DRIVER DDL…

WARNING: The system must work together with its specific RGB or RGBW spots and its perfect working has been verified before delivery. <u>Read CAREFULLY the following instructions before making whatever electrical connection.</u> No claims will be accepted for any malfunctioning caused by incorrect connections or programming made by end user/installer. These instructions are destined to installers of electrical equipment or technical qualified people.

The driver is the main control unit, easy to use, for all the colour changing lighting devices (RGB or RGBW). It is the system interface and allows the work of the lighting spot to it connected, both independently and
with the chance to be controlled by a peripheral unit.
The system accepts digital signals with the DMX 512 communication protocol or DALI, by connecting it to the digital controller with cables of a maximum length of 150 meters. It is possible to use the driver also without digital control by means of a button or application on smartphone, ecc.

TECHNICAL FEATURES:

The system goes directly from 180 to 240 Vac, via one or more power supplies already cabled into the box, and for the complete working, it will be enough to simply connect the power-supply cable to the marked terminal. On every driver LX… there are one or more block-terminals, to which the cables of the RGB spots are to be connected, following the table scheme below or <u>in any case following the instructions labels applied on the DDL.</u>

CABLE Colours Legend (For LED RGB or RGBW equipment produced by TECTOR)

ATTENTION: The colour of the cable (4 poles) of any single light fitting, change according to the section of each cable, as stated on the following table :

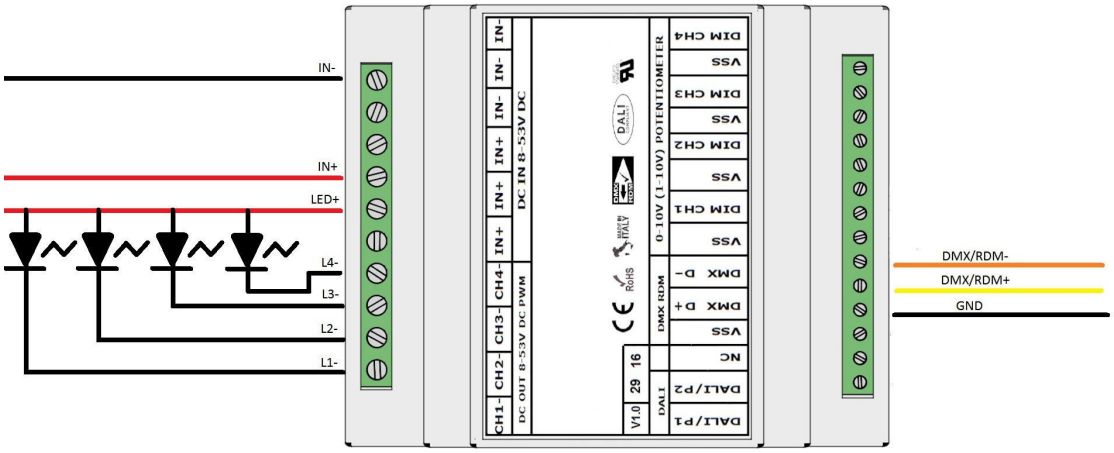
Cable 4x0,75 mm2 RN-F Cable 4x1,00 mm2 RN-F	Grey cable	To connect to terminal common +
	Green cable	To connect to terminal G
	Blue cable	To connect to terminal B
	Red cable	To connect to terminal R

The box will be supplied with special adjunctive terminal boards, in order to facilitate the mounting operations on the cable. In this case, follow the labels placed at the inside of the electrical board. Each DDL board is supplied with the instructions regarding the kind and the maximum number of spots to be connected to every single driver. **Important : do not connect a different model of light fitting or do not exceed in connecting a higher number of spots in comparison to what showed, in order to avoid the overheating or the bad working of the circuit.**

WARNING! THE VARIOUS OPERATING MODES CAN BE SET ONLY IN FACTORY THROUGH SPECIAL INTERFACE. REQUEST THE DESIRED MODE WHEN ORDERING.

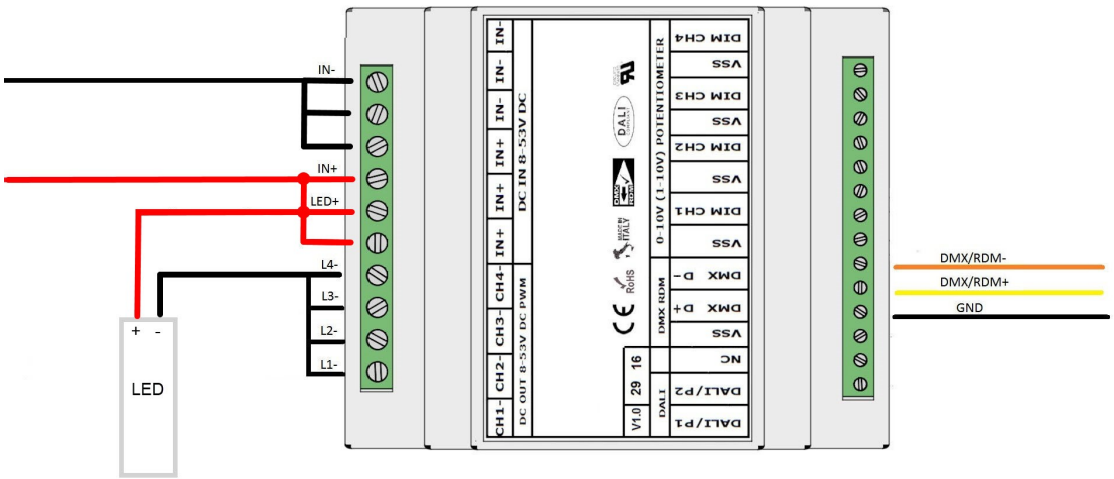
MODES

1) 1) DMX-512/RDM 4 CHANNEL RECEPTION (DEFAULT)



