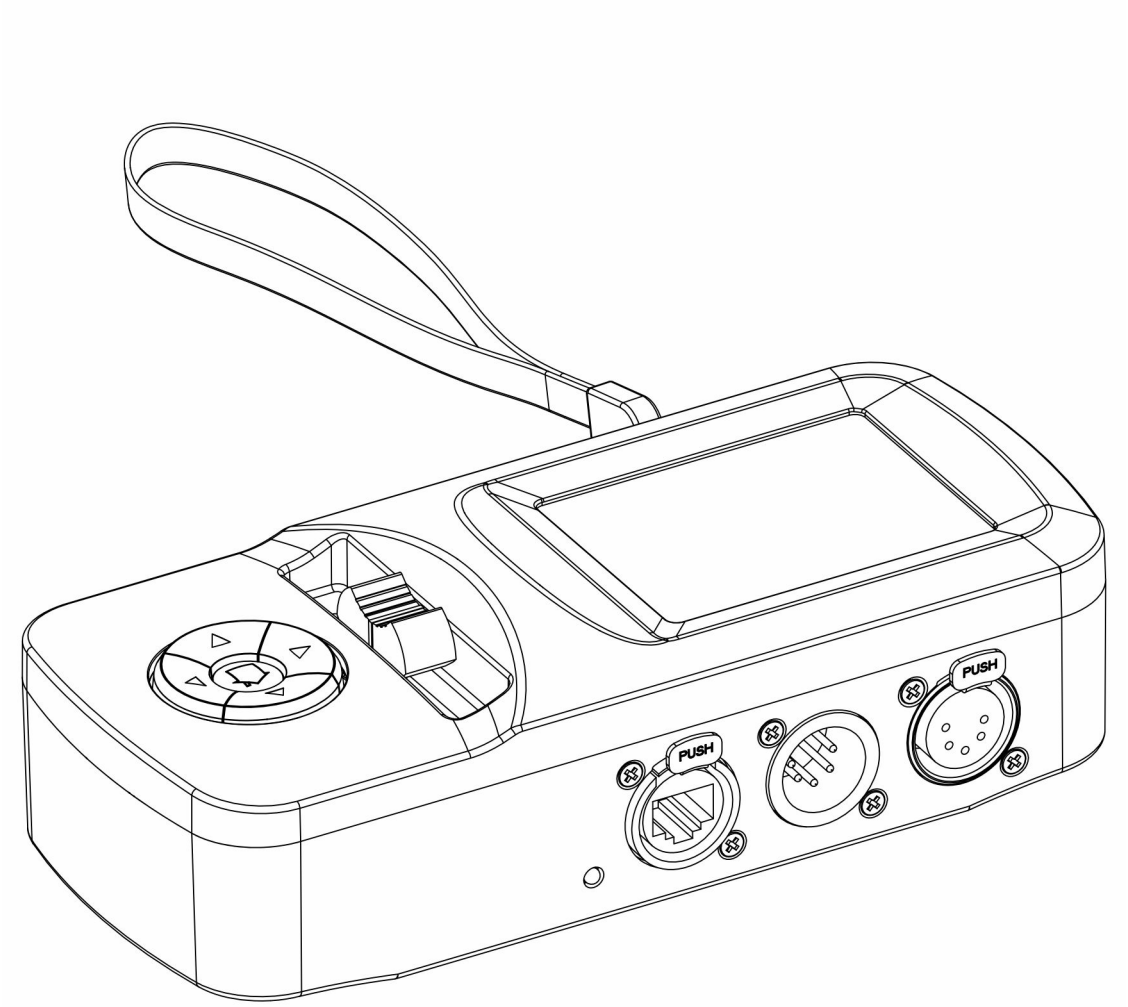
USER MANUAL

ENGLISH

V1.0



Assistant CRMX

Product code: 50394

Preface

Thank you for purchasing this Showtec product.

The purpose of this user manual is to provide instructions for the correct and safe use of this product.

Keep the user manual for future reference as it is an integral part of the product. The user manual shall be stored at an easily accessible location.

This user manual contains information concerning:

- Safety instructions
- Intended and non-intended use of the device
- Installation and operation of the device
- Maintenance procedures
- Troubleshooting
- Transport, storage and disposal of the device

Non-observance of the instructions in this user manual may result in serious injuries and damage of property.

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Design and product specifications are subject to change without prior notice.

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Highlite International B.V. – Vestastraat 2 – 6468 EX Kerkrade – the Netherlands

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1. Introduction

1.1. Before Using the Product

Important
Read and follow the instructions in this user manual before installing, operating or servicing this product.

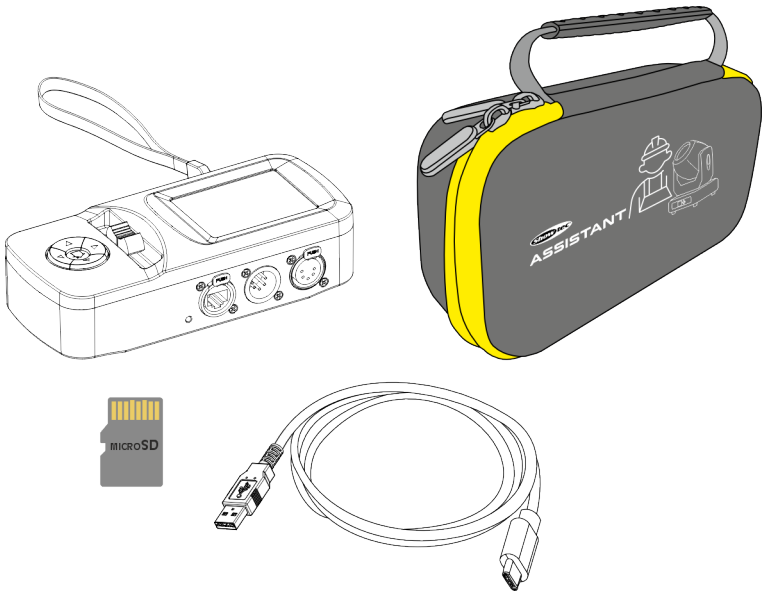
The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual.

After unpacking, check the contents of the box. If any parts are missing or damaged, contact your Highlite International dealer.

Your shipment includes:

- Showtec Assistant CRMX
- Rugged carrying bag
- USB-A to USB-C cable (1,0 m)
- Micro SD card
- User manual

Figure 1



1.2. Intended Use

This device is intended for professional use as a multifunctional tool. It is designed for indoor use.

Any other use, not mentioned under intended use, is regarded as non-intended and incorrect use.

1.3. Product Lifespan

This device is not designed for permanent operation.

Disconnect the device from the electrical power supply when the device is not in operation. This will reduce the wear and will improve the lifespan of the device.

1.4. Text Conventions

Throughout the user manual the following text conventions are used:

- Buttons: All buttons are in bold lettering, for example "Press the **UP/DOWN** buttons"
- References: References to parts of the device are in bold lettering, for example: "turn the **adjustment handle (05)**". References to chapters are hyperlinked
- 0–255: Defines a range of values
- Notes: **Note:** (in bold lettering) is followed by useful information or tips

1.5. Symbols and Signal Words

Safety notes and warnings are indicated throughout the user manual by safety signs.

Always follow the instructions provided in this user manual.



DANGER Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.



Attention Indicates important information for the correct operation and use of the product.



Important Read and observe the instructions in this document.



Provides important information about the disposal of this product.

1.6. Symbols on the Information Label

This product is provided with an information label. The information label is located on the base plate of the device.

The information label contains the following symbol:



This device shall not be treated as household waste.



This device is designed for indoor use.



Read and follow the instructions in the user manual before installing, operating or servicing the device.



This device falls under IEC protection class III.

2. Safety



Important
Read and follow the instructions in this user manual before installing, operating or servicing this product.

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual.

2.1. Warnings and Safety Instructions



DANGER
Danger for children

For adult use only. The device must be installed beyond the reach of children.

- Do not leave any parts of the packaging (plastic bags, polystyrene foam, nails, etc.) within the reach of children. Packaging material is a potential source of danger for children.



Attention
Power supply

The device falls under IEC protection class III. This device shall be connected to an external power supply.

- Before connecting the device to the external power supply, make sure that the current, voltage and frequency match the input voltage, current and frequency specified on the information label on the device.



Attention
General safety

- Do not shake the device. Avoid brute force when installing or operating the device.
- Do not connect the device to a dimmer pack.
- Do not switch the device on and off in short intervals. This reduces the life of the device.
- If the device is dropped or struck, disconnect the device from the electrical power supply immediately.
- If the device is exposed to extreme temperature variations (e.g. after transportation), do not switch it on immediately. Let the device reach room temperature before switching it on, otherwise it may be damaged by the formed condensation.
- If the device fails to work properly, discontinue use immediately.



Attention
This device must be used only for the purposes it is designed for.

This device is intended to be used as a multifunctional tool. It is suitable for indoor use. Any incorrect use may lead to hazardous situations and result in injuries and material damage.

- This device is not designed for permanent operation.
- This device does not contain user-serviceable parts. Unauthorized modifications to the device will render the warranty void. Such modifications may result in injuries and material damage.



Attention
Do not expose the device to conditions that exceed the rated IP class conditions.

This device is IP20 rated. IP (Ingress Protection) 20 class provides protection against solid objects greater than 12 mm, such as fingers, and no protection against harmful ingress of water.

2.2. Requirements for the User

This product may be used by ordinary persons. Installation and maintenance may be carried out by ordinary persons. Service shall be carried out only by instructed or skilled persons. Contact your Highlite International dealer for more information.

Instructed persons have been instructed and trained by a skilled person, or are supervised by a skilled person, for specific tasks and work activities associated with the installation, service and maintenance of this product, so that they can identify risks and take precautions to avoid them.

Skilled persons have training or experience, which enables them to recognize risks and avoid hazards associated with the installation, service and maintenance of this product.

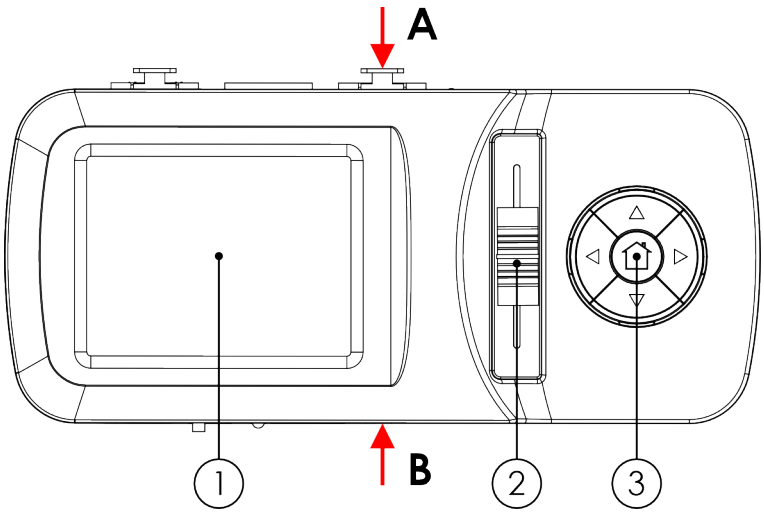
Ordinary persons are all persons other than instructed persons and skilled persons. Ordinary persons include not only users of the product but also any other persons that may have access to the device or who may be in the vicinity of the device.

3. Description of the Device

The Showtec Assistant CRMX is a multifunctional tool for checking DMX, Art-Net and sACN signals. It allows you to receive and transmit DMX signals, making it ideal for testing your infrastructure and cables. You can record and play back DMX signals using a removable micro SD card. The Assistant CRMX enables you to check RDM parameters of your fixtures and verify the functionality of your Art-Net and sACN networks. Navigate through the menu with the capacitive touch screen or use the fader and control buttons. The internal Li-ion battery, when fully charged, lasts up to 16 hours and can be recharged via the USB-C port with a 5V power supply.

3.1. Top View

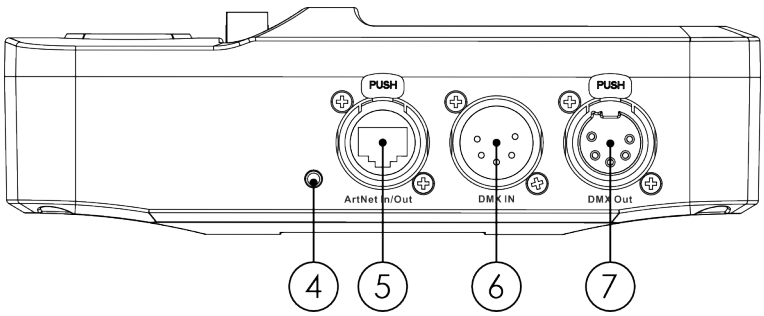
Figure 2



01) LCD / Touch display (80 mm)
02) Fader
03) Control buttons

3.2. Side View A

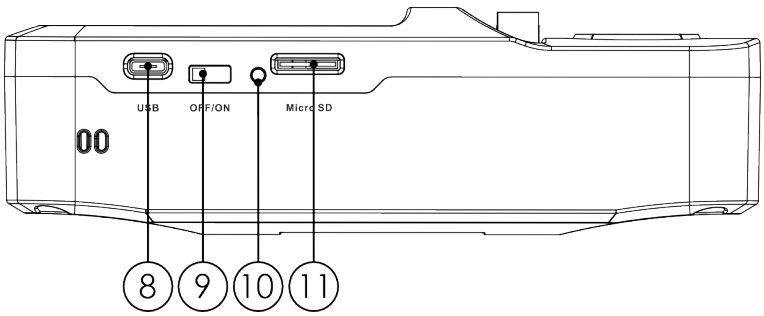
Figure 3



04) Network LED indicator
05) ArtNet IN/OUT
06) 5-pin DMX signal connector IN
07) 5-pin DMX signal connector OUT

3.3. Side View B

Figure 4



08) USB-C connector IN (5 V DC)
09) Battery power switch (ON/OFF)
10) Power LED
11) Micro SD card

3.4. Optional Accessories and Software

You can additionally purchase the following accessories:

- FLA36 5P XLR Male to 3P XLR Female
- FLA37 3P XLR Male to 5P XLR Female

3.5. Product Specifications

Model:	Assistant CRMX

Server Specifications:	
Memory type	Micro SD

Battery:	
Battery type	Lithium ion
Battery voltage	3.7 V
Capacity	7,8 Ah
Battery power	28,86 Wh
Runtime average	16 h
Charging time	5 h
Battery lifetime	500 cycles

Control and Programming:	
Control mode	Art-Net / DMX / RDM
Protocols	Art-Net / CRMX Classic / DMX / W-DMX / RDM
Display	LCD / Touch
Universes	1

Electrical Specifications and Connections:	
Power supply	5 V DC
Power over Ethernet (PoE)	No
Power consumption	5 W
Power connector In	USB-C
DMX connector	XLR 5P IN/OUT
Data connector In	RJ45

Mechanical Specifications:	
Length	186 mm
Width	82 mm
Height	56 mm
Weight	0,5 kg
IP rating	IP20 (indoor use only)
Housing	ABS
Color	Black

