

# RAM-TOUCH II

**Viro**<sup>®</sup> BIOMETRIC PRODUCT

WITH DIGITAL FINGERPRINT READER  
AND ELECTRONIC COMBINATION,

WITH CAPACITIVE KEYPAD, DISPLAY AND ACOUSTIC SIGNALS

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**Viro**<sup>®</sup>



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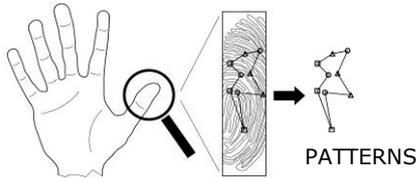
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# Getting started

## Thank you for choosing a Viro biometric product.

This item incorporates electronic combination opening with a sophisticated digital fingerprint-based biometric recognition system. Digital fingerprints stay the same throughout a person's life and are therefore the best possible means of identification, universally recognized throughout the world.

This recognition system of digital fingerprints is based on fingerprint particulars (details) rather than on its overall image. This means that the system processes the fingerprint and extracts its unique characteristics such as, for example, the start, end and forks of the lines that make up the fingerprint, and calculates their reciprocal position (Figure 1).



**Figure 1:**

The fingerprint is identified by the reciprocal position of the points of its particulars (details). This technique allows alterations to be taken into consideration, such as small cuts on the fingertip, and ensures maximum privacy for the fingerprint image.

Using the details instead of the overall image not only reduces processing times for recognition to a minimum, but also provides the following fundamental advantages:

- The system can **tolerate physiological alterations of the fingerprint**, such as small cuts or scratches. It is in fact very unlikely that such alterations can cover enough details to make the fingerprint unrecognisable.
- The system can **tolerate small movements of the finger on the reader** with respect to the original position, since the reciprocal position of the details does not change.
- It is not possible to use the details to trace the complete image of the fingerprint that generated the details, thus ensuring secrecy **in compliance with the legal regulations regarding privacy**.

This item is also equipped with an innovative capacitive keypad, which makes use of the touch principle. This technology detects dielectric changes that occur in sensitive areas when the finger approaches. This type of keypad allows the system to be activated by simply touching the buttons. Besides, since there aren't any mechanical components that move, this leads to reliability in terms of durability over time, avoiding risk of breakage and offering high performance.

Thanks to the technology of this product, you have chosen the best in security and practicality.

## Getting to know the system RAM-TOUCH II

The exclusive design of the **RAM-TOUCH II** system includes a backlit display, an innovative capacitive keypad, a guide channel for improved fingerprint reading and provides effective reader protection from knocks and scratches.

The digital fingerprint reader is a delicate part of your safe/cabinet and can be damaged by: violent knocks, scratches with sharp objects and strong electric discharge.



**Figure 2:** description of the main components of the **RAM-TOUCH II** system

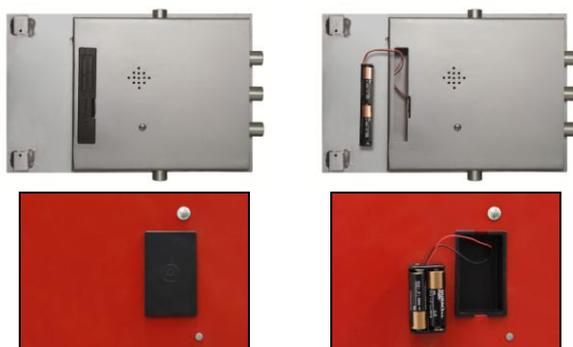
When the door is closed, touching  the fingerprint reading is activated; touching any key the code entry is activated.

When the door is open, press any key to access the menu of the functions. At the end of every operation, the system will automatically switch off for maximum energy saving. When any button is pressed, a beep always sounds unless this function is disabled (see page 24).

## Fitting the batteries and language setting

The **RAM-TOUCH II** electronic system is powered by four 1.5V AA LR6 batteries contained in a compartment on the inside of the door.

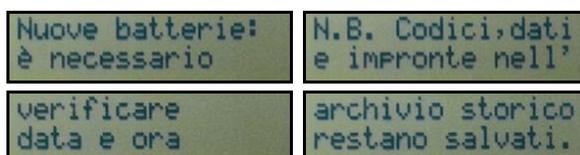
With the door open, remove the plastic cover of the battery compartment and insert the batteries, respecting the + and - signs indicated on the battery cover.



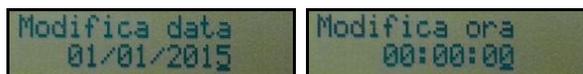
**Figure 3:** plastic cover and battery compartment on safe/cabinet

After inserting all 4 batteries, the electronic system will carry out a self-test and a beep is emitted. Reclose the battery compartment.

The preset language of the **RAM-TOUCH II** is Italian. The following messages are displayed in sequence once the batteries have been fitted:



Now, you need to change the date and then the time:



Press key **E** to get to the following value that needs to be changed (the cursor moves forward). But if you press key **C**, you get to the previous value that needs to be changed (the cursor moves backward).

If no key is pressed, the safe/cabinet automatically stores the date and time shown on the display after 10 seconds.

If no beep is heard, the batteries have not been fitted correctly: Check polarity again.

**Note: If battery polarity is reversed inadvertently, the system will not start but in any case will not be damaged.**

Now you can change the preset language.

