

Nice

MORX

Декодер для **EDS, EDSI, ETP**



EN - Instructions and warnings for installation and use

Nice

1 - GENERAL WARNINGS AND PRECAUTIONS

CAUTION! ● Important safety instructions. ● These instructions are critical to safety; read the manually carefully before starting work. ● Keep these instructions.

● Before commencing the installation, check whether the product is suitable for the desired use (see "Product application limits" and "Product technical specifications"). If it is not suitable, DO NOT continue with the installation. ● Take care not to crush, bang, drop or spill any kind of liquid on the automation system during installation. 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 occur, suspend installation work immediately and contact the Nice Support Service. ● Do not modify any part of the product. Operations other than as specified can only cause malfunctions. The manufacturer declines all liability for damage caused by makeshift modifications to the product. ● The product is not intended for use by persons (including children) with reduced physical, sensory or mental capacities, nor by anyone with insufficient experience or familiarity. ● The product may not be considered an efficient system of protection against intrusion. If you wish to have effective protection, combine your application with other security devices.

1.1 - Definitions used in the manual

To facilitate comprehension of the text, the manual uses terms such as "decoder", "keypad", "reader", "card", "card" for the various devices. Refer to **Table 1** for the meanings of these terms.

2 - PRODUCT DESCRIPTION AND INTENDED USE

MORX is a decoder for numerical combination digital keypads (model **EDS / EDSI**) and for transponder card readers (model **ETP**): keypads, readers and cards are not included.

● The MORX decoder has two relay outputs called **Output-1** and **Output-2** (their

specifications are given in "Technical specifications"). These outputs are activated when the user sends a command to the automation (or other application) by entering a valid combination on the keypad or swiping a valid card with the reader. ● The decoder is supplied with the BM1000 memory card, which has a capacity of 255 combinations or cards. The BM60 (15 combinations/cards) and BM250 (63 combinations/cards) memory cards are also available. To double the number of combinations or cards, you can install a second memory card in the decoder: **CAUTION!** – the two cards must be of the same type. ● The memory card programming procedure is described in this manual. Alternatively, you can remove the card from the decoder and program it with a Nice programming unit (O-BOX or MOU). ● The MORX decoder, in combination with the devices mentioned at the start of Chapter 2, allows you to configure **TWO DISTINCT, SEPARATE SYSTEMS** for access control of doors, gates, garage doors, sectional doors and other automations, or for controlling other applications. **Note** – For brevity, we use the term "automation" in the manual. The two systems are formed of the following components:

a) – **1 DECODER and 1/2/3/4 COMBINATION KEYPADS**

or

b) – **1 DECODER and 1 TRANSPONDER CARD READER**

Each of these two systems enable you to control access to places and services, granting it exclusively to authorised persons in possession of the following requisites.

– **Combination keypad system** – in this system, the automation is controlled by numerical combinations which the user must be familiar with, and which he must enter on the keypad to activate the decoder's output: MORX receives the combination + confirmation (▲ or ▼ key), checks its validity (i.e. whether it is registered in its memory) and, if it is, activates the output in question. • Depending on how a combination is configured, it may activate only Output-1, only Output-2, or both. **Note** – the MORX memory may contain many combinations, each of which activates a different output.

TABLE 1 - Products and terms used in the manual

Term	Article	Description
Decoder	MORX	Decoder for digital combination keypads (EDS, EDSI) and transponder card readers (ETP).
Keypad	EDS / EDSI	Digital numerical combination keypad.
Reader	ETP	Transponder card reader.
Card / Card	MOCARD / MOCARDP / HSB1	Transponder card for ETP reader.

– **Transponder card reader system** – in this system, automation is controlled by transponder cards, which the user swipes closely over the reader: MORX receives the card code, checks its validity (i.e. whether it is registered in its memory) and, if it is, activates the output in question. • Depending on how a card is programmed, it may activate only Output-1, only Output-2, or both. **Note** – the MORX memory may contain many cards, each of which activates a different output.

CAUTION! – All uses other than the intended use described and use in environmental conditions other than those described in this manual should be considered improper and forbidden!

3 - PRODUCT APPLICATION LIMITS

● **CAUTION!** – A single decoder may be connected to up to 4 keypads or, ALTERNATIVELY, 1 card reader. ● The decision whether to connect it to keypads or a reader must be made while its memory is still empty. ● Before installing the unit, read the "Technical specifications" chapter in this manual and those of any devices you intend to connect to the decoder, to ensure that its installation conditions are within the manufacturer's declared limits.

4 - INSTALLATION AND CONNECTIONS

4.1 - Installation warnings

- EDS / ETP must be installed onto a vertical wall. EDSI must be installed flush into a vertical wall. These products are IP rated for outdoors installation.
- MORX has a protection rating of IP 30; it can thus be installed inside suitably protected control units or enclosures.
- The keypad/reader must be installed in a position which makes it easy for the user to enter his codes or swipe his card. We recommend installing them around 1.5 m off the ground.
- The installation location, surface and position must conform with the following specifications: **a)** they must be compatible with the product's overall dimensions, **b)** they must provide easy access to the product for use and maintenance, **c)** they must protect the product against impact, **d)** the surface must be stable and robust for a secure installation.

4.2 - Electrical installation warnings

- Before hooking up the product (par. 4.3) check the power supply and electrical loads connected to the output relays.
- The MORX and EDS / EDSI / ETP must be hooked up with a two wire cable (the

polarity does not matter). For distances of less than 10 m, you can use a simple **2 x 0.5 mm²** cable; for longer distances up to 30 m, use a shielded cable, and connect the shield to earth only at the decoder end. **Caution!** – The system is not guaranteed to operate at distances of more than 30 m between the decoder and other devices.








- **EDS / EDSI only** – If you install multiple keypads in a cascade pattern, use a single cable and do not interrupt its shielding.
- **MORX only** – The decoder can be powered at either 12V or 24V, and with AC or DC.
- **General note** – The two wires used for connecting the system devices to each other carry an encoded signal; this increases the security of the system since any attempt to hook onto these wires from outside the system itself is totally ineffective.