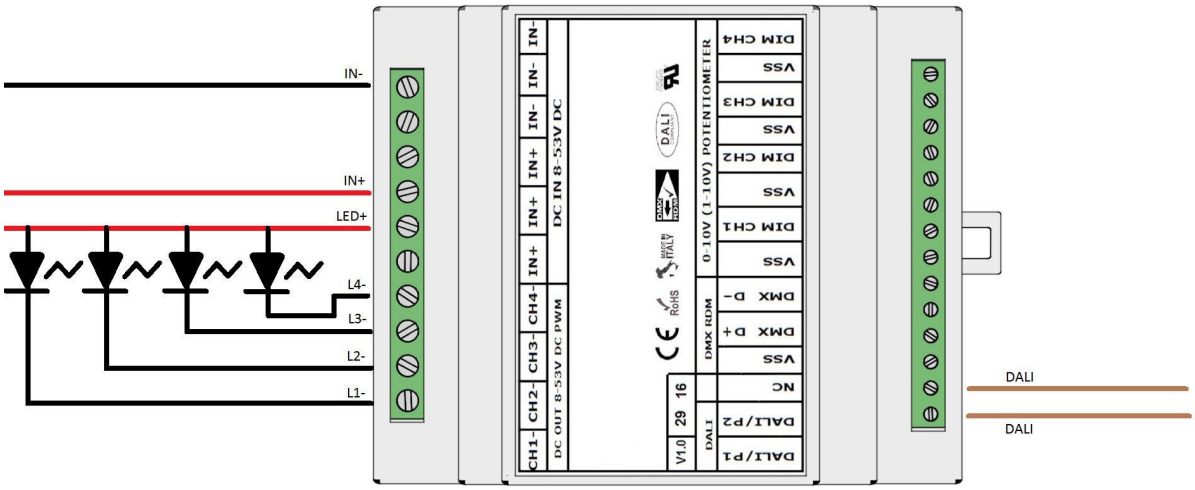
In this mode (configuration pre-set in factory), the device can be controlled through a DMX-512/RDM bus.
The device occupies 4 DMX-512/RDM channels, starting from the base address.
WARNING: FOR THE CORRECT WORKING OF THE DMX BUS IT IS NECESSARY TO CONNECT BETWEEN THEM THE GND POLES OF THE DEVICES CONNECTED TO THE BUS. USE THE VSS CLAM AS SHOWN.
Connect the negative spots cables (red led, green led, blue led and white led if available) respectively to the CH1- CH2- CH3- e CH4- terminals. Connect the positive cables pole (grey cable) to the IN+ terminal. Power the driver through the IN- terminal for the negative cable and IN+ terminal for the positive cable.
Warning! The driver's power tension must be the same of the spots to it connected.
To transmit the digital signal to a subsequent driver, it will be sufficient to connect the relative wires in parallel (VSS, DMX D+, DMX D-).

2) SINGLE CHANNEL DMX-512/RDM RECEPTION



In this mode, the device can be controlled through a DMX-512/RDM bus with single channel working.
The channel outputs are bridged with each other.
The devices occupies one DMX-512/RDM channel starting from a base address.
The device, in this mode, can manage up to a total of 32A.
WARNING: FOR THE CORRECT WORKING OF THE DMX BUS IT IS NECESSARY TO CONNECT BETWEEN THEM THE GND POLES OF THE DEVICES CONNECTED TO THE BUS. USE THE VSS CLAM AS SHOWN.
Connect the negative spots cable to one of the CH1- CH2- CH3- e CH4- terminals. Connect the positive spots pole to the IN+ terminal. Power the driver through the IN- terminal for the negative cable and IN+ terminal for the positive cable.
Warning! The driver's power tension must be the same of the spots to it connected.
To transmit the digital signal to a subsequent driver, it will be sufficient to connect the relative wires in parallel (VSS, DMX D+, DMX D-).

3) 4 CHANNELS DALI INPUT



In this mode, the device works as a 4 channels DALI dimmer. The device is recognised during addressing as 4 totally independent DALI devices totally independent. The maximal current the DALI bus absorbs is of almost 2mA.
In this mode, the received parameters from the DALI bus are sent also to the DMX512/RDM bus on the fixed 1-2-3-4 channels as follows:

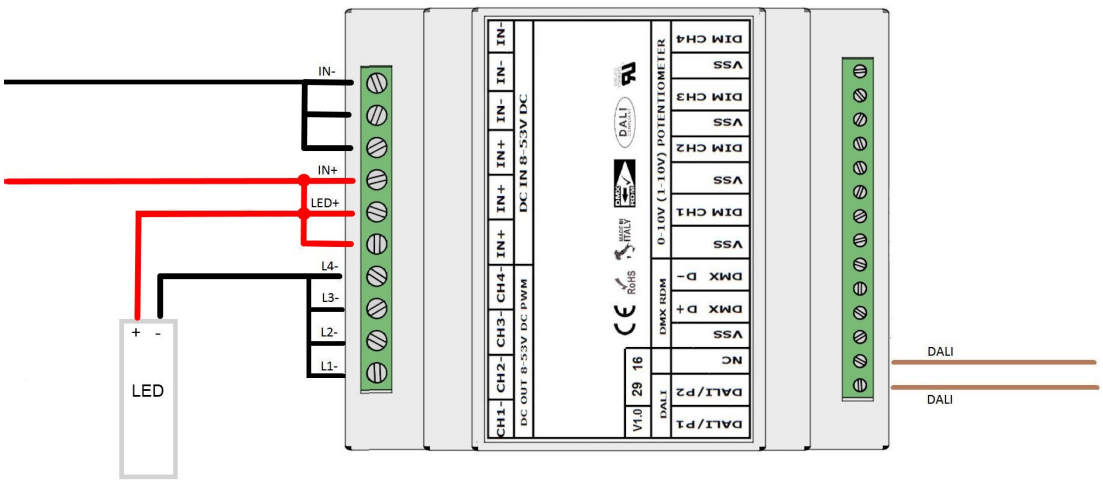
FIRST DALI DEVICE -> DMX512 ADDRESS 1
SECOND DALI DEVICE -> DMX512 ADDRESS 2
THIRD DALI DEVICE -> DMX512 ADDRESS 3
FOURTH DALI DEVICE -> DMX512 ADDRESS 4

