

# RC200

CE

## Receiver

Instructions and warnings  
for installation and use.

The logo for Nice Home features a black square on the left containing the word "Nice" in white. To its right is a grey circle containing the words "Your Smart Home" in white, stacked vertically.

**Nice** Your  
Smart  
Home

## WARNINGS

### — STEP 1 —

- Before proceeding with the installation, make sure the product is suitable for its intended use. Pay special attention to the data provided in the “Technical Characteristics” chapter. NICE disclaims liability for any damage resulting from uses of the product other than those described in this manual.
- Protect the product’s internal components from contact with water and other polluting substances. Keep it away from heat sources and do not expose it to open flames. If any of these conditions occur, stop using it immediately and call NICE customer service.
- Disconnect the power supply before proceeding with the installation operations.
- The packaging materials must be disposed of in compliance with the regulations locally in force.

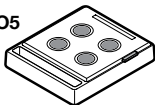
## PRODUCT DESCRIPTION AND APPLICATIONS

### — STEP 2 —

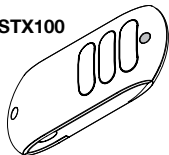
The RC200 radio receiver, used in combination with the ECCO5... and STX100 transmitters, is suitable for the remote control of single-phase equipment powered by the mains voltage, with up to 500W power.

The possible commands are On/Off, “Man Present”, Timer 1 and Timer 2. The radio receiver operates at a frequency of 433.92 MHz and can memorize up to 30 ECCO5... and STX100 transmitters.

ECCO5



STX100

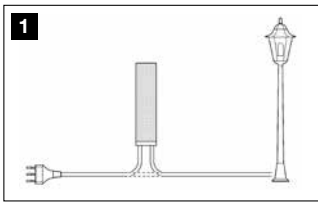


## INSTALLATION

### — STEP 3 —

To connect the RC200 radio receiver, the normal power cable to the equipment to be controlled must be “interrupted” (Fig. 1).

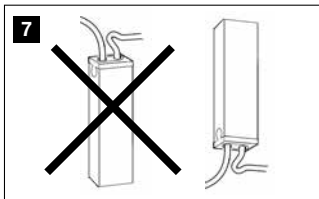
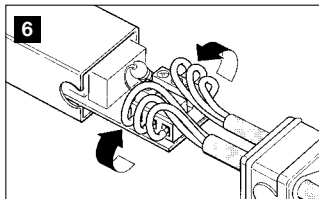
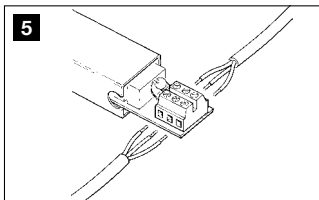
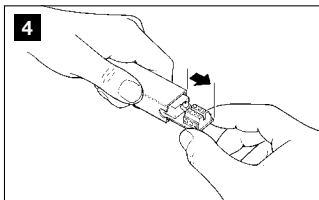
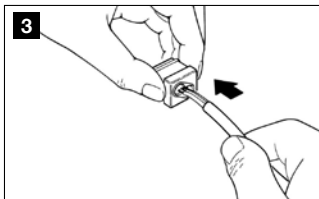
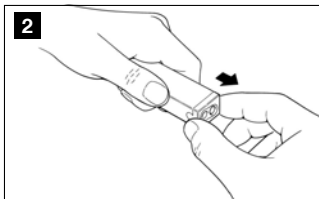
**WARNING: Electrical systems must be set up by qualified and experienced personnel in compliance with current legislation. As the cable clamps do not provide protection against pulling and the removable cable cap can be separated, the RC200 container must be positioned where it is inaccessible to the general public. Said container does not guarantee protection against access to those parts of the system which are live. If the RC200 radio receiver is installed outdoors, keep in mind that the cable holders are waterproof only for round cables with a diameter of 6.5 to 8.5 mm.**



01. Make sure there is no voltage anywhere in the electrical circuits.
02. Cut the power cable to the equipment to be controlled.
03. Open the RC200 enclosure and remove the “cable holding cap” (Fig. 2).
04. Strip the sheath off the two ends of the cable approx. 3 cm, then strip the single conductors approx. 5 mm.
05. Thread the two cables through the holes in the cable holding “cap” (Fig. 3).
06. Pull the board out a few centimetres (Fig. 4).
07. Connect the conductors to the terminals (Fig. 5).
08. Fold the conductors (Fig. 6).
09. Push the board back inside the enclosure, making sure that the stripped sections of cable are not exposed, then slide the “cap” along the cables until the enclosure is closed tight.
10. The RC200 radio receiver does not require mounting, it can be posi-

tioned directly in the dedicated compartment. To avoid any risk of water infiltrations, we recommend positioning it with the cables facing down (Fig. 7).

