

C € 0682

LED control range

EN - Instructions and warnings for installation and use



FNGLISH

Translation of the original instructions in full

CONTENTS

1	GENERAL SAFETY WARNINGS AND PRECAUTIONS 2
2	PRODUCT DESCRIPTION AND INTENDED USE
3	2.1 List of constituent parts
3	3.1 Pre-installation checks
	3.2 Product usage limits
	3.4 Product installation
4	ELECTRICAL CONNECTIONS4
	4.1 Preliminary checks
5	PROGRAMMING4
_	5.1 TWO-WAY and ONE-WAY operation
	5.2 Transmitter pairings
	5.2.1 Memorising the FIRST TRANSMITTER
	5.3 LOCKING AND UNLOCKING THE MEMORY
	5.4.1 DELETION procedures (with MEMORISED transmitter)
	5.4.2 DELETION procedures (with NON-MEMORISED transmitter in
	ONE-WAY mode)
	5.4.4 Setting the independent outputs
	5.4.5 Priority of the outputs
6	COMMANDS FROM THE TRANSMITTER
7	TESTING AND COMMISSIONING11
8	PRODUCT MAINTENANCE11
9	PRODUCT DISPOSAL
10	TECHNICAL SPECIFICATIONS11
	10.1 Technical specifications
11	

GENERAL SAFETY WARNINGS AND PRECAUTIONS



WARNING! Important safety instructions. Observe all the instructions as improper installation may cause serious damages.



WARNING! Important safety instructions. It is important to comply with these instructions to ensure personal safety. Store these instructions carefully.



According to the latest European legislation, an automated device must be constructed in conformity to the harmonised rules specified in the current Machinery Directive, which allow for declaring the presumed conformity of the automation. Consequently, all the operations for connecting the product to the mains electricity, its commissioning and maintenance must be carried out exclusively by a qualified and expert technician.



In order to avoid any danger from inadvertent resetting of the thermal cut-off device, this appliance must not be powered through an external switching device, such as a timer, or connected to a supply that is regularly powered or switched off by the circuit.

WARNING! Please abide by the following warnings:

- Before commencing the installation, check the "Product technical specifications", in particular whether this product is suitable for automating your guided part. Should it not be suitable, do NOT proceed with the installation.
- The product cannot be used before it has been commissioned as specified in the "Testing and commissioning" chapter.
- Before proceeding with the product's installation, check that all the materials are in good working order and suited to the intended applications.
- The product is not intended for use by persons (including children) with reduced physical, sensory or mental capacities, nor by anyone lacking sufficient experience or familiarity with the product.
- Children must not play with the appliance.
- Do not allow children to play with the product's control devices.
 Keep the remote controls out of reach of children.
- The system's power supply network must include a disconnection device (not supplied) with a contact opening gap permitting complete disconnection under the conditions envisaged by Overvoltage Category III.
- Handle the product with care during installation, taking care to avoid crushing, denting or dropping it, or allowing contact with liquids of any kind. Keep the product away from sources of heat and naked flames. Failure to observe the above can damage the product, and increase the risk of danger or malfunction. Should this happen, stop installation immediately and contact Customer Service.
- The manufacturer declines all liability for damages to property, objects or people resulting from failure to observe the assembly instructions. In such cases, the warranty for material defects shall not apply.

- Cleaning and maintenance reserved for the user must not be carried out by unsupervised children.
- Before intervening on the system (maintenance, cleaning), always disconnect the product from the mains power supply and from any batteries.
- Check the system frequently.
- The packing materials of the product must be disposed of in compliance with local regulations.
- Before connecting the power supply unit to the mains, make sure that the LEDs are properly connected to the receiver.
- Incorrect connection of the LED diodes (reversed polarity) could damage them, therefore be very careful to position the poles correctly when connecting them.
- When it is switched on, the receiver resumes the same condition prior to being switched off.
- The product must not be incorporated or installed in insulating products such as mineral wool or polystyrene, or similar products