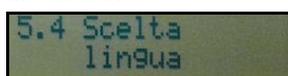
With the door open, access the Menu by touching any key to select the language in which to display the messages. The display will show:



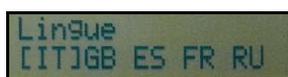
Use the arrow key **4** to access menu 5



Use the arrow keys **4** and **6** to position onto submenu 5.4



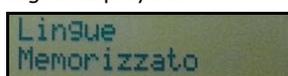
Press key **E**. The display will show:



Use the arrow keys **4** and **6** to select the required language.

Use key **E** to confirm the selected language.

Upon confirmation, a beep is emitted and the following is displayed:



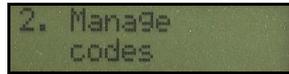
# Brief instructions

**Note:** the safe/cabinet is delivered open, with the deadbolts locked, without any code/fingerprint stored in the memory and without batteries.

**With the batteries inserted and without stored codes/fingerprints, the safe/cabinet can be opened by anyone by entering any code or swiping any finger** (see page 8).

## Storing/erasing codes in the system RAM-TOUCH II

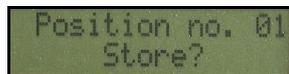
With the door open, switch on the system by pressing any key. Press  (right arrow) to access the menu:



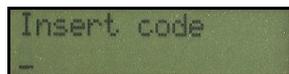
Press the key  (Enter) to access the codes storing/erasing functions.

Use the arrow keys  (left arrow) and  to scroll the various memory positions and check if they are free or already assigned (up to 16 codes can be stored).

If the **position is free**, the following message is displayed by pressing the key  :

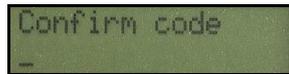


If key  is pressed again, the display will show:



A code can now be entered (from 3 to 10 digits).

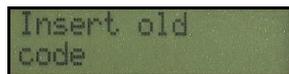
If key  (erase/cancel) is pressed, the entered digit can be erased. If key  is pressed the code is accepted (if at least 3 digits have been entered) and you are asked to re-digit it to confirm:



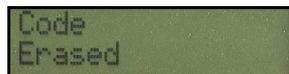
After the code is entered, press key  to store the code, a beep is emitted and the display shows:



If the **position is assigned** and  is pressed, the system requests insertion of the previously stored code for it to be erased: this ensures that only someone who knows the code can erase it.



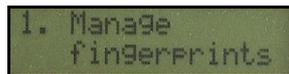
To confirm the code was erased, the display will show:



**Note: after 10 seconds, if no key is pressed, the system will emit a beep and switch off automatically.**

## Storing/erasing fingerprints in the system RAM-TOUCH II

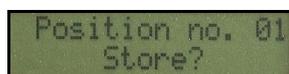
With the door open, switch on the system by pressing any key.



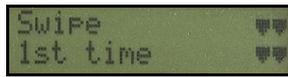
Press the key to access the fingerprint storing/erasing functions.

Use the arrow keys  and  to scroll the various memory positions and check if they are free or already assigned (up to 16 fingerprints can be stored).

If the **position is free**, the following message is displayed by pressing the key  :



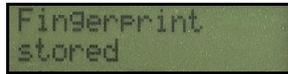
If key  is pressed again, the display will show:



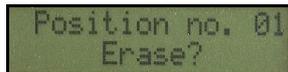
When the arrows are scrolled from the top to the bottom, the finger can be swiped from the top to the bottom on the sensor, which is located inside the guide channel. You have to swipe your fingertip for 5 consecutive times to memorize it safely and correctly. Tips on how to swipe the finger may be shown on the display.

**Note: In case of particularly dry, chapped or horny fingers, we recommend to lightly wet the fingertip to facilitate fingerprint reading. In this way the sensor can detect and memorize the unique features of the digital fingerprint more easily.**

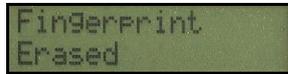
If the operation is performed correctly and to confirm the fingerprint was memorized, a beep will be emitted and the display will show:



If the **position is already assigned** (without a "Master" fingerprint being memorized, see page 12), press the key  and the following will be shown on the display:



If key  is pressed again, the stored fingerprint is erased; a beep will be emitted to confirm the fingerprint was erased and the display will show:

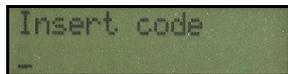


**Note: after 10 seconds, if no key is pressed, the system will emit a beep and switch off automatically.**

## Opening the door with code

Press the key  or any numeric key to switch on the **RAM-TOUCH II** reader.

Note: If a numeric key is pressed, this will be the first digit of the entered code. The display will show:



The other digits of the code can now be entered (from 3 to 10 digits).

After entering all the code digits, press the  key to open the door. If the key  is pressed one or more times, the entered digits can be erased.

If the code is not recognized, the system will signal the error, switch off automatically and you must restart the procedure from the beginning.

**Note: if the knob is not turned within a few seconds, the mechanism locks again for safety reasons and the safe/cabinet remains closed. To open it, restart the opening procedure from the beginning.**

## Opening the door with a digital fingerprint

Press the key  to switch on the **RAM-TOUCH II** reader.

Note: If only digital fingerprints are stored in the memory, the reader can be switched on by pressing any key.

The display will show:



When the scrolling of the arrows from the top to the bottom is shown, the finger can be swiped from the inside out on the sensor, which is located inside the guide channel.

The display will show messages that make it possible to follow the various opening steps and any incorrect finger swiping (e.g. partial reading, too fast, slanted finger, press harder, etc.).

The swiped fingerprint will be compared simultaneously with all the positions in the memory, so, if swiped correctly, a single swipe on the reader is sufficient to open the safe/cabinet, regardless of which position the fingerprint is stored in.