**WARNING: The enclosure must not be perforated for any reason.**



## ELECTRICAL CONNECTIONS

### — STEP 4 —

#### Power Supply

Use terminals 5-6-7 for the main power supply to the radio receiver (ground, phase, neutral), as shown in figure alongside “Electrical Connections”.

#### Connection to the Equipment to Be Controlled

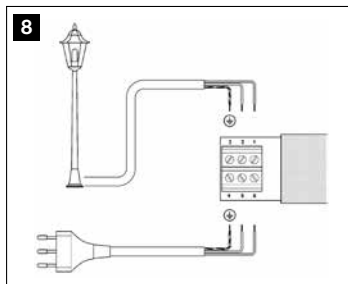
The equipment to be controlled (Max 500W) must be connected to terminals 1-2; No. 3 is the ground terminal.

#### WARNING

**Terminal 7 (Neutral) is directly connected to terminal 1 of the equipment to be controlled, which is therefore not completely isolated from the power supply line.**

Carefully follow all the connection instructions. If you have any doubts do NOT make experiments but refer to the relevant technical specifications.

**Improper connection may cause serious damage to the radio receiver.**



## MEMORIZATION OF RADIO TRANSMITTERS



### — STEP 5 —

A memorization procedure must be executed in order to enable the transmitter to control the radio receiver.

#### **WARNING:**

- All the memorization sequences described in this chapter are timed, therefore they must be performed within the set time limits.
- All the receivers that are within the range of the transmitter can be memorized via radio; it is therefore expedient to power only the radio receiver involved in the operation.

You can check whether any transmitters have been previously memorized in the radio receiver; this is done by counting the number of beeps emitted when the radio receiver is switched on.

Checking the memorized transmitters		
3 short beeps		Some transmitters are already memorised
2 long beeps		Empty memory (no memorized transmitters)

Two different procedures can be followed to memorize the transmitters:




- **Mode 1:** simplified memorization (the transmitter keys are automatically configured by the RC200 radio receiver).
- **Mode 2:** advanced memorization (each single transmitter key can be configured for a specific command).

**Mode 1** (simplified memorization)

In this mode the functions of the transmitter keys are pre-set. The keys are **associated by pairs**: keys 1 and 2 can perform the On-Off commands from an RC200 radio receiver, whereas keys 3 and 4 can perform the On-Off commands from a different RC200 radio receiver, as shown in the example below.

When the memory is empty (no memorized transmitters) you can proceed to program the first transmitter in Mode 1 as shown in table **[A]**.

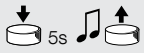


**WARNING:** if you press key 1 or 2, this pair of keys will be memorized, whereas if you press key 3 or 4, this latter pair of keys will be memorized.

Table [A]	Memorizing the first transmitter in Mode 1	Example
1	Power the radio receiver: you will hear two long beeps	
2	Within 5 seconds, press one of the keys in the desired pair (pair 1-2 or 3-4) on the transmitter and hold it down	
3	Release the key when you hear the first of the 3 beeps confirming the memorization	

If the radio receiver has already memorized one or more transmitters, when it is switched on you will hear 3 short beeps. In this case you will not be able to proceed as described above, but will have to switch to the memorization mode described in Table **[B]**

Example of memorization in Mode 1		
Key 1	On on RC200 no. 1	
Key 2	Off on RC200 no. 1	
Key 3		On on RC200 no. 2
Key 4		Off on RC200 no. 2

Even if one or more transmitters have already been memorized in Mode 1, additional transmitters can be memorized in Mode 1, as described in Table [B].

Table [B]	Memorizing additional transmitters in Mode 1	Example
1	Press and hold down one of the keys in the desired pair (1-2 or 3-4) on the new transmitter to be memorized (New TX) until you hear a beep (after approx. 5 seconds), then release the key	New TX 
2	Slowly press one of the keys in the desired pair on a previously memorized transmitter (old TX)	Old TX 
3	Once again, press and release the key on the new transmitter you pressed according to step 1	New TX 

The 3 final beeps signal that the new transmitter has been correctly memorized. If the memory is full (30 transmitters), 6 beeps will signal that the memory is not capable of memorizing any additional transmitters.



**Mode 2** (advanced memorization)






In this mode, each of the 4 available commands can be associated to a transmitter key, as shown in Table [C].