PRODUCT DESCRIPTION AND INTENDED USE

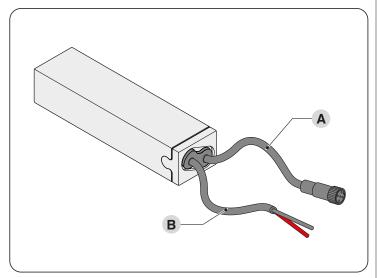
Led Control Range TTDW is a "dimmer" combined with a radio receiver that allows for controlling 1-colour LEDs (W). For it to work, it must be powered by a 24 VDC external power supply unit (not supplied). Through a paired transmitter it is possible to set the programmes. The LEDs are controlled exclusively via radio through the paired transmitters.



CAUTION! – Any use other than that specified herein or in environmental conditions other than those stated in this manual is to be considered improper and is strictly forbidden!

2.1 LIST OF CONSTITUENT PARTS

The **TTDW** is made up of a casing that protects the command and control boards. "*Figure 1*" shows the main parts making up the **TTDW**.



- A Connection to the LED strips
- B Connection to the 24Vdc power supply unit

β installation

3.1 PRE-INSTALLATION CHECKS

Before proceeding with the product's installation, it is necessary to:

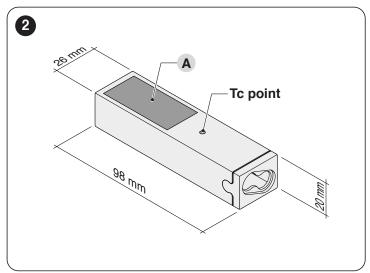
- check the integrity of the supply
- check that all the materials are in good working order and suited to the intended use
- check that all operating conditions comply with that specified in the "Product usage limits" paragraph and in the "TECHNICAL SPECIFICATIONS" chapter
- check that the chosen installation location is compatible with the product's overall dimensions (see "Figure 2")
- check that the surface chosen for installing the product is solid and can ensure stable attachment
- make sure that the installation area is not subject to flooding; if necessary, the product must be installed appropriately raised above ground level
- check that the space around the product allows safe and easy access.

3.2 PRODUCT USAGE LIMITS

The product can be used exclusively with 24Vdc power supply units and with 24 V LED strips of adequate power (refer to the "*TECHNICAL SPECIFICATIONS*" chapter).

3.3 PRODUCT IDENTIFICATION AND OVERALL DIMENSIONS

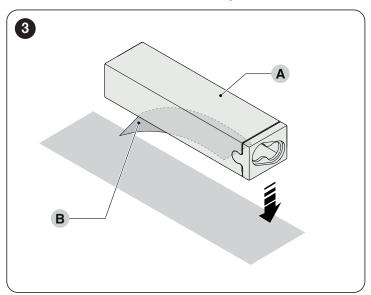
The overall dimensions and label (A) that allow for identifying the product are shown in "Figure 2".



3.4 PRODUCT INSTALLATION

To fasten **TTDW** ("Figure 3"):

- position the box (A) and fasten it with bi-adhesive tape (B) (not supplied)
- make the electrical connections by operating as described in the "ELECTRICAL CONNECTIONS" chapter.



4 ELECTRICAL CONNECTIONS

4.1 PRELIMINARY CHECKS



All electrical connections must be made with the system disconnected from the mains electricity and with the emergency power supply (if present in the automation) disconnected.



The connection operations must only be carried out by qualified personnel.



Mount a device on the electric power line that completely disconnects the automation from the grid.

The disconnection device must have contacts with a sufficient gap to ensure complete disconnection, under the Category III overvoltage conditions, in accordance with the installation instructions. If necessary, this device guarantees quick and safe disconnection from the mains power and therefore must be positioned in sight of the automation. If located in a concealed position, it must be equipped with a system that prevents inadvertent or unauthorised reconnection of power, to avoid potential hazards.

4.2 ELECTRICAL CONNECTIONS

To make the electrical connections:

- connect the cable (A) to the chosen 24Vdc power supply unit
- connect the connector (B) to the LED strips.

