

Radio receiver

User, installation and safety instructions

www.niceforyou.com

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4.1.2 - Mode I procedure, to memorise the FIRST TRANSMITTER only (transmitter with PRG button)

01.		⚠ If no transmitters are memorised, TT2Z flashes 2 times	2
02.	 7 sec		3

4.1.3 - Mode I procedure, to memorise an ADDITIONAL TRANSMITTER or a CLIMATE SENSOR (for transmitters with PRG button)

01.	Wait at least 20 seconds from when the TT2Z is switched on before initiating this procedure		
02.		 5 sec	2 3 sec 2
03.		 5 sec	2
04.			2

4.1.4 - Mode I procedure, to memorise an ADDITIONAL TRANSMITTER or a CLIMATE SENSOR (for transmitters without PRG button)

01.	Wait at least 20 seconds from when the TT2Z is switched on before initiating this procedure		
02.		 10 sec	
03.		 x 3	
04.		 x 1	3

5.1.1 - Procedure for memorising a transmitter in Mode II (for transmitters with PRG button)

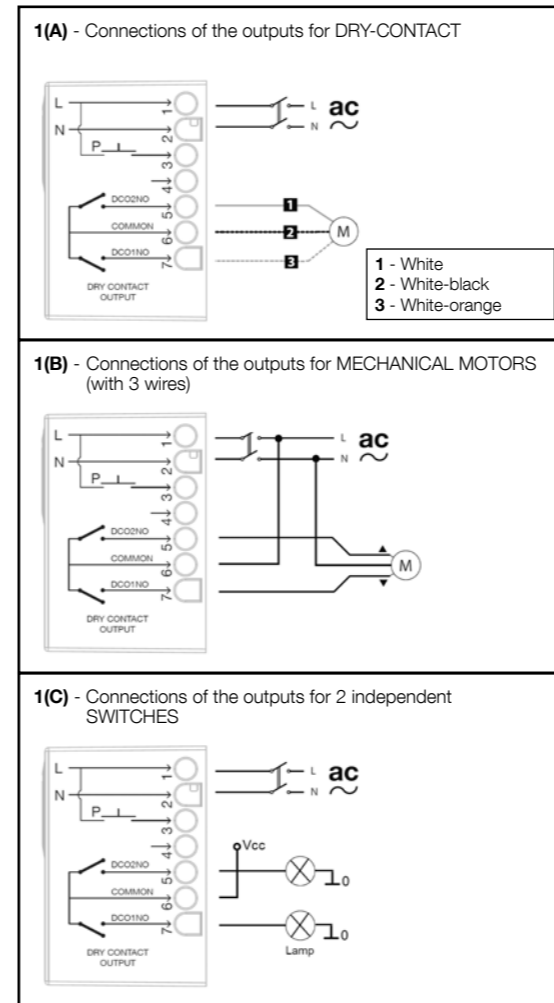
01.	Wait at least 20 seconds from when the TT2Z is switched on before initiating this procedure		
02.		 5 sec	2 3 sec 2
03.		 5 sec	2
04.	In Table B, select the desired command		 x N
	10 sec	N = number of button presses (and feedback quantity) indicated in Table B, next to the selected command.	
	N (feedback)		
05.		 5 sec	 ?
	? = a desired button, to be associated with the command selected in Table B.		

5.1.2 - Procedure for memorising a transmitter in Mode II (for transmitters without PRG button)

01.	Wait at least 20 seconds from when the TT2Z is switched on before initiating this procedure		
02.		 10 sec	
03.		 x 1	4
04.	In Table B, select the desired command		 x N
	N = number of button presses indicated in Table B, next to the selected command.		
05.		 5 sec	3 ?
	? = a desired button, to be associated with the command selected in Table B.		

TABLE B - Commands available during memorisation of a transmitter button, in Mode II.