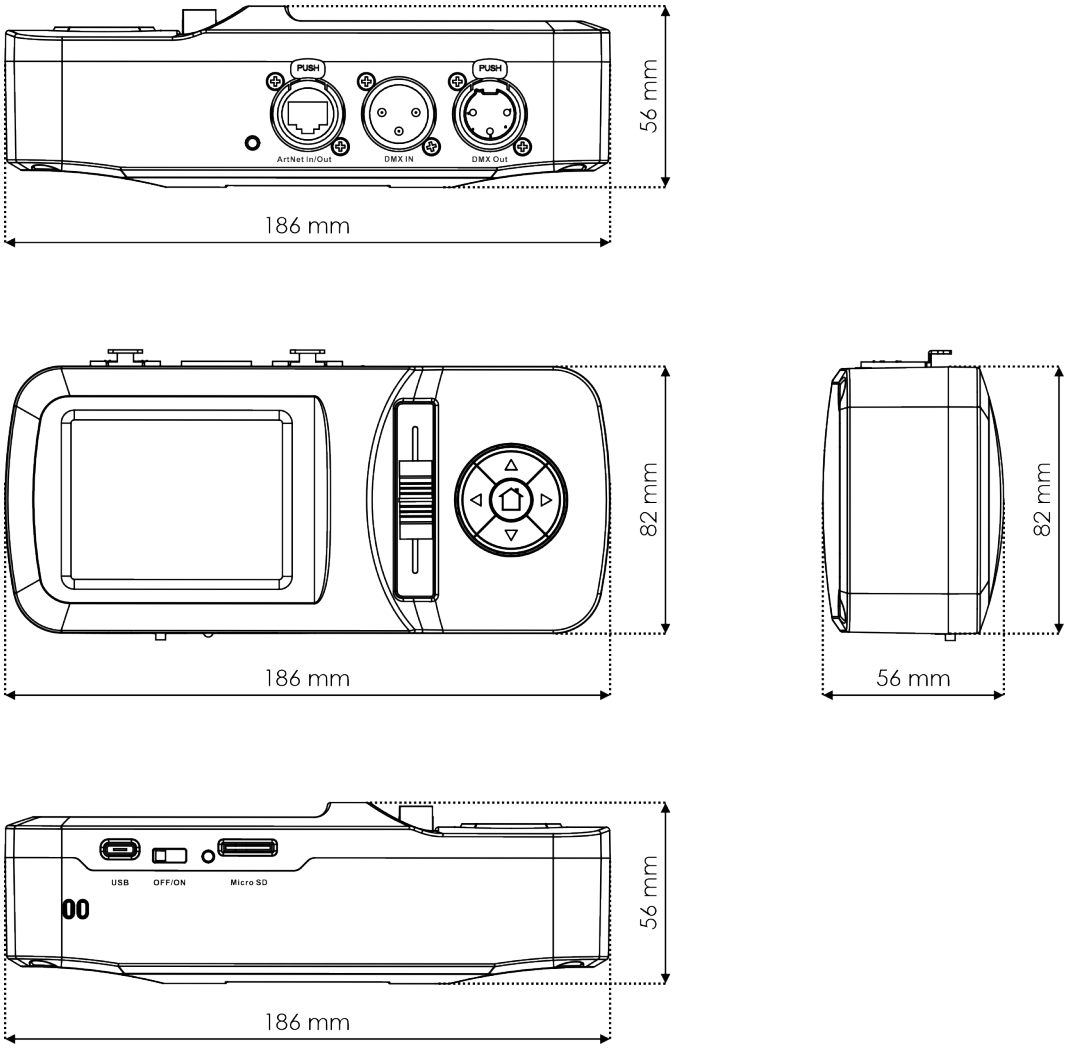
Thermal Specifications:	
Maximum ambient temperature	50 °C
Minimum operating temperature	-10 °C

Wireless Specifications:	
Wireless mode	G3 / G4s / CRMX
Gain (mW)	10 mW
Reaction time	5 ms
Antenna type	Omni

Antenna radiation	360 x 360°

3.6. Dimensions

Figure 5



4. Installation

4.1. Installation Site Requirements

- The device can be used only indoors.
- The maximum ambient temperature t_a = 50 °C must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 50 °C.

4.2. Charging the Battery

DANGER
Risk of explosion caused by incorrect handling

This device contains a built-in rechargeable lithium-ion battery. The battery is not replaceable. The battery may explode or cause burns if it is crushed, disassembled or exposed to fire or high temperatures.

- Do not open the device and do not attempt to remove the built-in battery.

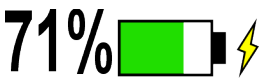
This device is delivered with a USB-A to USB-C cable that is used to charge the battery. You have to buy a USB AC/DC power adapter separately.

Before connecting a USB AC/DC power adapter to the socket-outlet, make sure that the power supply matches the input voltage specified on the information label of the AC/DC power adapter.

To charge the battery follow the steps below:

01) Turn on the device by setting the **battery power switch (09)** to ON.
02) Connect a power adapter to the USB cable.
03) Connect the USB cable to the device. Use only the power cable delivered with the device.
04) Connect the Schuko plug of the AC/DC power adapter to the socket-outlet.

During charging the display shows the state of charge of the battery and the battery charging symbol:



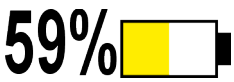
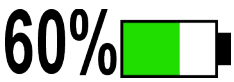
Note:

- Charge the battery before using the device for the first time.
- Do not deep discharge the battery as this will shorten the lifespan of the battery. Recharge the battery as soon as possible. Do not let the light run until the battery is depleted.
- Make sure that the battery is charged to at least 50 % before storing the device.
- It is recommended to charge the device at an ambient temperature between 0 and 35 °C.

Refer to the product specifications (see 3.5. Product Specifications on page 9) for the charge time of the battery.

4.2.1. Battery LED Indicator Statuses

The device has a battery LED indicator on the LCD display that shows the charge state of the battery:

LED color	Color	State of charge
	Red	< 30 %
	Yellow	< 60 %
	Green	≥ 60 %
	Green	Fully charged

Note:

The **power LED (10)** starts blinking when the battery is below 20%.

5. Setup

5.1. Ambient Conditions

- The device can be used only indoors.
- The maximum ambient temperature t_a = 50 °C must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 50 °C.

5.2. Start-up

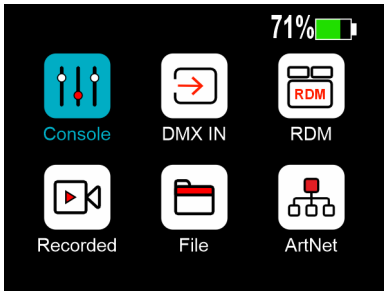
You can power the device in 2 ways:

- Battery power
- USB-A to USB-C cable with the AC/DC adapter

At start-up the display shows a splash screen with the Showtec logo:



After the splash screen, the device is ready to be operated. The display shows the main menu:



During charging, the display shows the battery charging symbol.

5.2.1. Switch ON the Device with Battery Power

To use the device on battery power, the device needs to be turned on.

Use the **battery power switch (09)**.

- Switch the **battery power switch (09)** to the ON position to turn on the device.
- Switch the **battery power switch (09)** to the OFF position to turn off the device.

Note:

Turn off the device when the device is not in use to prevent the battery life from decreasing.

5.2.2. Switch ON the Device with AC Power

01) Connect the USB-A end of the power cable to the adapter.
02) Connect the USB-C end of the power cable to the **USB-C power connector IN (08)**.

5.3. DMX Connection

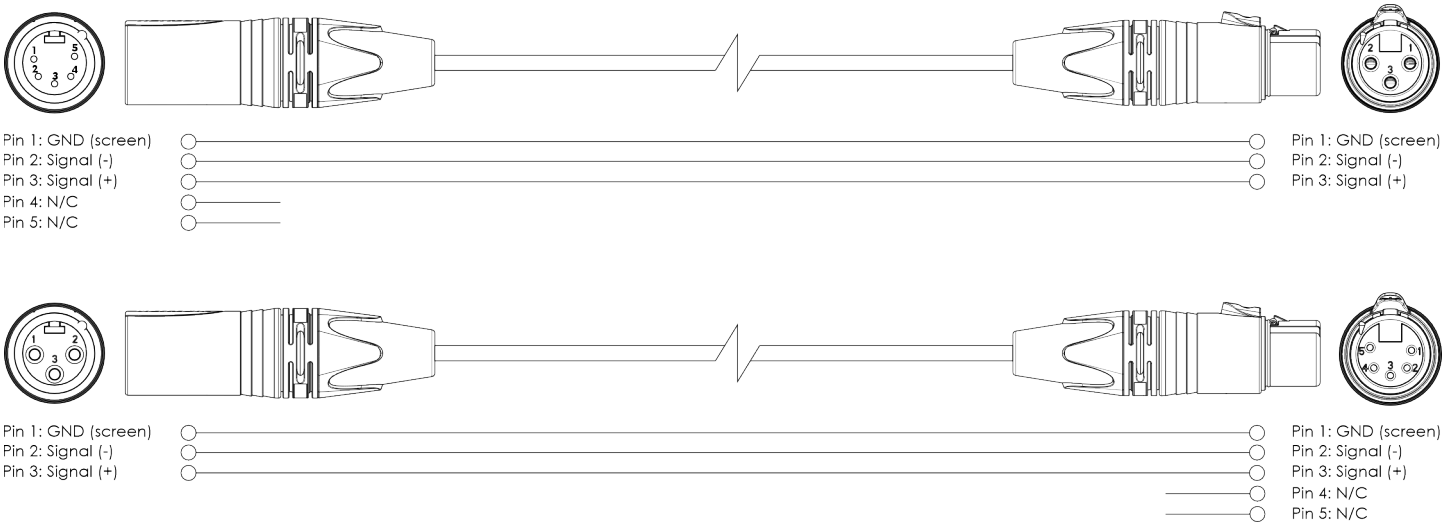
5.3.1. DMX Cables

Shielded twisted-pair cables with 5-pin XLR connectors must be used for reliable DMX connection. You can purchase DMX cables directly from your Highlite International dealer or make your own cables.

If you use XLR audio cables for DMX data transmission, this may lead to signal degradation and unreliable operation of the DMX network.

When you make your own DMX cables, make sure that you connect the pins and wires correctly as shown in the figure below.

Figure 6



6. Operation

6.1. Safety Instructions for Operation

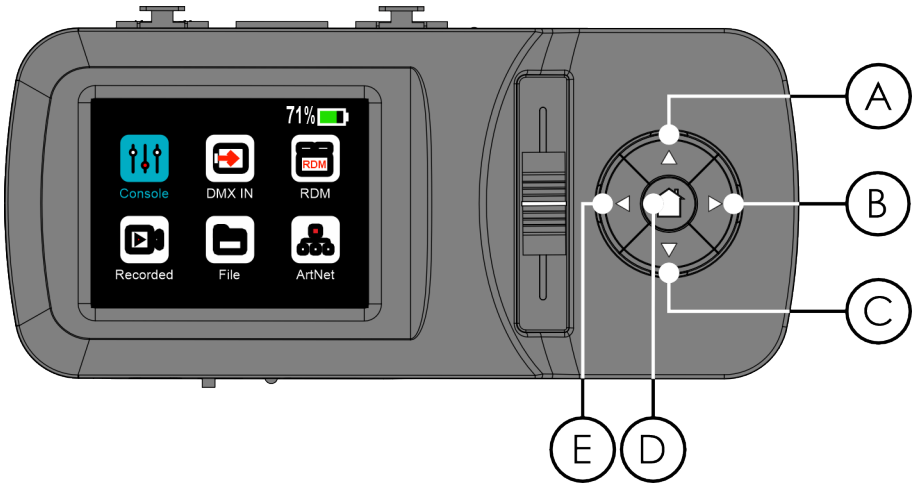
Attention
This device must be used only for the purposes it is designed for.

This device is intended for use as a multifunctional tool. It is suitable only for indoor installation.

Any other use, not mentioned under intended use, is regarded as non-intended and incorrect use.

6.2. Control Panel

Figure 7



A) UP button
B) RIGHT button
C) DOWN button
D) HOME/ENTER button
E) LEFT button

- Use the **HOME/ENTER** button in the main menu to enter the next submenu.
- Use the **HOME/ENTER** button in all other submenus to exit the current submenu, to return to the Main Menu and to return to the start screen.
- Use the **RIGHT** button in all submenus to enter the next submenu, to confirm your choice or to set the currently selected value.
- Use the **LEFT/RIGHT** buttons to navigate through the main menu.
- Use the **UP/DOWN** buttons to navigate through the menus or to increase/decrease numeric values.

6.3. Menu Overview

Menu 1	Menu 2	Menu 3	Menu 4	Menu 5	Menu 6
1.Console (see 6.4.1. Console on page 20)	DMX_Console	Save	Scene 1–Scene 20		
		Load	Scene 1–Scene 20		
	Program	Program Scene	Scene 1 : 1–20/END – Scene 20 : 1–20/ END	Select Scene: END /Scene xx	Scene 1–Scene 20
				Fade Time: 1000ms(0–1638375)	
				Hold Time: 1000ms(0–1638375)	
		Run	Circle		
			Single		
			Stop		
			Run		
			Scene: 1–20		
	Macro	Setting	Start Address	001–512	
			End Address	001–512	
			Interval	001–100	
			Mode	Mode1	
				Mode2	
		Static	Zero		
			Full		
			RGBW_R		
			RGBW_G		
			RGBW_B		
			RGBW_W		
			RGB_R		
			RGB_G		
			RGB_B		
			RGBALC_R		
			RGBALC_G		
			RGBALC_B		
			RGBALC_A		
			RGBALC_L		
			RGBALC_C		
			2Slots_1		
			2Slots_2		
		One By One	RGBW-Circle		
			RGBW-All		
			RGBW-R		
			RGBW-G		
			RGBW-B		
			RGBW-W		
			RGB_Circle		

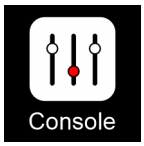
Menu 1	Menu 2	Menu 3	Menu 4	Menu 5	Menu 6
			RGB_All		
			RGB-R		
			RGB-G		
			RGB-B		
			RGBALC_Circle		
			RGBALC_All		
			RGBALC_R		
			RGBALC_G		
			RGBALC_B		
			RGBALC_A		
			RGBALC_L		
			RGBALC_C		
			2Slots_1		
			2Slots_2		
			1-Slot		
		Rainbow_RGB	Speed:001–010		
		Rainbow_RGBW	Speed:001–010		
			White:000–255		
		Wheel	1SLOT–6SLOT	001–512	
	Channel Setting	Multiple Choice			
		Deselect Multiple			
		Equal Interval	001–256		
		LR Buttons	Slide		
			Page Turning		
2.DMX IN (see 6.4.2. DMX IN on page 33)	DMX Tracer				
	DMX Overview				
	DMX Timing Info				
3.RDM (see 6.4.3. RDM on page 37)	xx)xx.xx.xx.xx.xx.xx	Device Info	Model Description:		
			Manufacturer:		
			DMX Address:		
			Personality:		
			Software Version:		
			BOOT Version:		
		Start Address:xx	001–512		
		Personality(xx)	xx(x)–xx(x)		
		Device label			
		PID Get/Set	Device_Info		
			Device_Hours		
			Reset_Device		
			Sensor_Value		
			Sensor_Definition		
			Software_Version		
			_Label		
		Sensor	Sxx : xx		

Menu 1	Menu 2	Menu 3	Menu 4	Menu 5	Menu 6
			Value:xx		
4.Recorded (see 6.4.4. Recorded on page 43)	Record Program	File Name: xxxx			
		File Size: xxxxMB			
		Time: xx:xx:xx			
		Start/Stop			
	Play Program	Play Single	1.BIN–xx.BIN	File Name: xx.BIN	
				File Size: xxMB	
				Progress:xx%	
				Single	
				Loop	
				Stop	
		Play All	File Name:xx.BIN		
			Progress:xx%		
			File:xx/xx		
			Single		
			Loop		
			Stop		
5.File (see 6.4.4.3. File on page 46)	Record File	1.BIN–xx.BIN	File Name : xx.BIN		
			File Size : xxMB		
			Delete		
			Cancel		
6.ArtNet (see 6.4.4.4. ArtNet on page 47)	Device	xx.xx.xx.xx			
7.Upgrade (see 6.4.4.5. Upgrade on page 48)	xxxx.DS	DSxxxxxx Vxx.xx			
		PCB:xx MCU:xx xxxx			
		Data len = xxxxxx			
		Upgrade?			
		Yes			
		No			
		Upgrade Myself?			
8.USB Storage (see 6.4.4.6. USB Storage on page 49)	Connect to computer				
9.Settings (see 6.4.4.7. Settings on page 51)	Back Light	Disable			
		1–60			
	Artnet Enable	Disable			
		Enable			
	IP Mask	xxx.xxx.xxx.xxx			
	Local IP	xxx.xxx.xxx.xxx			
	Target IP	xxx.xxx.xxx.xxx			
	Universe	00000–32767			
	Data View	000–255			
		000–100%			
	DMX Frequency	1Hz			

Menu 1	Menu 2	Menu 3	Menu 4	Menu 5	Menu 6
		5Hz			
		10Hz			
		25Hz			
		35Hz			
		44Hz			
	Default	Yes			
		No			
10. Information (see 6.4.4.8. Information on page 60)					

6.4. Main Menu Options

The main menu has the following 10 options:



Console



ArtNet



DMX IN



Upgrade



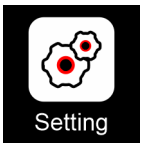
RDM



USB Storage



Recorded



Setting



File



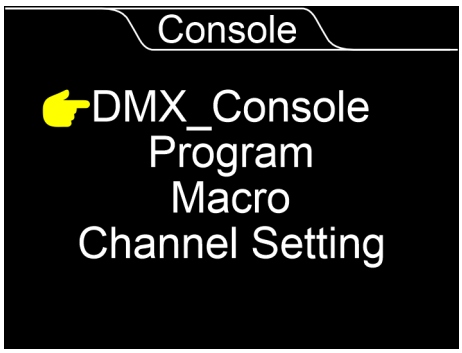
Information

01) Press the **UP/DOWN** and **LEFT/RIGHT** buttons, slide your finger across the screen or use the fader, to navigate through the main menu.
02) Press the **HOME/ENTER** button to open the submenus.