Table [C] Commands available for memorization Mode 2		
N°	Command	Description
1	On-Off	The first command switches on the unit, the next one switches it off, and so on
2	Man Present	When the key is pressed the relay contact closes. When the key is released the relay contact opens
3	Timer 1	The contact remains closed for a length of time ranging from 1 sec to 9 hours (programmable as shown in Table [G])
4	Timer 2	The contact remains closed for a length of time ranging from 1 sec to 9 hours (programmable as shown in Table [G])

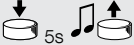
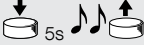



In this mode, the memorization procedure is performed separately for each single transmitter key; this means that 2 keys on the same transmitter can be memorized for two commands to the same radio receiver, or to command different receivers as illustrated in the example below:

Example of memorization in Mode 2				
Key 1	On-Off on RC200 no. 1			
Key 2		Timer1 on RC200 no. 2		
Key 3			Timer2 on RC200 no. 3	
Key 4				Man Present on RC200 no. 3

To memorize the transmitters in Mode 2, refer to Tables [D] and [E].

Table [D]	Memorizing the first transmitter in Mode 2	Example
1	As soon as the radio receiver is powered you will hear 2 long beeps	
2	Within 5 seconds, press the desired key on the transmitter to be memorized and hold it down until al 3 beeps have sounded, then release the key	
3	Within 3 seconds, press the same key on the transmitter as many times as the number corresponding to the desired command: 1 = On-Off; 2 = Man Present; 3 = Timer1; 4 = Timer2	 X1...X4
4	After approx. 3 seconds you will hear a number of beeps corresponding to the selected command	 X1...X4
5	Within 2 seconds, press and release the same key to confirm the programming	

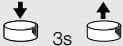
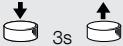
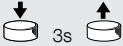
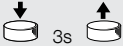
The 3 final beeps signal that the new transmitter has been correctly memorized. During step 4, if you do not hear the number of beeps corresponding to the desired function, wait 10 seconds before abandoning the procedure, then try again.

Table [E]	Memorizing additional transmitters in Mode 2	Example
1	Press and hold down the desired key on the new transmitter (New TX) until you hear a beep (after approx. 5 seconds), then release the key	New TX 
2	Within 5 seconds, press and hold down for approx. 5 seconds a previously memorized key on a transmitter (old TX) until you hear 2 short beeps, then release the key	Old TX 
3	Within 3 seconds, press again the same key on the previously memorized transmitter (old TX) as many times as the number corresponding to the desired command: 1 = On-Off; 2 = Man Present; 3 = Timer1; 4 = Timer2	Old TX  X1...X4
4	After approx. 3 seconds you will hear a number of beeps corresponding to the selected command	 X1...X4
5	Within 2 seconds, press and release the desired key on the new transmitter (new TX) to confirm the programming	New TX 

The 3 final beeps signal that the new transmitter has been correctly memorized. If the memory is full (30 transmitters), 6 beeps will signal that the transmitter cannot be memorized.

### Memorizing a new transmitter like a previously memorized transmitter

It is possible to memorize a new transmitter so that it operates exactly like a previously memorized one. If the old transmitter was memorized in Mode 1, the new one will also operate in Mode 1 and a single memorization stage will be required. If the key on the old transmitter was memorized in Mode 2, also the key on the new transmitter will be memorized in Mode 2 and will perform the same function. If you wish to memorize more than one key you will have to perform a memorization procedure for each key.

Table [F]	Memorizing a new transmitter exactly like a previously memorized transmitter	Example
1	Press the key on the new transmitter (new TX) to be memorized and hold it down for at least 3 seconds, then release it	New TX 
2	Press the key on the previously memorized transmitter (old TX) and hold it down for at least 3 seconds, then release it	Old TX 
3	Press the key on the new transmitter (new TX) again and hold it down for at least 3 seconds, then release it	New TX 
4	Press the key on the previously memorized transmitter (old TX) and hold it down for at least 3 seconds, then release it	Old TX 

The 3 final beeps signal that the new transmitter has been correctly memorized. If the memory is full (30 transmitters), 6 beeps will signal that the memory is not capable of memorizing any additional transmitters.

## Programming the Timers




The RC200 radio receiver features two independent timers (Timer1 and Timer2) for automatic relay deactivation after a set time delay.


The deactivation time can be brought forward, compared to the timer setting, by maintaining the “timer” command active for more than 3 seconds or by giving an “Off” command.

The factory or default settings for the two timers are 1 minute (Timer1) and 10 minutes (Timer2) respectively.

The time settings can be programmed separately for each of the two timers, from a minimum of 1 second to a maximum of 9 hours. Once the timer has been programmed, every command associated with it will activate the relay for the set time interval.

In order to program the timers you need to have a transmitter memorized for timer control, then follow the steps in the table [G].