4.3 - STEP BY STEP GUIDE to installation, hookup, programming and final testing

01. **EDS / EDSI keypads only:** refer to **Table 2** and select the number of keypads you want to install (up to 4); you can see how this affects other aspects of the installation (number of keypads → addressing → programming method → number of programmable combinations).
02. Refer to par. 4.1 to select the correct surface and position for the installation of the various devices.
03. Refer par. 4.2 to identify the technical characteristics of the cable used to hook up the various devices.
04. Lay the cable ducting.
05. Secure the back of each device (EDS / EDSI / ETP) to the wall: locate each device in the positioned identified in step 02, and mount them as described in their instruction manuals. **Caution!** – Do not mount the electronic module yet; it must be programmed and the system tests completed before it is definitively installed.
06. The MORX decoder has two outputs controlled by NO relay contacts. If you wish to use an NC contact, proceed as shown in **fig. 1** (cut point "A" and solder point "B").
07. If you wish to double the memory capacity of the MORX's memory, refer to **fig. 2**. **Caution!** – Do not swap the two BM cards around.
08. Mount the MORX inside a suitably protected control unit or control enclosure. **Caution!** – It is not rated for installation outdoors.
09. **CAUTION!** – **All electrical connections must be made without electrical power;** route the cables through the ducting and hook the devices up as shown in their instructions and in **fig. 3** of this manual: no particular polarity need be observed.

TABLE 2 - EDS / EDSI keypads only

This table is divided into two sections. Each indicates the connections between: **a)** the number of keypads connected to the MORX decoder; **b)** the programming mode; **c)** the maximum number of combinations you can obtain; **d)** the addressing of each keypad.

<div>Programming EASY</div> 		First keypad	Second keypad	Third keypad	Fourth keypad
	jumper position: addresses all equal ⁽¹⁾	address - 1 - 	address - 1 - 	address - 1 - 	address - 1 - 
	number of combinations	up to 2 (▲ and ▼)	up to 2 (▲ and ▼)	up to 2 (▲ and ▼)	up to 2 (▲ and ▼)
		First keypad	Second keypad	—	—
	jumper position: addresses all different ⁽²⁾	address - 1 - 	address - 2 - 	—	—
	number of combinations	no more than 1 (▲ / ▼)	no more than 1 (▲ / ▼)	—	—

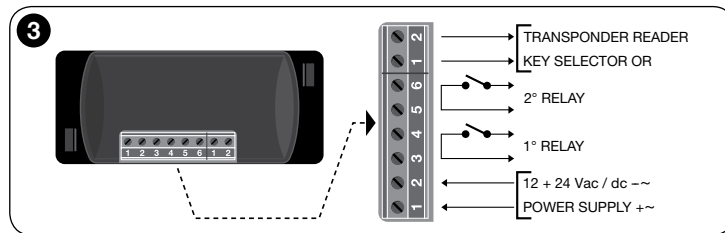
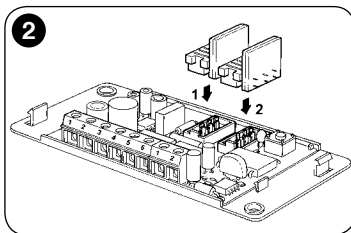
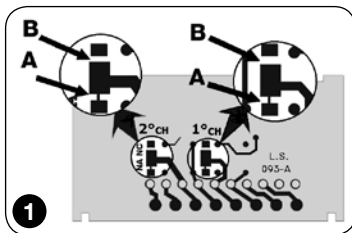
<div>Programming PROFESSIONAL</div> 		First keypad	Second keypad	Third keypad	Fourth keypad
	jumper position: addresses all equal ⁽¹⁾	address - 1 - 	address - 1 - 	address - 1 - 	address - 1 - 
	number of combinations ⁽³⁾	up to 255	up to 255	up to 255	up to 255
		First keypad	Second keypad	Third keypad	Fourth keypad
	jumper position: addresses all different ⁽²⁾	address - 1 - 	address - 2 - 	address - 3 - 	address - 4 - 
	number of combinations ⁽³⁾	up to 255 (distributed among all keypads in the system)			

NOTE - VERY IMPORTANT!

(1) – If you select this type of addressing, a combination can be programmed on any keypad connected to the MORX. When the system is being used, the combination can then be entered on any of the keypads connected to the MORX.

(2) – Caution! – Each keypad must have a different address from the other keypads. • If you select this type of addressing, each combination must be programmed on a specific keypad connected to the MORX. When the system is being used, any given combination can only be used on the same keypad with which it was programmed.

(3) – The maximum number of combinations is also determined by the type of BM memory card and whether a second card is present (see Chapter 2).



10. **EDS / EDSI keypads only** – Addressing (or not) multiple keypads. If you wish to connect 2, 3 or 4 keypads to a single decoder, refer to **Table 2** for the addressing of the keypads; if necessary, change the jumper settings as shown in the table.
Caution! – note how this choice will affect other aspects of the installation (number of keypads → addressing → programming method → number of programmable combinations).
11. Power up the control unit and run the test procedure described in par. 4.4 to check the connections and that the system is working properly.
12. **Program** the system with reference to Chapter 6, if installing a decoder + keypads system, or Chapter 7, for a decoder + reader system.
13. Complete the installation by definitively securing all electronic modules in their mounts (previously fixed to the walls), as shown in their instruction manuals.

4.4 - Testing

- a. Power up the MORX decoder and check that its led flashes 5 times (= memory empty).
- b. Press the decoder's button: its led will start flashing (for 30 seconds) and the connected keypads or reader will beep briefly. After a few seconds press the decoder's button again.
- c. **Checking the keypads:** check the keypads by pressing all their keys one at a time: you should hear a short beep at each key press; the control keys (▲ and ▼) will beep 2 times (= "incorrect combination").
- d. **Checking the reader:** check the reader by swiping a card briefly (caution: if you hold it up to the reader for more than 2 seconds, you may program it): you should hear 2 beeps (= "invalid card").
- e. **Checking the two outputs:** this test must be run when all programming has been completed, since you will need to use a combination or card which has already been saved to the decoder. **Caution!** – For how to use the keypad and saved

combination, refer to par. 6.1; for the reader and saved card, refer to par. 7.1.

5 - IMPORTANT PRECAUTIONS WHEN PROGRAMMING THE TWO ACCESS CONTROL SYSTEMS

- **Chapter 6** covers decoder + keypad systems;
Chapter 7 covers decoder + card reader systems.
Each of these two chapters is divided into **two separate alternative sections**, as shown below:

CHAPTER 6 – systems with 1 decoder + 1/2/3/4 keypads

Section - 6.A – EASY programming

Section - 6.B – PROFESSIONAL programming

CHAPTER 7 – systems with 1 decoder + 1 transponder reader

Section - 7.A – EASY programming

Section - 7.B – PROFESSIONAL programming

- **EASY programming:** this is a simplified procedure which programs the basic functions for saving/cancelling combinations/cards.
- **PROFESSIONAL programming:** more complex programming procedure with numerous functions, some of which are specifically aimed at special/professional applications. These procedures allow you to save up to 255 combinations or cards to the MORX unit (the number depends on the memory card).
- The differences between Easy and Professional programming lie in the programming phase and resulting performance; the user of the system will hardly note the difference.
- **EDS / EDSI keypads only** – To select the programming mode (Easy or Professional) refer to **Table 2** as well: this shows how your initial choices (number of key-

pads -> addressing ->) affect further aspects of the installation (-> programming mode -> number of programmable combinations).