Recognition of the fingerprint releases the mechanism that allows the safe/cabinet to be opened by turning the knob.

**Note: if the knob is not turned within a few seconds, the mechanism locks again for safety reasons and the safe/cabinet remains closed. To open it, restart the opening procedure from the beginning. If the fingerprint is not recognized, for example because the finger was not correctly swiped, a second attempt can be made; if the second attempt is also incorrect, the system will switch off and you must restart from the beginning.**

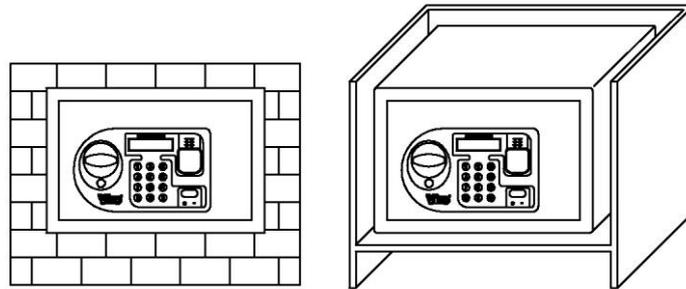
# Installation

**Only qualified personnel are permitted to install the safe/cabinet. Viro is not liable for any damage due to improper use of the products or their wrong installation.**

**INFORMATION ABOUT SAFETY:** when handling the safe/cabinet, use proper personal protective gear and suitable lifting equipment according to the weight of the product. Pay utmost attention when closing the door to avoid crushing your hands between the front panel and door to the safe/cabinet.

## Installing the safe

According to the model, the safe can be built into the wall or wall-mounted.



**Figure 4:** safe built into the wall (left drawing) or wall-mounted (right drawing)

For the first type of installation, choose a place whose dimensions are proper to prevent the safe from being forced with large break-in tools (for example, bludgeons, crowbars, etc.) and a dry wall, located in a room free from humidity and 10 cm thicker than the safe. After checking that all parts of the safe work properly, in order to build the safe into the wall, you need to:

1. break the wall, which, in order to guarantee the proper withholding of the safe, should have the following characteristics:
  - be thick enough so that the front panel of the safe is flush to the wall;
  - have a free space of 5 to 10 cm. on the 4 sides to be filled with agglomerated cement.any free space inside the wall must be filled with bricks in order to have a solid supporting base for the safe. Moreover, in order to obtain a higher resistance to tear, it is advisable to insert steel rods of 10 mm in diameter into the flaps located at the rear of the safe.
2. Protect the front panel of the safe with some plastic film secured with adhesive tape or similar material.
3. Position the safe inside the recess and check that it is levelled and oriented correctly, i.e. with its hinges on the right-hand side when facing it.
4. Embed the safe with cement type CEM II/A-LL 42.5 R (UNI EN 197-1) mixed with sand in a 400 kg/m<sup>3</sup> ratio. Note: to further increase break-in resistance, it is advisable to wrap the safe in an electro-welded mesh before building it into the wall.

**After the installation, leave the door open for a few days to prevent condensation from forming inside the safe.**

The free standing model can be fitted using the safe's pre-punched holes: the 4 holes on the base are for floor installation (recommended) or the 4 holes at the back for wall installation. To secure the safe, use expansion plugs whose M10 screw diameter has characteristics that depend on the type of support (concrete, brick, perforated brick or floor base). The floor or wall should be strong enough to prevent the expansion plugs from coming loose. During installation, check that the safe is levelled and oriented correctly, i.e. with its hinges on the right-hand side when facing it.

**Never turn the safe upside down: if you do, Viro will not be responsible if it does not operate correctly.**

**ENVIRONMENTAL INFORMATION:** At the end of its lifespan, this product shall be disposed of separately from other waste. At the end of its use, the user shall be responsible for disposing of it in accordance with current regulations.