6.4.1. Console

In this menu you can control the console and adjust the console settings of the device.

01) Touch the LCD screen to select the desired menu option or press the **UP/DOWN** buttons, to scroll through the 4 available options:



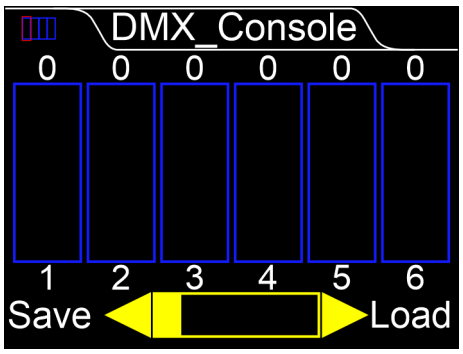
- DMX Console (see 6.4.1.1. DMX Console)
- Program (see 6.4.1.2. Program)
- Macro (see 6.4.1.3. Macro)
- Channel Setting (see 6.4.1.4. Channel Setting)

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen, you automatically confirm.

6.4.1.1. DMX Console

In this submenu you can select the DMX channels.

01) Press the **LEFT/RIGHT** buttons, slide your finger across the screen or use the fader, to scroll through the 512 DMX channels.
02) Touch the LCD display to select one/multiple channel(s). The selected channel(s) will turn red. To deselect a channel, press the channel again. This behavior depends on the channel setting menu multiple choice, deselect multiple, equal interval.
03) Press the **UP/DOWN** buttons, slide your finger across the screen or use the fader, to increase/decrease the value for the selected DMX channel(s).
04) Touch the LCD display to select save or load:



- Save: Save the recorded show
- Load: Play the recorded show

05) Touch the **SAVE** button to confirm the scene in which you want to store your setting. The adjustment range is scene 01–20.
06) Touch the **LOAD** button to open a scene. The adjustment range is scene 01–20.

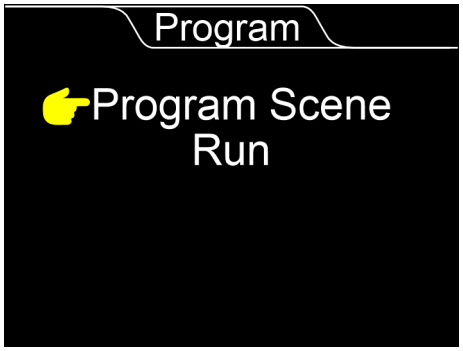
Note:

You can record/play a show in DMX mode, but not in ArtNet mode.

6.4.1.2. Program

In this submenu you can play or record a program/scene.

01) Press the **UP/DOWN** buttons or touch the screen with your finger, to select one of the 2 available options:



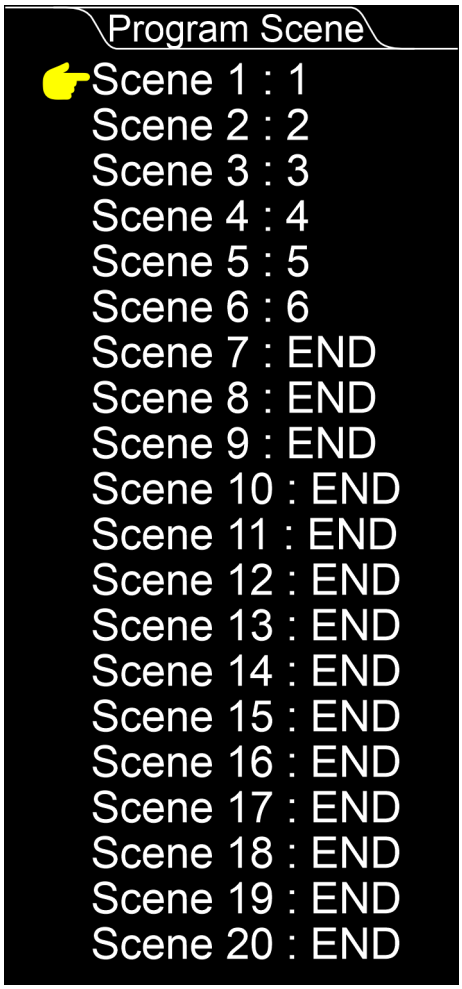
- Program Scene (see 6.4.1.2.1. Program Scene)
- Run (see 6.4.1.2.2. Run)

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

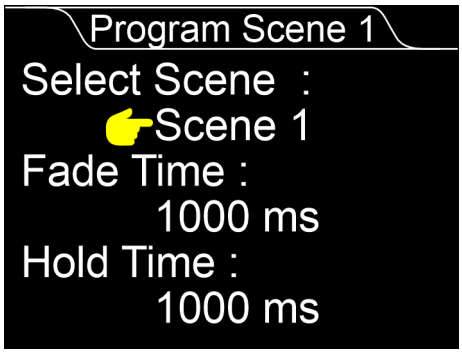
6.4.1.2.1. Program Scene

In this submenu you can record a program/scene.

01) Touch the LCD screen, press the **UP/DOWN** buttons or use the fader, to scroll through the 20 scenes.

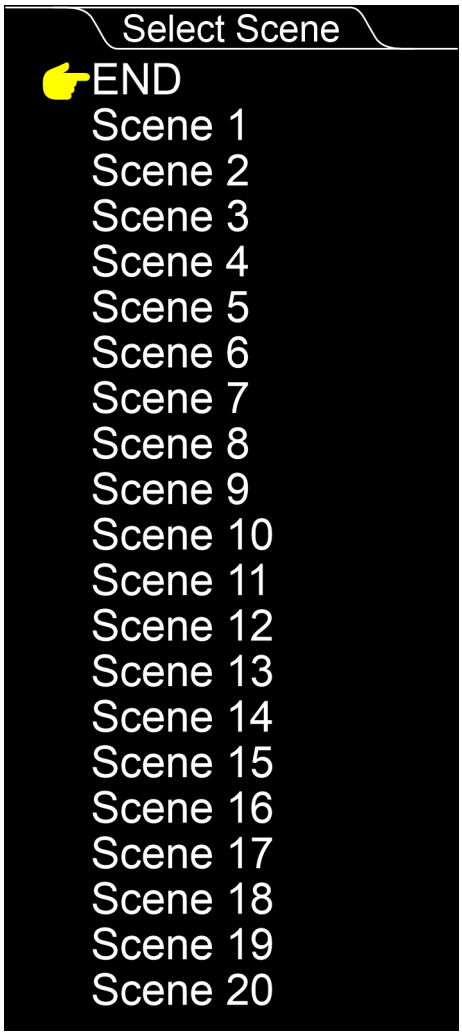


02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm. The display shows:



03) Press the **UP/DOWN** buttons or touch the LCD screen, to scroll through the 3 options.
- Select Scene: The adjustment range is scene 01–20 and END
- Fade Time: The adjustment range is 0–1638375 ms
- Hold Time: The adjustment range is 0–1638375 ms

04) Press the **UP/DOWN** buttons, slide your finger across the screen or use the fader, to scroll through the 21 options:



05) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

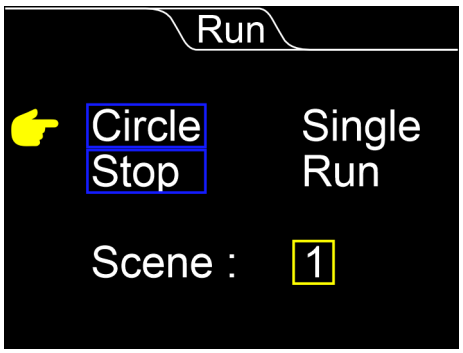
Note:

For the last scene in your setup, make sure to select END.

6.4.1.2.2. Run

In this submenu you can play a programmed scene.

01) Press the **UP/DOWN/LEFT/RIGHT** buttons or touch the LCD screen, to select 2 (circle or single/stop or run) of the 4 available options. The selected option will have a blue square:

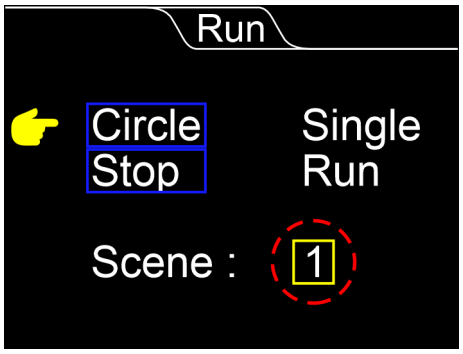


- Circle: Play all programmed scenes in a continuous loop
- Single: Play all programmed scenes once
- Stop: Stop playing a programmed scene
- Run: Play a programmed scene

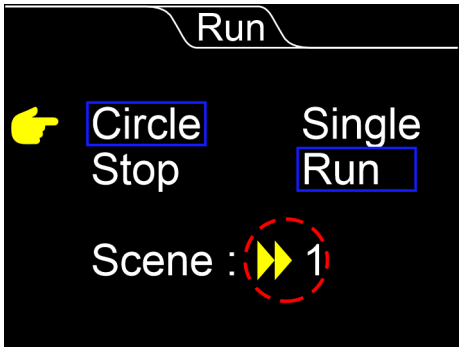
02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

Note:

The scene is active during the set hold time (see 6.4.1.2.1. Program Scene):



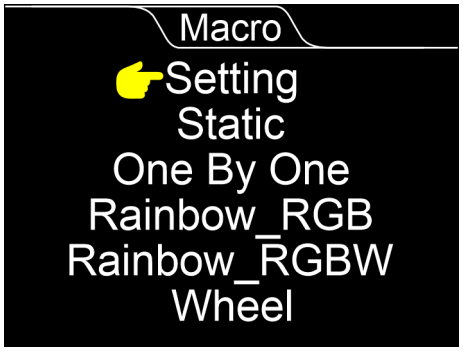
The run indicator crossfades according to the set fade time (see 6.4.1.2.1. Program Scene):



6.4.1.3. Macro

In this submenu you can select the macro settings.

01) Press the **UP/DOWN** buttons or touch the screen with your finger, to select one of the 6 available options:



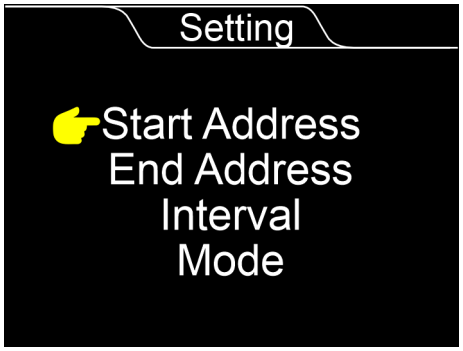
- Setting (see 6.4.1.3.1. Setting)
- Static (see 6.4.1.3.2. Static)
- One By One (see 6.4.1.3.3. One By One)
- Rainbow_RGB (see 6.4.1.3.4. Rainbow RGB)
- Rainbow_RGBW (see 6.4.1.3.5. Rainbow RGBW)
- Wheel (see 6.4.1.3.6. Wheel)

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

6.4.1.3.1. Setting

In this submenu you can change the settings of the macro (built-in effect).

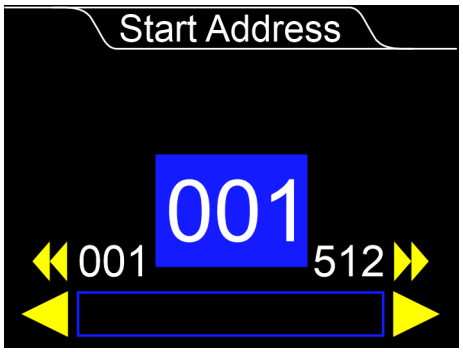
01) Press the **UP/DOWN** buttons or touch the screen with your finger, to select one of the 4 available options:



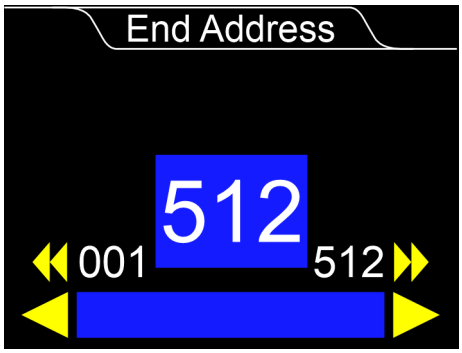
- Start Address: Start address of the macro
- End Address: End address of the macro
- Interval: Interval of the macro
- Mode: Mode of the macro

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

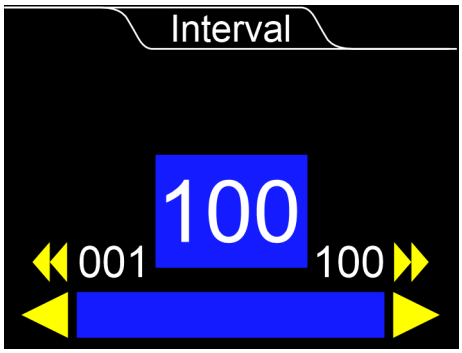
03) Press the **UP/DOWN** buttons, slide your finger across the screen or use the fader, to set the DMX start address of the macro. The adjustment range is 001–512.



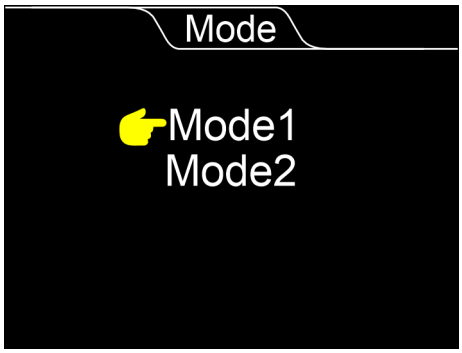
04) Press the **UP/DOWN** buttons, slide your finger across the screen or use the fader, to set the DMX end address of the macro. The adjustment range is 001–512.



05) Press the **UP/DOWN** buttons, slide your finger across the screen or use the fader, to set the interval of the macro. The adjustment range is 001–100 (times to repeat the macro effect).



06) Press the **UP/DOWN** buttons, slide your finger across the screen or use the fader, to set the mode of the device.



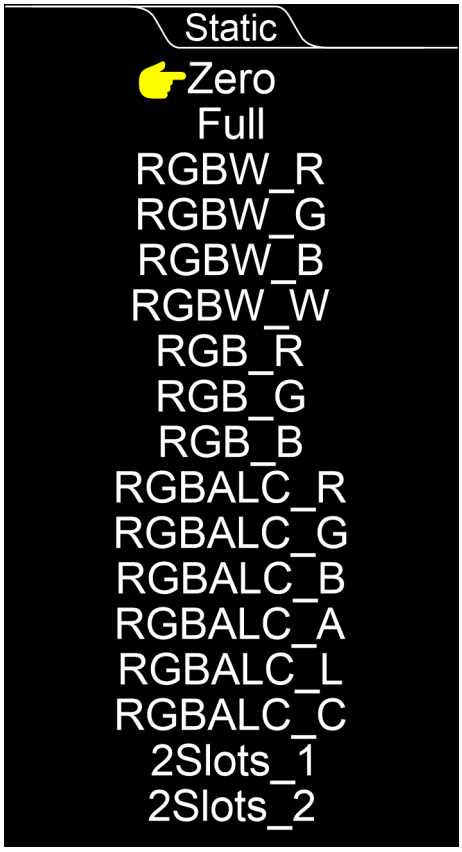
- Mode1: Activate a channel and then dim the channel
- Mode2: After running once, all channels will turn off

07) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

6.4.1.3.2. Static

In this submenu you can select a color as a static scene. The selected color will stay active as long as you are in the static menu.