Connect the negative spots cables (red led, green led, blue led and white led if available) respectively to the CH1- CH2- CH3- e CH4- terminals. Connect the positive cables pole (grey cable) to the IN+ terminal. Power the driver through the IN- terminal for the negative cable and IN+ terminal for the positive cable.
Warning! The driver's power tension must be the same of the spots to it connected.
To transmit the digital signal to a subsequent driver, it will be sufficient to connect the relative wires in parallel (VSS, DMX D+, DMX D-) of the first driver to the following one and connect in parallel those of the second driver to the third driver and so on.

The standard commands implemented are as follows:
DIRECT ARC POWER
OFF
UP
DOWN
STEP UP

STEP DOWN
RECALL MAX LEVEL
RECALL MIN LEVEL
STEP DOWN AND OFF
ON AND STEP UP
GO TO SCENE (0-15)
RESET
STORE ACTUAL LEVEL IN THE DTR STORE THE DTR AS MAX LEVEL
STORE THE DTR AS MIN LEVEL
STORE THE DTR AS SYSTEM FAILURE LEVEL
STORE THE DTR AS POWER ON LEVEL
STORE THE DTR AS FADE TIME
STORE THE DTR AS FADE RATE
STORE THE DTR AS SCENE (0-15)
REMOVE FROM SCENE (0-15)
ADD TO GROUP (0-15)
REMOVE FROM GROUP (0-15)
STORE DTR AS SHORT ADDRESS
QUERY STATUS
QUERY BALLAST
QUERY LAMP POWER ON
QUERY LIMIT ERROR
QUERY RESET STATE
QUERY MISSING SHORT ADDRESS
QUERY VERSION NUMBER
QUERY DEVICE TYPE
QUERY PHISICAL MINIMUM LEVEL
QUERY POWER FAILURE
QUERY CONTENT DTR1
QUERY CONTENT DTR2
QUERY ACTUAL LEVEL
QUERY MAX LEVEL
QUERY MIN LEVEL
QUERY POWER ON LEVEL
QUERY SYSTEM FAILURE LEVEL
QUERY FADE TIME/FADE RATE
QUERY SCENE LEVEL (0-15)
QUERY GROUPS (0-7)
QUERY GROUPS (8-15)
QUERY RANDOM ADDRESS H QUERY RANDOM ADDRESS M
QUERY RANDOM ADDRESS L

4) SINGLE CHANNEL DALI INPUT



In this mode, the device works as a 4 channels DALI dimmer. The maximal current the DALI bus absorbs is of almost 2mA.
In this mode, the received parameters from the DALI bus are sent also to the DMX512/RDM bus on the fixed 1-2-3-4 channels as follows:

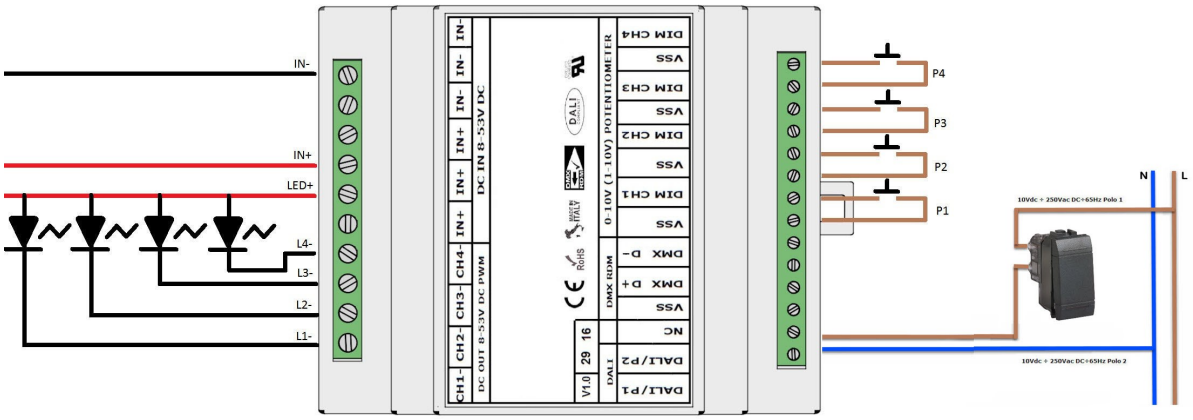
FIRTST DALI DEVICE -> DMX512 ADDRESS 1
SECOND DALI DEVICE -> DMX512 ADDRESS 2
THIRD DALI DEVICE -> DMX512 ADDRESS 3
FOURTH DALI DEVICE -> DMX512 ADDRESS 4

Connect the negative spots cable to one of the CH1- CH2- CH3- e CH4- terminals. Connect the positive spots pole to the IN+ terminal. Power the driver through the IN- terminal for the negative cable and IN+ terminal for the positive cable.
Warning! The driver's power tension must be the same of the spots to it connected.
To transmit the digital signal to a subsequent driver, it will be sufficient to connect the relative wires in parallel (VSS, DMX D+, DMX D-) of the first driver to the following one and connect in parallel those of the second driver to the third driver and so on.