Command number	Number of button presses	Command that is memorised
No. 1	1 press	Open > Stop > Close > Stop > ...
No. 2	2 presses	Open > Stop > ...
No. 3	3 presses	Close > Stop > ...
No. 4	4 presses	Stop



5.2.1 - Procedure for DELETING THE ENTIRE MEMORY of the TT2Z device, using a memorised transmitter (with PRG button)

01.	 x 1	2
02.	 x 1	2
03.	 x 1	3
04.	 x 1	4
05.	 x 1	5

5.2.2 - Procedure for DELETING THE ENTIRE MEMORY of the TT2Z device, using a NON-memorised transmitter (with PRG button)

01.		5 sec	
02.	within 10 seconds:		
		 5 sec	2
03.		5 sec	
04.	continue the procedure by completing all the steps of the procedure indicated in Paragraph 5.2.1		

TABLE A - Pairings that occur automatically between buttons and commands, during memorisation of transmitters in Mode I, in relation to the type of device connected to the TT2Z and the scheme used for this connection (1A, 1B or 1C).

Motor connection modes	Transmitter button	Memorised command
Motor connected with "Dry Contact" (see scheme 1A)	▲	Command: UP
	■	Command: STOP
	▼	Command: DOWN
Motor connected with 3 wires plus the earth wire ("mechanical"-type motor) (see scheme 1B)	▲	Command: UP
	■	Command: STOP
	▼	Command: DOWN
Two independent "Switches" (see scheme 1C)	▲	Switching On / Off of SWITCH 1
	■	Switching off of SWITCH 1 and of SWITCH 2
	▼	Switching On / Off of SWITCH 2

ENGLISH

Complete instructions translated from Italian

GENERAL WARNINGS: Safety - Installation - Use

CAUTION – During the product's installation, it is important to strictly observe all the instructions contained in this manual. In case of doubts of any nature, do not proceed with the installation and contact the Nice Technical Assistance Service for clarifications.

CAUTION – Important information: store these instructions for any future product maintenance interventions and product disposal operations.

CAUTION – All product installation, connection, programming and maintenance operations must be carried out exclusively by a qualified technician!

Handle the product with care: avoid crushing, knocks or falls as it could get damaged. Do not make alterations on any part of the product. Operations other than as specified may only cause malfunctions. The manufacturer declines all liability for damages caused by makeshift modifications to the product.

Do not open the product's protective casing as it contains non-serviceable electrical circuits.

The product is subject to hazardous voltage. Therefore, do not perforate the product's container.

Do not cut the antenna cable for any reason: it is subject to hazardous voltage!

It is forbidden to install the product in environments that are not suitably protected: its container does not protect the internal components against water or other liquids, but only against contact with solid parts (IP 20). The product must therefore be installed only inside junction boxes or wall boxes.

Keep the product away from sources of heat and do not expose it to open flames. These actions may damage the product and cause malfunctions.

The product is not designed for use by persons (including children) with reduced physical, sensory or mental capacities, nor by people lacking adequate experience or familiarity with the product.

Make sure that children do not play with the product.

Install a disconnection device (not supplied) on the system mains power, with a gap between the contacts that allows complete disconnection under Category III overvoltage conditions.

OTHER WARNINGS

- Also check the warnings appearing in the instruction manual of the motor associated with the product.
- The product's packaging material must be disposed of in conformity with the local regulations in force.

1 PRODUCT DESCRIPTION AND INTENDED USE

TT2Z is an interface that allows communication between compatible **Nice transmitters** and **tubular motors** controllable via "Dry Contact", designed to automate various types of blinds, shutters and similar applications. Moreover, the interface can be configured to function with "mechanical"-type tubular motors (if equipped with 3 electrical wires plus 1 earth wire, with current draw below 1 A). It also features two independent switches to which, for example, two lights or other devices can be connected.

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

2 INSTALLATION AND ELECTRICAL CONNECTIONS

- To install the TT2Z, read the "General Warnings" chapter carefully.
- To connect the TT2Z interface to the device to be controlled, carefully read the "General Warnings" chapter then select the wiring diagram suited to the type of device to be controlled: **Fig. 1(A)**, "Dry contact" type; **Fig. 1(B)**, "Mechanical motor" type (if the motor has 3 wires plus one earth wire and current draw below 1 A); or **Fig. 1(C)**, "Switch" type. Lastly, make the electrical connections as indicated in the chosen wiring diagram.

CAUTION! • All electrical connections must be made with the system disconnected and by qualified personnel. Incorrect connections can damage the equipment or injure people. • Once the connections have been made, if the connected device is of the "Switch" or "Mechanical motor" type, the TT2Z must be configured with **Procedure 6 (Level 2)**, shown in **TABLE C**, which can be downloaded from the website www.niceforyou.com.