01) Touch the LCD screen, press the **UP/DOWN** buttons or use the fader, to select one of the 17 available options:



- Zero: Blackout scene, all channel values are 000
- Full: Full on, all channel values are 255
- RGBW_R: Red in RGBW mode, every 1st channel from a batch of 4 channels, has a value of 255
- RGBW_G: Green in RGBW mode, every 2nd channel from a batch of 4 channels, has a value of 255
- RGBW_B: Blue in RGBW mode, every 3rd channel from a batch of 4 channels, has a value of 255
- RGBW_W: White in RGBW mode, every 4th channel from a batch of 4 channels, has a value of 255
- RGB_R: Red in RGB mode, every 1st channel from a batch of 3 channels, has a value of 255
- RGB_G: Green in RGB mode, every 2nd channel from a batch of 3 channels, has a value of 255
- RGB_B: Blue in RGB mode, every 3rd channel from a batch of 3 channels, has a value of 255
- RGBALC_R: Red in RGBALC mode, every 1st channel from a batch of 6 channels, has a value of 255
- RGBALC_G: Green in RGBALC mode, every 2nd channel from a batch of 6 channels, has a value of 255
- RGBALC_B: Blue in RGBALC mode, every 3rd channel from a batch of 6 channels, has a value of 255
- RGBALC_A: Amber in RGBALC mode, every 4th channel from a batch of 6 channels, has a value of 255
- RGBALC_L: Lime in RGBALC mode, every 5th channel from a batch of 6 channels, has a value of 255

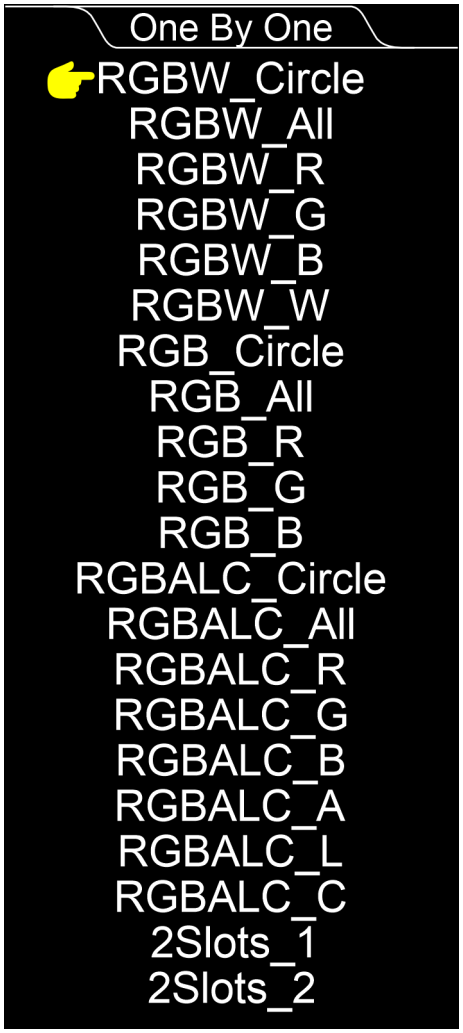
- RGBALC_C: Cyan in RGBALC mode, every 6th channel from a batch of 6 channels, has a value of 255
- 2Slots_1: DMX range is divided in 2 slots and this is the 1st slot. Example: channel 1, 3, 5, 7, 9, etc.
- 2Slots_2: DMX range is divided in 2 slots and this is the 2nd slot. Example: channel 2, 4, 6, 8, 10, etc.

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

6.4.1.3.3. One By One

In this submenu you can select a color as a running loop (one by one) of the selected color groups. The color group size is determined by the total number of colors, so RGB= 3, RGBW= 4, RGBWALC= 6. The selected color will loop active as long as you are in the 'One By One' menu. This loop will repeat once it reaches DMX channel 512.

01) Touch the LCD screen, press the **UP/DOWN** buttons or use the fader, to select one of the 21 available options:



- RGBW_Circle: All colors are played in a loop, one after another. First all red ones are played, then all green ones, etc. Device 1 lights up red, then device 2 lights up red, etc.
- RGBW_All: All colors are active RGBW mode. All groups are played one after the other, so the first group, the second group, the third group etc. Device 1 lights up RGBW, device 2 lights up RGBW, etc.
- RGBW_R: Red in RGBW mode, every 1st channel from a batch of 4 channels, has a value of 255
- RGBW_G: Green in RGBW mode, every 2nd channel from a batch of 4 channels, has a value of 255

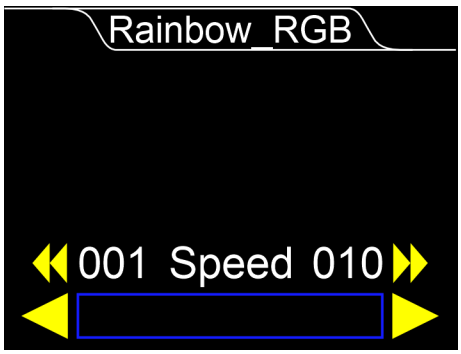
- RGBW_B: Blue in RGBW mode, every 3rd channel from a batch of 4 channels, has a value of 255
- RGBW_W: White in RGBW mode, every 4th channel from a batch of 4 channels, has a value of 255
- RGB_Circle: All colors are played in a loop, one after another. First all red ones are played, then all green ones, etc.
- RGB_All: All colors are active in RGB mode
- RGB_R: Red in RGB mode, every 1st channel from a batch of 3 channels, has a value of 255
- RGB_G: Green in RGB mode, every 2nd channel from a batch of 3 channels, has a value of 255
- RGB_B: Blue in RGB mode, every 3rd channel from a batch of 3 channels, has a value of 255
- RGBALC_Circle: All colors are played in a loop, one after another. First all red ones are played, then all green ones, etc.
- RGBALC_All: All colors are active in RGBALC mode
- RGBALC_R: Red in RGBALC mode, every 1st channel from a batch of 6 channels, has a value of 255
- RGBALC_G: Green in RGBALC mode, every 2nd channel from a batch of 6 channels, has a value of 255
- RGBALC_B: Blue in RGBALC mode, every 3rd channel from a batch of 6 channels, has a value of 255
- RGBALC_A: Amber in RGBALC mode, every 4th channel from a batch of 6 channels, has a value of 255
- RGBALC_L: Lime in RGBALC mode, every 5th channel from a batch of 6 channels, has a value of 255
- RGBALC_C: Cyan in RGBALC mode, every 6th channel from a batch of 6 channels, has a value of 255
- 2Slots_1: DMX range is divided in 2 slots and this is the 1st slot. Example: channel 1, 3, 5, 7, 9, etc.
- 2Slots_2: DMX range is divided in 2 slots and this is the 2nd slot. Example: channel 2, 4, 6, 8, 10, etc.

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

6.4.1.3.4. Rainbow RGB

In this submenu, the device will playback a RGB rainbow effect over all DMX channels. You can adjust the speed of the RGB rainbow effect.

Touch the LCD screen, press the **UP/DOWN** buttons or use the fader, to adjust the speed:

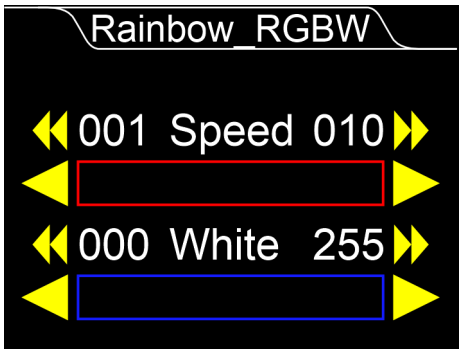


- Speed: The adjustment range is 001–010

6.4.1.3.5. Rainbow RGBW

In this submenu, the device will playback a RGBW rainbow effect over all DMX channels. You can adjust the speed of the RGBW rainbow effect and adjust the white dimmer for the total output.

01) Touch the LCD screen, press the **UP/DOWN** buttons or use the fader, to adjust the speed or change the white dimmer output:



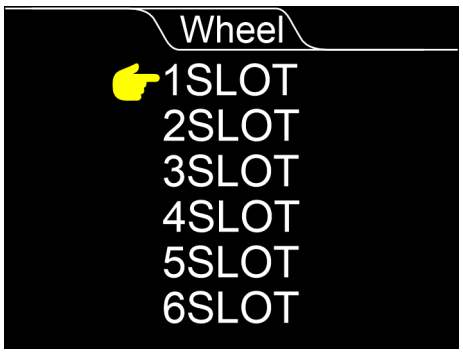
- Speed: The adjustment range is 001–010
- White: The adjustment range is 000–255

02) Touch the LCD screen or press the **RIGHT** button, to switch between Speed and White.

6.4.1.3.6. Wheel

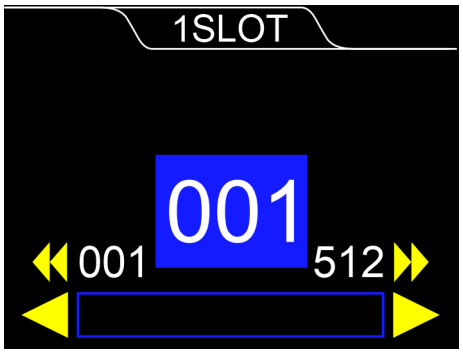
In this submenu you can set the channel value at a certain distance to the next channel, with a maximum of 512 channels. The distance interval is determined by the total number of slots.

01) Touch the LCD screen or press the **UP/DOWN** buttons, to select the desired slot:



- 1Slot: The DMX range has 1 active DMX channel at a time (value 255). Example: channel 1 or 2 or 3, etc.
- 2Slot: The DMX range has 2 active DMX channels at a time (value 255). Example: channel 1+2 or 3+4, etc.
- 3Slot: The DMX range has 3 active DMX channels at a time (value 255). Example: channel 1+2+3 or 4+5+6, etc.
- 4Slot: The DMX range has 4 active DMX channels at a time (value 255). Example: channel 1+2+3+4 or 5+6+7+8, etc.
- 5Slot: The DMX range has 5 active DMX channels at a time (value 255). Example: channel 1+2+3+4+5 or 6+7+8+9+10, etc.
- 6Slot: The DMX range has 6 active DMX channels at a time (value 255). Example: channel 1+2+3+4+5+6 or 7+8+9+10+11+12, etc.

02) The display shows:

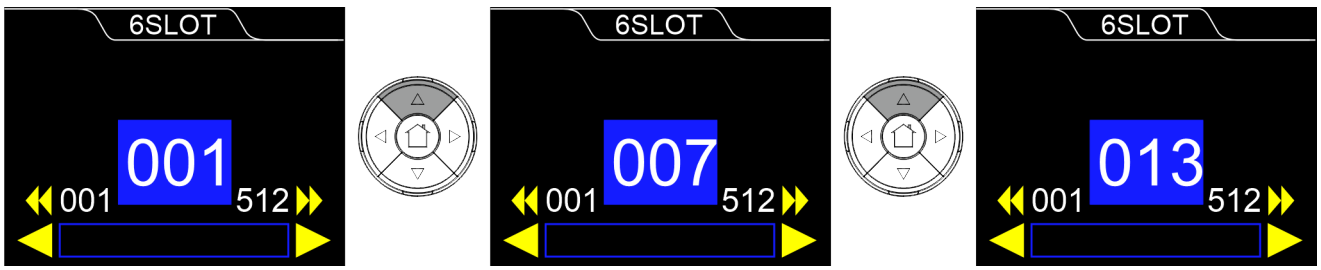


03) Press the **UP/DOWN** buttons, slide your finger across the screen or use the fader, to move the active channels according to the selected slot number.

Note:

Example: Select 6Slot and every time you press the **UP** button, you increase the current DMX channel by 6. When the value is 001, a batch of 6 DMX channels is active.

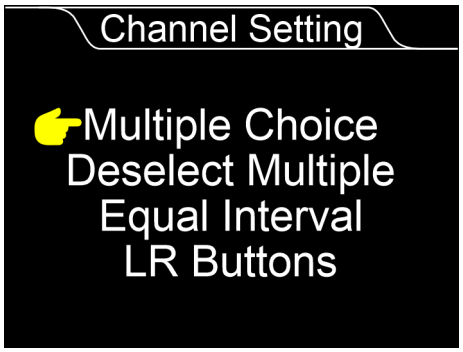
6SLOT



6.4.1.4. Channel Setting

In this submenu you can control the behavior of the channel settings in the DMX console menu.

01) Touch the LCD screen to select the desired menu option or press the **UP/DOWN** buttons, to scroll through the 4 available options:

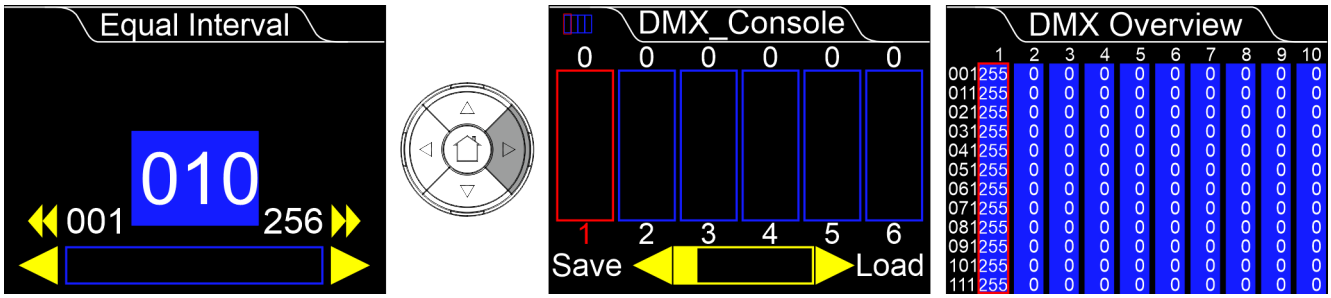


- Multiple Choice: Multiple channels can be selected at the same time
- Deselect Multiple: Only 1 channel can be selected at the same time
- Equal Interval: Set the distance for an equal interval of the selected channel
- LR Buttons (see 6.4.1.4.1. LR Buttons)

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

Note:

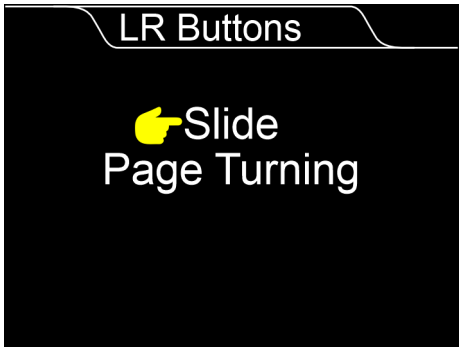
Example: Create an equal interval of 10. Then go to the DMX Console menu and select channel 1. If you touch the LCD screen, press the **UP/DOWN** buttons or use the fader, you control channel 1, 11, 21, 31, 41, etc. all together.



6.4.1.4.1. LR Buttons

In this submenu you can set the behavior of the **LEFT/RIGHT** buttons and how the buttons react, when you are in the DMX console menu or the DMX tracer menu.

01) Touch the LCD screen to select the desired menu option or press the **UP/DOWN** buttons, to select one of the 2 available options:



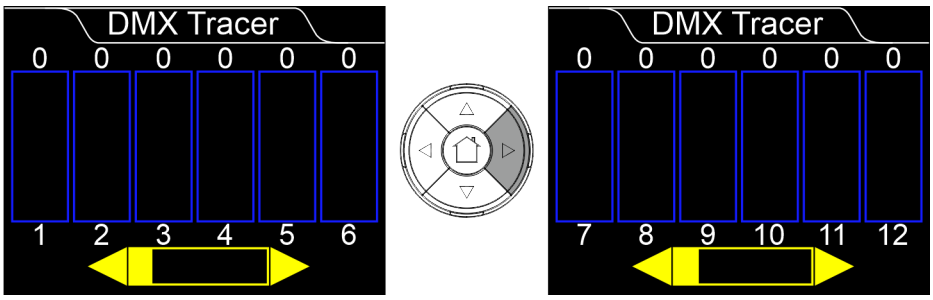
- Slide: Every time you press the **LEFT/RIGHT** button, the display will slide one single position to the left/right
- Page Turning: Every time you press the **LEFT/RIGHT** button, the display will slide 6 positions to the left/right

02) Touch the LCD screen or press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen, you automatically confirm.

Note:

Example: Select Page Turning in the LR Buttons submenu. Then go to the DMX Console menu or the DMX Tracer menu and select channel 1. If you press the **LEFT/RIGHT** button, the display will slide 6 positions to the left/right.