The standard commands implemented are as follows:
DIRECT ARC POWER
OFF
UP
DOWN
STEP UP
STEP DOWN
RECALL MAX LEVEL
RECALL MIN LEVEL
STEP DOWN AND OFF
ON AND STEP UP
GO TO SCENE (0-15)
RESET
STORE ACTUAL LEVEL IN THE DTR
STORE THE DTR AS MAX LEVEL
STORE THE DTR AS MIN LEVEL
STORE THE DTR AS SYSTEM FAILURE LEVEL
STORE THE DTR AS POWER ON LEVEL
STORE THE DTR AS FADE TIME
STORE THE DTR AS FADE RATE
STORE THE DTR AS SCENE (0-15)
REMOVE FROM SCENE (0-15)
ADD TO GROUP (0-15)
REMOVE FROM GROUP (0-15)
STORE DTR AS SHORT ADDRESS
QUERY STATUS
QUERY BALLAST
QUERY LAMP POWER ON
QUERY LIMIT ERROR
QUERY RESET STATE
QUERY MISSING SHORT ADDRESS
QUERY VERSION NUMBER
QUERY DEVICE TYPE
QUERY PHISICAL MINIMUM LEVEL
QUERY POWER FAILURE
QUERY CONTENT DTR1
QUERY CONTENT DTR2
QUERY ACTUAL LEVEL
QUERY MAX LEVEL
QUERY MIN LEVEL
QUERY POWER ON LEVEL
QUERY SYSTEM FAILURE LEVEL
QUERY FADE TIME/FADE RATE

QUERY SCENE LEVEL (0-15)
QUERY GROUPS (0-7)
QUERY GROUPS (8-15)
QUERY RANDOM ADDRESS H QUERY RANDOM ADDRESS M
QUERY RANDOM ADDRESS L

5) PUSH INPUT (NOT ISOLATED) 4 INDEPENDENT CHANNELS + BLUETOOTH



In this mode it is possible to control the 4 output channels by pressing 4 normally open keys (buttons). The buttons must be connected to the VSS and DIM CH1 terminals for channel 1, to VSS and DIM CH2 for channel 2 and so on.

PUSH interface operation (P1, P2, P3, P4)

- Single Click (rapid press (<1sec)) – It turns on and off the output (ON/OFF).
- Double Click (rapid press (<1sec)) – it sets the maximum brightness (output= 100%)
- Long Press (long press (>1sec)) – If the dimmer is OFF, it sets the output to the minimum value / If the dimmer is ON, the long press allows to change the brightness of the devices to it connected (rise/fall).

The normally open button (to connect optionally) connected to the DALI/P1 and DALI/P2 poles can be connected to a tension ranging from 10VDC to 250VAC, the rapid press of such button turns on and off all the channels simultaneously.
Such use is helpful when the driver is not controlled by physical buttons P1, P2, P3 and P4, but only via Bluetooth. The isolated button connected to the DALI/P1 and DALI/P2 only turns on and off the device.

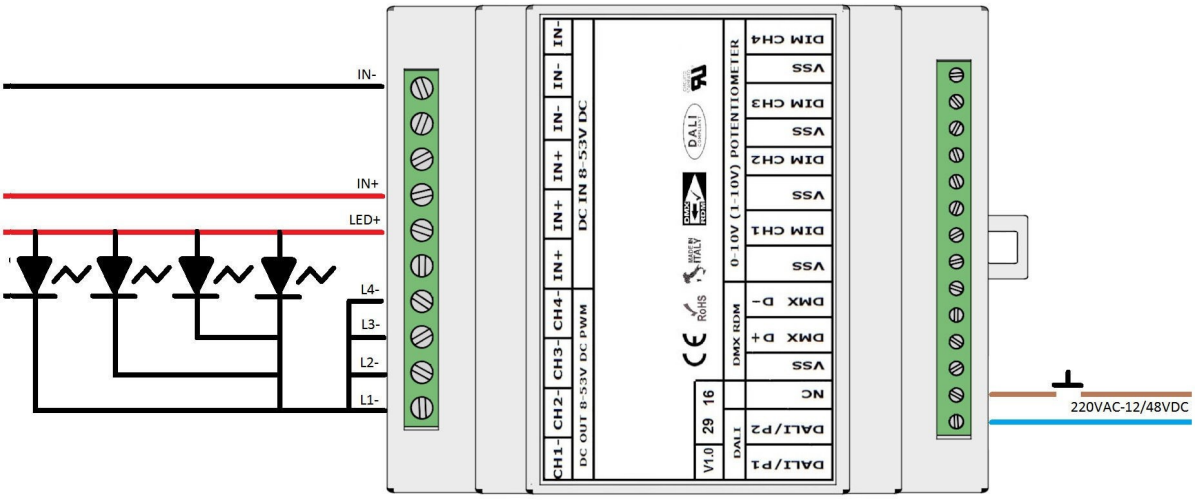
In this mode, the received parameters from the DALI bus are sent also to the DMX512/RDM bus on the fixed 1-2-3-4 channels as follows:

FIRTST DALI DEVICE -> DMX512 ADDRESS 1
SECOND DALI DEVICE -> DMX512 ADDRESS 2
THIRD DALI DEVICE -> DMX512 ADDRESS 3
FOURTH DALI DEVICE -> DMX512 ADDRESS 4

Connect the negative spots cable to one of the CH1- CH2- CH3- e CH4- terminals. Connect the positive spots pole to the IN+ terminal. Power the driver through the IN- terminal for the negative cable and IN+ terminal for the positive cable.
Warning! The driver's power tension must be the same of the spots to it connected.
To transmit the digital signal to a subsequent driver, it will be sufficient to connect the relative wires in parallel (VSS, DMX D+, DMX D-).

For operation with a smartphone via Bluetooth, refer to the appropriate section of the instructions.