## Installation of safety cabinets

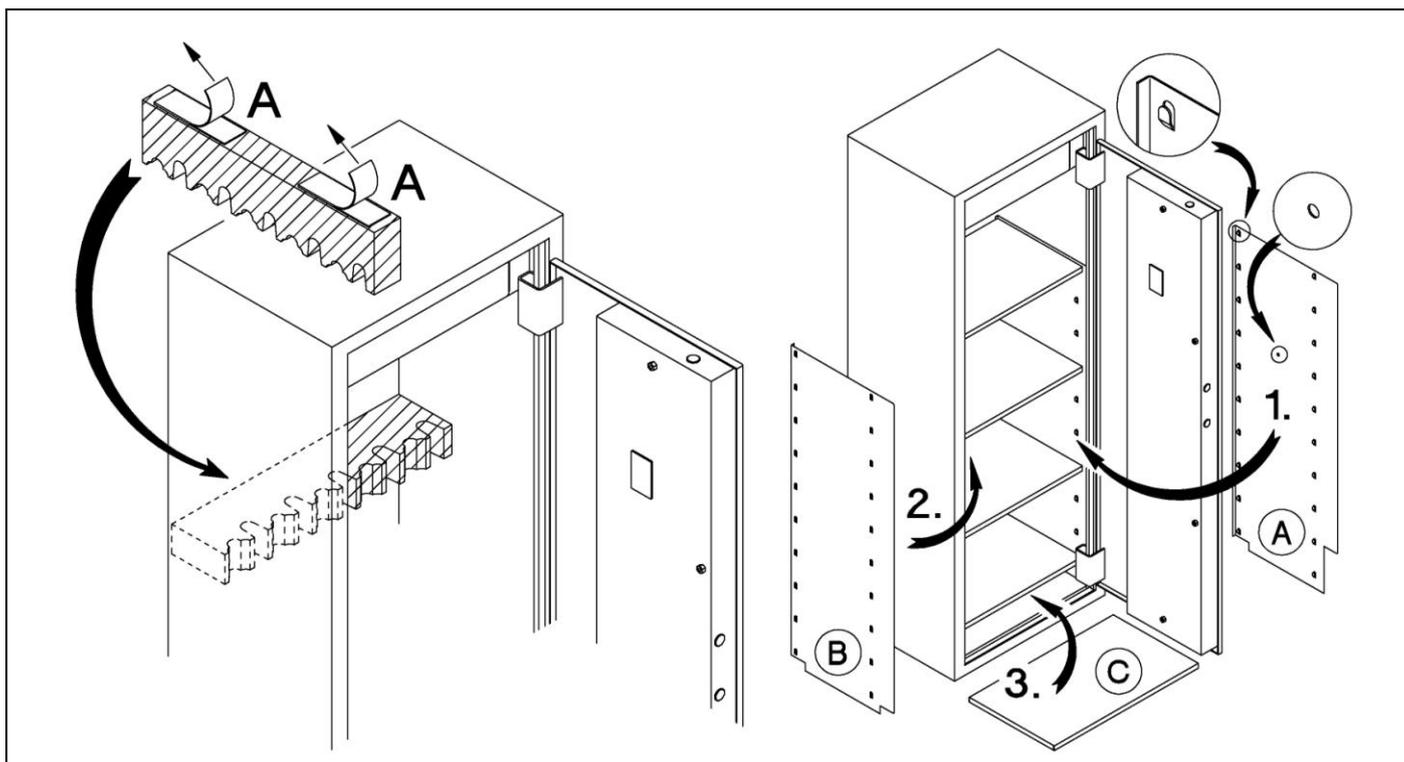
**WARNING:** for your safety, the cabinet should be firmly anchored to the back wall using expansion plugs (not supplied) of appropriate size and strength, using the appropriate holes in the rear wall.

**Note:** when cleaning the wood-colored cabinets, use only cloths moistened with water.

## Application of gun rack

(only for gun cabinets)

Remove the adhesive tape's protective film from the gun rack and fix it to the cabinet's rear wall at a height of about 95 cm. from the base.



**Figura 5:** application of the gun rack (left drawing) and assembly of internal shelves (right drawing)

## Assembly of internal shelves

(only for document-holding cabinets)

1. Place the side support **A** with the 8 mm. diameter hole inside the cabinet in contact with the right wall.
2. Place the side support **B** inside the cabinet in contact with the left wall.
3. Fix the shelves **C** on the supports using the appropriate hooks. **Note: the max load-bearing capacity of each shelf is 15 kg.**

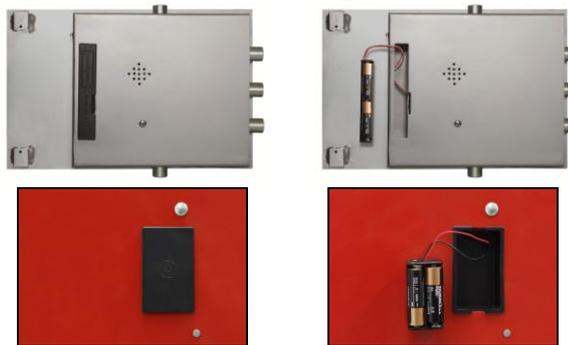
**ENVIRONMENTAL INFORMATION:** At the end of its lifespan, the product shall be disposed of separately from other waste. At the end of its use, the user shall be responsible of its disposal according to current regulations.

## Replacing the batteries

The **RAM-TOUCH II** electronic system is powered by four 1.5V AA LR6 batteries housed in a compartment inside of the door.

**Note: Alkaline batteries are recommended for maximum operating duration; use only new batteries and never mix new batteries with used ones.**

With the door open, remove the plastic cover of the battery compartment and insert/replace the batteries, respecting the + and - signs indicated on the inside of the battery cover.



**Figure 6:** plastic cover and battery compartment

After inserting all 4 batteries, the electronic system will carry out a self-test and a beep is emitted. Close the battery compartment. The display will show the following messages in sequence:

```
New batteries:  
Please  
check  
date and time  
Note: codes,  
fingerprints and  
historical data  
remain stored.
```

Now, you need to check/change the date and time: (see page 23). If no key is pressed, after about 10 seconds the safe/cabinet automatically stores the date and time shown on the display.

If no beep is heard, the batteries have not been fitted correctly: Check polarity again.

**Note: If battery polarity is reversed inadvertently, the system will not start, but in any case will not be damaged.**

**Note: If batteries are replaced in less than one and a half minutes, the system will automatically store the date and time present in the memory, no beep will be emitted and no check will be requested.**

The **RAM-TOUCH II** electronic system can detect the battery charge level. When the batteries must be replaced, a beep is emitted and the display shows: "Low batteries".

Beeping will continue every time you use the system, until the batteries are replaced.

If the replacement warnings are ignored until the batteries are completely flat, it is still possible to open the safe/cabinet by means of the emergency opening procedure (see page 16).

**Note:** if maintenance is performed to the safe/cabinet to ensure the fingerprint sensor is working properly and also for safety reasons, every time the batteries are changed you may be requested to enter any of the stored codes to enable the sensor itself; this occurs only in the event the fingerprint sensor has been reconnected to the card or replaced with a new one. The safe/cabinet will be re-enabled after entering said code.