- **Easy and Professional programming modes are alternatives to each other:** this means that you must decide which to use when programming the first combination or card. Once a programming mode has been chosen (= at least one card/combination in memory), you can only change mode (from Easy to Professional or vice versa) after first completely cancelling the memory of the device.
- The outputs (1 and 2) of the decoder are factory set to operate as **momentaries**; i.e. the output is activated when you press the key on the keypad (or swipe the card) and deactivates as soon as the key is released (or the card is moved away from the reader). Professional programming allows you to assign various types of operation to the outputs (Timer, Bistable, Burglar alarm).
- When programming and using the keypads or reader, these devices beep to confirm the programming or report errors. The meanings of the beeps are given in **Table 3**.

TABLE 3 - Beep signals

Signal	Meaning
1 beep	Keypad key pressed correctly / card read correctly.
2 fast beeps	Invalid combination / inactive card.
3 beeps	Programming completely successfully.
5 fast beeps	Minor error: the operation has not been executed.
10 fast beeps	Serious error: programming has failed.

6

PROGRAMMING THE SYSTEM “MORX + COMBINATION KEYPADS”

6.1 - Using the system after the combinations are programmed: notes for the installer (read before programming the system) and end user

- To use the keypad, user must know and enter the combinations (programmed by the installer) with the pad's number keys, which immediately activate the outputs associated with the combinations themselves when the command key is pressed (▲ or ▼). The output is only activated if the combination is valid, otherwise the system beeps to indicate an error.
- **If the combination has been mapped to one of the two outputs (output-1 / output-2):** after entering a combination, press only the command key mapped to the combination in question.
- **If the combination has been mapped to both the two outputs (output-1 and output-2):** after entering the combination, press either of the two command keys. This allows you to send two different commands with a single combination.
- If an invalid combination is entered three times in a row, the systems locks out for 60 seconds. If you make an error while entering a combination, it is best to press any command key (▲ or ▼) and, after the beep (= invalid combination), enter the correct combination.
- You have up to 10 seconds between key presses when entering a combination. If this times out, you must enter the combination again from the start.



SECTION - 6.A

EASY PROGRAMMING PROCEDURE

(for MORX + keypads)

- The procedure maps the command keys (▲ and ▼) to output-1 and output-2 on the decoder as follows:
 - **command key ▲ maps to output-1;**
 - **command key ▼ maps to output-2.**
- The decoder's outputs (1 and 2) operate as **momentaries**; they are activated when the key is pressed and deactivated as soon as it is released.
- The combination acts as the "access key" that must be programmed in accordance with the user's needs. It is formed of **up to nine digits**, each in the range **0 to 9**.
- EASY programming procedures allow you to program at most two different combinations: one for output-1 (command key ▲) and the other for output-2 (command key ▼). You can also program just one combination for both outputs (i.e. for both ▲ and ▼). • You can also cancel the memory using the key on the decoder. • EASY programming offers no other functions.

PROCEDURES



6.A.1 Easy

To program a combination for command key ▲ (output-1) only

CAUTION! – This procedure is an alternative to that given in par. 6.A.3.

01. Press the decoder key: – the decoder will start beeping regularly. – The beeping lasts for 30 seconds; within this time...
02. ...enter the desired combination (1 to 9 digits).
03. Then press ▲ twice.



6.A.2 Easy

To program a combination for command key ▼ (output-2) only

CAUTION! – This procedure is an alternative to that given in par. 6.A.3.

01. Press the decoder key: – the decoder will start beeping regularly. – The beeping lasts for 30 seconds; within this time...

02. ...enter the desired combination (1 to 9 digits).
03. Then press ▼ twice.



6.A.3 Easy

To program a combination for both command keys: ▲ (output-1) and ▼ (output-2)

CAUTION! – This procedure is an alternative to that given in par. 6.A.1 and 6.A.2.

01. Press the decoder key: – the decoder will start beeping regularly. – The beeping lasts for 30 seconds; within this time...
02. ...enter the desired combination (1 to 9 digits).
03. Then press ▲ and ▼ once each.



6.A.4 Easy

Cancelling the memory

This procedure cancels all data in the decoder's BM memory.

01. Hold down the key on the decoder: – the led will turn on for 3 seconds, then it will flash 3 times;
02. release the key during the third flash. If the procedure is successful, after a few moments the LED will flash 5 times.

You will now have to reprogram the decoder; you will also be able to choose between the Easy and Professional programming modes.

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SECTION - 6.B

PROFESSIONAL PROGRAMMING PROCEDURE (for MORX + keypads)

- The procedure maps the command keys (▲ and ▼) to output-1 and output-2 on the decoder as follows:
 - **command key ▲ maps to output-1;**
 - **command key ▼ maps to output-2.**
- When executing the procedures, the two command keys (▲ and ▼) are also used to confirm the steps of the procedure or abort the procedure.
- Professional programming mode allows you to program all the system's functions directly from the keypad: you can program any number of combinations, cancel them, count them, cancel the entire memory and use other application-specific functions. You can also program the decoder's outputs with the options given below.
- The decoder's outputs (1 and 2) are factory set to operate as **momentaries**; they are activated when the key is pressed and deactivated as soon as it is released. This mode can be modified with the following functions:
 - **TIMER mode:** when an output is activated, it remains active for a set time;
 - **BISTABLE mode:** to activate an output, press the command key one time ; to deactivate it, press it a second time;
 - **SECURITY mode:** the procedure sets output-1 and its command key ▲ to BISTABLE mode so that the user can arm/disarm a security system. Output-2 and the ▼ key are deactivated by the function and cannot be used.
- The combination acts as the “access key” that must be programmed in accordance with the user's needs. It is formed of **up to nine digits**, each in the range **0 to 9**.
- Professional mode programming allows you to program a combination for each user or group of users; this makes it easy to add or delete combinations from memory, as required at any time.
- Professional mode programming is only available if you have a **programming password**, i.e. a special combination of **7 digits** (the factory default is **0-3-3-3-3-3-3**, but this can be changed at any time). **CAUTION! – If you forget this password, you will have to cancel the device's entire memory and reprogram it from scratch - keep the programming password in a safe place!**

PROCEDURES



6.B.1 Professional

To program a combination for command key ▲ (output-1) only (reference digit: “1”)

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digit “1”.** – Press ▼ to confirm.
03. Enter the desired combination (1 to 9 digits). – Press ▼ to confirm.
04. Enter the combination again. – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.