6) PUSH INPUT (ISOLATED) SINGLE CHANNEL + BLUETOOTH



In this mode it is possible to synchronously control the 4 output channels by pressing a NO button connected as shown.
The device, in this mode, can manage up to a total of 32A.
In this mode, it is also possible to control the device through smartphone via app Newlab Go. Refer to the appendices for details on installing and using the app.

PUSH interface operation (P1, P2, P3, P4)

- Single Click (rapid press (<1sec)) – It turns on and off the output (ON/OFF).
- Double Click (rapid press (<1sec)) – it sets the maximum brightness (output= 100%)
- Long Press (long press (>1sec)) – If the dimmer is OFF, it sets the output to the minimum value / If the dimmer is ON, the long press allows to change the brightness of the devices to it connected (rise/fall).

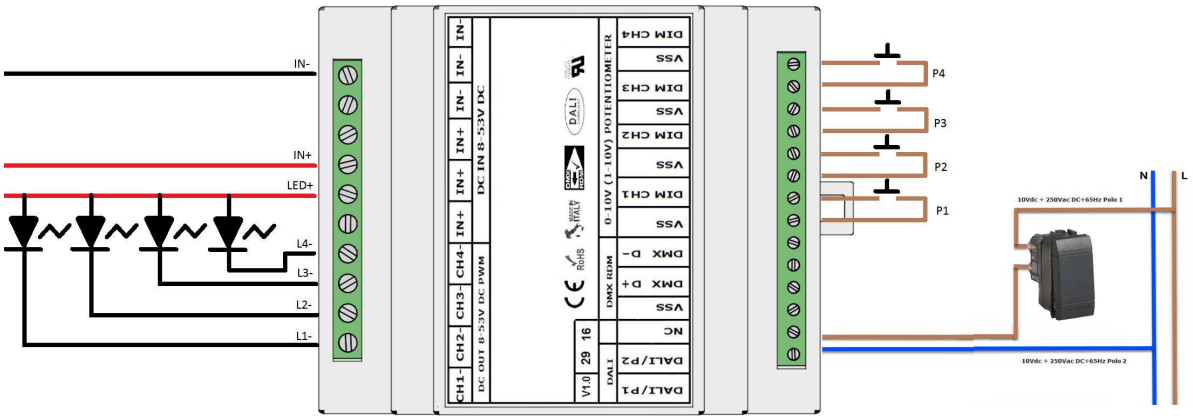
In this mode, the received parameters from the DALI bus are sent also to the DMX512/RDM bus on the fixed 1-2-3-4 channels as follows:

FIRTST DALI DEVICE -> DMX512 ADDRESS 1
SECOND DALI DEVICE -> DMX512 ADDRESS 2
THIRD DALI DEVICE -> DMX512 ADDRESS 3
FOURTH DALI DEVICE -> DMX512 ADDRESS 4

Connect the negative spots cable to one of the CH1- CH2- CH3- e CH4- terminals. Connect the positive spots pole to the IN+ terminal. Power the driver through the IN- terminal for the negative cable and IN+ terminal for the positive cable.
Warning! The driver's power tension must be the same of the spots to it connected.
To transmit the digital signal to a subsequent driver, it will be sufficient to connect the relative wires in parallel (VSS, DMX D+, DMX D-).

For operation with a smartphone via Bluetooth, refer to the appropriate section of the instructions

7) STANDALONE SHOW GENERATOR (GDMX) WITH DMX-512/RDM BUS TRANSMISSION CONTROL



In this mode, the driver works as a generator of pre-programmed DMX shows, with input on 4 N/O buttons connected as shown: on the VSS and DIM CH1 terminals - P1 button, on the VSS and DIM CH2 terminals - P2 button and so on.
The N/O button (to connect optionally) connected to the DALI/P1 and DALI/P2 poles can be connected to a tension ranging from 10VDC to 250VAC, the rapid press of such button turns simultaneously on and off all the channels.
Such use is helpful when the driver is not controlled by physical buttons P1, P2, P3 and P4, but only via Bluetooth. The isolated button connected to the DALI/P1 and DALI/P2 only turns on and off the device.
Each time the key is pressed, there is a variation in the running program as per the following table.

Connect the negative spots cable to one of the CH1- CH2- CH3- e CH4- terminals. Connect the positive spots pole to the IN+ terminal. Power the driver through the IN- terminal for the negative cable and IN+ terminal for the positive cable.
Warning! The driver's power tension must be the same of the spots to it connected.
To transmit the digital signal to a subsequent driver, it will be sufficient to connect the relative wires in parallel (VSS, DMX D+, DMX D-).

For operation with a smartphone via Bluetooth, refer to the appropriate section of the instructions.

P1	P2	P3	P4
Shows e fading	***Fixed colours***	***Power off and on (CH4 white)***	***Power off and on (RGB)***
Slow Rainbow	Show block and color storage	Quick press: shutdown	Quick press: shutdown
Medium Rainbow	White	Quick press: power on	Quick press: power on
Quick Rainbow	Warm white	Slow pressure: light intensity variation	Slow pressure: light intensity variation
Slow fading	Cold white		
Medium fading	Red		
Quick fading	Orange		
Slow cold fading	Mandarin		
Medium cold fading	Melon		
Quick cold fading	Lemon		
Slow warm fading	Lime		
Medium warm fading	Acid green		
Quick warm fading	Green apple		
Slow red fading	Fluorescent green		
Medium red fading	Green		
Quick red fading	Teal		
	Caribbeans		
	Clear sky		
	Light blue		
	Manganese blue		
	Blue		
	Iris		
	Lavender		
	Violet		
	Fluorescent pink		
	Light pink		
	Pink		
	Shocking pink		
	Dark pink		
	Purple		
	Dark purple		

***** The Memory function allows blocking any colour-changing cycle present on the button P1. During a cycle present on P1, by pushing the P2 button, the colour will be blocked and memorised in the functions' sequence present on P2, exactly the moment the P2 button is pressed. In this way, the colour can always be recalled scrolling through the list of the P2 functions. By pressing the P2 key again, during a colour change cycle on the P1 key, the new colour will be overwritten on the previous one.
** The DIMMER function present on the P3 and P4 buttons increases or decreases the colour intensity, of both the P1 and P2 functions. By pushing and holding the P3 and P4 buttons the colour intensity decreases up to the minimum allowed by the software. By repeating this operation, the colour intensity increases up to 100% of the function.