## Closing the door

To close the safe/cabinet, close the door and turn the knob counter-clockwise.

**Note: The emergency keys must be kept in a safe place, never inside the safe. Before closing the door, make sure the batteries have been inserted.**



**Figure 7:** knob of the safe/cabinet

## Opening the door

To open the safe/cabinet, a digital fingerprint or a 3 to 10 digit numeric code can be used.

**RAM-TOUCH II** has 16 memory positions for the digital fingerprints plus other 16 for the codes.

The sixteenth memory position is reserved for a "Master" fingerprint which has a special role:

- if stored, the Master fingerprint is used not only to open the safe/cabinet but is always requested to confirm any operation for erasing or storing other fingerprints;
- if not stored, anyone can store or erase fingerprints when the door is open.

New fingerprints/codes can be stored only in free memory positions. To store a new fingerprint/code in an occupied memory position, you must first erase the old one (see pages 11 and 13).

**Note:** When purchasing a safe/cabinet that was on display at the sales outlet, check whether any fingerprints/codes have been stored in the 32 memory positions available.

Check whether there is any "Master" fingerprint in the sixteenth position. If no "Master" fingerprint is present, erase the fingerprints following the instructions in this manual. If, instead, a "Master" fingerprint is present, please contact the sales outlet where the product was purchased.

Check whether there are any codes inserted. If any codes are present, please contact the sales outlet where the product was purchased.

## Opening the door if no fingerprints/codes have been stored

### Opening with digital fingerprint

Turn on the **RAM-TOUCH II** reader by pressing  to open with a **fingerprint**. The display will show the following messages in sequence:



and finally:

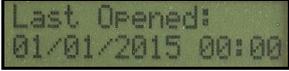


The cabinet can be opened with the fingerprint when you see the arrows scrolling from top to bottom next to the message: swipe your finger on the sensor, which is inside the guide channel and move the finger downwards, i.e. crosswise from the inside out. The display shows any incorrect finger swiping procedures, suggesting suitable tips and comments.

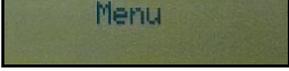
If the fingerprint was read correctly, a beep will be emitted and the display will show:



Now turn the knob clockwise and open the door, the display will show information about the last time it was opened:



and the message:



**Note: if the knob is not turned within a few seconds, the mechanism locks again for safety reasons and the safe/cabinet remains closed. To open it, restart the opening procedure from the beginning.**

### Opening the door with a code

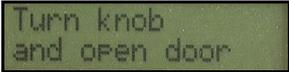
Press the key or any numeric key to switch on the **RAM-TOUCH II** reader with a code.

Note: If a numeric key is pressed, this will be the first digit of the entered code. The display will show the following messages in sequence:

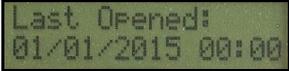


The other code digits can now be entered (from 3 to max. 10 digits).

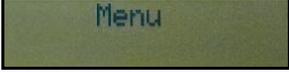
After entering all code digits, press key to open the door. If the key is pressed, the code is accepted (if at least 3 digits have been entered). If the key is pressed one or more times, the entered digits can be erased. If the code is recognized, a beep is emitted by the system and the following message is displayed:



After turning the knob, the display will show the information about the last time it was opened:



and the message:



**Note: if the knob is not turned within a few seconds, the mechanism locks again for safety reasons and the safe/cabinet remains closed. To open it, restart the opening procedure from the beginning.**

If the code is not recognized, it can be entered a second time. If the code is not recognised again, an error message is issued, the system will switch off and the procedure must be restarted.

**Note: if a wrong code is entered 5 times, the safe/cabinet will lock for 15 minutes, and no further opening will be allowed (see page 15).**

## Safe/cabinet menu (accessible only with the door open)

The menu is organized in two levels: the first, with 5 items, consists of the basic functions. The 5 items in the main menu are:

1. **Manage fingerprints**
2. **Manage codes**
3. **Information**
4. **Security and alarms**
5. **Preferences**

The menu of the safe/cabinet can be accessed by pressing any key; a beep is emitted every time a key is pressed. The display will show:



Use the arrow keys  and  to scroll through the menu.

Press the key  to confirm the item on the menu and enter a subgroup of functions identified by "menu number" and "function number".

Press the key  in each subgroup to return to the 5 items in the main menu.

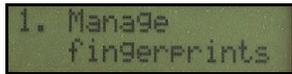
**Note: after 10 seconds, if no key is pressed, the system will emit a beep and switch off automatically.**

The functions in each of the 5 main groups are listed below:

1. **Manage fingerprints**
2. **Manage codes**
3. **Data**
  - 3.1. View history
  - 3.2. View date and time
  - 3.3. View climate
  - 3.4. View battery level
4. **Security and alarms**
  - 4.1. Delayed opening
  - 4.2. Silent alarm
  - 4.3. Humidity alarm
  - 4.4. Vibration alarm
  - 4.5. Hide code
5. **Preferences**
  - 5.1. Set date and time
  - 5.2. Display brightness
  - 5.3. Sounds
  - 5.4. Choose language
  - 5.5. Inside light

The instructions on how to use each function are provided in the specific section.

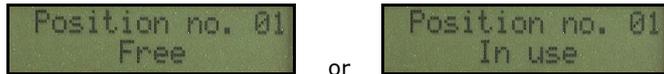
# Menu 1: Manage fingerprints (accessible only with the door open)



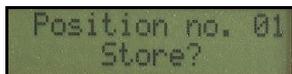
Use this menu to **store or erase fingerprints** in the **RAM-TOUCH II** system .