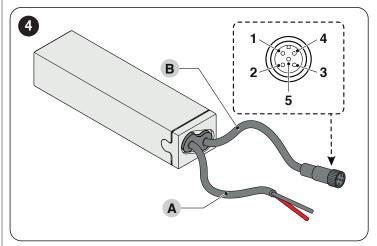


Table 1

OUTPUTS TOWARDS LED STRIPS		
PIN	Exit	W1-W2-W3-W4
1	OUT 3	White 3 (W3)
2	OUT 1	White 1 (W1)
3	OUT 2	White 2 (W2)
4	Common (+)	
5	OUT 4	White 4 (W4)



For connecting multiple LED strips, make sure you use suitable cables and adapters compatible with the connector (B).

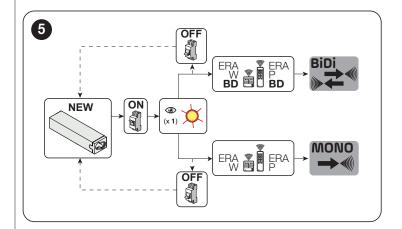
5 PROGRAMMING

5.1 TWO-WAY AND ONE-WAY OPERATION

The **Led Control Range** can operate with both TWO-WAY and ONE-WAY transmission. The transmission mode is determined by the first transmitter (ONE-WAY or TWO-WAY) paired with the system.



WARNING: if the system is new (has no transmitter memorised), when it is switched on the paired LED strip will emit a flash. Run one of the memorisation procedures for the first transmitter described in the paragraph "Memorising the FIRST TRANSMITTER". If the paired LED strip does not emit any flash when the system is switched on, it means that at least one memorised transmitter is already present.



5.2 TRANSMITTER PAIRINGS

The functions and programming modes described below must be made with a transmitter paired (memorised) with the system.



WARNING: once the transmitter has been memorised, it will be assigned the default channel, which varies depending on whether or not the outputs have been set as independent (refer to the procedure described in the paragraph "Setting the independent outputs"). The assigned channel will be: W1+W2+W3+W4 if the setting has a single independent output, W1+W2 with two independent outputs and W1 if the setting has three independent outputs. To change the transmitter channel, perform the procedure described in the paragraph "Pairing of the LED channel with the transmitter".

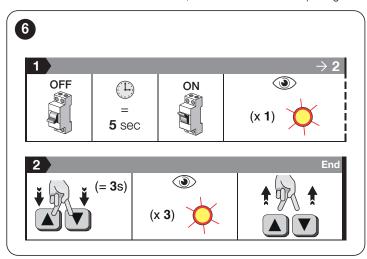
5.2.1 MEMORISING THE FIRST TRANSMITTER

5.2.1.1 TWO-WAY mode

RAPID PROCEDURE (only for memorising the first transmitter)

To memorise the first transmitter ("Figure 6"):

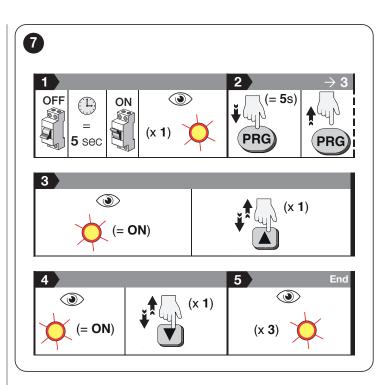
- disconnect the power supply to the system. Wait 5 s. Power the system again. One flash of the LED strips indicates that the system has no paired transmitter
- 2. within 10 s from the power-up, simultaneously press ▲ and ▼ for 3 s on the transmitter to be paired. Three flashes of the LED strips, relative to the chosen channel, will confirm the correct pairing.



