

STANDALONE INTERFACES

USB-DMX 512 & 1024 CHANNELS

V.1.0.5



SUMMARY

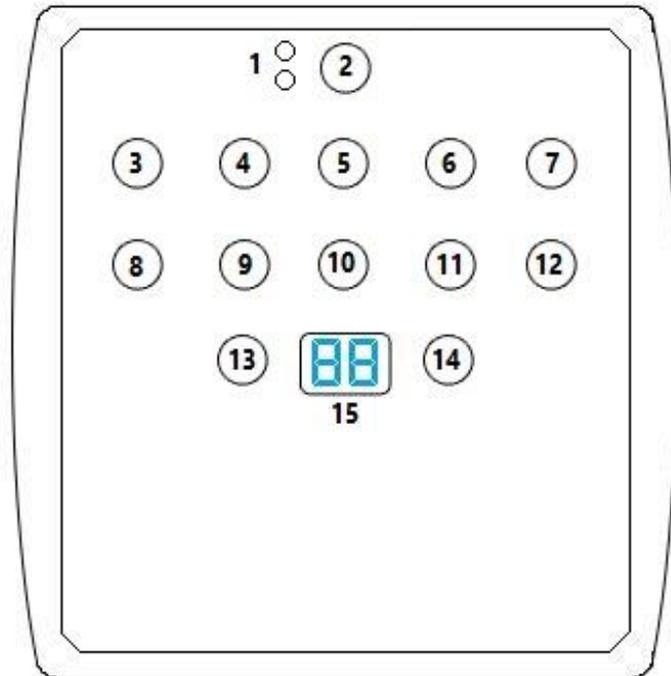
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HARDWARE TECHNICAL SPECIFICATIONS

Input:	USB 2.0
Input connector:	Mini USB - Mini USB cable included
Output connector:	XLR 3 (XLR 5 is optional) 1:Ground, 2:Data+, 3:Data
Number of DMX Input/Output:	512 or 1024 (PC + Stand Alone)
PC DMX IN triggers:	Yes
Standalone DMX IN triggers:	Only with 1024 interfaces
External triggers:	x4 contacts (5V.) multiplexed to 15 contacts max (20m max cable length)
Master/Slave connection:	Yes, 3 wires for 16 connected interfaces max (20m max cable length)
Infra-red connection:	Yes via an external IR module (PCB) and 3 connection wires (max 15m away)
Infra-red remote:	Optional
DMX Speed:	1 to 45 Hz, MaB, Bk
Stand Alone mode:	Yes, 512 or 1024 channels per interface
Internal Clock (RTC):	Yes
Internal calendar:	Yes
Backups of the internal clock:	Yes, 3 weeks without power
Internal memory:	Yes (4 MB)
Memory Capacity:	4000 steps with 512 channels, 100 000 steps with 16 channels
Input power voltage:	5 V. via USB(USB power supply included)
Input current:	80 to 200 mA
Power:	2W
Display of signal states:	DMX LED + USB LED
CPU technology:	32 bit
Internal memory:	Yes
Data display:	7 segments LED display
External triggers:	x4 dry contacts for up to 15 multiplexed contacts
Contact Input Voltage:	5 V
Dimensions:	H: 40 mm (1,57 in) / W: 110 mm(4,33 in) / D: 120 mm (4.72 in)
Weight:	0,180 Kgs
Color:	Black / Red
Operating Temperature:	-25 to +70 C°
Certifications:	CE, RoHS
IP rating:	IP20
Place of use:	Indoor
Storage:	Keep in a dry place
Warranty:	24 months
DMX Compatibility:	8 and 16 bit DMX fixtures
System Compatibility:	Windows XP, Vista, 7, 8, 8.1, 10, MAC OS X (10.6 and +), Linux

TOP FACE OF THE 512 / 1024 CHANNELS INTERFACES



Scene triggering buttons:

- 3: Scene 1 On/Off
- 4: Scene 2 On/Off
- 5: Scene 3 On/Off
- 6: Scene 4 On/Off
- 7: Scene 5 On/Off
- 8: Scene 6 On/Off
- 9: Scene 7 On/Off
- 10: Scene 8 On/Off
- 11: Scene 9 On/Off
- 12: Scene 10 On/Off

Command buttons:

- 2: Mode selection (trigger, speed, dimmer)
- 13: - decrease values
- 14: + increase values

Display and LED:

- 1: White LED mode
- 15: 7-segments LED display

LED 7-SEGMENTS DISPLAY OPERATION:

Display the number of the playing scene and the mode (speed/dimmer) value.

00: Stand Alone mode running. No scene is playing. All DMX channels are set to 0.

PC: The interface is connected to the computer and software controlled.

In trigger mode, the 7 segment display gives the current scene number. The 00 value indicates that no scene is playing and the DMX interface send nulls (0x00) on all output DMX channels. In speed mode, the display indicates the speed of the current scene, values are between -9 and 9. In dimmer mode, the display indicates the general intensity, values are between -9 and 9.

LED 7-SEGMENTS SLEEP OPTION:

It's possible to activate the sleep option in the software. This will turn off the display after 4 seconds of inactivity on the interface's buttons.

Turn off LED display after 4s Option available in the standalone window of the software

WHITE LED MODE

All OFF: Scenes buttons are operating on trigger mode

1st LED ON: Scene Speed mode activated. Press + or – to adjust the speed of the current playing scenes

2nd LED ON: General Dimmer mode activated. Press + or – to adjust the dimmer

MODE SELECTION BUTTON

Press the Buttons to select the Speed, Dimmer or the default Trigger mode.

NEXT/PREVIOUS, +/-SCENE PUSHBUTTONS

Trigger Mode: Select the Next or Previous Scene number. Go to the scene number you wish to start and Hold the button for 2 seconds to confirm and play the new scene from 01 to 99.

Speed Mode: Increase or decrease the Speed of the current scene. Values from -9 to +9.

Dimmer Mode: Increase or decrease the general intensity (dimmer + RGB). Values from -9 to +9. Default is 00.

BLUE LED TRIGGER PUSH BUTTONS

Push a button to trigger scenes loaded in memory. Push again to stop scenes.