2.1 - Signalling lights

When the TT2Z interface is powered, if its LED emits 2 flashes it means that no transmitter is memorised.

3 AVAILABLE FUNCTIONS

NOTE – The * symbol denotes factory settings.

• Devices capable of controlling the TT2Z

- The TT2Z can receive commands from the following devices:
- from one of more compatible transmitters, among those included in the "Nice Screen" products catalogue;
- from a switch configured with "step-by-step" controls;
- from one or more Nice climate sensors (only those that can be connected via radio).

• Memorising radio transmitters and radio climate sensors

TT2Z is equipped with a radio receiver operating at a frequency of 433.92 MHz with "roll-

ing code" technology. Up to 30 compatible transmitters can be memorised, to control the motor **in manual mode** and remotely. Among these 30 transmitters, up to 3 radio climate sensors can be memorised to control the motor **in automatic mode**, depending on the weather conditions.

There are various procedures to memorise a transmitter. These procedures can be grouped into two alternative categories: "Mode I" (or "standard mode") procedures that allow for configuring **all the buttons** of a transmitter with pre-defined factory commands, and "Mode II" procedures (or "advanced mode") that allow for configuring **one button at a time** only, with commands chosen by the installer.

• Support of different types of "manoeuvre stop" operations executed by "Dry contact" motors

There are 3 available options:

- DRY-A:** the stop operation is carried out by the motor using the opposite contact to that used to start the manoeuvre.
- DRY-B:** the stop operation is carried out by the motor by pressing the two contacts together.
- DRY-C:** the stop operation is carried out by the motor using the same contact used to start the manoeuvre.

• Programming the duration of the manoeuvre

- For "dry contact" motors: the system optimises the motor's response in relation to the pre-defined manoeuvre time.
- For "mechanical"-type motors (4 wires): the system disconnects the power supply to the motor after the pre-defined manoeuvre time.

The duration of the manoeuvre can be programmed to between minimum 10 seconds and maximum 4 minutes.

• Quick programming of the TT2Z's response to data coming from the climate sensors, using pre-defined factory settings

There are 3 possible configurations: for **interior blackout blinds**, for **shutters**, for **outdoor awnings**.

• Advanced programming of individual functions relative to the climate sensors

- Direction of movement in case of rain:** in case of rain, the system automatically brings the application to the programmed limit switch. The function can also be disabled.
- Direction of movement in case of wind:** in case of wind, the system automatically brings the application to the programmed limit switch. The function can also be disabled.
- "Wind Security" function (blocking of commands sent by the user):** in case of wind, the system automatically blocks commands sent by the user. The function can also be disabled.
- Direction of movement in case of sunshine:** in sunny conditions, the system automatically brings the application to the upper limit switch, or lower limit switch, or leaves the application where it is.
- Direction of movement without sunshine:** if there is no sunshine, the system automatically brings the application to the upper limit switch or lower limit switch, or leaves the application where it is.

NOTES • When the "Direction of movement in case of wind" function blocks the application in one of the limit switches, the user can unblock it by sending the relevant command. However, this can only be done if the "Wind Security" function is disabled. • The automatic response of the automation triggered by the **Sunshine** and **Rain** climate sensors can be disabled at any time by the user, by pressing the **AUTO-OFF** button featured on series ERA P transmitters. The automatic response can be re-enabled by pressing the **AUTO-ON** button.

• Support of various types of devices

There are 3 types available: "Dry contact"(*), "Switch" and "Mechanical-type motor" (with 3 wires plus one for the earth connection, and current draw below 1 A).

• Configurable "step-by-step" input

TT2Z has an input to which a switch can be connected to control, for example, lights, etc. To control the connected device, the input must be configured with one of the following step-by-step commands:

- Open > Stop > Close > Stop > ...(*)
- Open > Stop > ...
- Close > Stop > ...

• Blocking the TT2Z memory

When the "Transmitter memorisation block" function is active, it prevents the memorisation of further devices.

• Deleting part or all of the TT2Z memory

The following options are available:

- **Deletion of the individual memorised transmitter.**
- **Deletion of all memorised transmitters.**
- **Deletion of all functions.**
- **FULL deletion of the memory** and restoration of the factory settings.