To program other combinations, repeat the procedure from the beginning.



6.B.2 Professional

To program a combination for command key ▼ (output-2) only (reference digit: “2”)

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digit “2”.** – Press ▼ to confirm.
03. Enter the desired combination (1 to 9 digits). – Press ▼ to confirm.
04. Enter the combination again. – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.

To program other combinations, repeat the procedure from the beginning.



6.B.3 Professional

To program a combination for both command keys: ▲ (output-1) and ▼ (output-2) (reference digits: “1-2”)

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter digits “1-2”.** – Press ▼ to confirm.
03. Enter the desired combination (1 to 9 digits). – Press ▼ to confirm.
04. Enter the combination again. – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.

To program other combinations, repeat the procedure from the beginning.



6.B.4 Professional

To change the Professional programming password
(reference digit: “3”)

You can change the password whenever you want (the factory default is: **0-3-3-3-3-3**). To modify it, you must know the last valid password.

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digit “3”**. – Press ▼ to confirm.
03. Enter a new password for Professional mode programming, using seven digits chosen personally. – Press ▼ to confirm.
04. Enter the new password again. – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.



6.B.5 Professional

To delete a combination for command key ▲ (output-1) only (reference digit: “4”)

If the combination applies to both outputs, this procedure will only cancel output-1. It will remain valid for output-2.

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digit “4”**. – Press ▼ to confirm.
03. Enter the combination you want to cancel. – Press ▼ to confirm.
04. Enter the combination again. – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.



6.B.6 Professional

To delete a combination for command key ▼ (output-2) only (reference digit: “5”)

If the combination applies to both outputs, this procedure will only cancel output-2. It will remain valid for output-1.

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digit “5”**. – Press ▼ to confirm.
03. Enter the combination you want to cancel. – Press ▼ to confirm.
04. Enter the combination again. – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.



6.B.7 Professional

To cancel a combination for both command keys: ▲ (output-1) and ▼ (output-2) (reference digit: “4-5”)

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digits “4-5”**. – Press ▼ to confirm.
03. Enter the combination you want to cancel. – Press ▼ to confirm.
04. Enter the combination again. – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.



6.B.8 Professional

To count the number of combinations for command key ▲ (output-1) only (reference digit: “6”)

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digit “6”**. – Press ▼ to confirm. – A sequence of beeps will follow: their meaning is given in **Table 4**.

To obtain the total number of combinations mapped to key ▲ (output-1), you must include all those which are programmed to activate both outputs. To calculate the latter, run procedure 6.B.10.



6.B.9 Professional

To count the number of combinations for command key ▼ (output-2) only (reference digit: “7”)

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digit “7”**. – Press ▼ to confirm. – A sequence of beeps will follow: their meaning is given in **Table 4**.

To obtain the total number of combinations mapped to key ▼ (output-2), you must include all those which are programmed to activate both outputs. To calculate the latter, run procedure 6.B.10.



6.B.10 Professional

To count the number of combinations for both command keys: ▲ (output-1) and ▼ (output-2) (reference digit: “6-7”)

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digits “6-7”.** – Press ▼ to confirm. – A sequence of beeps will follow: their meaning is given in **Table 4**.



6.B.11 Professional

To deactivate all combinations which terminate with a given number (reference digit: “8”)

This procedure can be repeated as often as desired to deactivate combinations with different terminating numbers. • The procedure deactivates the combinations; it does not cancel them from memory.

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digit “8”.** – Press ▼ to confirm.
03. Enter the last digit of the combinations you wish to deactivate. – Press ▼ to confirm.
04. Enter the last digit of the combinations you wish to deactivate once more. – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.



6.B.12 Professional

To reactivate all combinations which terminate with a given number (reference digit: “9”)

This procedure can be repeated as often as desired to reactivate combinations with different terminating numbers.

TABLE 4 - Counting the number of saved combinations

The beeps are emitted in the following order:
hundreds, tens, units.

3 beeps (= 1 hundred)	example: <u>2 sets</u> of 3 beeps = <u>200 combinations</u>
2 beeps (= 1 ten)	example: <u>3 sets</u> of 2 beeps = <u>30 combinations</u>
1 beep (1 unit)	example: <u>5 sets</u> of 1 beep = <u>5 combinations</u> Note – <u>10 sets</u> of 1 beep = zero

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digit “9”.** – Press ▼ to confirm.
03. Enter the last digit of the combinations you wish to reactivate. – Press ▼ to confirm.
04. Enter the last digit of the combinations you wish to reactivate once more. – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.



6.B.13 Professional

To limit the use of a given combination to a certain number of activations (reference digits: “1-0”)

Each combination has a counter which decrements automatically every time the combination is used; the combination is deactivated when the counter reaches zero. The factory setting is unlimited activations. This procedure allows you to set a limit to the number of times a combination can be used. The maximum value is 999; higher values remove any limit to the number of times the combination can be used.

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digits “1-0”.** – Press ▼ to confirm.
03. Enter the combination you wish to assign a limit to. – Press ▼ to confirm.
03. Enter the combination you wish to assign a limit to again. – Press ▼ to confirm.
04. Enter the number of times the combination is to be used (up to: 999). – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.



6.B.14 Professional

To program output-1 (key ▲) in TIMER mode (reference digits: “2-1”)

This function sets output-1 to stay active (once it has been activated) for a time set with the procedure itself.

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digits “2-1”.** – Press ▼ to confirm.
03. Enter the TIMER value (in tenths of a second: from 0.5 to 65000). – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.

Note – To restore **momentary mode**, repeat the procedure and set a time of 0 seconds in step 03.



6.B.15 Professional

To program output-2 (key ▼) in TIMER mode (reference digits: “2-2”)

This function sets output-2 to stay active (once it has been activated) for a time set with the procedure itself.

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digits “2-2”.** – Press ▼ to confirm.
03. Enter the TIMER value (in tenths of a second: from 0.5 to 65000). – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.

Note – To restore **momentary mode**, repeat the procedure and set a time of 0 seconds in step 03.



6.B.16 Professional

To program output-1 (key ▲) and output-2 (key ▼) in TIMER mode (reference digits: “2-1-2-2”)

This function sets output-1 and output-2 to stay active (once they have been activated) for a time set with the procedure itself.