ATTENTION: Some colors could be altered according to the sensitivity of the observer and the angle of diffusion of the lenses.
In the event of a blackout, the system keeps the last setting stored in memory, so when the power returns, the system picks up from where it left off without requiring manual resetting.

8) RGB EFFECT GENERATOR WITH TXDMX REMOTE CONTROL

This system allows the management of each driver and the connected fixtures through a simple remote control.
The configuration includes a **"**primary driver**"** that houses the radio frequency receiver and, if necessary, an indefinite number of additional drivers, depending on the number of fixtures to be controlled.
If the system is equipped with TXDMX (remote control operation), simply power on the system and use the supplied remote control.

To pair an additional remote control to the driver, the driver must be powered. Then, press the receiver button twice in quick succession (less than one second apart). The indicator LED on the receiver will start flashing three times in quick succession, then pause, and repeat the three flashes. The receiver is now in learning mode.Warning! Make sure the number of flashes is three!
Press and hold any button on the remote control for at least 3 seconds. The indicator LED on the receiver will stop flashing and remain steadily lit as long as the button on the remote control is held down. The new remote control is now paired. It is possible to pair up to 10 remote controls with a single receiver.

WARNING: The effective range of the remote control/receiver system is over 100 meters in open air; however, the range can be significantly reduced due to environmental conditions, obstacles, or interference (e.g., reinforced concrete walls), as well as the battery level of the remote control.

WORKING MODE:

The remote control has 4 buttons. By pressing them in various combinations as shown in the table below, up to 45 different lighting effects can be obtained.

S1	S2	S3	S4
Shows e fading	***Fixed colours***	***Power off and on (CH4 white)***	***Power off and on (RGB)***
Slow Rainbow	Show block and color storage	Quick press: shutdown	Quick press: shutdown
Medium Rainbow	White	Quick press: power on	Quick press: power on
Quick Rainbow	Warm white	Slow pressure: light intensity variation	Slow pressure: light intensity variation
Slow fading	Cold white		
Medium fading	Red		
Quick fading	Orange		
Slow cold fading	Mandarin		
Medium cold fading	Melon		
Quick cold fading	Lemon		
Slow warm fading	Lime		
Medium warm fading	Acid green		
Quick warm fading	Green apple		
Slow red fading	Fluorescent green		
Medium red fading	Green		
Quick red fading	Teal		
	Caribbeans		
	Clear sky		
	Light blue		
	Manganese blue		
	Blue		
	Iris		
	Lavender		
	Violet		
	Fluorescent pink		
	Light pink		
	Pink		
	Shocking pink		
	Dark pink		
	Purple		
	Dark purple		

* The Memory function allows blocking any colour-changing cycle present on the button P1. During a cycle present on P1, by pushing the P2 button, the colour will be blocked and memorised in the functions' sequence present on P2, exactly the moment the P2 button is pressed. In this way, the colour can always be recalled scrolling through the list of the P2 functions. By pressing the P2 key again, during a colour change cycle on the P1 key, the new colour will be overwritten on the previous one.
** The DIMMER function present on the P3 and P4 buttons increases or decreases the colour intensity, of both the P1 and P2 functions. By pushing and holding the P3 and P4 buttons the colour intensity decreases up to the

minimum allowed by the software. By repeating this operation, the colour intensity increases up to 100% of the function.

ATTENTION: Some colors could be altered according to the sensitivity of the observer and the angle of diffusion of the lenses.
In the event of a blackout, the system keeps the last setting stored in memory, so when the power returns, the system picks up from where it left off without requiring manual resetting.

BLUETOOTH CONTROL: NEWLAB GO APPLICATION

The features implemented are:
Switching on, switching off and controlling the brightness level of each individual light point.
Possibility of grouping and controlling multiple light points together with a simple command.
Creation and recall of favorite lighting scenarios.
Management of the system from a single simplified user interface.

CONNECTION WITH BLUETOOTH DOES NOT REQUIRE PAIRING PROCEDURE

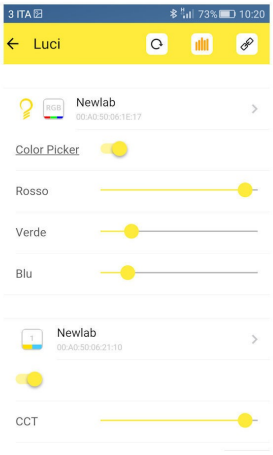
Newlab Go APP functions (depending on the driver configuration, only some functions may be available)

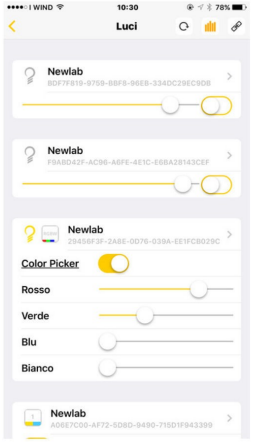
- 1 channel dimmer management* (see ***PUSH INPUT (ISOLATED) SINGLE CHANNEL + BLUETOOTH***)
- 4 channels dimmer management* (see ***PUSH INPUT (NOT ISOLATED) 4 INDEPENDENT CHANNELS + BLUETOOTH***)
- Recall of pre-programmed shows on P1, P2, P3 and P4 buttons (see ***STANDALONE SHOW GENERATOR (GDMX) WITH DMX-512/RDM BUS TRANSMISSION CONTROL***)

(*) The dimming level is saved when the app is closed or when the devices are disconnected from the smartphone's Bluetooth.