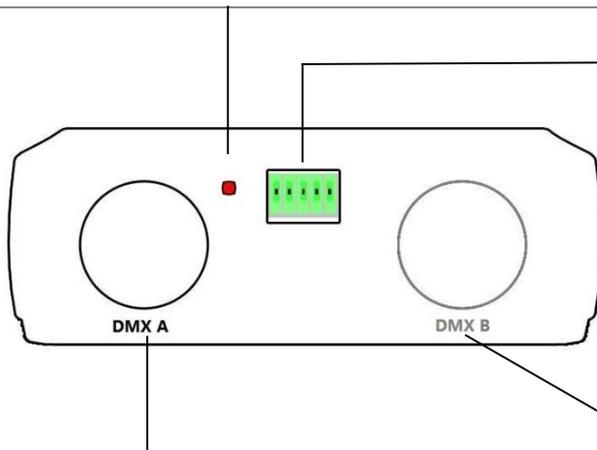
FRONT FACE OF THE 512 / 1024 CHANNELS INTERFACES

Red DMX: Signal LED

OFF: No DMX signal to the DMX line

ON: DMX is ON and DMX signal is sent or received

Flashing: DMX Signal Speed is slow



DMX Terminal Block

From Left to Right:

- 1: DMX A Data -
- 2: DMX A Data +
- 3: Ground
- 4: DMX B Data -
- 5: DMX B Data +

XLR DMX Signal Connector A

3 Pins. Can be configured with Output mode or Input mode.

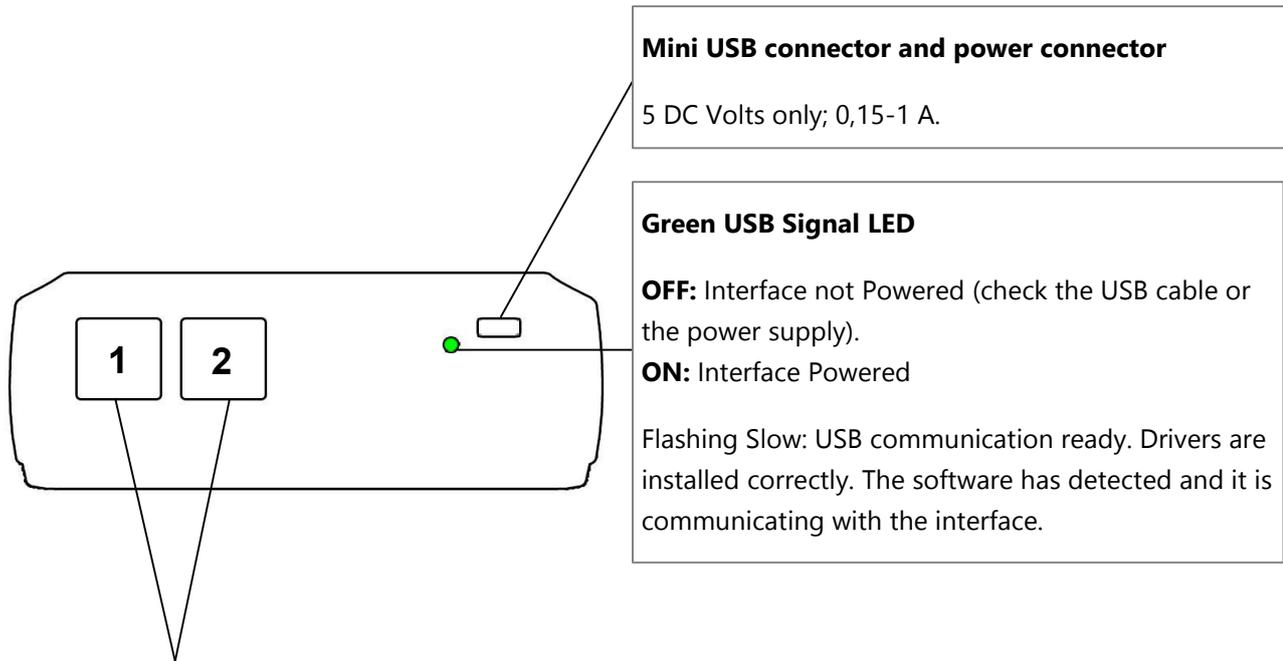
- 1: Ground
- 2: Data -
- 3: Data +

XLR DMX Signal Connector B – with 1024 interface only

3 Pins. Can be configured with Output mode or Input mode.

- 1: Ground
- 2: Data -
- 3: Data +

REAR FACE OF THE 512 / 1024 CHANNELS INTERFACES



RJ45 connector for external communication and triggers
Pin assignment for interfaces:

RJ45 1: Master/Slave + IR signal receiver (optional). Pin numbers run front right to left.

1 : Master/Slave - Clock
2 : Master/Slave - Data
3 : Ground
4 : IR Signal from the external IR LED receiver
5, 6 : None
7 : 5 Volts
8 : Ground

RJ45 2: Master/Slave + External Contact Closures. Pin numbers run front right to left.

1 : Master/Slave - Clock
2 : Master/Slave - Data
3 : Ground
4 : 5 Volts
5, 6, 7, 8 : Trigger contacts 1, 2, 4, 8 (15 triggers if multiplexed)

STAND ALONE INTERFACE ALL PIN ASSIGNMENTS

XLR Pin assignment :

- 1 : Ground DMX
- 2 : Data -
- 3 : Data +

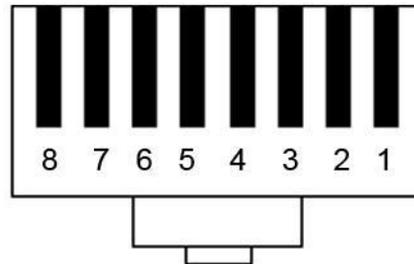
Terminal block Pin assignment :

- 1 : Data + ; DMX 1
- 2 : Data - ; DMX 1
- 3 : Ground ; all DMX
- 4 : Data + ; DMX 2
- 5 : Data - ; DMX 2

RJ45 (1-J7) Pin Assignment (device after 10/2011):

Master/Slave + IR signal receiver (optional).

- 1 : Master/Slave Clock
- 2 : Master/Slave Data
- 3 : Ground
- 4 : IR Signal from the external IR LED receiver
- 5, 6: Free
- 7 : 5 Volts
- 8 : Ground



External Contact Closures can be done only when Pin 1, 2, 3, 4 are connected to Pin 5 (5 V. DC).

RJ45 (2-J6) Pin assignment (device after 10/2011) :

Master/Slave + External Contact Closures.