Press the key **E** and select "1. Manage fingerprints" through the main menu to access the functions for storing/erasing fingerprints.

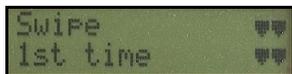
Use the arrow keys **4** and **6** to scroll the various memory positions identified by a progressive number and check if they are free or already assigned (up to 16 fingerprints can be stored, the sixteenth of which is the "Master" one). The display shows:



If the position is free, the following message is displayed by pressing the key **E** :



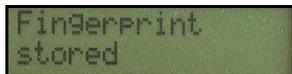
Press **E** again to start the procedure for storing a new fingerprint. The display will show:



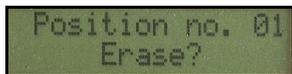
When you see the arrows scrolling from top to bottom next to the message, the finger can be swiped from the top to the bottom on the sensor, which is located inside the guide channel, i.e. crosswise from the inside out. You have to swipe your fingertip for 5 consecutive times to memorize it correctly.

The display shows any incorrect finger swiping procedures, suggesting suitable tips and comments (i.e. partial reading, too fast, slanted finger, press harder, etc.).

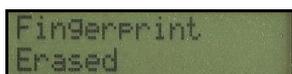
If the operation is performed correctly, a beep will be emitted to confirm the fingerprint was stored and the display will show:



If the position is assigned, the following message is displayed if the key **E** is pressed :

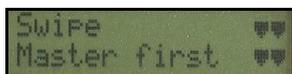


If key **E** is pressed again, the stored fingerprint is erased; a beep will be emitted to confirm the fingerprint was erased and the display will show:

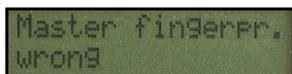


**Note: if a "Master" fingerprint is present, it must be swiped before proceeding with the operations for storing/erasing other fingerprints.**

The request to swipe the "Master" fingerprint is shown on the display with the message:



If the "Master" fingerprint is not recognized, the display will show:



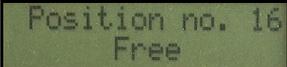
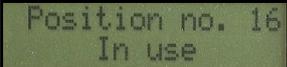
For managing the safe/cabinet with a "Master" fingerprint, see the following page.

## Managing the safe/cabinet with a “Master” fingerprint.

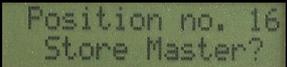
The sixteenth memory position is reserved for a “Master” fingerprint which has a special role: if stored, the Master fingerprint is used not only to open the safe/cabinet but is always requested to confirm any operation for storing or erasing other fingerprints.

Press the key  in the main menu "1. Manage fingerprints"

Use the arrow key  to move to the sixteenth position, reserved for the “Master” fingerprint.

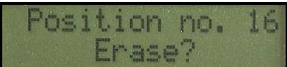
 or 

If the position is free, the following message is displayed if the key  is pressed:

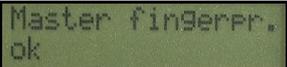


Press the key  again, to start the procedure for storing the “Master” fingerprint, which is the same procedure used for all the fingerprints, described above.

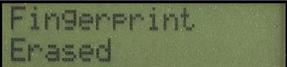
If the position is assigned, the following message is displayed if the key  is pressed:



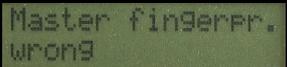
if the key  is pressed again, you will be requested to swipe the “Master” fingerprint to start the procedure to erase the stored one. If the “Master” fingerprint is recognized, a beep is emitted and the following message is displayed:



A new beep is emitted to confirm the fingerprint was erased and the following message is displayed:



If, instead, the “Master” fingerprint is not recognized, the display will show:



and you must repeat the procedure.

**Some suggestions:** clearly, you can store the same fingerprint in more than one memory position (for example, both as “Master” fingerprint and as first fingerprint), just as you can store the fingerprints of different fingers of the same person.

If you decide that only one person has control of the safe/cabinet, it is advisable to store the digital fingerprint in the “Master” position: in this way, even if someone opens the safe/cabinet, e.g. by using the mechanical emergency key, it will not be possible to store or erase other fingerprints.

It is also advisable, in the case described above, to store two different fingerprints of the same person in different memory positions. This means that if one of the fingers is temporarily unavailable, for example because it is bandaged or a hand is busy, the other finger can be used.

## Menu 2: Manage codes (accessible only with the door open)



2. Manage  
codes

Use this menu to **store/erase codes in the RAM-TOUCH II system.**

Press the key **E** to select "2. Manage Codes" through the main menu to access the functions for storing/erasing codes.

Use the arrow keys **4** and **6** to scroll the various memory positions and check if they are free or already assigned (up to 16 codes can be stored). The display shows:

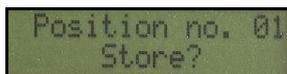


Position no. 01  
Free

 or 

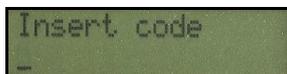
Position no. 01  
In use

If the position is free, the following message is displayed if the key **E** is pressed:



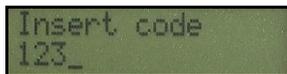
Position no. 01  
Store?

If key **E** is pressed again, the display will show:



Insert code  
\_

A code can now be entered (from 3 to max. 10 digits).