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digits “2-1-2-2”.** – Press ▼ to confirm.
03. Enter the TIMER value (in tenths of a second: from 0.5 to 65000). – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.

Note – To restore both outputs to **momentary mode**, repeat the procedure and set a time of 0 seconds in step 03.



6.B.17 Professional

To program output-1 (key ▲) in BISTABLE mode (reference digits: “2-3”)

When BISTABLE mode is set, once the combination has been entered, pressing the command key once activates output-1 and pressing it again deactivates it.

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digits “2-3”.** – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.

Note – To restore **momentary mode**, repeat procedure 6.B.14 and set a time of 0 seconds in step 03.



6.B.18 Professional

To program output-2 (key ▼) in BISTABLE mode (reference digits: “2-4”)

When BISTABLE mode is set, once the combination has been entered, pressing the command key once activates output-2 and pressing it again deactivates it.

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digits “2-4”.** – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.

Note – To restore **momentary mode**, repeat procedure 6.B.15 and set a time of 0 seconds in step 03.



6.B.19 Professional

To program output-1 (key ▲) and output-2 (key ▼) in BISTABLE mode (reference digits: “2-3-2-4”)

When BISTABLE mode is set, once the combination has been entered, pressing the command key once activates output-1 and output-2 and pressing it again deactivates them.

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digits “2-3-2-4”.** – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.

Note – To restore both outputs to **momentary mode**, repeat procedure 6.B.16 and set a time of 0 seconds in step 03.



6.B.20 Professional

To program output-1 (key ▲) and output-2 (key ▼) in SECURITY mode (reference digits: “2-5”)

This function sets key ▲ (output-1) to operate in BISTABLE mode, to arm/disarm a security system. Key ▼ (output-2) are disabled.

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digits “2-5”.** – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.

Note – To restore both outputs to **momentary mode**, repeat procedure 6.B.14, 6.B.15 or 6.B.16 and set a time of 0 seconds in step 03.

When the security system is armed, led L2 turns green; when it is disarmed, it is red.



6.B.21 Professional

To cancel the entire memory using the programming password (reference digit: "0")

This procedure cancels all data in the decoder's BM memory.

01. Enter the programming password. – Press ▼ to confirm the password.
02. **Enter the digit "0".** – Press ▼ to confirm.
03. Enter "0" again. – Press ▼ to confirm.
04. Enter "0" a third time. – Press ▼ to confirm. If the procedure was successful, the keypad will beep 3 times.

You will now have to reprogram the decoder; you will also be able to choose between the Easy and Professional programming modes.



6.B.22 Professional

To cancel the entire memory without using the programming password

This procedure cancels all data in the decoder's BM memory.

01. Hold down **the key on the decoder**: – the led will turn on for 3 seconds, then it will flash 3 times;
02. release the key during the third flash. If the procedure is successful, after a few moments the LED will flash 5 times.

You will now have to reprogram the decoder; you will also be able to choose between the Easy and Professional programming modes.

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7

PROGRAMMING THE SYSTEM "MORX + TRANSPONDER CARD READER"

7.1 - Using the system after the cards are programmed:

notes for the installer (read before programming the system) and end user

- The use of the ETP reader is based on recognition of the unique code of each card saved to the reader itself. When a card is held up to the reader, it sends it its ID code; if this code is present in the ETP's memory, the reader activates output-1 or output-2 (i.e. the output mapped to the card when it was programmed). If the card is not saved to the reader, the reader emits 2 fast beeps to indicate an error.
- **To control the automation, the user must have one (or more) cards which have been saved to the reader, and the installer must provide him with the following information:**
 - **OUTPUT-1, OUTPUT-2:** the output (**output-1**, **output-2**, or **both**, 1 and 2) the card activates when it is held up to the reader.
 - **TYPE OF COMMAND:** the command (e.g.: **partial open**, **etc.**) associated with output-1 or output-2 of the reader. The command is executed by the automation when the card is swiped over the reader.
 - **CARD MODE:** the way in which the card must be swiped over the reader to activate its output. The mode depends on the number of outputs the card can activate.

● How to use a card that activates only ONE output

• To activate output-1

Swipe the card over the reader: it beeps and immediately activates output-1.

• To activate output-2

Swipe the card over the reader: it beeps and immediately activates output-2.

● How to use a card that activates BOTH outputs

• To activate output-1

Hold the card in front of the reader: it beeps and, after 1 second, beeps again, then immediately activates output-1.

• To activate output-2

- 1) - Hold the card up to the reader: after the beep, move the card away from the reader; then...
- 2) - (within 2 seconds) swipe the card over the reader again: it beeps and immediately activates output-2.



SECTION - 7.A

EASY PROGRAMMING PROCEDURE (for MORX + card reader)

- EASY programming allows you to program up to two different cards: one for output-1 and one for output-2. You can also program a single card for both outputs. • You can also cancel the memory using the key on the decoder. • EASY programming offers no other functions.
- The decoder's outputs (1 and 2) operate as **momentaries**; each output is activated when the card is held up to the reader and deactivates as soon as the card is held up to the reader a second time.



7.A.1 Easy

To program a card for output-1 only

CAUTION! – This procedure is an alternative to that given in par. 7.A.3.

01. Press the decoder key: – the decoder will start beeping regularly. – The beeps will continue for 30 seconds; within this time...
02. ...hold the card up to the reader **1 time**. **Note** – You can program more cards after the first one, by repeating step 02 for each of them within 10 seconds after the previous card was held up to the reader.
03. To terminate the procedure, wait for the 10 seconds period after the last card to time out.

If you wish, you can save more cards to the reader at any later time by repeating the procedure.



7.A.2 Easy

To program a card for output-2 only

CAUTION! – This procedure is an alternative to that given in par. 7.A.3.

01. Press the decoder key: – the decoder will start beeping regularly. – The beeps will continue for 30 seconds; within this time...
02. ...hold the card up to the reader **2 times**. **Note** – You can program more cards after the first one, by repeating step 02 for each of them within 10 seconds after the previous card was held up to the reader.
03. To terminate the procedure, wait for the 10 seconds period after the last card to time out.

If you wish, you can save more cards to the reader at any later time by repeating the procedure.



7.A.3 Easy

To program a card for both output-1 and output-2

CAUTION! – This procedure is an alternative to that given in par. 7.A.1 and 7.A.2.

01. Press the decoder key: – the decoder will start beeping regularly. – The beeps will continue for 30 seconds; within this time...
02. ...hold the card up to the reader **3 times**. **Note** – You can program more cards after the first one, by repeating step 02 for each of them within 10 seconds after the previous card was held up to the reader.
03. To terminate the procedure, wait for the 10 seconds period after the last card to time out.