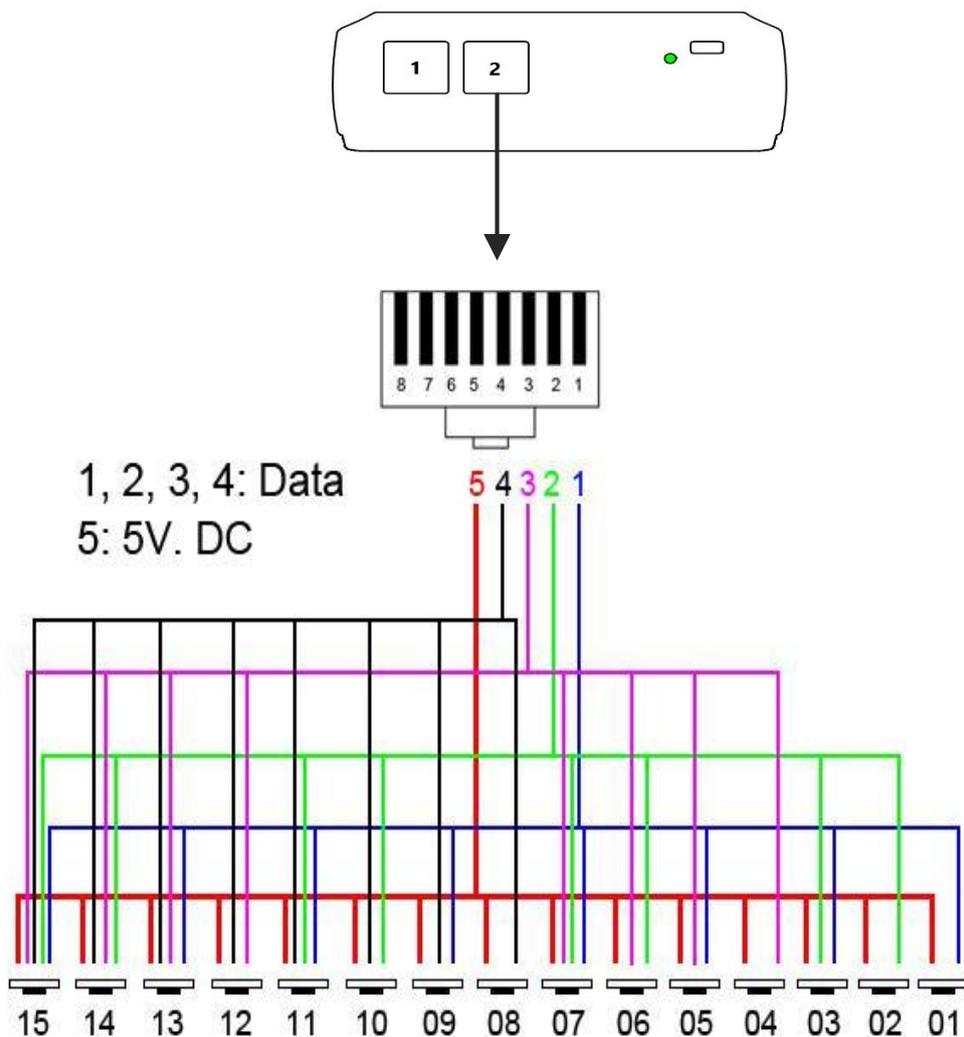
- 1 : Master/Slave Clock
- 2 : Master/Slave Data
- 3 : Ground
- 4 : 5 Volts
- 5, 6, 7, 8 : Trigger contacts (15 possible triggers actions)

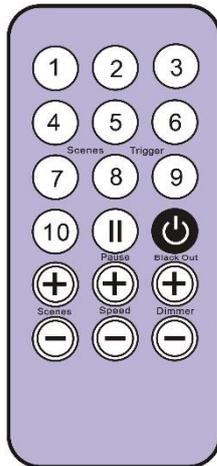
Pin Table:

- Trigger 01 = Pin 5
- Trigger 02 = Pin 6
- Trigger 03 = Pin 5 + 6
- Trigger 04 = Pin 7
- Trigger 05 = Pin 5 + 7
- Trigger 06 = Pin 6 + 7
- Trigger 07 = Pin 5 + 6 + 7
- Trigger 08 = Pin 8
- Trigger 09 = Pin 5 + 8
- Trigger 10 = Pin 6 + 8
- Trigger 11 = Pin 5 + 6 + 8
- Trigger 12 = Pin 7 + 8
- Trigger 13 = Pin 5 + 7 + 8
- Trigger 14 = Pin 6 + 7 + 8
- Trigger 15 = Pin 5 + 6 + 7 + 8

15 CONTACTS WIRING AND CONNECTIONS WITH RJ45 PINS

The 4 external contacts are located on the Ethernet socket number 2. You can use the 4 contacts to basically trigger 4 scenes. To have more triggers you must use a multiplexed system to get a maximum of 15 contacts as following:





Button 1 to 10 must be assigned to a scene via the software.

Each button can trigger a different scene. With the remote control, a scene cannot be stop directly with the assigned button. To stop it you must press the Stop/Black Out button or trigger another scene.

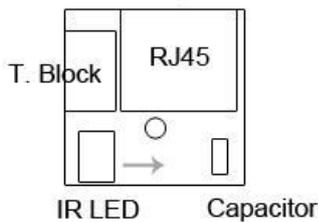
Pause button to freeze the current scene to its actual state.

Stop/Black Out button to stop the current scene and play the empty scene number 00. All DMX channels are set down to 00 levels.

+/- for scene trigger. Select the next or previous scene automatically. You don't need to hold the button to validate and play a scene. The next or previous scene will play directly after selected.

+/- for Scene speed. Increase or decrease the speed of the current scene. A different speed can be chosen separately for each scene.

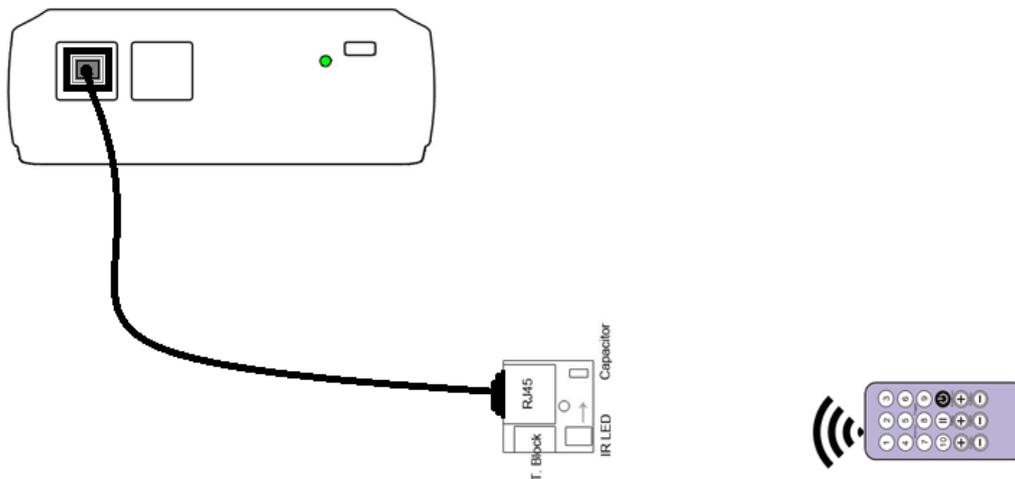
+/- for General dimmer. Increase or decrease the RGB, CMY and dimmer channels of the fixtures. The CMY, RGB, Dimmer channels are defined in the Profile of the fixture.



To use the IR remote control, an external PCB with an IR receiver LED must be connected before to the RJ45 #1 of the Stand Alone interface. The stand-alone RJ45 cable distance is about 20 meters maximum.

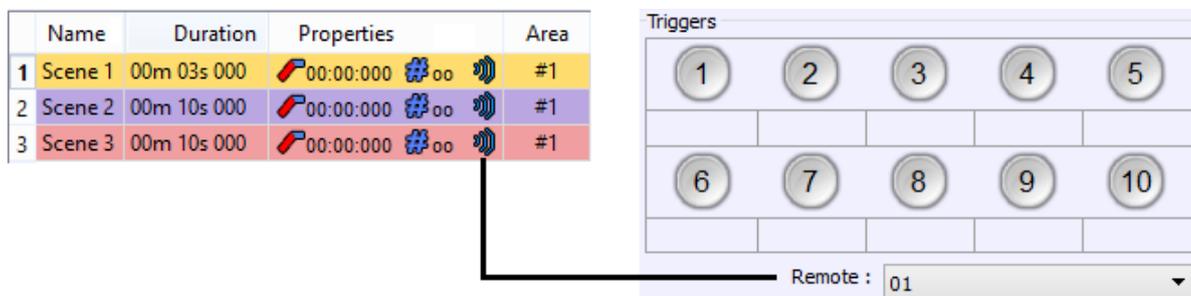
IR PCB Pin assignment:

- With RJ45 use pins **#3** = Ground; **#4** = IR Data ; **#7** = 5V DC.
- With T. Block use pins: **O** = IR Data; **V** = 5V DC; **G** = Ground.