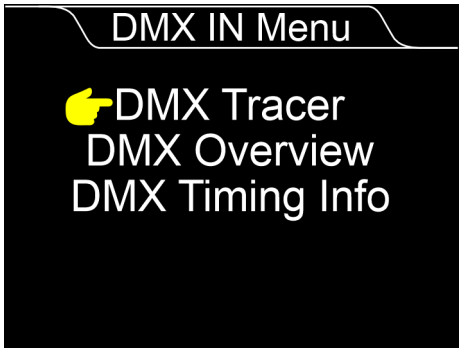
Page Turning



6.4.2. DMX IN

In this menu you can view the received DMX values, depending on the selected menu option.

01) Touch the LCD screen to select the desired menu option or press the **UP/DOWN** buttons, to scroll through the 3 available options:



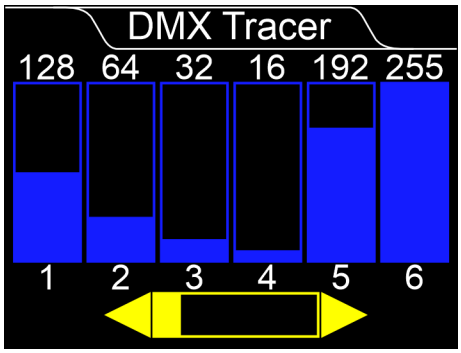
- DMX Tracer (see 6.4.2.1. DMX Tracer)
- DMX Overview (see 6.4.2.2. DMX Overview)
- DMX Timing Info (see 6.4.2.3. DMX Timing Info)

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen, you automatically confirm.

6.4.2.1. DMX Tracer

In this submenu you can view the received 6 DMX channel slot values, that are selected with the **LEFT/RIGHT** buttons.

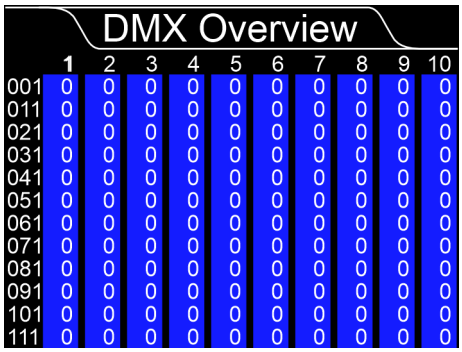
Press the **LEFT/RIGHT** buttons, slide your finger across the screen or use the fader, to scroll through the 512 DMX channels.



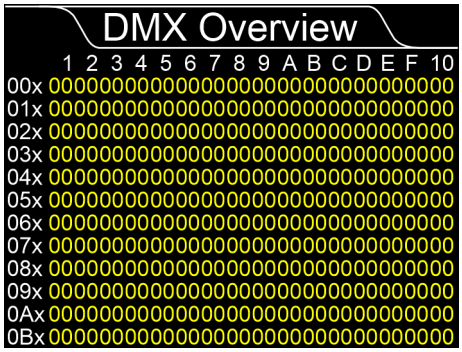
6.4.2.2. DMX Overview

In this submenu you can view the received 120 DMX channel slot values, that are selected with the **UP/DOWN** buttons.

01) Press the **UP/DOWN** buttons, slide your finger across the screen or use the fader, to scroll through the 512 DMX channels.



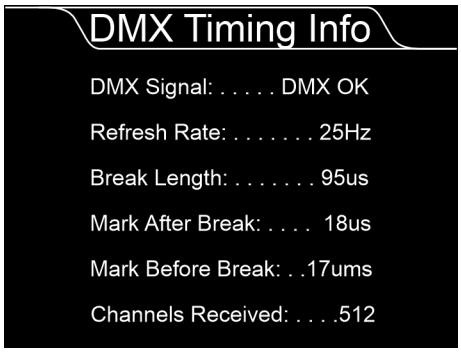
02) Press **RIGHT** button. The display shows the hexadecimal values:



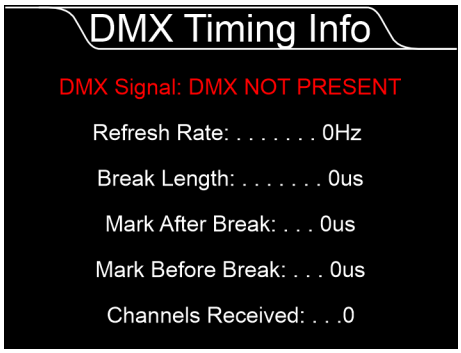
03) Press **RIGHT** button again to return to the previous decimal menu.

6.4.2.3. DMX Timing Info

In this submenu you can view the DMX timing info.



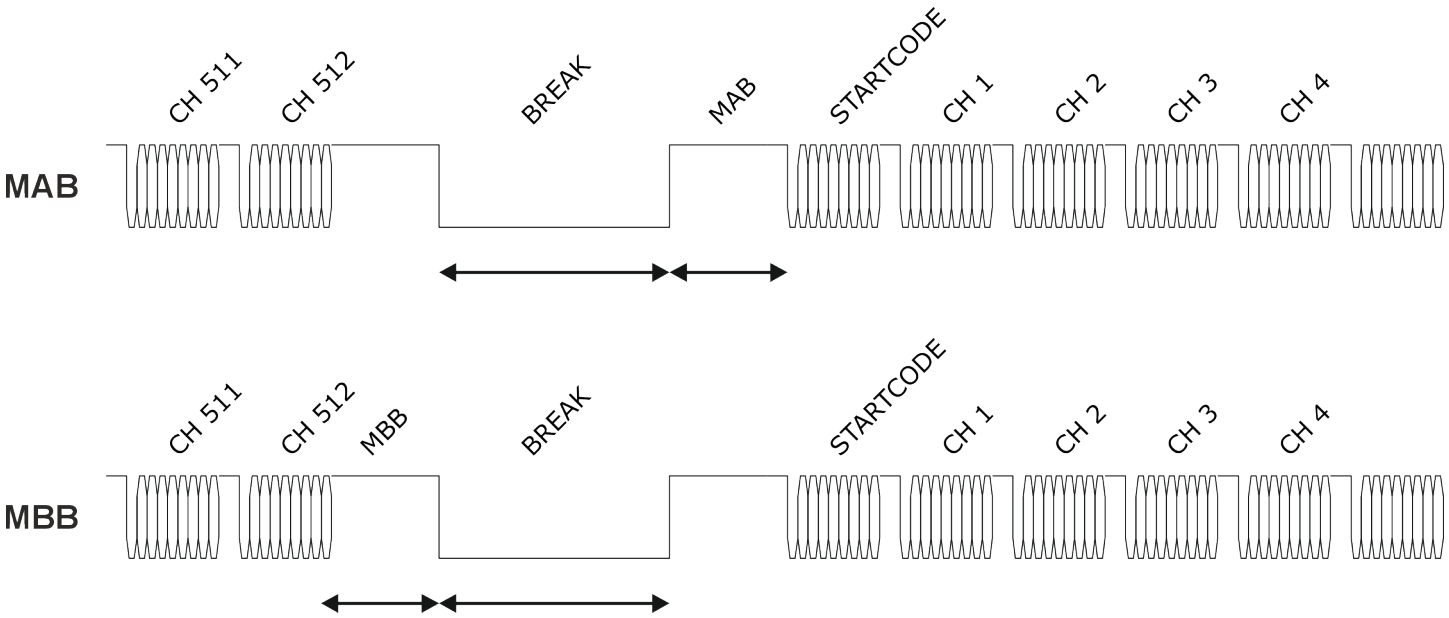
If you do not have the device connected to DMX, the display shows:



- DMX Signal: Shows whether the connected DMX signal is of high or low quality
- Refresh rate: Number of frames per second
- Break length: Length of the break in microseconds
- Mark after break (MAB): Mark after break in microseconds
- Mark before break (MBB): Mark before break in microseconds
- Channels received: Number of received channels

Refresh Rates	**Compliancy**
<1 frame/sec	Not compliant with standard
1-10 frames/sec	Compliant, very slow and may cause problems with some equipment
10-25 frames/sec	Slow
25-44 frames/sec	Typical for most equipment
44 frames/sec	Maximum speed when sending all 512 channels
>44 frames/sec	Only possible when sending fewer than 512 channels. Compliant, but may cause problems with some equipment.

International Standards	**Break Length**	**MAB Length**
USITT DMX-512/1986	≥ 88 us	≥ 4 us
USITT DMX-512/1990	≥ 88 us	≥ 8 us
ANSI E1.11-2004	≥ 92 us	≥ 12 us



Note:

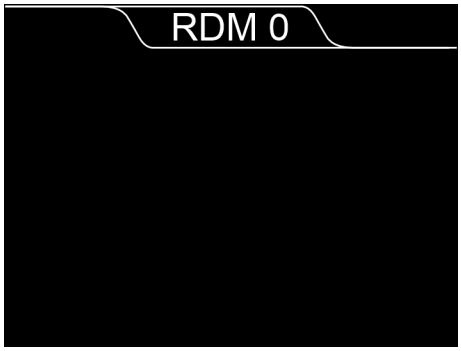
Please refer to ANSI E1.11 for more information on DMX-512 timings. The accuracy of the device is within 1,5 microseconds.

6.4.3. RDM

In this menu you can view the RDM settings.

Example:

If a device without RDM is connected to the device, the display shows:



If a device with RDM is connected to the device, the display shows:



01) Touch the LCD screen to select the desired device or press the **UP/DOWN** buttons, to scroll through the list of available RDM devices:



02) Press the **RIGHT** button to confirm the selection. If you've touched the desired device on the LCD screen, you automatically confirm. The display shows:



Note:

When you have a long list of the same RDM devices on your display, you can press the bulb icon on the display to identify the specific device. The display shows:



6.4.3.1. Device

In this submenu you can view all RDM settings or change some RDM settings.

01) Press the **UP/DOWN** buttons, touch the screen with your finger or use the fader, to scroll through the 6 available options:



- Device Info (see 6.4.3.1.1. Device Info)
- Start Address : x (see 6.4.3.1.2. Start Address : x)
- Personality (xxx) (see 6.4.3.1.3. Personality (xxx))
- Device Label (see 6.4.3.1.4. Device Label)
- PID Get/Set (see 6.4.3.1.5. PID Get/Set)
- Sensor (see 6.4.3.1.6. Sensor)

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

6.4.3.1.1. Device Info

In this submenu you view the device info of the connected RDM device(s).

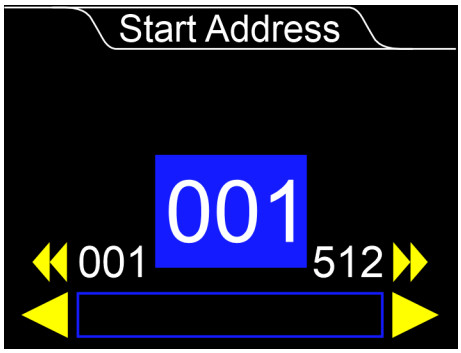


- Name of the RDM device
- Brand of the RDM device
- DMX address of the RDM device
- Personality of the RDM device
- UID number of the RDM device
- Software version of the RDM device

6.4.3.1.2. Start Address : x

In this submenu you can change the start address of the connected RDM device(s).

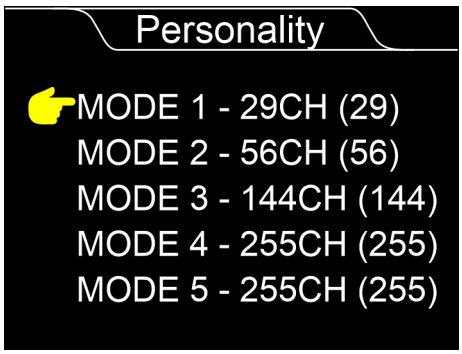
Press the **UP/DOWN** buttons, slide your finger across the screen or use the fader, to set the DMX start address of the connected RDM device(s). The adjustment range is 001–512.



6.4.3.1.3. Personality (xxx)

In this submenu you can change the personality of the connected RDM device(s).

01) Touch the LCD screen or press the **UP/DOWN** buttons, to select the personality of the connected RDM device(s). The adjustment range depends on the connected device(s).

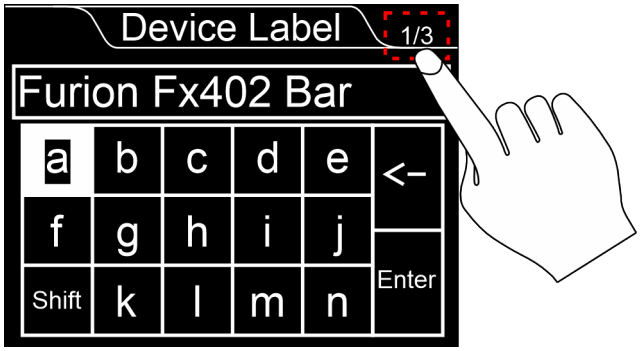


02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

6.4.3.1.4. Device Label

In this submenu you can change the device label of the connected RDM device(s).

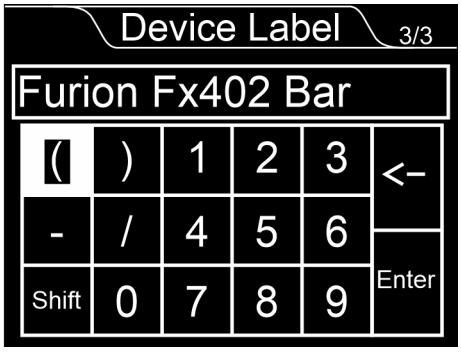
01) Touch the top right hand corner to change the screen (1–3) to view the rest of the letters, numbers or characters.



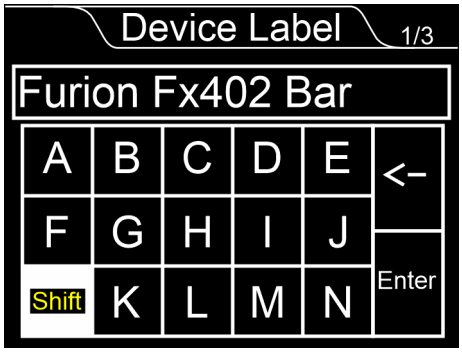
02) Touch the LCD screen or press the **UP/DOWN** buttons to scroll through all the available letters, numbers or characters:





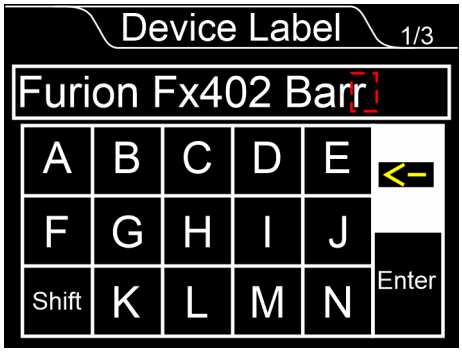


03) Touch the Shift button on the LCD screen. The shift button lights up yellow and all alphabet letters change to capitals, the display shows:



04) Touch the Backspace button on the LCD screen, to delete a faulty text character, the display shows: shows:

Figure 8

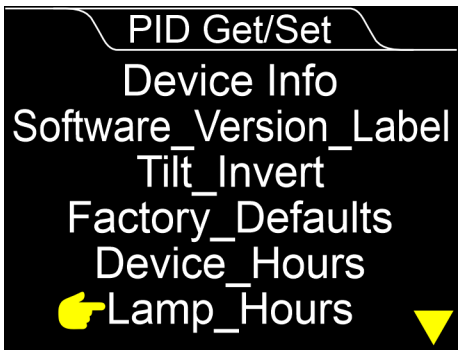


05) When you've completed the label, touch the Enter button on the LCD screen or scroll to the Enter button and press the **RIGHT** button to confirm the selection.

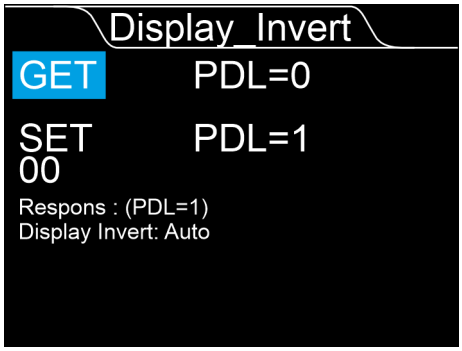
6.4.3.1.5. PID Get/Set

In this submenu you can view the PID's (Parameter IDs) of the connected RDM device(s).The RDM Parameter IDs vary from device to device.

