

# ELISEO2K, ELISEOMULTI2K

## Remote controls for NG-TRX intrusion detection systems

ELISEO2K and ELISEOMULTI2K are two-way remote controls compatible with the NG-TRX system.

They can send commands to control units that support the NG-TRX technology (natively or via GATEWAY2K) and signal the reception and execution of the commands.

The remote controls feature buttons for arming, disarming, partial day arming, partial night arming, activation of two outputs (e.g. to control gates or outdoor lights), central button for remote control lock/unlock, RGB LED, internal buzzer.

Communication to the control unit takes place on a bi-directional proprietary encrypted protocol over 3 different channels, using rolling codes and the anti-grabbing function.

The remote controls can be set using BrowserOne software.

The multi-system model ELISEOMULTI2K has the same features as ELISEO2K, and it can also be acquired to several control units at the same time, in order to control different intrusion detection systems.



Remote control	Compatible control unit
ELISEO2K	VILLEGGIO NG-TRX Series v. 8.7.2 or above PREGIO Series v. 3.2.3 or above PROXIMA series v. 1.0.11 or above
ELISEOMULTI2K	VILLEGGIO NG-TRX Series v. 8.8.7.18 or above PREGIO Series v. 3.3.9.6 or above PROXIMA series v. 1.1.2.5 or above

Addressee for this information:  User |  Installer

### 1. TECHNICAL DATA

Modello	ELISEO2K	ELISEOMULTI2K
Encryption key	Unique	Shared
Suitable for multi-system configuration	No	Yes
Maximum number of supported control units	1	No limits
Power supply	3 V from a CR2032-type button battery	
Minimum operating voltage	1.9 V	
Current draw at power voltage	Idle: 1,5 µA, maximum: 22 mA	
Maximum transmitted power	25 mW	
Operating frequency	868,120 - 868,820 - 869,525 MHz	
Autonomy	> 1 year (average)	
Wireless range	nominal: 550 m (1); max: 650 (1) m	
Operating temperature	-10 / +55 °C	
Dimensions	Ø 48 × P 13 mm	
Weight	22 g	
Colour	Black	
Regulations	compliant with EN 50131-5-3, EN50131-3 grade 2, environmental class II	

**Note:** the range may be subject to limitations dependent on environmental conditions; the range refers to the receipt of the 99% of the transmitted packets, with the devices in free air at 1.5 m above the ground, respectively without and with orienting the antenna in a favourable direction. Enabling the “tx boost” option (if available) can cause a range increase between 10 and 30% but also affects battery life.

### Parts supplied

1 × CR2032 built-in battery, hook with metal ring, technical manual.

### 2. DEVICE LEARNING TO NG-TRX CONTROL UNIT

Verify that the battery is charged otherwise the device will not be learnt.

#### Device learning procedure:

- on control unit keypad, enter installer code followed by **OK** to go to setup menu
- use arrow keys ↑ or ↓ to go to LEARN PROXI R.C. option
- press **OK**
- use arrow keys to go to the user to which learning the device
- press **OK**
- press key 1 (saved to control unit)
- press unlock button to unlock the remote control
- within the unlock time (default: 5 seconds) press and hold remote control keys 1 and 2 for 10 s: wait for the device to beep twice, then release the keys
- in case of wrong learning procedure, the unit will not confirm the procedure; the remote control will beep once to signal error and its LED will light up red: restart the procedure
- in case of correct learning procedure, the unit buzzer will beep twice
- exit control unit setup menu; when required, press **OK** to save the setup

### 3. SETUP VIA BROWSERONE

ELISEO2K can be programmed using:

- BrowserOne 3.16.13 or above
  - the latest version of the module available for the control unit in use
- ELISEOMULTI2K can be programmed using:

- BrowserOne 3.18.8 or above
- the latest version of the module available for the control unit in use
- start control unit connection
- select **Read setup** key to read control unit setup
- go to **Users** page
- find the number of the user to whom the learned remote control code is associated
- click on a tab to open it

### 3.1. "General" tab

This tab provides information on the remote control learning state. The model and firmware version are displayed.

**Delete learned code:** deletes the current code.

**Enable self-learned code:** enable or disable the remote control code without deleting it.

### 3.2. "Radio devices NG-TRX" tab

#### Options NG-TRX

##### ▼ Buzzer activation

Select device buzzer activation mode: always, only for error signalling, or totally disabled.