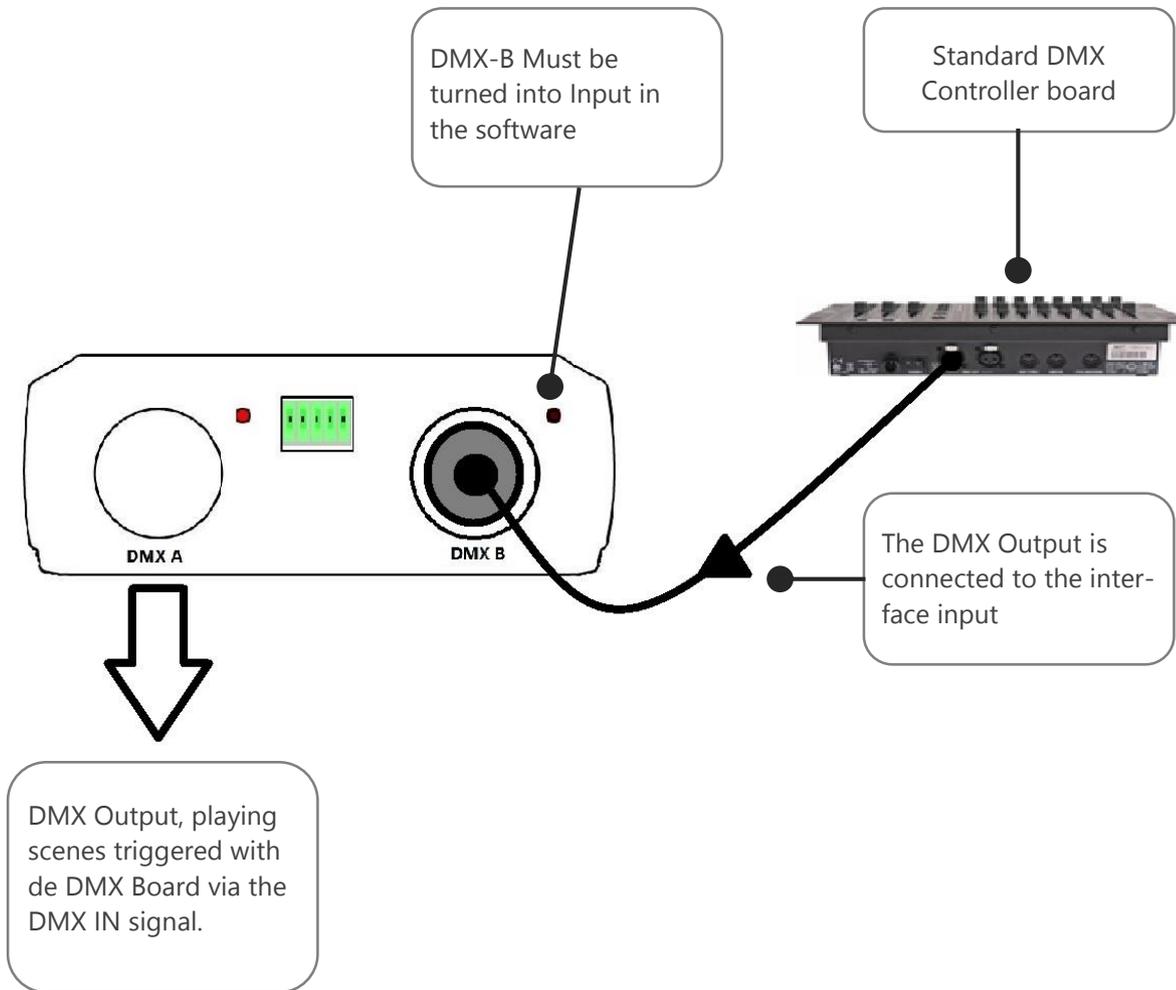


In the software go to Stand Alone Mode and use the Triggers options to assign a remote button to a scene. Standalone mode offers up to 10 triggers with the Infrared remote.

By selecting a scene in the list, it's possible to choose the remote button number (from 01 to 10) to trigger the scene. The other IR remote functions will work as well as the SLIM DMX interface. (Speed, dimmer, scene +, scene -, off).