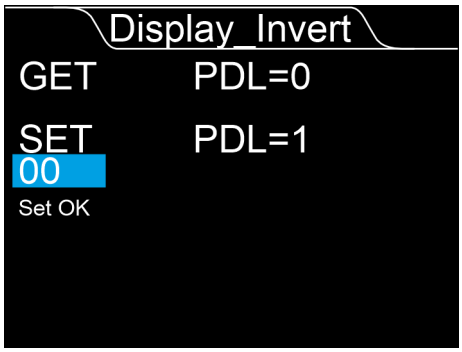
Below is an example of some of the PID options the 41470-FX402 Bar has:



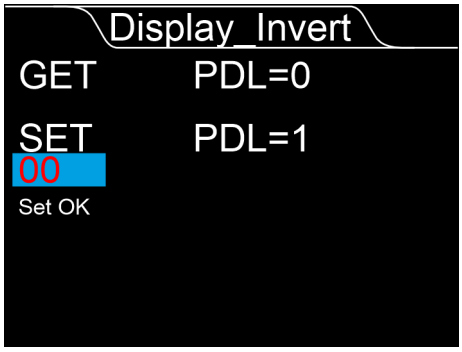
01) Touch the LCD screen, press the **UP/DOWN** buttons or use the fader, to scroll through the available PID options.
02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen, you automatically confirm. There are options with a GET and/or a SET command. In this example, the Display Invert option has a GET and a SET command.



03) Press the **UP/DOWN** buttons to go to 00, the display shows:

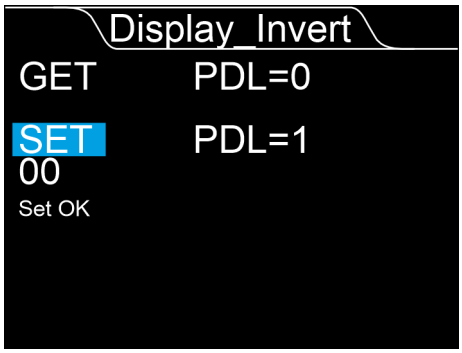


04) Touch the Enter button on the LCD screen or press the **RIGHT** button to change the numbers. To invert the display, the number is 1 (PDL=1). The display shows:



05) Press the **UP/DOWN** buttons to change 00 into 01.

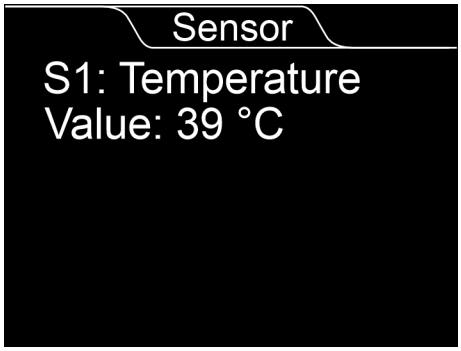
06) Touch the SET button on the LCD screen or use the **UP/DOWN** buttons to go to SET (blue rectangle).
07) Press the **RIGHT** button to send the SET command over RDM to the connected fixture. The display shows:



6.4.3.1.6. Sensor

In this submenu you view the info about the available sensor(s) of the connected RDM device(s).

Below is an example of the sensor info for the 41470-FX402 Bar:



Note:

Depending on the device, the sensor info may contain the sensor temperature, the fan speed, etc.

6.4.4. Recorded

In this menu you can record or play a recorded program.

01) Touch the LCD screen or press the **UP/DOWN** buttons, to select one of the 2 available options:



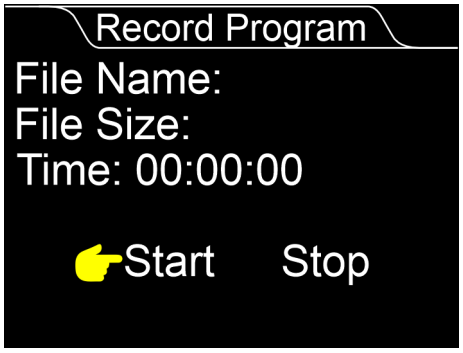
- Record Program (see 6.4.4.1. Record Program)
- Play Program (see 6.4.4.2. Play Program)

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen, you automatically confirm.

6.4.4.1. Record Program

In this submenu you can record a program.

01) Touch the LCD screen or press the **UP/DOWN** buttons, to select one of 2 available options:



- Start: Start recording a program
- Stop: Stop recording a program

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen, you automatically confirm. The selected option is shown in red on the display:



Note:

Every time you press the **UP/DOWN** buttons and go back from stop to start, it will create a new program (x+1.bin).

6.4.4.2. Play Program

In this submenu you can play a single program or play all programs.

01) Touch the LCD screen or press the **UP/DOWN** buttons, to select one of the 2 available options:



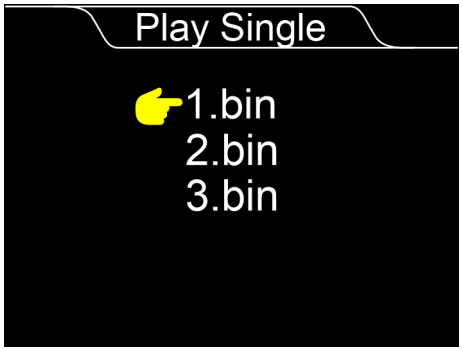
- Play Single (see 6.4.4.2.1. Play Single)
- Play All (see 6.4.4.2.2. Play All)

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen, you automatically confirm.

6.4.4.2.1. Play Single

In this submenu you can play a single program.

01) Press the **UP/DOWN** buttons, slide your finger across the screen or use the fader, to scroll through the available recorded programs:



- 1.bin
- 2.bin
- etc

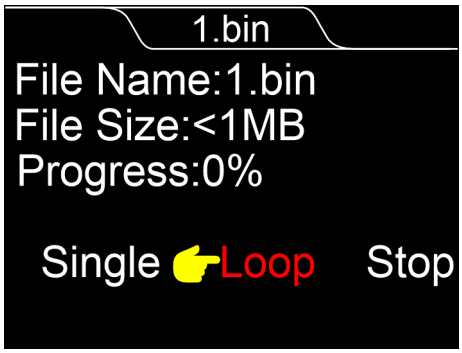
02) Press the **RIGHT** button to confirm the recorded program. If you've selected the option on the LCD screen, you automatically confirm. The display shows the 3 available options:



- Single: Play the selected program once
- Loop: Play the selected program continuously in a loop
- Stop: Stop playing the selected program

03) Touch the LCD screen to select the desired menu option or press the **UP/DOWN** buttons, to scroll through the 3 available options.

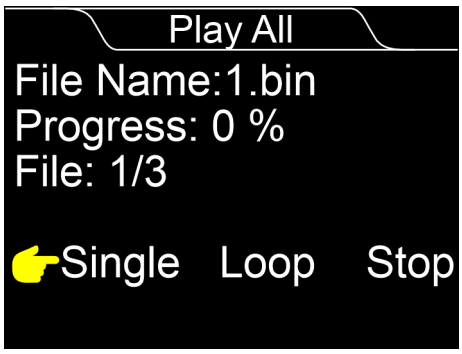
04) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm. The selected option will turn red on the display:



6.4.4.2.2. Play All

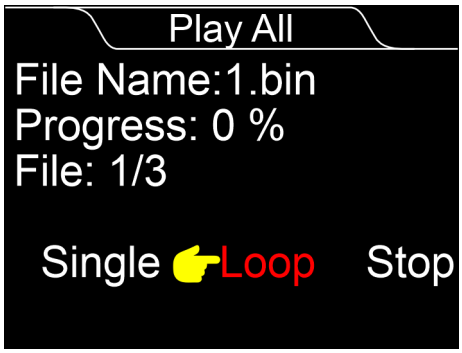
In this submenu you can play all programs.

01) Touch the LCD screen or press the **UP/DOWN** buttons, to scroll through the 3 available options:



- Single: Play all recorded programs once, one after the other
- Loop: Play all recorded programs continuously in a loop, one after the other
- Stop: Stop playing the recorded programs

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm. The selected option will turn red on the display:



6.4.4.3. File

In this menu you can view the recorded files on the micro SD card.

01) Touch the LCD screen, to select:



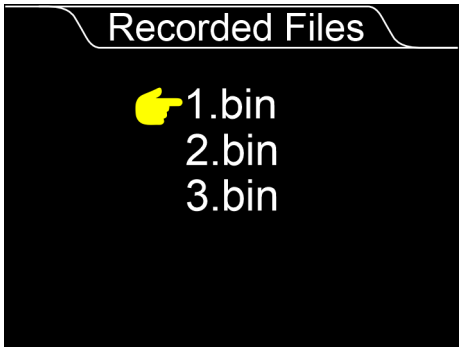
- Recorded Files (see 6.4.4.3.1. Recorded Files)

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

6.4.4.3.1. Recorded Files

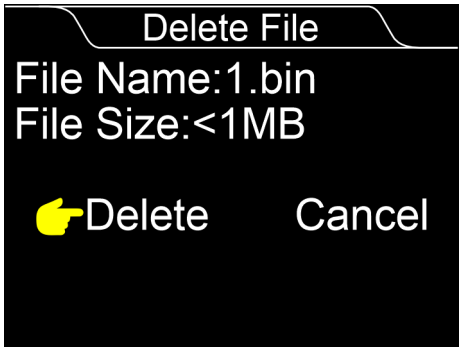
In this submenu you can view the recorded files on the micro SD card.

01) Press the **UP/DOWN** buttons, slide your finger across the screen or use the fader, to scroll through the available files:



- 1.bin
- 2.bin
- etc

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm. The display shows the file name, file size and 2 available options:



- Delete: Delete the recorded file
- Cancel: Go to the previous menu

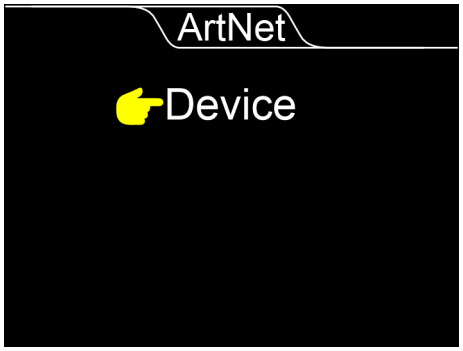
03) Touch the LCD screen or press the **UP/DOWN** buttons, to select one of 2 available options.

04) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

6.4.4.4. ArtNet

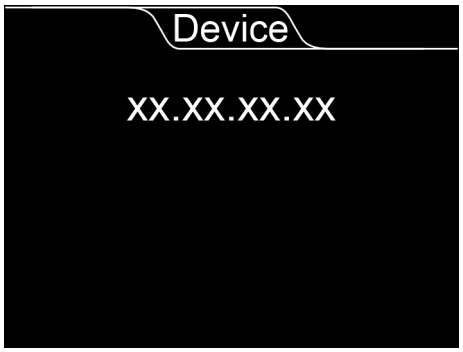
In this menu you can view the ArtNet RDM devices, that are discovered on the network.

01) Press the **UP/DOWN** buttons or touch the screen with your finger, to select the available option:



- Device

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm. The display shows the IP address(es) of the available RDM device(s):



03) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

Note:

You can change the ArtNet IP address from the Assistant CRMX in the Settings Menu (see 6.4.4.7. Settings on page 51).

You cannot change the ArtNet IP address of the connected RDM devices.

You cannot record/play a show in ArtNet mode.

6.4.4.5. Upgrade

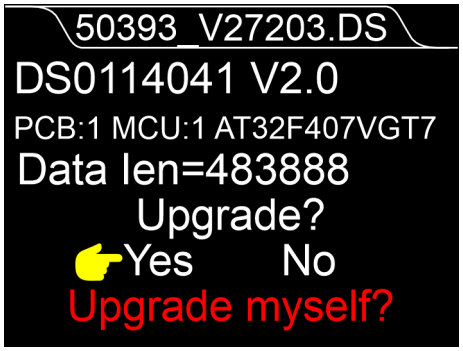
In this menu you can upgrade the device or certain connected products, that are upgradeable with DS firmware files.

01) Press the **UP/DOWN** buttons or touch the screen with your finger, to select the available upgrade options:



- 50393_V270203.DS
- 50394_V370203.DS
- 50394_V370213.DS

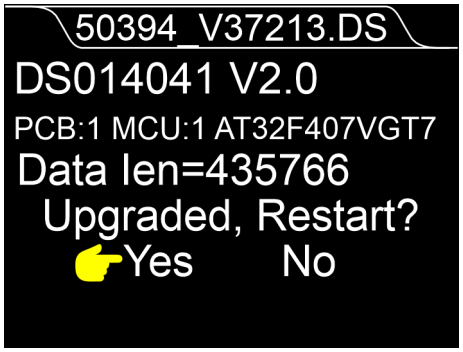
02) Press the **UP/DOWN** buttons, slide your finger across the screen or use the fader, to select one of the 3 available options:



- Yes: Upgrade the connected RDM devices with a possibility to reset them all, after upgrading
- No: No upgrade, return to the previous menu
- Upgrade Myself?: Upgrade the Assistant CRMX. After upgrading the Assistant CRMX automatically restarts

03) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

04) If you've selected yes, the connected RDM device will start upgrading. After the upgrade, the display shows:



- Yes: Upgrade and restart the connected RDM device
- No: Do not restart the connected RDM device after the upgrade

05) Press the **UP/DOWN** buttons or touch the screen with your finger, to select Yes or No.

06) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

07) If you've selected Upgrade myself, the Assistant CRMX device will automatically restart the device.

Note:

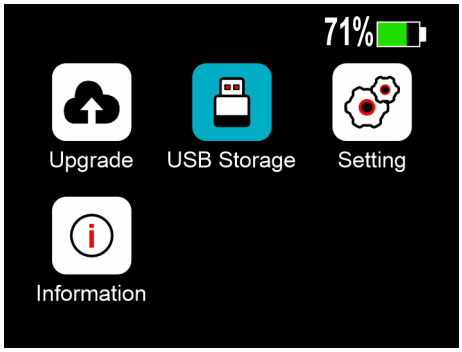
When updating via the "Upgrade Myself" option, make sure that the device is connected to the mains with the AC/DC adapter and the USB-A to USB-C cable.

Do not remove the mains power during the updating process, otherwise the software will become corrupt and the device will not start up anymore.

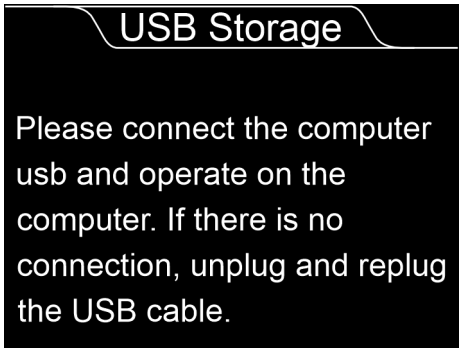
6.4.4.6. USB Storage

In this menu you can access the micro SD card in your asstant device via the USB connection on your computer.