If you wish, you can save more cards to the reader at any later time by repeating the procedure.



7.A.4 Easy

To program a new card with a previously programmed card

To run this procedure, you need an old (previously programmed) card, from which the new card will take its settings (output-1, output-2, or both (1 and 2).

01. Hold the new card up to the reader for at least 5 seconds. Move the card away from the reader.
02. Now swipe the old (previously programmed) card over the reader 3 times.
03. Hold the new card up to the reader 1 more time.

To save another card, repeat the procedure from the beginning.



7.A.5 Easy

To cancel the entire memory

This procedure cancels all data in the decoder's BM memory.

01. Hold down the key on the decoder: – the led will turn on for 3 seconds, then it will flash 3 times;
02. release the key during the third flash. If the procedure is successful, after a few moments the LED will flash 5 times.

You will now have to reprogram the decoder; you will also be able to choose between the Easy and Professional programming modes.

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SECTION - 7.B

PROFESSIONAL PROGRAMMING PROCEDURE (for MORX + card reader)

- Professional programming mode allows you to program any number of cards (up to 255, depending on the BM memory in the device); they also permit total control of functions directly from the reader, using “master” cards: you can program any number of cards, cancel them, count them, cancel the entire memory and use other application-specific functions. You can also program the decoder's outputs with the options given below.
- The outputs (1 and 2) are factory set to operate as **momentaries**; they are activated when the card is held up to and deactivated as soon as it is moved away from the reader. This mode can be modified with the following functions:
 - **TIMER mode**: when an output is activated, it remains active for a set time;
 - **BISTABLE mode**: the output is activated by holding the card up to the reader one time and deactivated by holding up a second time;
 - **SECURITY mode**: the procedure sets output-1 to BISTABLE mode so that the user can arm/disarm a security system. Output-2 is disabled and cannot be used.
- Professional mode programming allows you to program a card for each user or group of users; you can easily add or remove cards at a later time as required.
- To program the system in Professional mode, you need one or two MASTER cards. A MASTER card is a normal card which **MUST** be programmed at the start of Professional programming, when the BM memory is still empty.
- The following MASTER cards can be created:
 - **MASTER-1 and MASTER-2**: alternatives to the SINGLE-MASTER. MASTER-1 is used to map output-1 to a card; MASTER-2 is used to map output-2 to another card;
 - **the SINGLE-MASTER card**: this is an alternative to the MASTER-1 and MASTER-2 cards. It is used to map output-1, or output-2, or both outputs (1 and 2) to a card.

IMPORTANT – The MASTER-1 and MASTER-2 cards create two separate groups of cards: this means that the cards of each group will activates only one of the two outputs and a MASTER will only be able to add cards to or cancel them from its own group. **Alternatively**, if you do not need to create two groups of cards, you can program a SINGLE-MASTER card which acts as both MASTER-1 and MASTER-2, and can program cards for both outputs (1 and 2).

- The MASTER cards are indispensable for programming other cards, for cancelling all programmed cards and for locking/unlocking an automation; they cannot control an automation like normal cards and cannot be cancelled without cancelling the decoder's entire memory. **CAUTION! – Take care not to lose your MASTER cards.**

— Programming MASTER cards —

CAUTION! – MASTER cards must be the first cards to be saved to the reader. They must be saved when the device's memory is empty; in effect, they are the first cards to be held up to the reader for more than 5 seconds. **CAUTION! – To program the MASTER cards, use only one of the two available procedures (7.1 or 7.2).**



7.B.1 Professional

To program MASTER-1 (for programming cards to activate output-1) **and MASTER-2** (for programming cards to activate output-2)

CAUTION! – This procedure is an alternative to that given in par. 7.B.2. It can only be run if the decoder's memory is empty.

01. Make sure the decoder's memory is empty.
02. Hold a new card up to the reader (**this will be MASTER-1**) for at least 5 seconds. After 5 seconds, the reader will beep twice.
03. When it has stopped beeping, move the card away from the reader.
04. Hold a new card, **different from the other, up to the reader (this will be MASTER-2)** for at least 5 seconds. After 5 seconds, the reader will beep twice.
05. When it has stopped beeping, move the card away from the reader.



7.B.2 Professional

To program the SINGLE-MASTER (for programming cards to activate output-1, output-2, or both outputs, 1 and 2)

CAUTION! – This procedure is an alternative to that given in par. 7.B.1. It can only be run if the reader's memory is empty.

01. Make sure the reader's memory is empty.
02. Hold a **new card** up to the reader for at least 5 seconds. After 5 seconds, the reader will beep twice.
03. When it has stopped beeping, move the card away from the reader.
04. Hold the **same card** up to the reader again for at least 5 seconds. After 5 seconds,

the reader will beep twice.

05. When it has stopped beeping, move the card away from the reader.

.....

— Programming normal cards —

All the following programming procedures require the MASTER cards. If you have saved two different MASTER cards, each one will be used for programming a different group of cards.



7.B.3 Professional

To program a card for output-1 only (using MASTER-1)

01. Swipe **MASTER-1** over the reader 1 time.
02. Swipe the **new card** over the reader 1 time. **Note** – You can program more cards after the first one, by repeating step 02 for each of them within 10 seconds after the previous card was held up to the reader.
03. To terminate the procedure, swipe **MASTER-1** over the reader 1 time, or wait for the 10 second period since the last card to time out.

If you wish, you can save more cards to the reader at any later time by repeating the procedure.



7.B.4 Professional

To program a card for output-2 only (using MASTER-2)

01. Swipe **MASTER-2** over the reader 1 time.
02. Swipe the **new card** over the reader 1 time. **Note** – You can program more cards after the first one, by repeating step 02 for each of them within 10 seconds after the previous card was held up to the reader.
03. To terminate the procedure, swipe **MASTER-2** over the reader 1 time, or wait for the 10 second period since the last card to time out.

If you wish, you can save more cards to the reader at any later time by repeating the procedure.



7.B.5 Professional

To program a card for activating output-1 only (using the SINGLE-MASTER)

01. Swipe the **SINGLE-MASTER** over the reader 1 time.
02. Swipe the **new card** over the reader 1 time. **Note** – You can program more cards

after the first one, by repeating step 02 for each of them within 10 seconds after the previous card was held up to the reader.

- 03.** To terminate the procedure, swipe the **SINGLE-MASTER** over the reader 1 time, or wait for the 10 second period since the last card to time out.

If you wish, you can save more cards to the reader at any later time by repeating the procedure.