##### ▼ Tx Boost

Option increasing transmission range; it may affect battery lifetime at the same time. Use only if setting function **Remote range NG-TRX** (described below) at its maximum is not enough. Avoid reducing the remote control range after selecting option **Tx Boost**.

#### Options remote ELISEO2K/ELISEOMULTI2K

##### ▼ Panic signaling requires remote control unlock

If flagged, it will be possible to trigger panic alarm only after unlocking the remote control.

##### ▼ Remote control unlock with long press

If unflagged, pressing the unlock button shortly will be enough to unlock the remote control.

If flagged, it will be necessary to press and hold the unlock button for at least 3 s to unlock the remote control.

##### ▼ Remote control lock delayed after remote control action

Set the remote control behaviour after sending a command.

If unflagged, the remote control will be locked immediately after sending a command.

If flagged, the remote control will remain unlocked for the duration set in **Auto-lock time** field.

##### ▼ Auto-lock time

Select how long the remote control will remain unlocked after pressing the unlock button.

**5 seconds:** default.

**Always:** remote control always locked.

Note for ELISEOMULTI2K: to keep the remote always unlocked on two different control units, set the time to "Always" on both control units.

### 3.3. Options for communication to control unit

To configure communication between NG-TRX devices and control unit:

– on BrowserOne main page, select **System Options**

– select tab **Options NG-TRX**

##### ▼ Receiving multichannel

When active, the control unit receives on three channels simultaneously; when deactivated, the control unit receives on one channel only (preset/preferred). We recommend to keep it non active only if a channel has disturbances.

##### ▼ Default channel


This is the channel used by the control unit to receive data in case of no interference (default: channel 1). In case of interference, the unit defines a channel (even different from the preset one) according to interference level and uses it for data reception.

##### ▼ Supervision interval

It defines supervision time interval common to all system devices: such interval will be valid for all devices that has no specific interval selected (default).

##### ▼ Enable two-factor authentication for Remote Controls

Select it to increase protection against remote control codes duplication attempts: two transmissions will be sent for each single command, thus implementing double authentication.

 *Note: the activation of this option slows down the response of remote controls and increases battery consumption.*

##### ▼ Delay low battery signalling

If selected, peripherals will run additional controls before sending low battery alerts.

##### ▼ Enable detection RF interference

Select it to enable interferences detection over 3 channels and log the corresponding event.

The control unit will automatically change the channel if the interference is detected and logged in the last 48 hours.

##### ▼ RF interference as tamper

If selected, interference events will generate also tamper events; such events will be managed normally.

##### ▼ Remote range NG-TRX

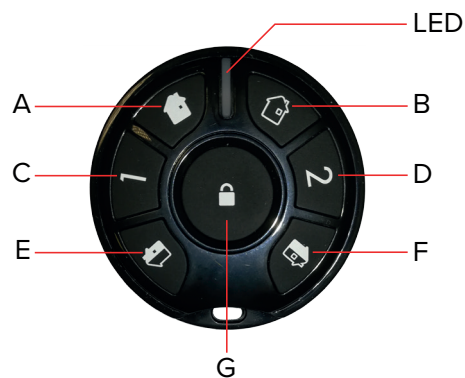
Area to adjust NG-TRX remote controls range.

Default: maximum. Reduce the range in order to avoid accidentally activating the control unit from a long distance.

 *Note: leave the range at its maximum if Tx Boost is enabled.*

Once all changes have been done, write the new setup to the control unit. It will be sent to the device at the first valid transmission to the unit.

## 4. OPERATING MODE



- A** Total arming key
- B** Total disarming key
- C** Output 1 control key: it can be set to quickly arm/disarm sectors or to control an output
- D** Output 2 control key: it can be set to quickly arm/disarm sectors or to control an output
- E** Partial arming 1 key: it arms all proposed sectors by default. Otherwise, it can be programmed to perform quick partial sector arming/disarming.
- F** Partial arming 2 key: it arms allowed sectors except the proposed ones by default. Otherwise, it can be programmed to perform quick sector partial arming/disarming.
- G** Unlock button

## Launching a command with key lock enabled

Key lock is enabled by default.

If key lock is enabled (**Auto-lock time** set to "5 seconds"), the remote control keys are normally locked.