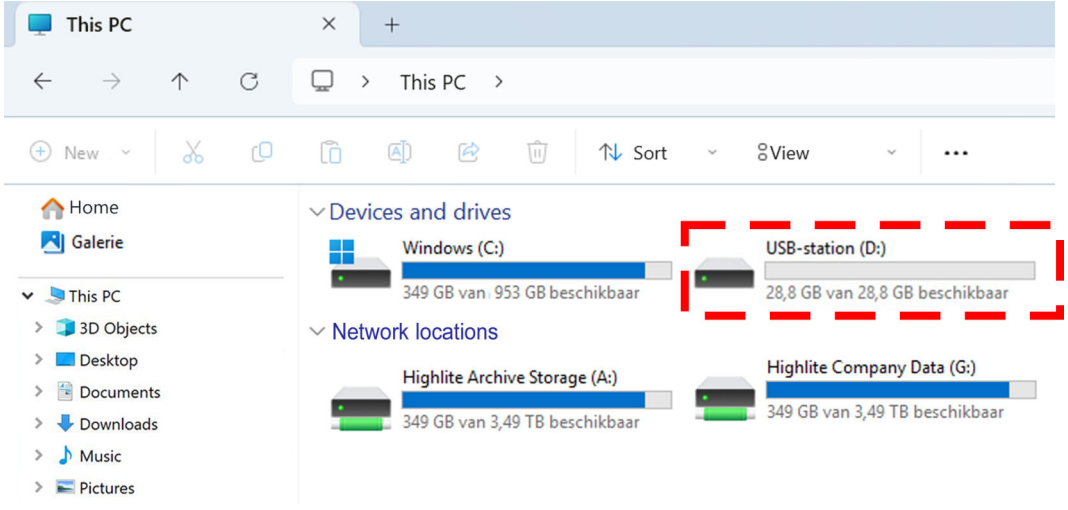
01) Turn on the device by setting the **battery power switch (09)** to ON.
02) Touch the LCD screen, press the **UP/DOWN** buttons or use the fader, to go to the USB storage menu. The display shows:



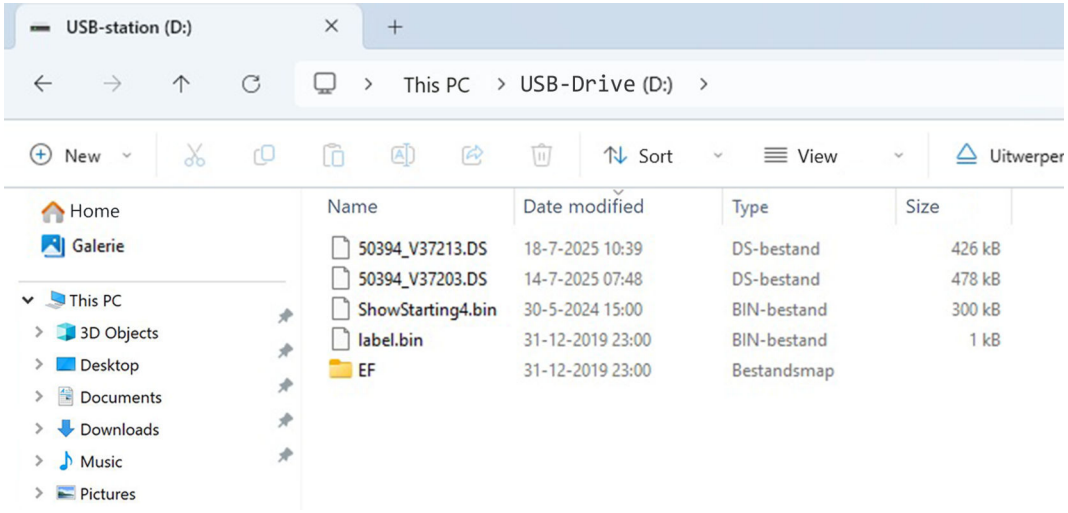
03) Press the **HOME/ENTER** button or touch the LCD screen, to enter the USB storage menu. The display shows:



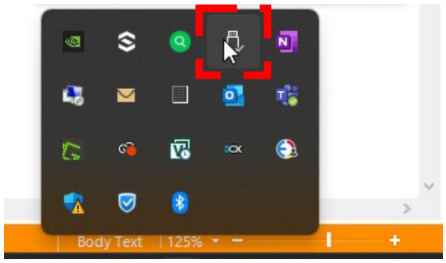
04) Connect the USB-A to USB-C data cable to the device. Use only the data cable included with the device.
05) Connect the other end of the data cable to your computer.
06) In your Windows Explorer the USB storage will now appear as an external drive. The display shows:



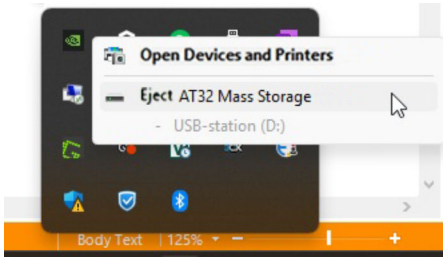
07) You can open/copy, delete files, backup your show files or settings to the micro SD card via the Windows Explorer of your PC. The display shows:



08) If you have completed all tasks, remove the USB storage via the bottom right corner on your Windows Explorer. The display shows:



09) Click on Eject Mass Storage. The display shows:



10) Disconnect the data cable from your computer and from the Assistant CRMX.

6.4.4.7. Settings

In this menu you can adjust all the settings of the device.

01) Press the **UP/DOWN** buttons or touch the screen with your finger, to select one of the 9 available options:



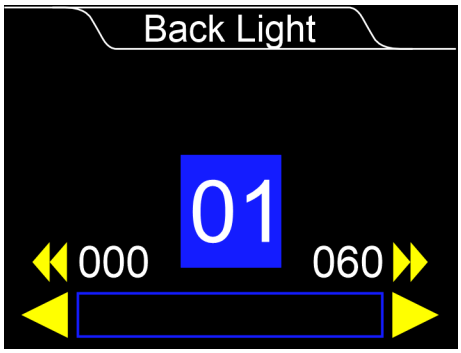
- Back Light (see 6.4.4.7.1. Back Light)
- ArtNet (see 6.4.4.7.2. ArtNet Settings)
- IP Mask (see 6.4.4.7.3. IP Mask)
- Local IP (see 6.4.4.7.4. Local IP)
- Target IP (see 6.4.4.7.5. Target IP)
- Universe (see 6.4.4.7.6. Universe)
- Data View (see 6.4.4.7.7. Data View)
- CRMX (see 6.4.4.7.8. CRMX)
- DMX Frequency (see 6.4.4.7.9. DMX Frequency)
- Default (see 6.4.4.7.10. Default)

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

6.4.4.7.1. Back Light

In this submenu you can select the desired display backlight activity time, when no action is detected. The display backlight turns off, once the selected time has passed.

Press the **UP/DOWN** buttons, slide your finger across the LCD screen or use the fader, to increase/decrease the value for the back light. The display shows:



- 000: Disable back light off, the back light does not dim
- 001–060: Back light dims after 001–060 minutes of inactivity

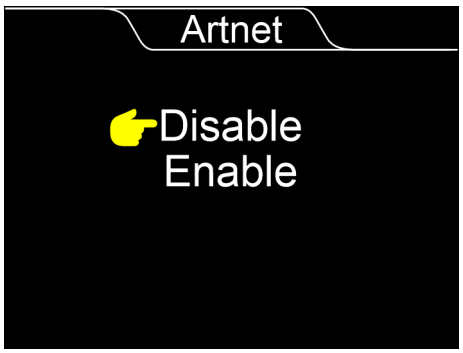
Note:

Even if the display backlight is off, the show keeps playing.

6.4.4.7.2. ArtNet Settings

In this submenu you can enable or disable the ArtNet function for the Assistant CRMX's network port.

01) Touch the LCD screen to select the desired menu option or press the **UP/DOWN** buttons, to select one of 2 available options:



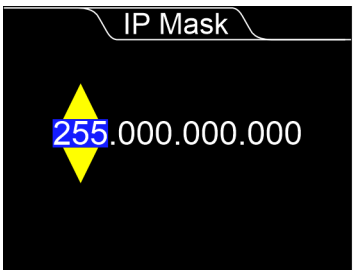
- Disable: Disable ArtNet
- Enable: Enable ArtNet

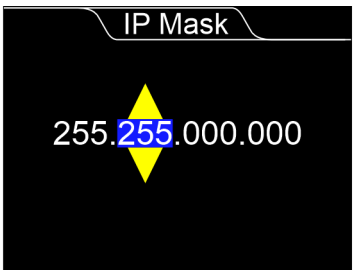
02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

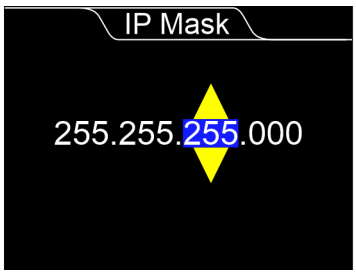
6.4.4.7.3. IP Mask

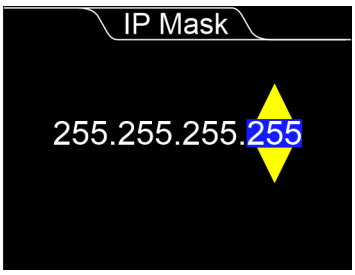
In this submenu you can set the IP subnet mask.

01) Touch the LCD screen or press the **LEFT/RIGHT** buttons, to select one of 4 available IP ranges (depending on the position of the yellow triangles):

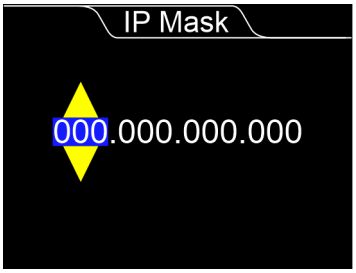


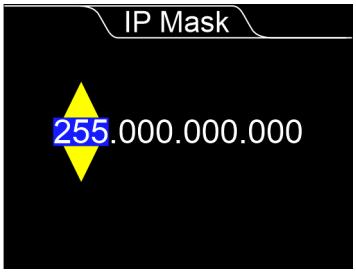






02) Touch the yellow upper or lower triangles on the LCD screen or press the **UP/DOWN** buttons, to select one of 2 available options:





- 000
- 255

03) Press the **RIGHT** button to go to the next range.
04) If you have completed the entire IP subnet mask, press the **RIGHT** button to confirm the selection and go to back to the settings submenu.

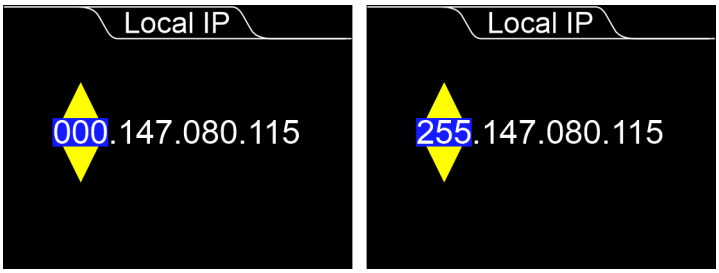
6.4.4.7.4. Local IP

In this submenu you can set the local static IP for the Assistant CRMX's network port.

01) Touch the LCD screen or press the **LEFT/RIGHT** buttons, to select one of 4 available IP ranges:



02) Touch the yellow upper or lower triangles on the LCD screen or press the **UP/DOWN** buttons, to change the IP range:



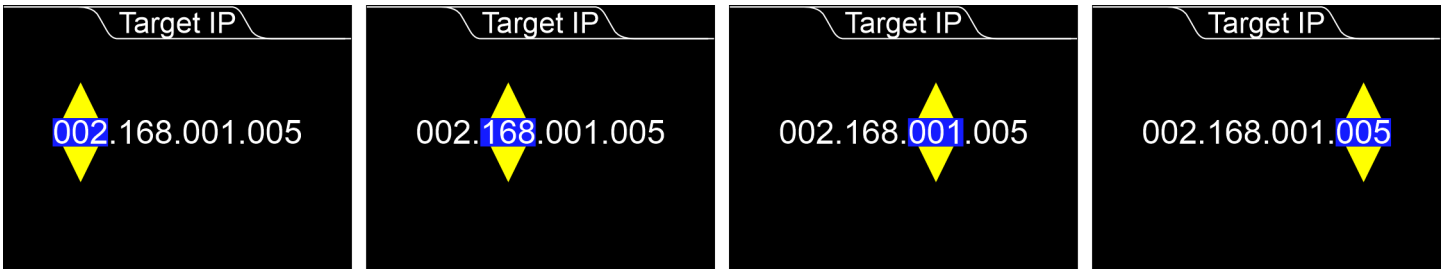
- Local IP: The adjustment range is 000–255

03) Press the **RIGHT** button to go to the next range.
04) If you have completed the entire Local IP address, press the **RIGHT** button to confirm the selection and go to back to the settings submenu.

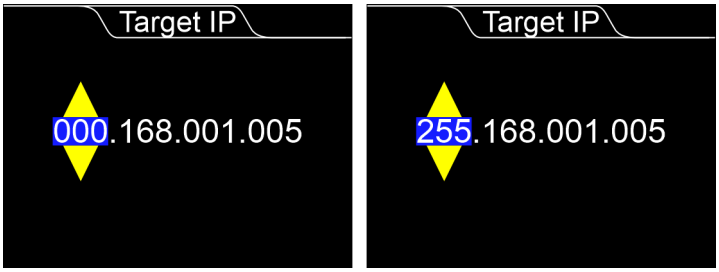
6.4.4.7.5. Target IP

In this submenu you can select the universe for ArtNet.

01) Touch the LCD screen or press the **LEFT/RIGHT** buttons, to select one of 4 available IP ranges:



02) Touch the yellow upper or lower triangles on the LCD screen or press the **UP/DOWN** buttons, to change the IP range:



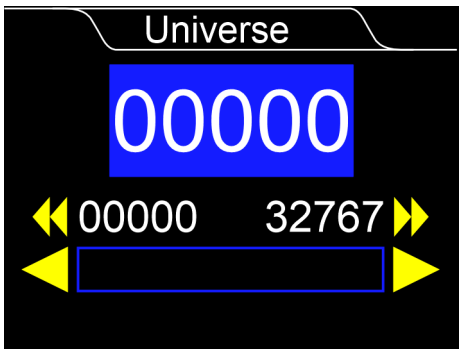
- Target IP: The adjustment range is 000–255

03) Press the **RIGHT** button to go to the next range.
04) If you have completed the entire Local IP address, press the **RIGHT** button to confirm the selection and go to back to the settings submenu.

6.4.4.7.6. Universe

In this submenu you can set the universe.

01) Press the **UP/DOWN** buttons, slide your finger across the LCD screen or use the fader, to set the universe. The display shows:

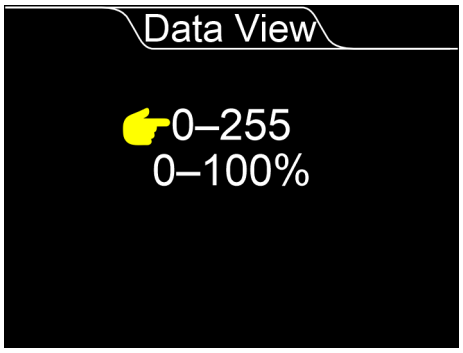


02) Press the **UP/DOWN** buttons, slide your finger across the LCD screen or use the fader, to increase/decrease the value for the universe. The adjustment range is 00000–32767.
03) Press the **RIGHT** button to confirm the selection.

6.4.4.7.7. Data View

In this submenu you can view the data in a decimal or a percentage range.

01) Touch the LCD screen or press the **UP/DOWN** buttons, to scroll select one of the 2 available options:



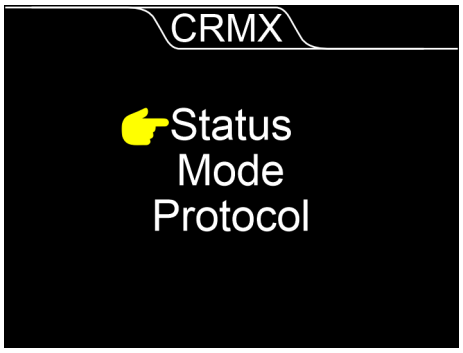
- 0–255: View all values in a decimal way
- 0–100%: View all values in a percentage way

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

6.4.4.7.8. CRMX

In this menu you can check and select the available wireless DMX options of the CRMX transceiver.

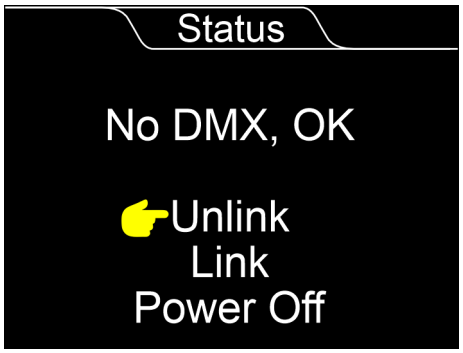
01) Press the **UP/DOWN** buttons or touch the screen with your finger, to select one of the 3 available options:



- Status
- Mode
- Protocol

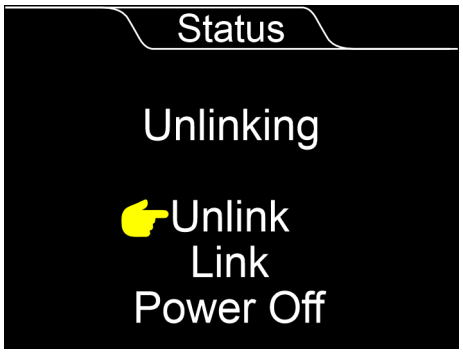
02) Press the **RIGHT** button to confirm the Status selection in the CRMX submenu. The display shows the status of the CRMX transceiver.