7.B.6 Professional

To program a card for activating output-2 only (using the SINGLE-MASTER)

- 01.** Swipe the **SINGLE-MASTER** over the reader 1 time.
02. Swipe the **new card** over the reader 2 times. **Note** – You can program more cards after the first one, by repeating step 02 for each of them within 10 seconds after the previous card was held up to the reader.
03. To terminate the procedure, swipe the **SINGLE-MASTER** over the reader 1 time, or wait for the 10 second period since the last card to time out.

If you wish, you can save more cards to the reader at any later time by repeating the procedure.



7.B.7 Professional

To program a card for activating both output-1 and output-2 (using the SINGLE-MASTER)

- 01.** Swipe the **SINGLE-MASTER** over the reader 1 time.
02. Swipe the **new card** over the reader 3 times. **Note** – You can program more cards after the first one, by repeating step 02 for each of them within 10 seconds after the previous card was held up to the reader.
03. To terminate the procedure, swipe the **SINGLE-MASTER** over the reader 1 time, or wait for the 10 second period since the last card to time out.

If you wish, you can save more cards to the reader at any later time by repeating the procedure.



7.B.8 Professional

To cancel a saved card (with a MASTER...)

- 01.** Swipe the **MASTER(*)** over the reader 2 times.
02. Swipe the **card to be cancelled** over the reader 1 time. **Note** – You can cancel more cards after the first one, by repeating step 02 for each of them within 10

seconds after the previous card was held up to the reader.

- 03.** To terminate the procedure, swipe the **MASTER** (the same one you used in step 01) over the reader 1 time, or wait for the 10 second period since the last card to time out.

If you wish, you can cancel more cards from the reader at any later time by repeating the procedure.

(*) – You must use MASTER-1, MASTER-2 of the SINGLE-MASTER, depending on the output (1, 2, or both) to which the card in question is mapped.



7.B.9 Professional

To count the saved cards (with a MASTER...)

- 01.** Swipe the **MASTER(*)** over the reader 3 times. It will beep a number of times; the beeps have the following meanings:
- **3 beeps = 1 hundred** (e.g.: 2 sets of 3 beeps = 200 cards).
 - **2 beeps = 1 ten** (e.g.: 3 sets of 2 beeps = 30 cards).
 - **1 beep = 1 unit** (e.g.: 5 sets of 1 beep = 5 cards).
 - **10 sets of single beeps = zero.**

The beeps are emitted in the following order: hundreds, tens, units.

(*) – You must use MASTER-1, MASTER-2 of the SINGLE-MASTER, depending on the output (1, 2, or both) to which the card in question is mapped. Using the SINGLE-MASTER counts all cards mapped to both outputs.



7.B.10 Professional

To limit a card (with a MASTER...) to a set number of uses

Each card has a counter which decrements automatically every time the combination is used; the card is deactivated when the counter reaches zero. The factory setting is unlimited activations. This procedure allows you to set a limit to the number of times a card can be used. The maximum value is 999; higher values remove any limit to the number of times the card can be used.

- 01.** Swipe the **MASTER(*)** over the reader 4 times. After 2 seconds, the reader beeps 3 times and enables the hundreds.
02. Now swipe the card in question one time for each **hundred** times you want the card to be used (10 swipes = unlimited use).
03. After 2 seconds, the reader beeps 2 times and enables the tens.
04. Now swipe the card in question one time for each **ten** times you want the card to be used.

05. After 2 seconds, the reader beeps 1 time and enables the units.
 06. Now swipe the card in question one time for each **single** time you want the card to be used.

(*) – You must use MASTER-1, MASTER-2 of the SINGLE-MASTER, depending on the output (1, 2, or both) to which the card in question is mapped.



7.B.11 Professional

To program (with a MASTER...) an output (1, 2 or both) in TIMER mode

This procedure assigns a set activation period (from 0.5 to 6500 seconds) to the output mapped to the MASTER being used to program it. As a result, when the output is activated, it remains active for a set time.

01. Swipe the **MASTER(*)** over the reader 6 times.
02. Move the **MASTER** up to the reader again and hold it there.
03. Wait for the reader to **beep 3 times** (the time starts from the third beep)...
04. ...now let the time you want to program time out (from 0.5" to 1h 50'. **Note** – the output is active during this time) and then move the MASTER away from the reader.

(*) – To program output-1 use MASTER-1; to program output-2 use MASTER-2; and program both outputs together, use the SINGLE-MASTER.

Note – To restore the output to **momentary mode**, repeat the procedure up to step 03, and move the MASTER away from the reader during its third beep (thus setting an activation time of 0 seconds).



7.B.12 Professional

To program (with a MASTER...) an output (1, 2 or both) in BISTABLE mode

BISTABLE mode transforms the output (selected with the appropriate MASTER card) into an on/off switch: the output activates the first time the card is swiped and deactivates the second time it is swiped.

01. Swipe the **MASTER(*)** over the reader 6 times.
02. Move the **MASTER** up to the reader again and hold it there.
03. Wait for the reader to **beep 1 time and immediately move the MASTER** away from the reader.

(*) – To program output-1 use MASTER-1; to program output-2 use MASTER-2; and program both outputs together, use the SINGLE-MASTER.

Note – To restore the output to **momentary mode**, repeat procedure 7.B.11 up to step 03, and move the MASTER away from the reader during its third beep (thus

setting an activation time of 0 seconds).



7.B.13 Professional

To program (with a MASTER...) outputs 1 and 2 in SECURITY mode

This function sets output-1 and output-2 to operate in SECURITY mode: output-1 is set to BISTABLE mode to arm/disarm a security system, while output-2 outputs a pulse when the system is armed and two pulses when it is disarmed.

01. Swipe any **MASTER** card over the reader 6 times.
02. Move the **MASTER** up to the reader again and hold it there.
03. Wait for the reader to **beep 2 times and, immediately move the MASTER** away from the reader.

Note – To restore the output to **momentary mode**, repeat procedure 7.B.11 up to step 03, and move the MASTER away from the reader during its third beep (thus setting an activation time of 0 seconds).



7.B.14 Professional

To program a new card with a previously programmed card

This procedure does not require a MASTER card. • To run this procedure, you need an old (previously programmed) card, from which the new card will take its settings (output-1, output-2, or both (1 and 2).

01. Hold the new card up to the reader for at least 5 seconds. Move the card away from the reader.
02. Now swipe the old (previously programmed) card over the reader 3 times.
03. Hold the new card up to the reader 1 more time.

To save another card, repeat the procedure from the beginning.



7.B.15 Professional

To cancel the entire memory using any MASTER

This procedure completely cancels the decoder's BM memory, including the MASTER cards themselves.