NORMAL PROCEDURE

To memorise the first transmitter ("Figure 7"):

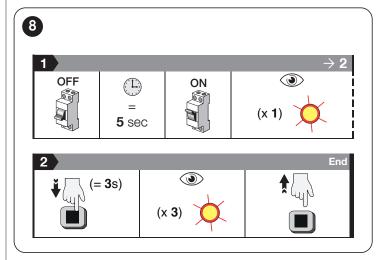
- disconnect the power supply to the system. Wait 5 s. Power the 1. system again. One flash of the LED strips indicates that the system has no paired transmitter
- 2. within 10 s from the power-up, press PRG for 5 s on the transmitter to be paired. Over the next 2 minutes, all LED systems within the radio range will start flashing, each for a random duration
- 3. choose the LED system involved in the programming and, with the LED lit, press and release the ▲ key (once)
- in the LED system involved, with the LED lit, press and release the 4 key (once)
- 5. the LED strip will flash three times to confirm the memorisation.



5.2.1.2 **ONE-WAY** mode

To memorise the first transmitter ("Figure 8"):

- 1. disconnect the power supply to the system. Wait 5 s. Power the system again. One flash of the LED strips indicates that the system has no paired transmitter
- 2. within 10 s from the power-up, press for 3 s on the transmitter to be paired. Three flashes of the LED strips, relative to the chosen channel, will confirm the correct pairing.



5.2.2 MEMORISING AN ADDITIONAL TRANSMITTER

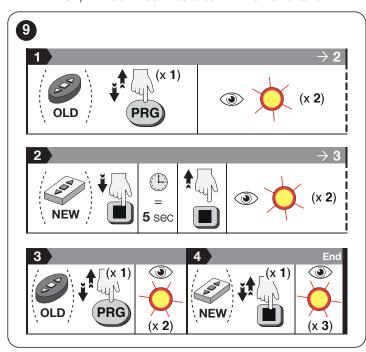
To perform the procedure described below, it is necessary to have a new transmitter to memorise and an old previously memorised transmitter. The two transmitters must have the "PRG" and "ESC" keys (such as, for example, "ERA P" and "ERA W" series transmitters). The procedure memorises all the keys of the new transmitter, in "Mode I", replicating the same configuration of the old transmitter.

5.2.2.1 TWO-WAY mode

The system, configured to operate in TWO-WAY mode, can memorise up to 30 transmitters.

To memorise the transmitter ("Figure 9"):

- on the OLD transmitter: press and release the PRG key. The LED strip will flash twice
- 2. on the **NEW transmitter**: press and hold the **STOP** key for 5 s then release it. The LED strip will flash twice
- on the OLD transmitter: press and release the PRG key. The LED strip will flash twice
- **4.** on the **NEW transmitter**: press and release the **STOP** key. The LED strip will flash three times to confirm the memorisation.

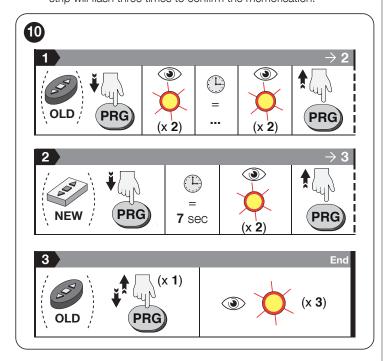


5.2.2.2 ONE-WAY mode and transmitters having the "PRG" and "ESC" keys

The system, configured to operate in ONE-WAY mode, can memorise up to 30 transmitters.

To memorise the transmitter ("Figure 10"):

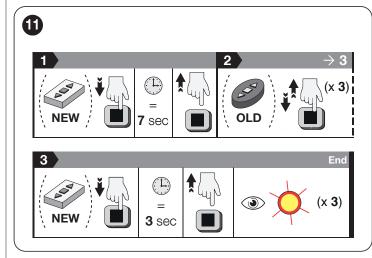
- on the OLD transmitter: press and hold the PRG key. The LED strip will flash twice and, after a brief pause, will emit two more flashes. Release the PRG key
- on the NEW transmitter: press and hold the PRG key for 7 s. The LED strip will flash twice. Release the PRG key
- 3. on the **OLD transmitter**: press and release the **PRG** key. The LED strip will flash three times to confirm the memorisation.