03) Press the **UP/DOWN** buttons or touch the screen with your finger, to select one of the 3 available options:

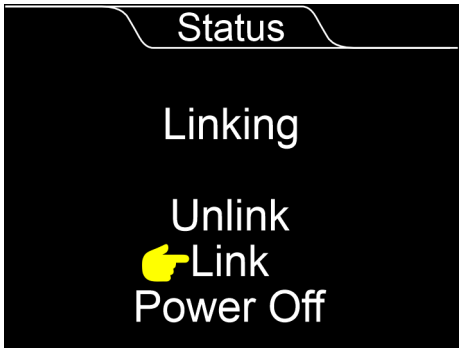


- Unlink: Unlink the current connection between the Assistant CRMX and the light effect
- Link: Create a link between the Assistant CRMX and the light effect
- Power Off: Power off the current CRMX transceiver connection. Go to the previous menu

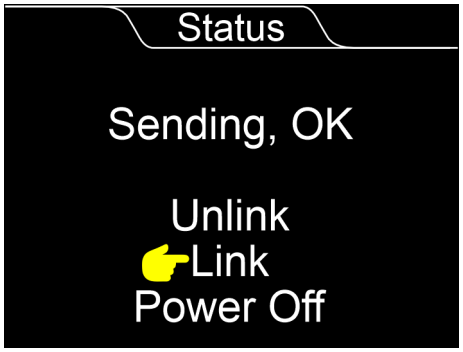
04) Press the **RIGHT** button to confirm the Unlink selection. If you've selected the option on the LCD screen with your finger, you automatically confirm. The CRMX transceiver now unlinks its connection with any previously linked light effect and the display shows:



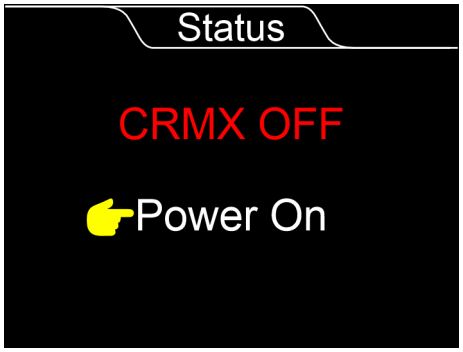
05) Press the **RIGHT** button to confirm the Link selection. If you've selected the option on the LCD screen with your finger, you automatically confirm. The CRMX transceiver is now making connections to any available wireless light effect and the display shows:



06) There is a 20 s time window to make a connection.After 20 s the linking process is done. If no connection has been made, reduce the distance between the light effect and the Assistant CRMX and restart the linking process. The display shows:

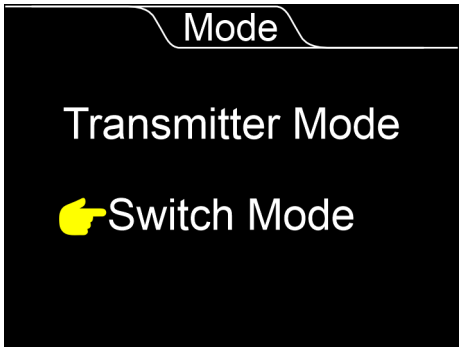


07) Press the **RIGHT** button to confirm the Power Off selection. If you've selected the option on the LCD screen with your finger, you automatically confirm. The display shows:



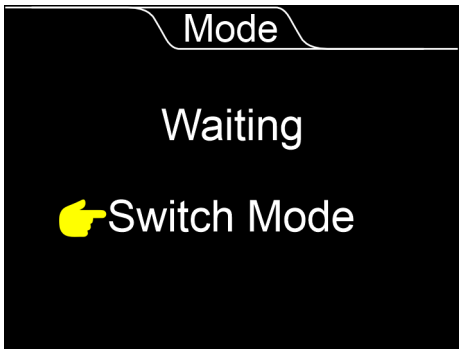
08) Press the the **RIGHT** button to confirm the Power On selection. If you've selected the option on the LCD screen with your finger, you automatically confirm to turn the CRMX back on and return to the previous menu.

09) Press the **RIGHT** button to confirm the Mode selection in the CRMX submenu. If you've selected the option on the LCD screen with your finger, you automatically confirm. In this submenu, you can determine whether the CRMX Transceiver works as a transmitter or as a receiver. The display shows:

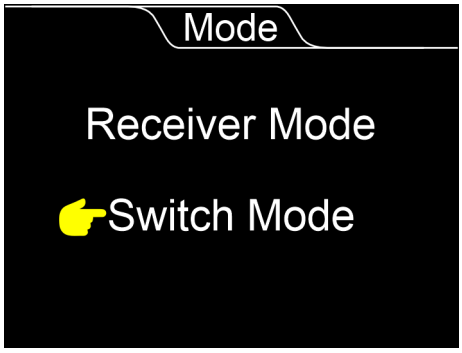


- Switch Mode: Switch between Transmitter mode and Receiver mode

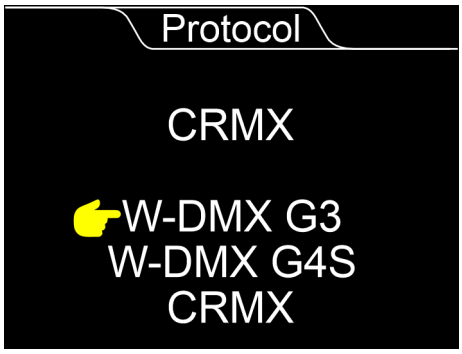
10) Press the **RIGHT** button to confirm the Switch Mode selection. If you've selected the option on the LCD screen with your finger, you automatically confirm. The display shows:



11) After 20 s the Assistant CRMX has switched to the Receiver Mode. The display shows:

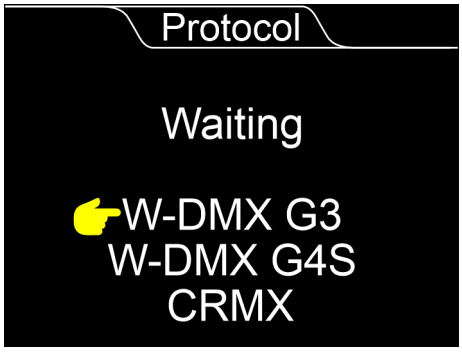


12) Press the **RIGHT** button again to switch back the transmitter mode. If you've selected the option on the LCD screen with your finger, you automatically confirm.
13) Press the **HOME/ENTER** button return to the previous menu.
14) Press the **RIGHT** button to confirm the Protocol selection in the CRMX submenu (only in transmitter mode). When using the CRMX transceiver in transmitter mode, this menu determines which wireless mode should be used to establish the communication to other wireless receivers.
15) Press the **UP/DOWN** buttons or touch the screen with your finger, to select one of the 3 available options:

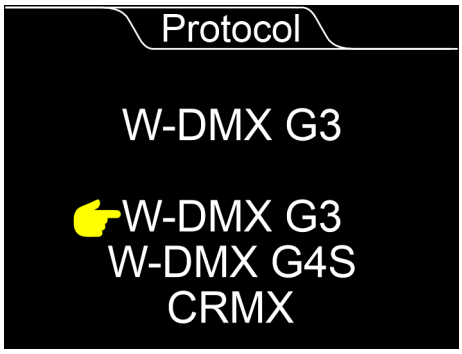


- W-DMX G3: Connect the Assistant CRMX and the light effect via W-DMX G3 protocol
- W-DMX G4S: Connect the Assistant CRMX and the light effect via W-DMX G4S protocol
- CRMX: Connect the Assistant CRMX and the light effect via CRMX protocol

16) Press the **RIGHT** button to confirm the W-DMX G3 selection. If you've selected the option on the LCD screen with your finger, you automatically confirm. The display shows:

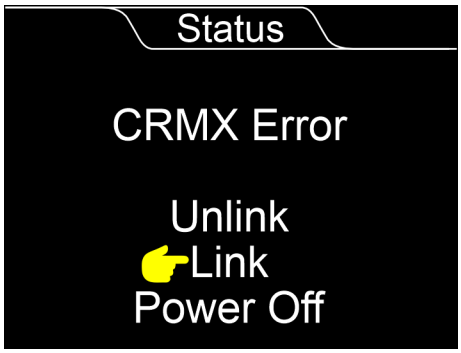


17) After 20 s the Assistant CRMX has switched to the selected W-DMX option. The display shows:



Note:

If you have have connected a DMX cable, while trying to link the Assistant CRMX, the display shows:



Always disconnect the DMX cable before linking the Assistant CRMX and the light effect.

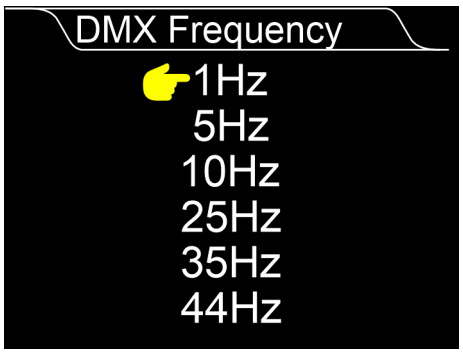
To prevent connection problems, always first unlink the Assistant CRMX and the light effect separately in their menus. After that start the linking process.

When you have powered off the CRMX connection and then powered it on, you do not have to relink the connection.

6.4.4.7.9. DMX Frequency

In this submenu you can set the DMX transmitting frequency for the device, when the DMX Console menu is selected.

01) Touch the LCD screen or press the **UP/DOWN** buttons, to select one of the 6 available options:



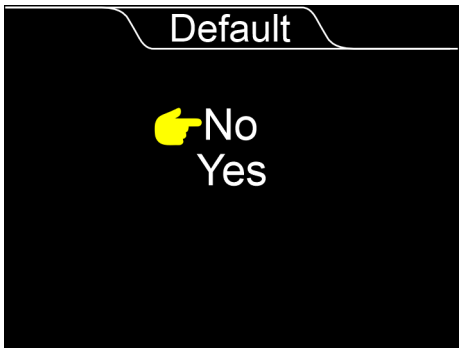
- 1 Hz
- 5 Hz
- 10 Hz
- 25 Hz
- 35 Hz
- 44 Hz

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

6.4.4.7.10Default

In this submenu you can reset the device to its default settings.

01) Touch the LCD screen or press the **UP/DOWN** buttons, to select one of 2 available options:



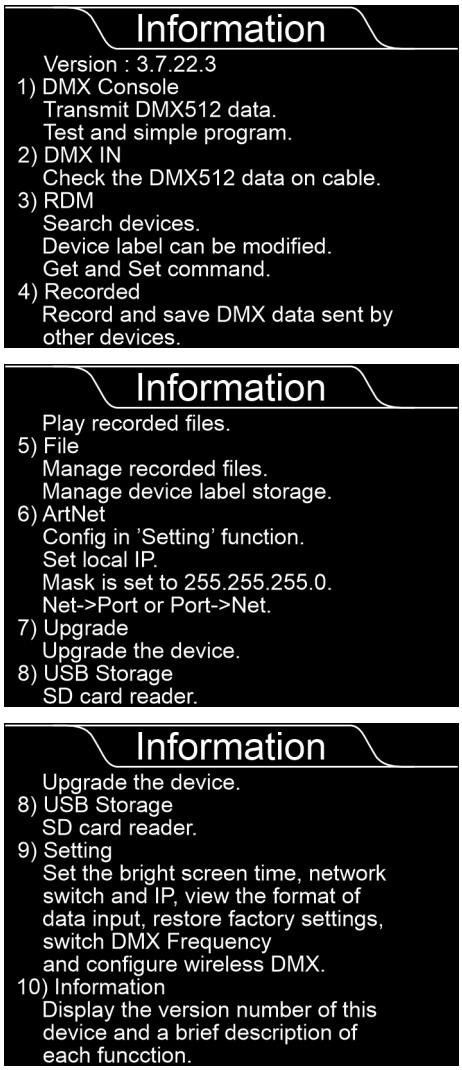
- No: Do not restore the factory default settings. Go to the previous menu
- Yes: Restore the factory default settings

02) Press the **RIGHT** button to confirm the selection. If you've selected the option on the LCD screen with your finger, you automatically confirm.

6.4.4.8. Information

In this submenu you can view the current software version of the device and more information about all main menus.

01) Press the **UP/DOWN** buttons, slide your finger across the screen or use the fader, to scroll through the information:



02) Check the Highlite International website for the latest software version of the device.
03) Copy the downloaded file from the website onto the micro SD card. For more information about the upgrade process (see 6.4.4.5. Upgrade on page 48).
04) Put the micro SD card in the Assistant CRMX.

Note:

For more information about the upgrade process (see 6.4.4.5. Upgrade on page 48).

7. Troubleshooting

This troubleshooting guide contains solutions to problems which can be carried out by an ordinary person. The device does not contain user-serviceable parts.

Unauthorized modifications to the device will render the warranty void. Such modifications may result in injuries and material damage.

Refer servicing to instructed or skilled persons. Contact your Highlite International dealer in case the solution is not described in the table.

Problem	Probable cause(s)	Solution
The device does not turn on	The battery is depleted	• Recharge the battery (see 4.2. Charging the Battery on page 11)
The device does not function	No power to the device	• Check if power is switched on • Check if the USB cable is correctly connected • Replace the USB cable
	The device is not correctly connected	• Check if the cables are correctly connected • Replace the cables
The device responds erratically	The factory settings of the device are changed	• Reset the parameters of the device to the default factory settings (see 6.4.4.7.10. Default on page 59)
No DMX data transfer	Bad data link connection	• Examine connections and cables. Correct poor connections. Repair or replace damaged cables
	The signal is reversed. The 5-pin DMX OUT of the controller does not match the DMX IN of the device	• Install a phase-reversing cable between the controller and the device
No upgrade via micro SD card	The micro SD card is not put into the slot completely	• Remove the card and gently push it into the slot, until your hear a small clicking-sound
	The micro SD card is not formatted	• Format the micro SD card
	The micro SD card is corrupt	• Try another micro SD card
The device does not respond to wireless control	The device is not paired	• Verify the pairing status of the device (see 6.4.4.7.8. CRMX on page 55)
	The receiver device is paired to a different transmitter device	• Unpair the receiver device and pair it to the current transmitter device (see 6.4.4.7.8. CRMX on page 55)
	The device is not in the range of the transmitter device	• Make sure that there is a clear line of sight between all devices in the setup (see 6.4.4.7.8. CRMX on page 55)

8. Maintenance

8.1. Preventive Maintenance

Attention
Before use, examine the device visually for any defects.

Make sure that:

- The housing is not damaged.
- The power cable is not damaged and does not show any material fatigue.
- The terminals of the battery do not show signs of corrosion.
- The battery is not leaking.
- The casing of the battery is not damaged.

8.1.1. Basic Cleaning Instructions

To clean the device, follow the steps below:

01) Disconnect the device from the electrical power supply.
02) Clean the device with a soft, lint-free cloth.

Attention
- Do not immerse the device in liquid.
- Do not use alcohol or solvents.
- Make sure that the connections are fully dry before connecting the device to the power supply and to other devices.

9. Deinstallation, Transportation and Storage

9.1. Instructions for Deinstallation

WARNING
Incorrect deinstallation can cause serious injuries and damage of property.

- Disconnect power supply before deinstallation.
- Always observe the national and site-specific regulations during deinstallation and derigging of the device.
- Wear personal protective equipment in compliance with the national and site-specific regulations.

9.2. Instructions for Transportation

- Use the original packaging to transport the device, if possible.
- Always observe the handling instructions printed on the outer carton box, for example: "Handle with care", "This side up", "Fragile".

9.3. Storage

- Clean the device before storing. (see 8.1.1. Basic Cleaning Instructions on page 62)
- Store the device in the original packaging, if possible.
- Remove the batteries before storing.

10. Disposal



Correct disposal of this product

Waste Electrical and Electronic Equipment

This symbol on the product, its packaging or documents indicates that the product shall not be treated as household waste. Dispose of this product by handing it to the respective collection point for recycling of electrical and electronic equipment. This is to avoid environmental damage or personal injury due to uncontrolled waste disposal. For more detailed information about recycling of this product contact the local authorities or the authorized dealer.

11. Approval

CE

Check the respective product page on the website of Highlite International (www.highlite.com) for an available declaration of conformity.