Table [G]	Programming the Timers	Example
1	Press and hold down the transmitter key associated with control of the timer you wish to program. The relay will be activated (On)	 “Relay ON”
2	Hold the key down, after approx. 3 seconds the relay will be deactivated (Off)	 3s “Relay OFF”
3	Hold down the same key for approx. 10 seconds, until the relay is activated again (On). The time measuring stage starts at this point. Release the key	 10s “Relay ON”

4	When the time you wish to set has elapsed, press the key associated with control of the timer. The relay will be deactivated (Off) and the measured time will be memorized	 "Relay OFF"
3 long beeps will signal that the time has been programmed successfully; the following 1 or 2 short beeps indicate whether timer1 or timer2 has been programmed.		





### Clearing the Receiver Memory

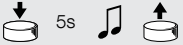

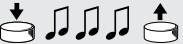
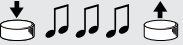


There may be cases when the RC200 radio receiver memory has to be cleared. The memory can be cleared using:

- non-memorised transmitters or those which have been memorised for "Timer" commands starting from point A.
- A previously memorized transmitter, starting from step N. 1

The following items may be erased:

- Transmitters only, proceeding up to step 4
- All the data (transmitters and timers), completing the procedure up to step 5.

Table [H]	Clearing the Memory	Example
 A	With the radio receiver not powered, remove the jumper from the board (after clearing the memory, the jumper must be reinstalled). 	
B	Power the radio receiver and wait for the initial beeps	

<p>➔ 1</p>	<p>• <b>With the transmitter in Mode 1 or not memorized:</b> Press and hold down key 2 or key 4 on a transmitter previously memorized in Mode 1 until you hear a beep (after approx. 5 seconds), then release it.</p> <p>• <b>With the transmitter in Mode 2 (On/Off or timer only):</b> For On/Off with open relay (Off), press the key to activate it (On), release the key, press it again and hold it down until you hear a beep (after approx. 5 seconds), then release the key. For timer with open relay (Off), press the key to activate the relay (On), hold down the key until the relay is deactivated (Off) and you hear a beep (after approx. 5 seconds), then release the key</p>	 
<p>2</p>	<p>After 1 second, press the same key again and release it precisely during the third beep</p>	
<p>3</p>	<p>After 1 second, press the same key again and release it precisely during the third beep</p>	
<p>➔ 4</p>	<p>After 1 second, press the same key again and release it precisely during the third beep</p>	
<p>➔ 5</p>	<p>If you wish to completely erase all the data stored in the memory, press the key again within 2 seconds and then release it After a few seconds, 5 beeps will signal that the memory has been cleared</p>	



## MAINTENANCE AND DISPOSAL

### — STEP 6 —

The system does not require special maintenance.

This product is made of various materials; some may be recycled and others must be disposed of. Obtain information on product recycling or disposal, in observance of current local standards.

**Caution:** some electronic components may contain pollutant substances; never dispose of into the environment.





## TECHNICAL CHARACTERISTICS

RC200 is produced by NICE S.p.A. (TV) Italy. Nice S.p.A., in order to improve its products, reserves the right to modify their technical characteristics at any time without prior notice. In any case, the manufacturer guarantees their functionality and fitness for the intended purposes.

Note: all the technical characteristics refer to a temperature of 20°C.

<b>RC200 Radio receiver</b>	
<b>Type</b>	radio receiver for control of general electrical equipment
<b>Technology adopted</b>	reception and decoding of the radio signals emitted by the transmitters activation of the output relays only in case of correspondence with a previously memorized code, correctly synchronized with the variability sequence
<b>Possibility of remote control</b>	with ECCO5... or STX100 transmitters
<b>Coding</b>	64 bit rolling code (18 billion billion combinations)
<b>ECCO5... and STX100 transmitters memorization capacity</b>	up to 30, if memorized in Mode 1
<b>Reception frequency</b>	433.92 MHz
<b>Receiver sensitivity</b>	better than 0.6µV (with direct coupling)
<b>Range of ECCO5... and STX100 transmitters</b>	estimated at 50-100m (this distance may vary in the presence of obstacles or electromagnetic disturbances)
<b>Power supply</b>	230Vac (+10-15%) 50Hz
<b>Maximum power output</b>	500W / 400VA
<b>Absorption when idle</b>	< 0.7W (typical at 230 Vac)
<b>Activation time</b>	approx. 300ms

<b>Deactivation time</b>	approx. 300ms
<b>Maintenance of output status in case of power failure</b>	No
<b>Timer resolution and precision</b>	1s/±2%
<b>Operating ambient temperature</b>	-10°C ... +55°C
<b>Protection class</b>	IP55 (enclosure undamaged) with round cables having a diameter of 6.5 to 8.5 mm
<b>Dimensions / weight</b>	98 x 26 x 20 / 45 g



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