01. Swipe any **MASTER** card over the reader 5 times.
02. Wait for the read to beep 3 times.
03. Immediately after the third beep, hold the **MASTER** up to the reader and hold it there.
04. Wait for the read to beep 5 times.

05. Immediately after the fifth beep, move the **MASTER** away from the reader.

You will now have to reprogram the decoder; you will also be able to choose between the Easy and Professional programming modes.



7.B.16 Professional

To cancel the entire memory without a MASTER

This procedure does not require a MASTER card. • This procedure completely cancels the decoder's BM memory, including the MASTER cards themselves.

01. Hold down the key on the decoder: – the led will turn on for 3 seconds, then it will flash 3 times;
02. release the key during the third flash. If the procedure is successful, after a few moments the LED will flash 5 times.

You will now have to reprogram the decoder; you will also be able to choose between the Easy and Professional programming modes.

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8 - INSTRUCTIONS FOR AUTHORISED END USERS

At the end of programming, check the operation of the system by running the test procedure described in point “e” of par. 4.4.

Then inform the authorised users how to use the combinations (see par. 6.1) or cards (see par. 7.1).

9 - PRODUCT MAINTENANCE

The access control system's components do not require particular maintenance. Periodically check for oxidation and humidity on parts installed outdoors; clean any dust or sand off these surfaces (especially the keypads) with a soft cloth lightly dampened with water. Do not use aggressive or abrasive products, such as detergents, solvents and so on.

10 - SCRAPPING THE PRODUCT

This product constitutes an integral part of the automation system, therefore it must be disposed of along with it. • As in installation, also at the end of product lifetime, the disassembly and scrapping operations must be performed by qualified personnel. • This product is made up of different types of material, some of which can be recycled while others must be disposed of. Seek information on the recycling and disposal systems envisaged by the local regulations in your area for this product category.

Caution! – some parts of the product may contain pollutant or hazardous substances which, if disposed of into the environment, may cause serious damage to the environment or physical health. • As indicated by the symbol on the left, disposal of this product in domestic waste is strictly prohibited. Separate the waste into categories for disposal, according to the methods envisaged by current legislation in your area, or return the product to the retailer when purchasing a new version. **Caution!** – Local legislation may envisage serious fines in the event of abusive disposal of this product. • Packaging materials must be disposed off in accordance with local regulations.



TECHNICAL SPECIFICATIONS

WARNINGS: • 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 modify its products at any time deemed necessary, while maintaining the same intended use and functionality.

- **General type:** two independent access control systems, each composed of: **system a)** - MORX decoder + 1 to 4 digital combination keypads (EDS / EDSI); **system b)** - MORX decoder + 1 transponder card reader (ETP).
- **Max cable length:** decoder to reader/keypad = 10 m; with shielded cable = 30 m
- **Memory capacity:** 1 or 2 BM1000 cards (one card can hold up to 255 combinations or cards).
- **Power:** preferably 24 VAC / DC, limits: 10 - 35 VDC, 12 - 28 VAC.
- **Maximum power draw (with 4 keypads or 1 reader):** 24 VDC = 70 mA; 24 VAC = 200 mA; 12 VDC = 150 mA; 12 VAC = 300 mA
- **Typical draw (one keypad):** 24 VDC = 30 mA; 24 VAC = 80 mA; 12 VDC = 60 mA; 12 VAC = 100 mA
- **Relay output contacts:** max 500 mA and 48 VAC / DC
- **Protection rating:** IP 30
- **Operating temperature:** -20°C to 70°C
- **Dimensions (mm):** 98 x 42 h 25
- **Weight:** approx. 65 g

CE DECLARATION OF CONFORMITY

Declaration in compliance with Directive 1999/5/EC

Note – The content of this declaration corresponds to that specified in the official document deposited at the Nice S.p.a. headquarters and, in particular, to the latest revised edition available prior to the publishing 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.

Declaration number: **513/MORX** Revision: **3** Languages: **EN**

• **Manufacturer's Name:** NICE S.p.a. • **Address:** Via Pezza Alta, 13, 31046 Rustignè di Oderzo (TV) Italy • **Type of product:** access control system • **Model/type:** MORX, ETP, EDS, EDSI • **Accessories:** MOCARD


The undersigned Mauro Sordini, Chief Executive Officer, declares under his sole responsibility, that the product specified above compliant with the essential requirements provided for in Art. 3 of the following EC directive, for the use for which the products are intended:

DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity, in accordance with the following harmonised standards:

- health protection: (art. 3(1)(a)): EN 62479:2010
- electrical safety: (art. 3(1)(a)): EN 60950-1:2006+A11:2009+A12:2011+A12:10+A2:2013
- electromagnetic compatibility: (art. 3(1)(b)): EN 301 489-1 V1.9.2:2011, EN 301 489-3 V1.6.1:2013
- radiofrequency spectrum: (art. 3(3)): EN 300 330-2 V1.6.1:2015

In accordance with the directive 1999/5/EC (appendix V), the product is class 1

Oderzo, October 30, 2015

Mr. **Mauro Sordini**
(Chief Executive Officer)


CE DECLARATION OF CONFORMITY

Declaration in compliance with Directive 1999/5/EC

Note – The content of this declaration corresponds to that specified in the official document deposited at the Nice S.p.a. headquarters and, in particular, to the latest revised edition available prior to the publishing 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.

Declaration number: **139/MORX** Revision: **9** Languages: **EN**

• **Manufacturer's Name:** NICE S.p.a. • **Address:** Via Pezza Alta, 13, 31046 Rustignè di Oderzo (TV) Italy • **Type of product:** access control system • **Model/type:** MORX, MOT, MOM • **Accessories:** MOCARD


The undersigned Mauro Sordini, Chief Executive Officer, declares under his sole responsibility, that the product specified above compliant with the essential requirements provided for in Art. 3 of the following EC directive, for the use for which the products are intended:

DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity, in accordance with the following harmonised standards:

- health protection: (art. 3(1)(a)): EN 62479:2010
- electrical safety: (art. 3(1)(a)): EN 60950-1:2006+A11:2009+A12:2011+A12:10+A2:2013
- electromagnetic compatibility: (art. 3(1)(b)): EN 301 489-1 V1.9.2:2011, EN 301 489-3 V1.6.1:2013
- radiofrequency spectrum: (art. 3(3)): EN 300 330-2 V1.6.1:2015

In accordance with the directive 1999/5/EC (appendix V), the product is class 1

Oderzo, October 30, 2015

Mr. **Mauro Sordini**
(Chief Executive Officer)




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