When the remote control is locked, pressing a key causes the LED to light up purple and no action is performed.

To run a command:

- press unlock button in the center of the remote control

The remote control will beep and its LED will light up blue to confirm the unlock.

- within 5 seconds from the unlock, press the key for the desired command

The LED will light up green and it will beep to confirm transmission sending.

## Launching a command with key lock disabled

If key lock is disabled (**Auto-lock time** set to "Always"), the remote control is always unlocked.

To run a command, press its key.

The LED will light up green and it will beep to confirm transmission sending.

## Response received

After a few seconds, the LED and the buzzer will signal the response on the execution of the command:

Condition	Indication
Command executed	1 yellow blink + 3 beeps
Command not executed due to control unit refusal (e.g. open zone not in exit path)	1 red blink after 1.5 s + 1 long beep
Reception failure and/or control unit response loss (e.g. out of range)	1 red blink after 10 s + 1 long beep
Remote control low battery with control unit response	3 red blinks + 4 beeps
Remote control low battery without control unit response	2 red blinks + 2 beeps

## 4.1. Panic function

To activate panic function:

- press the "Partial arming 1" and "Partial arming 2" keys at the same time

If via BrowserOne the option **Panic signaling requires remote control unlock** has been selected, before pressing the two keys it will be necessary to unlock the remote control.

## 4.2. Sending commands at short intervals

If key lock is enabled (default), sending commands at short intervals from each other might not be successful.

If necessary, it is possible to enable option **Remote control lock delayed after remote control action**.

## 4.3. Arming/disarming sectors belonging to areas associated to the user

You can use buttons c and d, provided they are not being used to command outputs 1 and 2, to arm/disarm sectors belonging to areas associated to the user.

To define the sectors:

- go to **Users** page
- click on **Remote control action (buttons 1 and 2)** tab

Otherwise (e.g. if the central buttons are being used for controlling outputs 1 and 2), you can program buttons E and F to quick arm/disarm sectors belonging to areas associated to the user.

To define the sectors:

- go to **Users** page
- click on **Remote control action (buttons partial)** tab

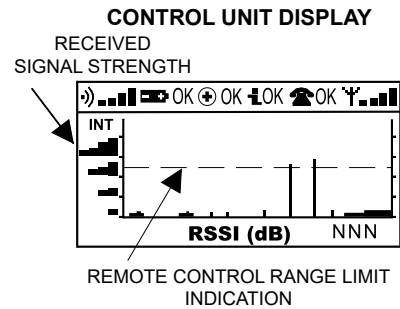
**!** *If this option is not used, buttons E and F are used for arming all proposed sectors and all sectors except the proposed ones.*

## 4.4. Signal test

You can use the remote control to test wireless signal level at a certain position before installing a NG-TRX device:

- on control unit keypad, enter installer code followed by **OK** to go to setup menu
- use arrow keys **↑** or **↓** to go to RF monitor option
- press **OK**

**!** *In RF monitor mode, any limitation of the remote control range set via browser will be ignored.*



- press the Total arming (A) key on the remote control to start the test
- Place the remote control in the test points, turning it around in order to see where the signal is sufficient or not.

The signal level, updated every second, will be shown by the LED in different colours:

Signal strength	LED color
Weak	Red
Medium	Yellow
Good	Green
Excellent	White

In case of reception failure, the LED will light up red and the remote control will beep to signal error.

The device will quit test mode automatically after 5 minutes.

Press Total disarming (B) key to forcedly exit the test.

## 5. MULTI-SYSTEM OPERATION



The ELISEOMULTI2K remote control can be learned to several control units at the same time, making it possible to control different systems with the same remote control.

Learn the remote control to each control unit separately following the procedure described in chapter 2 on page 1.

### Remarks on multi-system operation

- For proper operation, it is required that the systems are situated at a distance of at least 1 km from one another. If this is not the case, the remote control may receive unexpected responses from several control

units at the same time: this triggers an error signalling. If the system are situated at less than 1 km from one another, we suggest properly adjusting the range of the remote control of each system (see function "Remote range NG-TRX", paragraph 3.3 on page 2).

- All the control units you want to control with the multi-system remote control must be equipped with firmware version compatible with this function.
- It is still possible to acquire ELISEMULTI2K to control units whose firmware version is not compatible with multi-system operation; but the remote control will only control the last unit to which it was acquired (same operation as ELISEO2K).