To reset the password relating to the Newlab Go APP, press and hold the external control button for 30 seconds.
The default password is 1234.
To install the app on your Apple or Android device scan the desired QRCode to be automatically redirected to the product sheet of the Newlab Go application.

Google play





IMPORTANT: The safety of the device is guaranteed only with the observance of the instructions. The producer undertakes no responsibility for the non-observance of the following instructions or for the incompetence of the user. In case of doubts, please address to professional technicians.

WARRANTY CONDITIONS – The use of the product automatically implies the full acceptance of all the warranty conditions hereunder given.

The products that come within the field of application of the Directives 89/336, 92/31 and 73/23 CE, updated by the Directive 98/68 CE and following amendments, must be compliant with the essential requisites of the same, in order to be introduced on the market and installed in the territory of the European Community. Compliance with CE Directive is certified by the special CE-mark on the product and/or on its packaging or on the instructions. The products that don't lie in the field of application of the Directives are, in any case, in compliance to the Directive 92/89 (general products safety). The products that are specifically intended for exportation to non-European countries, and are prohibited from distribution on the European market, do however comply with safety standards and are manufactured according to state-of-the-art standards; and if they are used in compliance with the necessary instructions, and subjected to regular maintenance, when foreseen, will ensure safety to both people and things. It must be pointed out that products, for which a specific destination of use is not envisaged, must be used by qualified persons for professional use exclusively. All markings, drawings and indications of the products are provided for reference only, and are not-binding. All products must be connected and installed by qualified people in accordance with the "CEI system" standards that apply in Italy, or the European norms or simply following the relative instructions. Liability will not be accepted in the event of any fault function as the result of incorrect installation for not-reading of the instructions or bad interpretation of the same. Those responsible for the installation or the use of the product must ensure that they undertake all the necessary precautions as laid down in the relative instructions and regulations provided with the product because of incorrect use or installation may cause the risk of damage to both people and things.

LEGAL WARRANTY – The legal warranty is given to the final consumer, it has got a two year's duration from the purchasing date and is given for the conformity's defects of the products, for an intrinsic flaw of the same (intended as a working defect or as a not-conformity of the item to whom agreed at the moment of purchase). In any case Tector is not responsible for any not-conformed goods, should the purchaser have been aware of this situation at the time of purchase. All complaints regarding presumed faults of the product, and all possible disputes, must be notified in writing within 8 days from receipt. The warranty terms will be void should the purchaser fail to notify such defects within this term. The legal warranty contemplates the repairing or the replacement of the product that is not conformed to the original one, upon return of the same and, when not possible, the price reduction, or the resolution of the contract.

COMMERCIAL WARRANTY - **Warranty is considered valid only between Manufacturer and Purchaser** for a period of two years from manufacturing date as shown on the packaging label or by the serial number (the serial number needs to be indicated in the space provided in this technical data sheet which needs to be returned together with the fitting). The warranty will only by valid providing that the appliance is returned in adequate packaging and providing that all the components are in good conditions and have not been modified or tampered with. This is a limited warranty and, except in the case of wilful misconduct or gross negligence, the warranty excludes, among other items, the costs for removal or installation and / or means of access to products, the damage caused to the product or non-functioning, including loss of profits, loss of savings and any special, indirect or consequential damages and any claims by third parties advanced by the buyer. Tector also declines all liability against compensation claims relating to profit loss, or for damage to people or things as the result of the incorrect use of the product or faulty installation of the same. Tector's liability only relates to product defects which are found to exist during normal working conditions as envisaged in the product instructions, and the correct use of same accordingly to correct working procedure or eventual reference norm. In particular no liability is accepted for defects coming **from circumstances beyond control,** such as adverse weather situations or natural catastrophic events (over-voltage, lightning strikes etc.), incorrect installation, improper use or use not conformed to instructions, or in violation of whatever standard, safety code, norms or use instructions, not-correct maintenance or any other abuse, tampering with the product, modifications without Tector's consent, or in the event of complaints related to the normal decline in product performance as the result of the normal wear of the product itself, especially in case of wear of the spot. The warranty is not valid in case of deterioration or corrosion of the item, following a use in particularly aggressive surroundings or for the use of not-suitable cleaning products. Even if the supplying of the spare parts is guaranteed, we will not replace for free the fragile or prone to wear and tear parts, that are not covered by warranty and, specifically for what concerns lighting products, the warranty does not cover glasses and bulbs.

For further clarity, the warranty is NOT valid if the appliances are used and/or installed without their specific power supply or in a manner that fails to comply with the enclosed instructions, or technical/electrical norms, or good working practice, or if they have been modified without the Tector's consent, or by using non-original components or unsuitable components, or if one or more parts of the same are found to be missing (as for example screws, cable clamps, gaskets, etc.), or if they are found to have been broken as the result of knocks, falls or improper use, if they were damaged by water's penetration caused by bad maintenance or carelessness in application of the technical instructions or mounting directions. Warranty is limited to the repair of the damaged product and/or the replacement with an equivalent product, providing that the manufacturer deems the return motive as justified. The lighting tonality of the LED, or its colour temperature, are subject to more or less sensible tolerances in comparison to the declared nominal values, imposed by the constructor of the LEDs. For this reason, disputes about the light tonality will not be accepted, after the installation of the product. In any event the warranty is valid for a maximum of two years from the date of product's manufacture or delivery, and always providing that the purchaser is able to demonstrate that the product had been correctly stored, installed and used. The warranty is limited to Tector's decision to either do a return with refund of the price to the customer, or the free repair or replacement of defective products. The warranty term will be void should the product be returned in inadequate packaging, damaged packaging, or in bad conditions, according to the manufacturer's judgement, or conditions differing to the simple standard use, even prolonged through time.