DMX IN TRIGGER CONNECTION

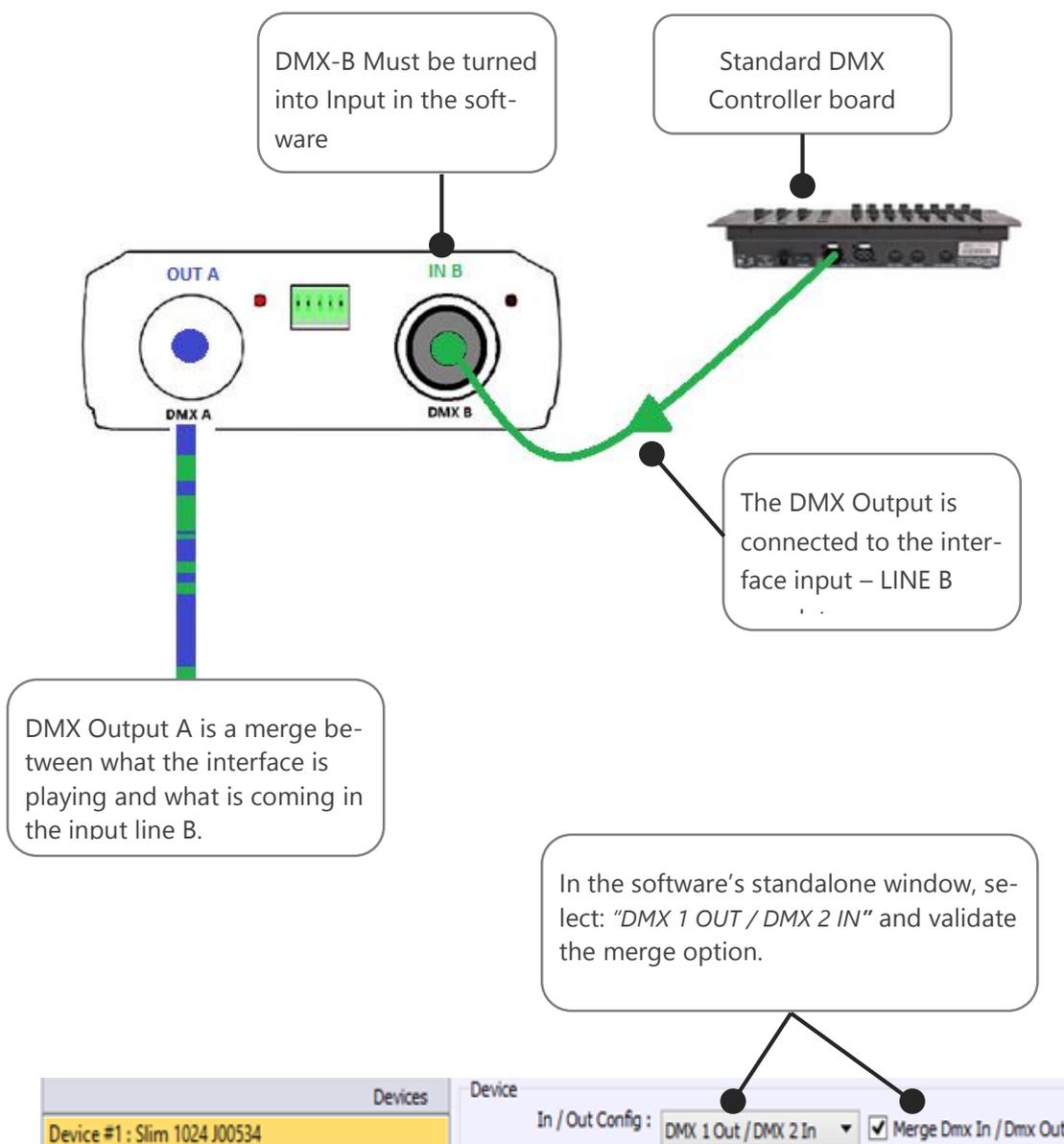


DMX MERGING IN STANDALONE

DMX Merging is available for the 1024 SLIM interfaces only, because it takes two DMX lines to make a merge.

One DMX line must be turned into an input to capture the dmx signal provided by an external DMX board or by another DMX interface.

The interface will merge the input signal with its own output signal by comparing DMX levels with a HTP filter. Merging is a solution to keep manual control on channels, using a DMX Board for example. It's also a way to create a multi-zones system by merging several interfaces on one final DMX line.



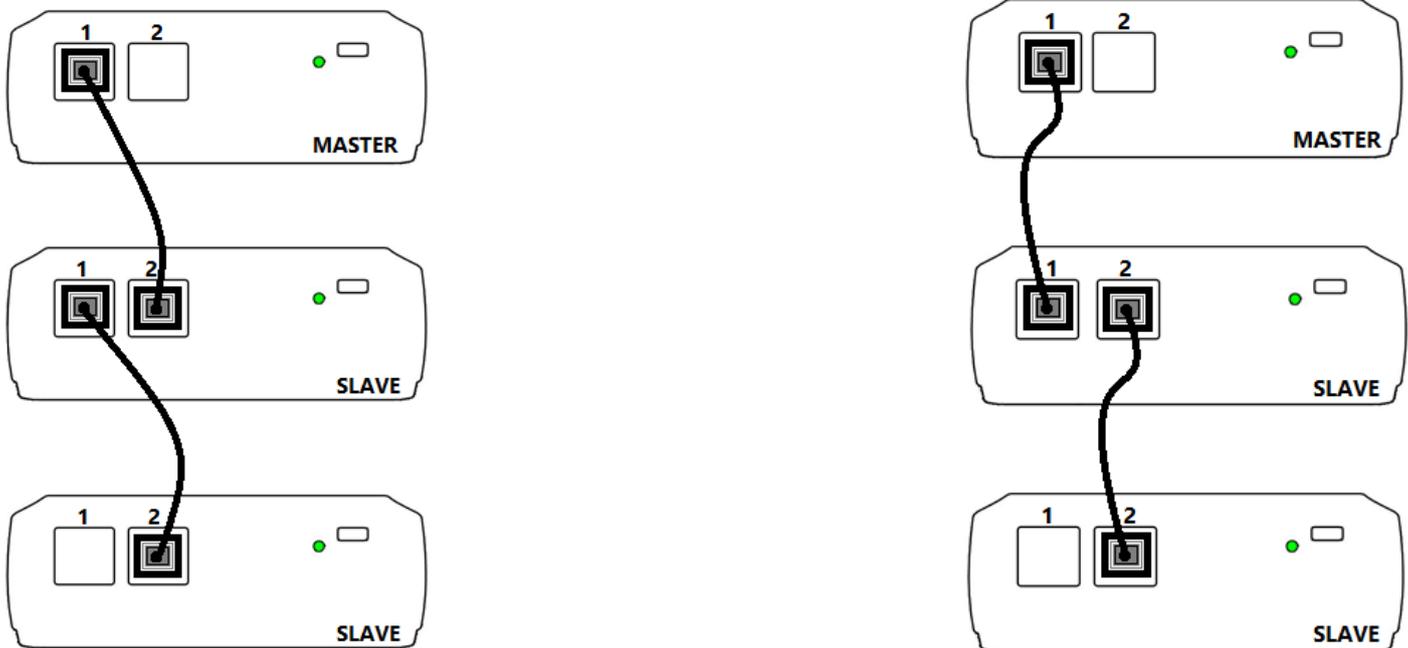
CONFIGURATION OF THE MASTER/SLAVE INTERFACES

When multiple interfaces are connected with USB, the standalone mode allows to set them as Master/Slave. This mode allows to synchronise many interfaces and mutualize their standalone spaces combining the universes. (up to 32 standalone universes)

A single interface can be define as master, others are automatically set to slaves. Triggers operated on the master interface are passed on slaves. However slaves are not synchronized on play time and keep individual control. Consequently slaves can trig and play different scenes. The master acts like a general remote imposing triggering to the slaves.



Here is two different example of wiring with 3 interfaces plugged as Master/Slave with standard Ethernet cables. You must connect Ethernet sockets 1 or 2 in any order:



SETTING OF THE MASTER/SLAVE INTERFACES

When multiple interfaces are connected with USB, the standalone mode allows to set them as Master/Slave. This mode allows to synchronize many interfaces and mutualize their standalone spaces combining the universes. (Up to 32 standalone universes)



The Stand Alone mode allows to choose 1 interface and to define this interface as Master from the interface list, it is possible to choose only one to be the Master, all the other one will be configured as slave by default. The interfaces are always ordered by serial number ascending order.

- **MODE MASTER/SLAVE « Default »**

A single interface can be define as master (lower serial number by default), others ones are automatically set to slaves. The master device play the current scene and synchronize the slave ones. The master forces the slave interfaces to play the same scene and the same step at the same time. The slave interfaces are forced to follow the master timings and triggers and they cannot act, play or trigger a scene independently. Master can trigger on and trigger off scenes of the slave interfaces.

- **MODE MASTER/SLAVE « Desynchronized»**

An interface can be define as master, others are automatically set to slaves. All Triggers On or Off operated on the master interface are effective to slave ones. However slave interfaces are not synchronized with master's timing and keep individual controls. Consequently slaves can trigger and play different scenes at any time and not synchronized with the master ones. The master acts like a general remote imposing triggering to the slaves with total priority. Master can trigger ON and trigger OFF scenes of the slave interface.

- **MODE MASTER/SLAVE « LTP »**

LTP means Latest Takes Priority. All interfaces are defined as slaves. Interfaces are not synchronized with timing and can trigger and play different scenes by itself. However triggers from an interface are passed to the others connected interfaces automatically and slave interfaces are forced to trigger the same scene. Here each interface acts like a general remote imposing triggering to the other slaves without synchronization.