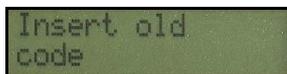
Insert code  
123\_

If the key **C** is pressed one or more times, the entered digits can be erased. If the key **E** is pressed, the code is accepted (if at least 3 digits have been entered), a beep is emitted and the display shows:



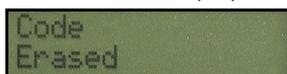
Code  
stored

If the position is assigned and **E** is pressed, you are requested to enter the previously stored code in order to erase it: this ensures that only someone who knows the code can erase it.



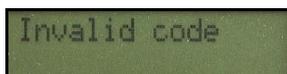
Insert old  
code

If the entered code is correct, to confirm the code was erased the display will show:



Code  
Erased

If the entered code is NOT correct, the display will show:



Invalid code

and you must repeat the erasing procedure.

# Opening the door if fingerprints/codes have been stored

## Opening the door with a digital fingerprint

Press the key  to access the **RAM-TOUCH II** reader.

Note: If only digital fingerprints are stored in the memory, the reader can be switched on by pressing any key. The display will show:

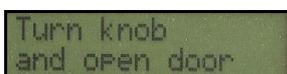


When you see the arrows scrolling from top to bottom next to the message, the finger can be swiped from the top to the bottom on the sensor, which is located inside the guide channel, i.e. crosswise from the inside out.

The display shows any incorrect finger swiping procedures, suggesting suitable tips and comments (i.e. partial reading, too fast, slanted finger, press harder, etc.).

The swiped fingerprint will be compared simultaneously with all the positions in the memory, so, if swiped correctly, a single swipe on the reader is sufficient to open the safe/cabinet, regardless of which position the fingerprint is stored in.

Recognition of the fingerprint releases the mechanism that allows the safe/cabinet to be opened by turning the knob. The display will show:



turn the knob clockwise and open the door.

**Note: if the knob is not turned within a few seconds, the mechanism locks again for safety reasons and the safe/cabinet remains closed. To open it, restart the opening procedure from the beginning.**

If the fingerprint is not recognised, for example because the finger was not correctly swiped, a second attempt can be made; if the second attempt is also incorrect, the system will switch off and you must restart from the beginning.

After opening the door, the display shows the date and time the safe/cabinet was last accessed: this makes it possible to see at once if someone else opened the safe/cabinet in your absence.

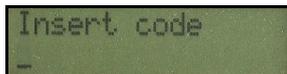
If more information is required on the aforesaid access, it can be seen in the History (see Data Menu page 17).

**Note:** to prevent reading errors, it is advisable to observe the following suggestions:

- put the fingertip inside the guide channel in a point above the fingerprint sensor;
- press your fingertip lightly on the surface of the reader (as pressing down on adhesive tape);
- using constant pressure, swipe your fingertip (at a uniform speed and as similar as possible to the direction of the arrows on the display) all along the guide channel.

## Opening the door with a code

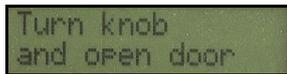
Press the key  to switch on the **RAM-TOUCH II** reader or any numeric key to open with a code.  
Note: If a numeric key is pressed, this will be the first digit of the entered code. The display will show:



Insert code  
\_

The other code digits can now be entered (from 3 to max. 10 digits).

If key  is pressed, the entered digit can be erased. After entering all the code digits, press the key  to open the door. Code recognition releases the mechanism that allows the safe/cabinet to be opened by turning the knob. A beep is emitted by the system and the following message is displayed:



Turn knob  
and open door

turn the knob clockwise and open the door.

**Note: if the knob is not turned within a few seconds, the mechanism locks again for safety reasons and the safe/cabinet remains closed. To open it, re-start the opening procedures.**

If the code is not recognised, the system will signal an error, switch off and the procedure must be restarted.

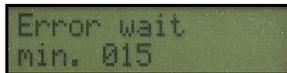
Note: you can replace numbers with asterisks (ATM style), using the Hide Code function (see page 22).

## Error block

The fifth time an incorrect code is entered, the safe/cabinet will lock for 15 minutes, preventing any access until this time has passed.

**Note: in any case you can bypass the error lock by opening the safe/cabinet with the mechanical emergency key.**

The display will show:



Error wait  
min. 015

During the error lock, if any key is pressed on the display, the display will show how many minutes remain until the lock is over. This lock increases the security level of the safe/cabinet, preventing a burglar from trying a series of codes to find the correct one.

**Note: the number of incorrect attempts, if any, is shown on the display when the safe is correctly opened. Details on incorrect codes and on the activation of the error lock can be seen in the History (see page 17).**

# Emergency opening

If the batteries are completely flat, the door can only be opened by means of an emergency system. To this end, Viro has set-up two emergency opening modes in its safes/cabinets to meet different needs.

## Emergency opening with mechanical key

The mechanical emergency key is inside a sealed envelope supplied in the package together with the safe/cabinet. Using the emergency key, you can always open the safe/cabinet even if the electronic components are damaged. **The owner must make sure the keys are placed in a sealed envelope and check that the emergency opening works, by opening and closing the safe/cabinet using both keys.**

There is a small plastic cap in the safe, under the knob, whilst in the cabinet it is located above the capacitive keypad. Remove the plastic cap and insert the key as far as it will go. Turn the key clockwise and, keeping it turned, turn the knob clockwise.



Figure 8: plastic cap on safe/cabinet



Figure 9: emergency key inserted

**Note: opening with the emergency key is also recorded in the History of the safe/cabinet.**

Do not leave the emergency keys where they can be seen or temporarily removed from your sight, to make an unauthorized copy, for instance. Never leave the keys to unknown persons, even for short periods of time.