### Key lock with multi-system remote control

- ELISEMULTI2K always receives the setup of the last sempre il setup dell'ultima centrale in cui è stato appreso. Subito dopo un apprendimento, il blocco tasti è attivo di default.
- Per mantenere sempre sbloccato il telecomando su due centrali diverse, impostare il tempo di sblocco a "sempre" su entrambe le centrali.

## 6. MAINTENANCE



### 6.1. Battery replacement

The remote control will signal low battery condition as indicated in chapter 5 p. 2.

To replace the battery:

- open the remote control case removing the closing screw on top
- remove the battery
- insert the new CR2032 battery with the positive pole on the outer side

No not touch the battery poles with fingers.

 **CAUTION! This device contains button cells.**

Do not ingest the battery. Chemical burn hazard.

In case of ingestion, button cells might cause severe internal burn within just 2 hours and could result in death.

Keep new and used batteries away from children's reach.

If the battery slot does not firmly close, suspend product use and keep it away from children's reach.

In case of suspected ingestion or insertion in other body cavities, seek medical attention immediately.

## 7. EU DECLARATION OF CONFORMITY

Hereby, EL.MO. Spa declares that the radio equipment ELISEO2K is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: [www.elmospa.com](http://www.elmospa.com) – registration is quick and easy.



## 8. GENERAL WARNINGS



This device has been designed, built and tested with the utmost care and attention, adopting test and inspection procedures in compliance with current legislation. Full compliance of the working specifications is only achieved in the event the device is used solely for its intended purpose, namely:

**Remote controls for NG-TRX intrusion detection systems**

The device is not intended for any use other than the above and hence its correct functioning in such cases cannot be assured. Consequently, any use of the manual in your possession for any purpose other than those for which it was compiled - namely for the purpose of explaining the product's technical features and operating procedures - is strictly prohibited.

Production processes are closely monitored in order to prevent faults and malfunctions. However, the components adopted are subject to an extremely modest percentage of faults, which is nonetheless the case with any electronic or mechanical product.

Given the intended use of this item (protection of property and people), we invite you to adapt the level of protection offered by the system to suit the actual situation of risk (allowing for the possibility of impaired system operation due to faults or other problems), while reminding you that there are specific standards for the design and production of systems intended for this kind of application.

**We hereby advise you (the system's operator) to see that the system receives regular routine maintenance, at least in accordance with the provisions of current legislation, and also check on as regular a basis as the risk involved requires that the system in question is operating properly, with particular reference to the control unit, sensors, sounders, dialler(s) and any other device connected. You must let the installer know how well the system seems to be operating, based on the results of periodic checks, without delay.**

## 9. INSTALLER WARNINGS



Comply strictly with current standards governing the installation of electrical systems and security systems, and with the manufacturer's directions given in the manuals supplied with the products.

Provide the user with full information on using the system installed and on its limitations, pointing out that there are different levels of security performance that will need to suit the user's requirements within the constraints of the specific applicable standards. See that the user looks through the warnings given herein. Work involved in the design, installation and maintenance of systems incorporating this product should be performed only by personnel with suitable skills and knowledge required to work safely so as to prevent any accidents. It is vital that systems be installed in accordance with current legislation. The internal parts of certain equipment are connected to the mains and therefore there is a risk of electrocution when maintenance work is performed inside without first disconnecting the primary and emergency power supplies. Certain products include batteries, rechargeable or otherwise, as an emergency backup power supply. If connected incorrectly, they may cause damage to the product or property, and may endanger the operator (explosion and fire).

## 10. USER WARNINGS



Check the system's operation thoroughly at regular intervals, making sure the equipment can be armed and disarmed properly.

Make sure the system receives proper routine maintenance, employing the services of specialist personnel who meet the requirements prescribed by current regulations. Ask your installer to check that the system suits changing operating conditions (e.g. changes in the extent of the areas to be protected, change in access methods, etc...)

## 11. DISPOSAL WARNINGS



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In accordance with Directive 2012/19/EU on waste electrical and electronic equipment (WEEE), please be advised that the EEE was placed on the market after 13 August 2005 and must be disposed of separately from normal household waste.

This product needs batteries for correct functioning. Exhausted batteries have to be delivered to dumping grounds authorized for battery collection. The materials used for this product are very harmful and polluting if dispersed in the environment.