- **THE «NO RELEASE» Option**

This option is only available with LTP or DESYNCHRONIZED modes. Only triggers ON from the master interface are executed and effective. All triggers OFF are ignored and slaves interfaces keep playing their current scene. Each Slave interface can choose to release or not its scene depend on the option is activated or not.

TRIGGERS CONFIGURATION WITH THE SOFTWARE

The Stand Alone mode of the software enables to configure and personalize all the triggers.

The information will be directly saved in the DMX interface memory with the memory writing function.

SWITCH TO STANDALONE MODE

When the device isn't connected to the software or has just been powered, it enters in Stand Alone mode after five (5) seconds.

LED BUTTONS TRIGGER

Standalone mode offers 10 buttons that represents the interface LED buttons. From the scene list of the standalone mode, you need to drag and drop a scene on any button to assign a button number.

The screenshot displays the software interface for configuring triggers. On the left, a table titled "Scenes to load in memory" lists 10 scenes with columns for Name, Duration, Properties, Triggers, and Area. On the right, a "Triggers" panel shows 10 numbered buttons (1-10) arranged in two rows. Below the buttons are dropdown menus for "Remote", "External Contacts", and "Dmx In (Channel / Level)".

	Name	Duration	Properties	Triggers	Area
1	Scene 1	00m 03s 720	00:00:000 #2	→ #	#1
2	Scene 3	00m 07s 560	00:00:000 #4	→ #	#1
3	Scene 4	00m 01s 440	00:00:000 #1	→ #	#1
4	Scene 5	00m 09s 800	00:00:000 #1	→ #	#1
5	Scene 6	00m 49s 800	00:00:000 #5	→ #	#1
6	Scene 7	00m 10s 000	00:00:000 #oo	□ #	#1
7	Scene 8	00m 01s 800	00:00:000 #oo	□ #	#1
8	Scene 9	00m 01s 800	00:00:000 #oo	□ #	#1
9	Scene 10	00m 01s 800	00:00:000 #oo	□ #	#1

It's possible to replace a scene by another one or to remove it by pulling it out of the list.

EXTERNAL CONTACT TRIGGERS

The Stand Alone mode offers up to 15 external possible triggers.

By selecting a scene in the list, it's possible to choose the external contact number (from 01 to 15) to trigger the scene.

By default, the interface gives 4 external contacts (01, 02, 04, 08). To obtain 15 external contacts, you have to use a demultiplexing interface in order to go from 4 to 15 possible combinations.

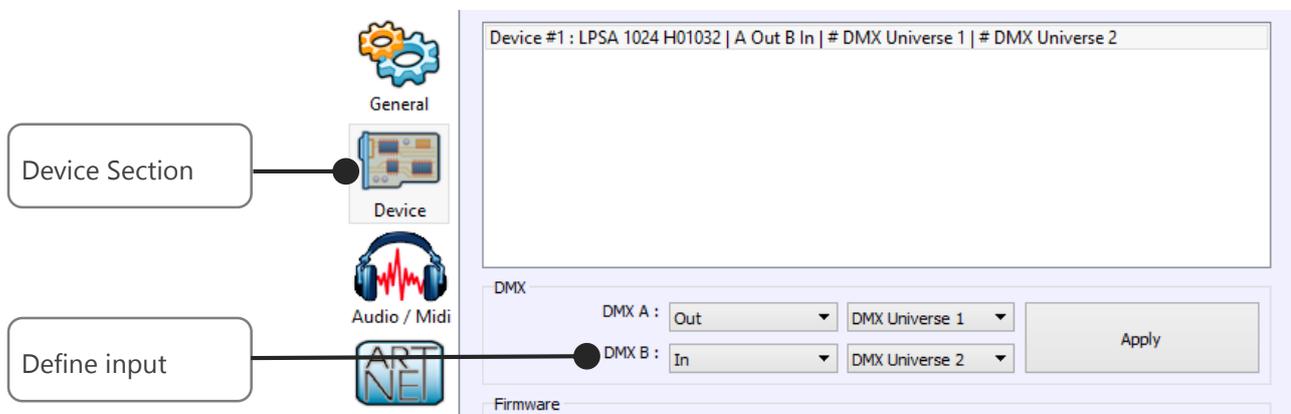
This close-up shows the "External Contacts" dropdown menu set to "04". The menu is open, showing the selected value "04" and a downward arrow.

DMX IN TRIGGERS VIA ANOTHER DMX SIGNAL IN STANDALONE

The Stand Alone mode offers up to 512 DMX IN channel triggers and up to 255 DMX trigger values per channel. By selecting a scene in the list, it's possible to choose the channel number and the DMX value to trigger the scene. The scene will play when the value of the DMX channel is reached or exceeded.



One DMX Output must be turned into an input in the Options windows. To access this window click on the software menu: Tools > Options then click to select the device section as following:



DMX IN TRIGGERS VIA ANOTHER DMX SIGNAL IN LIVE

Follow those steps to set a DMX-IN trigger on a scene or on a program:

Step 1: Go to the scenes list if the editor view.

Step 2: Double click the "Key" cell of the scene to be triggered.

The screenshot shows the software interface with the 'Scenes' tab selected. A table lists three scenes:

Name	Cross fade time	Loops	Jump	Duration	Key	Live
Scene 1	00m 00s 000	Always loop	Stop	00m 03s 000	[...]	<input checked="" type="checkbox"/>
Scene 2	00m 00s 000	Always loop	Stop	00m 20s 000	[...]	<input checked="" type="checkbox"/>
Scene 3				00m 30s 000	[...]	

The 'Key' cell for Scene 1 is double-clicked, opening a configuration window. The 'DMX' section is highlighted, showing options for 'No DMX trigger', 'DMX Level', and 'DMX Scale'. The 'DMX Universe' field is also visible.

Step 3: Go to the DMX section of the Key window.

Two DMX-IN trigger options are available: DMX Level and DMX Scale, let's see what the differences are:

Option DMX Level

DMX

No DMX trigger

DMX Level

DMX Scale

DMX Universe : DMX Universe 1

Channel : 1

Value : 127

Min : [dropdown]

Max : [dropdown]

Choose the input universe and channel

Choose the trigger level with one if you go over it the scene starts and under it the scene stops.

Option DMX Scale

DMX

No DMX trigger

DMX Level

DMX Scale

DMX Universe : DMX Universe 1

Channel : 1

Value : [dropdown]

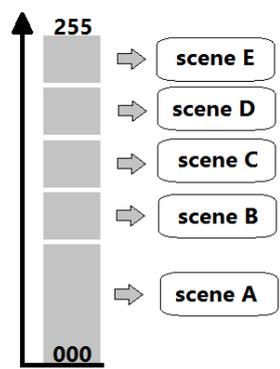
Min : 80

Max : 150

Choose the input universe and channel

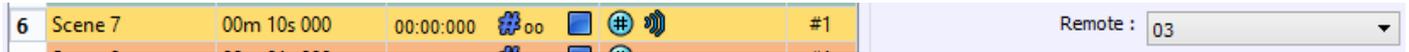
Choose the trigger range of levels. With one if you go inside it the scene starts and outside it, the scene stops.