These procedures can also be carried out with a non-memorised transmitter.

• Using the slider present on certain series "Era P" transmitters

The slider allows for controlling manoeuvres with the "man present"; in other words, the manoeuvre is carried out until the user keep his/her finger on the slider, and is stopped once the user releases his/her finger from the slider.

4 BASIC PROGRAMMING

The TT2Z can only be programmed with a series "ERA P" transmitter, as the **PRG** and **ESC** buttons are required. These buttons are positioned on the rear of the transmitter, concealed beneath a cover, so as to prevent unintentional programming.

While the programming procedures are being carried out, the LED present on the TT2Z emits a series of flashes, the number of which signals to the operator the correct execution of the procedure's phases.

4.1 - Memorising transmitters or climate sensors

As mentioned in Chapter 3, various procedures are available for memorising transmitters. Depending on the relevant outcome, these procedures can be grouped into two categories: those that memorise **all transmitter buttons with standard pre-defined factory commands** ("Mode I" or standard mode), and those that memorise **one button at a time, enabling the installer to choose the desired commands** ("Mode II", or advanced mode). In general, once a transmitter has been memorised, its buttons will perform specific commands depending on the mode used to memorise the transmitter itself (Mode I or Mode II) and on the type of connection used to connect the TT2Z to the motor: via "Dry Contact" or **with 3 wires plus one earth wire**, with current draw below 1 A ("mechanical"-type motor), or via a **switch**.

4.1.1 - Overview of transmitter memorisation (or climate sensors) in Mode I

The transmitter memorisation procedures, defined as "**Mode I**" (explained in Paragraphs 4.1.2, 4.1.3 and 4.1.4), allow for simultaneously memorising **all the buttons present on the transmitter**. In practice, when a procedure is being executed it is the system that assigns to each transmitter button a pre-defined factory command: the pairings between the buttons and commands are therefore made **automatically**, based on the order and logic appearing in **Table A**.

IMPORTANT – The climate sensors can only be memorised through the procedures indicated under Paragraphs 4.1.3 or 4.1.4.

Table A shows the pairings that are made automatically between the buttons and the commands, during memorisation of the transmitters in Mode I, depending on the mode used to connect the motor.

The **Mode I** procedures are listed below. To carry them out, refer to the relative tables.

4.1.2 - Mode I procedure, to memorise the FIRST TRANSMITTER only (transmitter with PRG button)

4.1.3 - Mode I procedure, to memorise an ADDITIONAL TRANSMITTER or a CLIMATE SENSOR (for transmitters with PRG button)

4.1.4 - Mode I procedure, to memorise an ADDITIONAL TRANSMITTER or a CLIMATE SENSOR (for transmitters without PRG button)

5 ADVANCED PROGRAMMING

5.1 - Overview of transmitter memorisation in Mode II

The transmitter memorisation procedures, defined as "**Mode II**" (explained in Paragraphs 5.1.2, 5.1.3), allow for memorising a **single button at a time**, among those present on the transmitter (thus the procedure must be repeated for every button that the user wishes to memorise). When a button is being memorised, it is the user that selects the button to be memorised and the command to be paired with it: **the command must be chosen among those listed in Table B**.

The **Mode II** procedures are listed below. To carry them out, refer to the relative tables.

5.1.1 - Procedure for memorising a transmitter in Mode II (for transmitters with PRG button)

5.1.2 - Procedure for memorising a transmitter in Mode II (for transmitters without PRG button)

5.2 - Deleting the memory

The procedures for deleting the entire TT2Z memory are listed below. To carry them out, refer to the relative tables.

To delete a single memorised transmitter or all memorised transmitters or simply the memorised settings, read Paragraph 5.3.

5.2.1 - Procedure for DELETING THE ENTIRE MEMORY of the TT2Z device, using a memorised transmitter (with PRG button)

5.2.2 - Procedure for DELETING THE ENTIRE MEMORY of the TT2Z device, using a NON-memorised transmitter (with PRG button)

5.3 - All the available programming modes to install the TT2Z in a comprehensive and expert manner

This manual describes in detail only the basic procedures for programming the TT2Z interface. To programme the interface in an advanced and comprehensive manner, refer to **TABLE C**, not included in this manual but available for downloading on the website www.niceforyou.com. **Table C** lists all the programming modes available for the TT2Z interface. These are grouped according to "levels" and each level includes the following procedures:

LEVEL 1

- 1 - Mode with which the "Dry Contact" motor stops a manoeuvre.
- 2 - Duration of the manoeuvre.
- 3 - Pre-settings to rapidly programme the climate sensors.