5.2.2.3 ONE-WAY mode and transmitters lacking the "PRG" and "ESC" keys

To memorise the transmitter ("Figure 11"):

- 1. on the **NEW transmitter**: press the key for 7 s
- 2. on the **OLD transmitter**: press the **■** key 3 times
- 3. on the **NEW transmitter**: press the **■** key for 3 s. The LED strip will flash three times to confirm the memorisation.



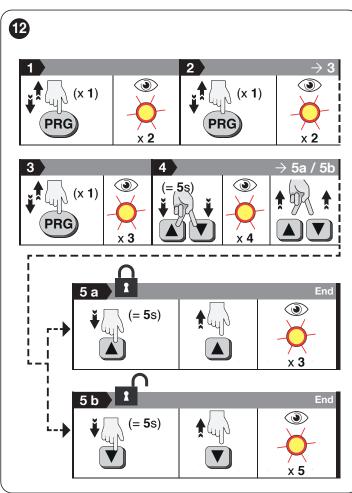
5.3 LOCKING AND UNLOCKING THE MEMORY

Activating the memory lock allows for preventing the accidental and random memorisation of other unintended or unauthorised transmitters. To do this ("Figure 12"):

- press PRG once on the transmitter. The paired LED strip will flash twice
- press PRG once on the transmitter. The paired LED strip will flash twice
- 3. press PRG once on the transmitter. The paired LED strip will flash three times
- 4. simultaneously press ▲ and ▼ for 5 s. The paired LED strip will flash four times. Release the buttons

5.

- to LOCK the memory press ▲ for 5 s. The paired LED strip will flash three times
- to UNLOCK the memory press ▲ for 5 s. The paired LED strip will flash five times.



5.4 DELETION PROCEDURES



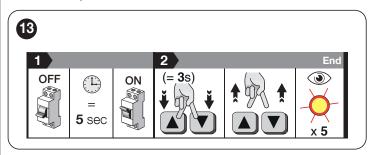
The deletion procedures are irreversible. The deletion of one or more remote controls eliminates the settings memorised in the system relative to the remote controls themselves. The FULL deletion procedure restores the system's factory conditions. At the end of the procedure, all settings previously memorised will be lost.

5.4.1 DELETION PROCEDURES (WITH MEMORISED TRANSMITTER)

RAPID PROCEDURE (only for deleting ALL SETTINGS)

To do this ("Figure 13"):

- disconnect the power supply to the system. Wait 5 s. Power the system again
- within 10 s from the power-up, press ▲ and ▼ for 3 s. The paired LED strip will flash five times to confirm the deletion.



NORMAL PROCEDURE

To do this ("**Figure 14**"):

- press PRG once on the transmitter. The paired LED strip will flash twice
- 2. press PRG once on the transmitter. The paired LED strip will flash twice
- 3. press PRG once on the transmitter. The paired LED strip will flash three times
- press PRG once on the transmitter. The paired LED strip will flash four times
- 5. press the keys indicated in "Table 2" to select the desired option among those available. At the end of the procedure, the paired LED strip will flash three or five times to confirm the deletion.

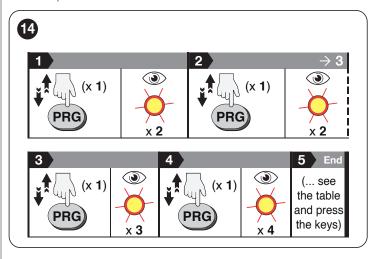


Table 2

DELETION		
Buttons	Setting	
▲ x 3 s	Deletion of a SINGLE REMOTE CONTROL: after selecting this option, press ■ on the remote control to be eliminated to complete the procedure. The paired LED strip will flash five times	
▲ + ▼ x3s	Deletion of ALL SETTINGS	
■ x 3 s	Deletion of ALL REMOTE CONTROLS	
PRG	FULL deletion (reset to the system's factory settings)	

5.4.2 DELETION PROCEDURES (WITH NON-MEMORISED TRANSMITTER IN ONE-WAY MODE)



In TWO-WAY mode, follow the procedure indicated in the paragraph "Memorising the FIRST TRANSMITTER", sub-paragraph "TWO-WAY mode".