With the DMX Scale you can create many triggers presets on a same DMX-IN channel and so starts a suite of scenes on the DMX fader way.



INFRA RED REMOTE TRIGGERS

Standalone mode offers up to 10 triggers with the Infrared remote. By selecting a scene in the list, it's possible to choose the remote button number (from 01 to 10) to trigger the scene. The other IR remote functions will work as well as the SLIM DMX interface. (Speed, dimmer, scene +, scene -, off).

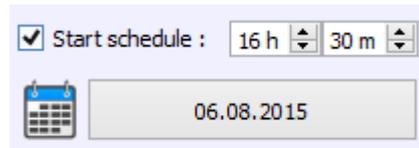


TIME TRIGGERS WITH CLOCK AND CALENDAR

The Stand Alone mode has an internal clock and a calendar. It's possible to assign a time trigger on every scene of the list. By selecting a scene on the list, it's possible to choose the start and end dates and hours and days of the week. You can thus create a lot of scenarios.

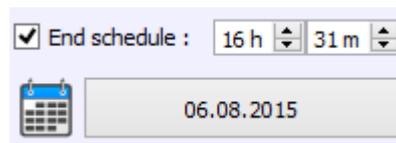
CASE 1: Programming a unique trigger:

- **Start schedule:**



The scene is triggered a single time at the given date and time.

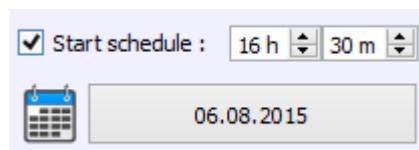
- **End schedule:**



The scene is stopped at the given date and time.

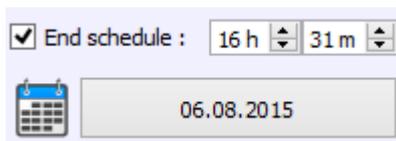
CASE 2: Programming a repeating trigger:

- **Start schedule:**



Date from which-one the scene will be playable according to the programmed triggers

- **End schedule:**



Date after witch-one triggers will be ignored. With no End date, triggers are permanent

- **List of the months of the year**



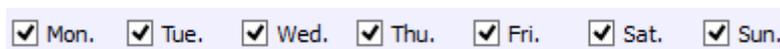
The 12 check boxes represents the 12 months of the year (J) January to (D) December. The triggers will be performed on the activated months. Next, a daily hours range must be defined.

- **Start and Stop days**



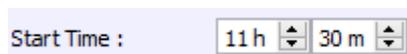
With a monthly repetition, you can choose the starting and stopping days for each chosen month. In this example triggers can happen between the 1st and the 15th of each chosen month.

- **List of the days of the week**



The 7 check boxes represents the 7 days in a week. The triggers will be performed on the activated days only. Next, a time range must be defined.

- **Start time**



The starting time is the time when the scene will be triggered for each chosen day. Of course chosen months, start and end schedule days are included.

- **Release time**



The release time is the time when the scene will stop for each chosen day. Of course chosen months, start and end schedule days are included. The release time is not mandatory, if it's not defined, the scene will keep playing until another trigger event happens. (Like the triggering of another scene for example).

NOTE: For a daily repetition, if the the starting time is later than the release time then the triggering will stopped the next day, even if the next day has not been selected.

SAVE AND RECOVER THE LAST SCENE AFTER THE POWER CUT OFF:

Scenes with a start schedule and a stop schedule are set on a defined time space and can be memorized. The interface save the last scene played before the power cut off and recover it when the power is restored. The scene must obligatory include a start schedule and a stop schedule activate this option.

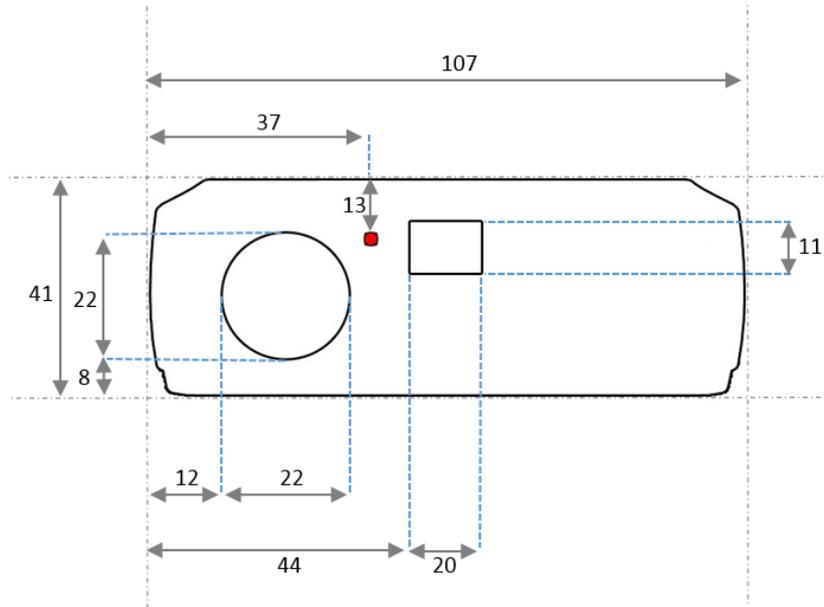
SCENE TRIGGER PRIORITIES:

When several scenes have the same time trigger (date + hour + minute), only the first scene in the list will be triggered. The rest will be ignored

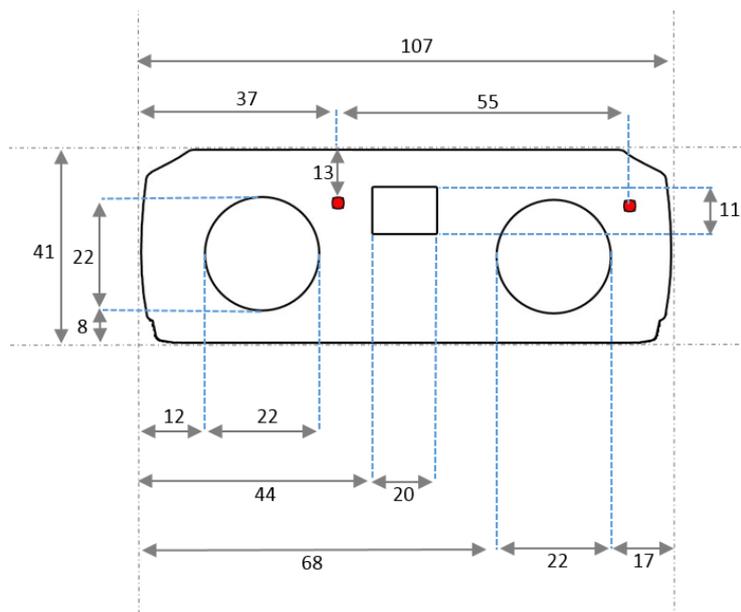
DIMENSIONS OF THE INTERFACE

The metric system is used. The unit is mm.