LEVEL 2

- 1 - Direction of movement in case of rain.
- 2 - Direction of movement in case of wind.
- 3 - "Wind Security" function (blocking of commands sent by the user).
- 4 - Direction of movement in case of sunshine.
- 5 - Direction of movement without sunshine.
- 6 - Type of device connected to the TT2Z.
- 7 - Configuration of the input on the TT2Z, with step-by-step commands.

LEVEL 3

- 1 - Blocking of transmitter memorisation.

LEVEL 4

- 1 - Deletion of the individual memorised transmitter.
- 2 - Deletion of all memorised transmitters.
- 3 - Deletion of all settings, excluding memorised transmitters, and restoration of the factory settings.

LEVEL 5

- 1 - Full deletion of the memory, including memorised transmitters, and restoration of the factory settings.

5 PRODUCT DISPOSAL

This product constitutes an integral part of the automation and, therefore, must be disposed of together with it.

Similarly to the installation phase, once the product reaches the end of its useful life, the disassembly and scrapping operations must be performed by qualified personnel. This product is made of various types of materials, some of which can be recycled while others must be scrapped. Seek information on the recycling and disposal systems envisaged by local regulations in your area for this product category.

CAUTION! - Some parts of the product may contain polluting or hazardous substances which, if released into the environment, constitute serious environmental and health risks.



As indicated by the adjacent symbol, the product may not be disposed of together with domestic waste. Sort the materials for disposal in conformity to the local regulations in force, or return the product to the retailer when purchasing a new equivalent product.

WARNING! - Local regulations may envisage the application of heavy fines in the event of improper disposal of this product.

6 TECHNICAL SPECIFICATIONS

All technical specifications stated herein 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 the products intended use and functions.

- **Universal range:** 90-265 VAC; 50-60 Hz
- **Low consumption in stand-by mode:** < 0.3 W
- **Number of transmitters and climate sensors that can be memorised:** maximum 30, including maximum 3 radio-type climate sensors.
- **Radio frequency:** 433.92 MHz
- **Radio encoding:** FLO-R, O-CODE, F-CODE.
- **Manoeuvre duration:** 10 ... 240 seconds
- **Protection rating:** IP 20 (with container intact)
- **Operating temperature:** -20°C ... +55°C
- **Dimensions (mm):** 47 x 18 x 32
- **Weight (g)** 30

EU Declaration of Conformity (N. 594/TT2Z)

Note: The contents of this declaration correspond to declarations in the official document filed in the offices of Nice S.p.a., and particularly the latest version thereof available prior to the printing of this manual. The text herein has been re-edited for editorial purposes. A copy of the original declaration can be requested from Nice S.p.A. (TV) I.

Rev: 1
Translate: English

Manufacturer's Name: NICE S.p.A.
Address: Via Pezza Alta n°13, 31046 Rustignè di Oderzo (TV) Italy
Type of product: Radio receiver 433MHz
Model/Type: TT2Z
Accessories: -

Il sottoscritto Roberto Griffa in qualità di Amministratore Delegato, dichiara sotto la propria responsabilità che il prodotto sopra indicato risulta conforme alle disposizioni imposte dalle seguenti direttive:

- Directive 2014/53/EU (RED) Health protection standards (art. 3(1)(a): EN 62479:2010
- Electrical safety (art. 3(1)(a)): EN 60950-1:2006+A11:2009+A12:2011+A1:2010+A2:2013
- Electromagnetic compatibility (art. 3(1)(b)): EN 301 489-1 V2.2.0:2017, EN 301 489-3 V2.1.1:2017
- Radio spectrum (art. 3(2)): EN 300 220-2 V3.1.1:2017

The product also complies with the following standards: EN 60730-1:2016

Place and Date: Oderzo, 05/04/2017

Ing. **Roberto Griffa**
(Chief Executive Officer)