To do this ("**Figure 15**"):

- disconnect the power supply to the system. Wait 5 s. Power the system again
- **2.** within 10 s from the power-up, press for 5 s on the non-memorised transmitter. The paired LED strip will emit two or three flashes
- **3.** disconnect the power supply to the system. Wait 5 s. Power the system again
- 4. press PRG once on the transmitter. The paired LED strip will flash twice
- press PRG once on the transmitter. The paired LED strip will flash twice
- **6.** press **PRG once** on the transmitter. The paired LED strip will **flash three times**
- press PRG once on the transmitter. The paired LED strip will flash four times
- **8.** press the keys indicated in "*Table 3*" to select the desired option among those available. At the end of the procedure, the paired LED strip will flash three or five times to confirm the deletion.

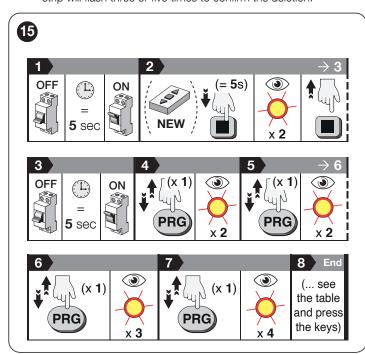


Table 3

DELETION		
Buttons	Setting	
▲ x 3 s	Deletion of a SINGLE REMOTE CONTROL: after selecting this option, press ■ on the remote control to be eliminated to complete the procedure	
▲ + ▼ x 3 s	Deletion of ALL SETTINGS	
■ x 3 s	Deletion of ALL REMOTE CONTROLS	
PRG	FULL deletion (reset to the system's factory settings)	

5.4.3 PRE-DEFINED (PRESET) OR PERSONALISED (CUSTOM) INTENSITIES

The system leaves the factory (PRESET) with 4 pre-configured and available intensities. Activating the "CUSTOM" function allows for memorising personalised intensities which can then be recalled.



After enabling the "CUSTOM" function, the personalised intensity must be set using a memorised transmitter, as explained in the "COMMANDS FROM THE TRANSMITTER" chapter.

5.4.3.1 Setting through memorised transmitters

To activate the "PRESET/CUSTOM" function ("Figure 16"):

- press PRG once on the transmitter. The paired LED strip will flash twice
- 2. press PRG once on the transmitter. The paired LED strip will flash twice
- **3.** press for 3 s. The paired LED strip will flash twice. Release
- 4. press ▲ for 3 s or ▼ for 3 s to select the desired option among those available in "Table 4". If the ▲ key is pressed, the paired LED strip will flash three times, while if the ▼key is pressed the LED strip will flash four times. Release the pressed key.

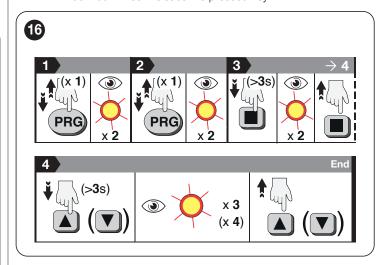


Table 4

PRE-DEFINED (PRESET) OR PERSONALISED (CUSTOM) INTENSITIES		
Buttons Setting		
▲ x 3 s	Factory PRESET intensities: 4 fixed pre-set parameters at 25%, 50%, 75% and 100%.	
▼ x 3 s	CUSTOM intensities: customisable by the user (factory setting: 50%).	

5.4.4 SETTING THE INDEPENDENT OUTPUTS

This function allows for deciding whether or not to make outputs W1-W2-W3-W4 independent.

5.4.4.1 Setting through memorised transmitters

To do this ("Figure 17"):

- press PRG once on the transmitter. The paired LED strip will flash twice
- press PRG once on the transmitter. The paired LED strip will flash twice
- 3. press ▲ for 3 s. The paired LED strip will flash four times. Release
- 4. press ▲ (several rimes) until you select the desired option among those available in "Table 5". The paired LED strip will show the selected behaviour after 5 s
- 5. press for 3 s to confirm the choice and exit the function. The paired LED strip will flash three times. Release .