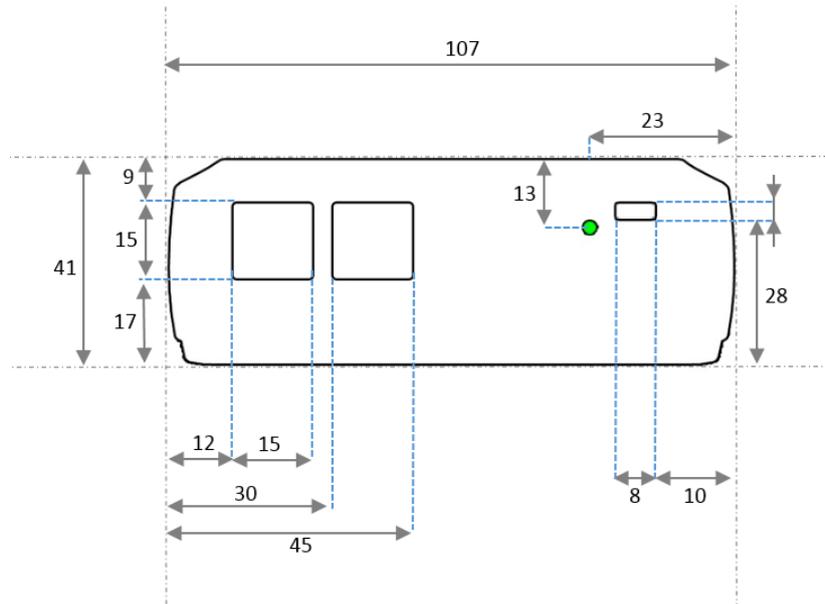
FRONT FACE - 512



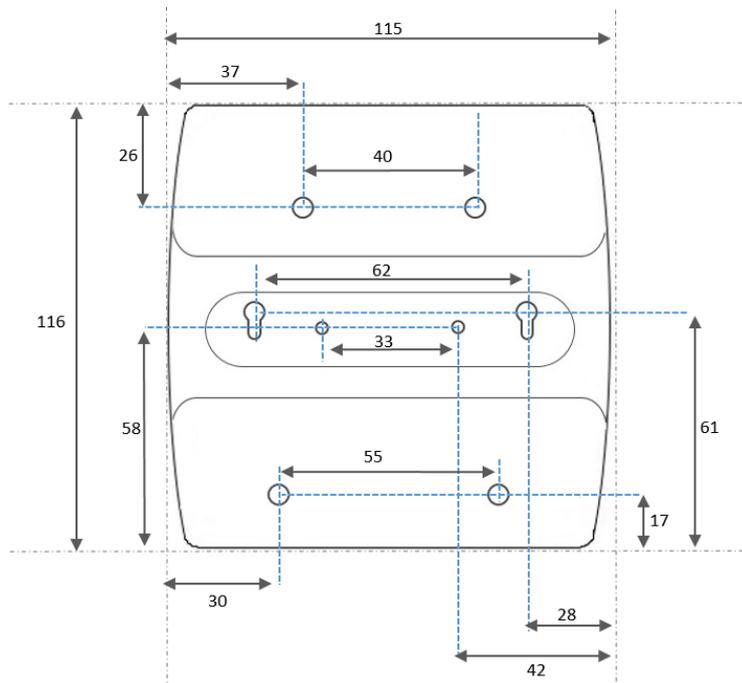
FRONT FACE - 1024



BACK FACE

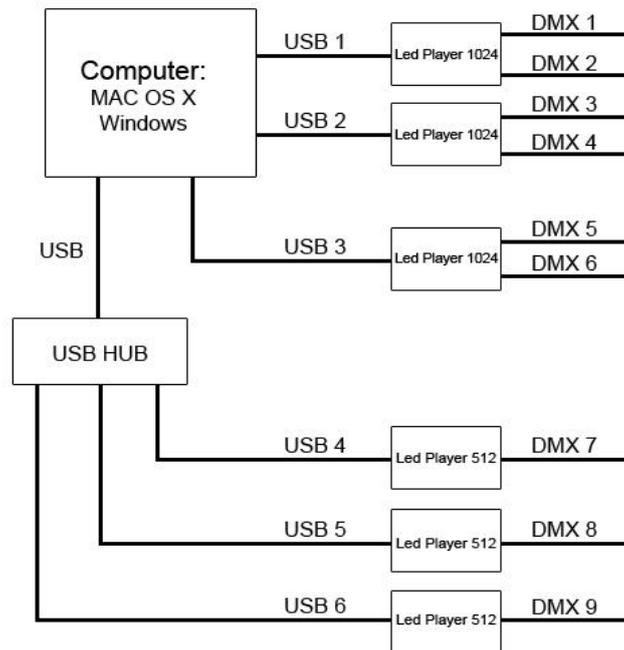


BOTTOM FACE

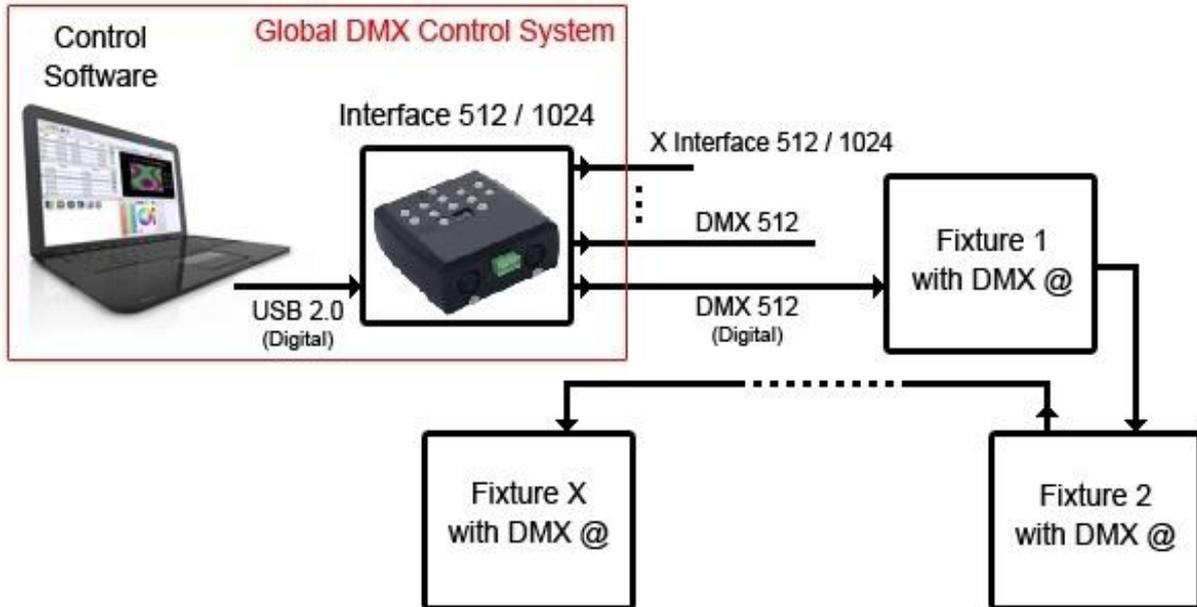


MULTIPLE USB DEVICES CONNECTIONS

Example of Multiple interface connections



STANDARD DMX 512 INSTALLATION



RECOMMENDED DMX512 INSTALLATION