The damage compensation, if the relative confirming documentation exists and if it is verified by Tector, is admitted only if Tector does not fulfil the contract's conditions for the legal and commercial warranty, contemplating the reparation or replacement of the product, resulting in the cancellation of the sales contract. In any event such compensation will be limited to a maximum of the double of the original purchase price, and in any case not higher than the limits foreseen by our sale's conditions, equal to the 15% of any supply, with a maximum limit of Euro 15.000, independently from the number of supplies. In order to be able to apply these terms, the purchaser must have regularly made all payments as envisaged in the sale's contract.

EXTENSION OF WARRANTY – The extension of warranty for the products is given on the ground of the following adjunctive clauses.

1. All warranty conditions foreseen from the production's date (or delivery date if different) remain valid, until the following 24 months; successively the conditions listed in following points will be valid.
2. The duration of the warranty is extended to 3 or 5 years from the production's date marked on the item, or if higher, from the date of the delivery, only and exclusively if the extension of warranty with its duration is stated on the sale's documents.
3. The adjunctive warranty is exclusively intended for the products that ceased working within the period of 3 or 5 years from the date stated in point 2, and for the reasons listed in following points. The warranty, with the restrictions listed in the following points, applies only for the products that ceased working due to breakage or exhaustion of one or more mechanical, electrical or electronic elements or for deterioration and breakage of the components, caused by the product's corrosion. Warranty is not applied to the products that have a normal decline of electrical, mechanical or aesthetic features caused by wear, by environing conditions or by intensive use; therefore, a working product, although aesthetically degraded, will not be replaced under warranty. Considering that the use of a not suitable bulb could degrade the product, with consequences similar to those caused by the atmospheric corrosion, Tector will not take into consideration requests for repairing or replacement under warranty, if the product will be returned to the manufacturer without bulb (also if burned), so with no possibility to verify if the product was correctly used. Warranty will not be valid in case of improper use or corrosion caused by agents different from the atmospheric ones, as for example solvents or cleaning acids, or for a corroded item because of an accidental upsetting of petrol, oil or other materials that could damage the product. Warranty will not be valid if it will be evident that the user did not provide a regular maintenance and cleaning of the product, and particularly if the glass was not always kept well-clean from crusts and deposits of dirt.
4. In particular, the warranty is not applicable to still working products with a decline of the original lighting efficiency higher than the one of other products.
5. The period of warranty presupposes a maximum working cycle of 4000 hours/year.
6. The warranty is not applicable if all conditions listed in the legal and commercial warranty have not respected, and when not-correct maintenance, or a replacement with not-original parts, or whatever kind of intervention that modified the product or the original installation has been done. It is not applicable if the damage of the product was caused by exceptional atmospheric events (hurricane, earthquake, floods), by direct or indirect bolt, by vandal or war acts (hooliganism, insurrection, revolution) or by whatever kind of intentional or unintentional damage, that could not be bound to a defect of the product.
7. During the adjunctive warranty period, any charge of any kind will not be recognized, but only a replacing product or its reparation will be made available to the purchaser (ex-works). Only in case of damage, real and proved by documents, that the product caused to things or people, the RC-products Tector's insurance will intervene.
8. Guarantee extension to 3 or 5 years will be considered operational only after controlling the system or installation, prior to its start-up, by one of our staff and in a manner to our discretion. The costs of such verification will normally be included in the sale price of the product. Alternatively, at the discretion of Tector, the buyer is to acquire a certificate of proper installation execution of the system, issued by a professional installer.
9. The guarantee, in accordance with Point 3, becomes effective through a normal report accompanied by appropriate documentation (a brief technical report and photographic backup) from the buyer. After consulting the documentation provided, Tector undertakes to retrieve the material that has ceased to function and has to be delivered carriage paid to Tector. Tector undertakes at its discretion to repair or replace the product that has ceased to function, within 60 days of receipt of product to be repaired or replaced and to make it available to the buyer for collection at its factory in Lequio Tanaro. The repairing does not compel the manufacturer to give a brand-new product, but to bring it into use again. The replacement, if considered necessary, does not oblige the manufacturer to give exactly the same product, but one adaptable in the place of the original, with the same features and the same function.
10. In case the product, meanwhile, was out of production, Tector undertakes the responsibility for a replacement of the not-working product with a similar or equivalent one. In this case the purchaser will correspond to Tector a reimbursement of expenses, equal to a 50% of the original sale's price of the product.
11. Should be object of warranty a product especially made and on custom's request, Tector engages to provide for the repairing or replacing, up to a maximum of 10% of the pieces sold. In this case Tector reserves the right to provide for it within 120 days from the receipt of the non-working products.
12. In case the manufacturer could not completely or partially fulfil what indicated on point 10 and point 11, within the 3 or 5 years from the extended warranty, an amount equal to the 50% of the original unit sales price, for every not-repaired or not-replaced product, being part of the conditions foreseen by this extension of warranty and until the maximum global limit of the 30% of the original supplying, will correspond to the customer.
13. The conditions from point 1 to 12, are intended as substitutive to any other verbal or written agreement, regarding the product correctly identified at point 2 and are valid only on expressed acceptance of the same, and after the reception of this document signed by the manufacturer and by the customer.
14. During the period of extension of warranty, so after two years from the delivery, the indemnity for damages consequent to the resolution of the sale's contract is not applied. **(01/2026)**