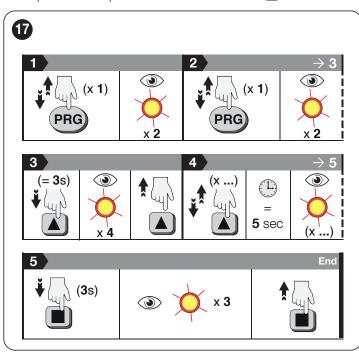


Table 5

SETTING THE INDEPENDENT OUTPUTS		
No. of button presses Setting		
▲ (x 1)	SINGLE output (default W1+W2+W3+W4)	
▲ (x 2)	TWO independent outputs (W1+W2) and (W3+W4)	
▲ (x 3)	THREE independent outputs (W1-W2- W3)	

5.4.5 PRIORITY OF THE OUTPUTS

This function allows for controlling the power-on priority of the LED strips by choosing among two different configurations:

- if the function is ENABLED, a command given to one or more LED channels will switch off the other channels
- if the function is DISABLED, the command given to one or more LED channels is exclusive and will not influence the non-controlled channels, which will remain in their previous condition (on or off).

5.4.5.1 Setting through memorised transmitters

To do this ("Figure 18"):

- press PRG once on the transmitter. The paired LED strip will flash twice
- press PRG once on the transmitter. The paired LED strip will flash twice
- press PRG once on the transmitter. The paired LED strip will flash three times
- 4. press ▲ for 3 s to ACTIVATE (the LED strip will emit two flashes) the function or press ▼ for 3 s to DEACTIVATE (the LED strip will flash three times) the function (*Table 6*). Release the pressed key.

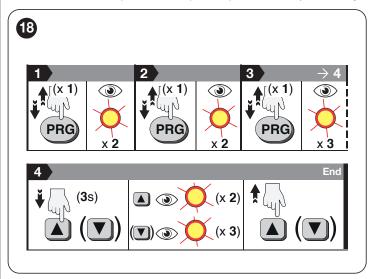


Table 6

	14510 0	
PRIORITY OF THE OUTPUTS		
Buttons	Setting	
▲ x3s	Function ENABLED	
▼ x 3 s	Function DISABLED (factory setting)	

5.4.6 PAIRING OF THE LED CHANNEL WITH THE TRANSMITTER



WARNING: in order to use this function it is necessary to have correctly performed the procedure described in the paragraph Setting the independent outputs.

To pair the channel that powers the desired LED strip to the transmitter ("Figure 19"):

- 1. press **PRG once** on the transmitter. The paired LED strip will flash twice
- press ▲ or ▼ until you select the desired option among those available in "Table 7".
- 3. press for 3 s to confirm the choice and exit the function. The paired LED strip will flash three times.

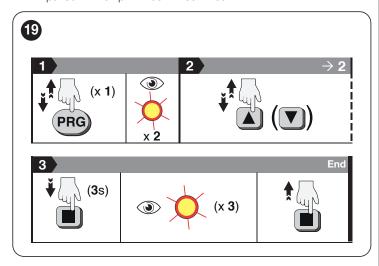


Table 7

CONFIGURATION WITH A SINGLE OUTPUT (DEFAULT)		
Buttons	Channel activated	
	W1+W2+W3+W4	
▼	OFF	

CONFIGURATION WITH TWO INDEPENDENT OUTPUTS		
Buttons	Channel activated	
	W1+W2	
*	W3+W4	
	W1+W2+W3+W4	
	OFF	

CONFIGURATION WITH THREE INDEPENDENT OUTPUTS		
Buttons	Channel activated	
	W1	
	W2	
	W3	
	W1+W2	
▼	W1+W3	
	W2+W3	
	W1+W2+W3	
	OFF	

COMMANDS FROM THE TRANSMITTER

The table shown below summarises the keys to be pressed on the transmitter for sending the main commands to the system.

Table 8

COMMANDS FROM THE TRANSMITTER (PRESET)		
Buttons	Channel activated	
▲ (x 1)	Power-on	
▲ (> 1 s)	Increase of the light intensity	
	Selection of the light intensity	
▼ (> 1 s)	Decrease of the light intensity	
▼ (x 1)	Switch-off	
SLIDER +	Increase of the light intensity	
SLIDER -	Decrease of the light intensity	

Table 9

COMMANDS FROM THE TRANSMITTER (CUSTOM)		
Buttons	Channel activated	
▲ (x 1)	Power-on	
▲ (> 1 s)	Increase of the light intensity	
	Selection of the light intensity	
▼ (> 1 s)	Decrease of the light intensity	
▼ (x 1)	Switch-off	
▲ + ▼	Saving of the "custom" intensity (the LED strip will flash three times to confirm the memorisation)	
SLIDER +	Increase of the light intensity	
SLIDER -	Decrease of the light intensity	

7 TESTING AND COMMISSIONING

These are the most important phases of the automation set-up for maximising the system's safety. The testing procedure can also be used to periodically check the devices making up the system.

The sequence of steps to be performed when running the testing phase, as described below, refers to a typical system.

To run the test:

- verify that all the instructions stated in the "GENERAL SAFETY WARNINGS AND PRECAUTIONS" chapter have been strictly observed
- **2.** using the control devices (transmitter), switch the LED strips on and off to test them and verify that they behave according to their set programme.



Commissioning can only be performed after all testing phases have been successfully completed.



Before commissioning the system, ensure that the owner is properly informed of all residual risks and hazards.

PRODUCT MAINTENANCE

TTDW the electronic part does not require any special maintenance. In any case, every 6 months the system should be checked to ensure the entire system is working efficiently.

9 PRODUCT DISPOSAL



This product is an integral part of the operator and must therefore be disposed of with it.

As with the installation, only qualified personnel must dismantle the product at the end of its life.

This product is composed of different types of materials. Some of these materials can be recycled; others must be disposed of. Please enquire about the recycling or disposal systems in place in your local area for this type of product.



As indicated by the symbol shown here, this product must not been disposed of with household waste. Separate the waste for disposal and recycling, following the methods stipulated by local regulations, or return the product to the seller when purchasing a new product.



<u>^</u>

WARNING

Some parts of the product may contain polluting or dangerous substances. If not disposed of correctly, these substances may have a damaging effect on the environment and human health.



WARNING

Local regulations may impose heavy penalties if this product is not disposed of in compliance with the law.

1 () TECHNICAL SPECIFICATIONS

10.1 TECHNICAL SPECIFICATIONS



All technical specifications stated in this section refer to an ambient temperature of 20°C (± 5°C). Nice S.p.A. reserves the right to apply modifications to the product at any time when deemed necessary, without altering its functions and intended use.

Table 10

TECHNICAL SPECIFICATIONS	
Description	Technical specification
Power supply	24 Vdc (+/-10%)
Outputs	4 (W1-W2-W3-W4) x 24 Vdc (+/-5%)
Total maximum power	See protocol label
Maximum output power	100W
Operating temperature	-20°C ÷ +45°C
Reception frequency	433.92 MHz
Radio memory capacity (transmitters)	30
Protection rating	IP55
Dimensions (L x D x H)	98 x 26 x 20 mm



The connecting cables must have an adequate cross-sectional size for the maximum load applied. The output cable of the LED strips must not be longer than 2 m, in accordance with the EMC standard.

10.2 SUGGESTED POWER SUPPLY UNIT

Below are the characteristics of a power supply unit we suggest using:

 use a SELV LED control gear with constant voltage, certified according to the IEC/EN 61347-2-13 standard, protected against short circuits. Maximum power 240 W (Prated max 240 W).

11 CONFORMITY

SIMPLIFIED EU DECLARATION OF CONFORMITY

The manufacturer, Nice S.p.A., declares that the product LED CONTROL RANGE is compliant with the directive 2014/53/UE.

The full text of the EU declaration of conformity is available at the following internet address: https://www.niceforyou.com/en/support.