**Note: keep the emergency keys in a safe place and never inside the safe/cabinet.**

The safe's emergency key **has a special shape, and can only be duplicated by Viro through the coded ownership card provided with the keys in the sealed envelope.** In order to request a duplicate of the key, you must fax/e-mail a photocopy/picture of the coded ownership card.

Instead, since the cabinet's emergency key is a disc key, you can request its duplicate to Viro by sending a sample key.

If one of your keys falls to the ground and you notice that one or more teeth are damaged, it is advisable to duplicate it and destroy the damaged key.

## Emergency opening with external power supply

In order to open the safe/cabinet with the external power supply, plug a 9V battery (not supplied) into the appropriate connector that is under the rectangular plastic cap, at the bottom on the right under the fingerprint sensor.



Figure 10: external power supply on the safe/cabinet

**Note: if battery polarity is reversed inadvertently, the system will not start, but in any case will not be damaged.**

The system emits a beep few seconds later; follow the instructions on the display and the open the safe/cabinet with the fingerprint/code.

Once the safe/cabinet has been opened, the batteries in the internal compartment can be replaced.

## Menu 3: Data (accessible only with the door open)

Use this menu to **display information** relating to the **RAM-TOUCH II** safe/cabinet .

Select "3. Data" in the main menu and press to display function subgroups. Use the arrow buttons and to scroll through the subgroups. If no key is pressed after about 10 seconds, the system will emit a beep and switch off automatically.

### 3.1 View history Menu

The system is equipped with a non-volatile memory that contains information relating to the last 60 operations performed. The History is a valid element for checking when the safe/cabinet was actually opened and through which fingerprint or code: you can trace who attempted to open your safe/cabinet, and when, using incorrect codes. In this manner you can quickly piece together the entire safe/cabinet access log.

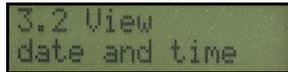
Press the key to access the History. Data relating to the last stored events are shown on the display in sequence, starting from the latest one. Press the arrow keys and to scroll the operations.

The type of operation, date and time are displayed for each stored event.

Below are listed the operations that appear on the display, along with the corresponding descriptions:

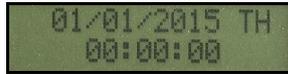
| The display shows:   | Operation carried out:  |
|--|---|
| "RAM-TOUCH ON"   | the card was powered  |
| "Open finger xx"/<br>"Open code xx"  | the safe/cabinet was opened with the fingerprint/code stored in the position indicated. Note: If fingerprints/codes have not yet been stored, "--" will be displayed instead of the memory position. "--" |
| "Store fingerp. xx"/<br>"Store code xx"/   | a fingerprint/code has been stored in the memory position indicated.  |
| "Erase fingerp. xx"/<br>"Erase code xx"  | a fingerprint/code previously stored in the memory position indicated has been erased.  |
| "Not valid"  | the swiped fingerprint has not been recognised.   |
| "Invalid code -"   | An attempt has been made to open the safe/cabinet using the following incorrect code  |
| "Error block"  | 5 consecutive incorrect codes have been entered and the error block has been activated, so the safe/cabinet remained locked for 15 minutes.   |
| "Emergency key"  | the safe/cabinet has been opened with the emergency key.  |
| "Set time/date"  | the date and time have been set/changed.  |
| "Delay min. xx"  | the delayed opening of the safe/cabinet has been activated for the number of minutes indicated.   |
| "Silent Alarm" and "Al. enab.fing. xx"/<br>"Silent Alarm" and "Al. enab.code xx" | the silent alarm associated with the fingerprint/code present in the memory position indicated has been activated.  |
| "Humidity alarm"   | the humidity alarm has been activated/deactivated.  |
| "Vibration alarm"  | the shock alarm has been activated/deactivated.   |
| "Hide code"  | the option for hiding the entered code to open the safe/cabinet has been activated/deactivated.   |
| "Alarm enabled"  | the connection between the silent alarm and any external burglar alarm (e.g. siren and/or phone dialer) has been activated.   |
| "Vibration alarm"  | the connection between the shock alarm and any external burglar alarm (e.g. siren and/or phone dialer) has been activated)  |
| "Disable module"   | The fingerprints module has been disabled   |

### 3.2 View date and time Menu



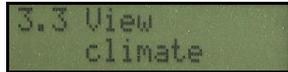
3.2 View  
date and time

When the  key is pressed, **the current date, day and time are displayed for 3 seconds.**



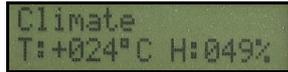
01/01/2015 TH  
00:00:00

### 3.3 View climate Menu



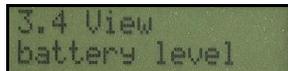
3.3 View  
climate

When the  key is pressed, **the temperature and humidity inside the safe/cabinet are displayed for 3 seconds.**



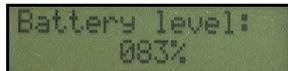
Climate  
T:+024°C H:049%

### 3.4 View battery level Menu



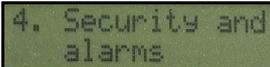
3.4 View  
battery level

When the  key is pressed, **the battery charge level is displayed (in percentage) for 3 seconds.**



Battery level:  
083%

## Menu 4: Security and alarms (accessible only with the door open)

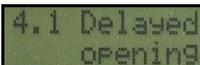


Use this menu to **activate/deactivate the delayed opening, silent alarm, humidity alarm, shock alarm and hide code function** in the **RAM-TOUCH II** safe/cabinet .

**Note:** the safe/cabinet is delivered with all alarms disabled.

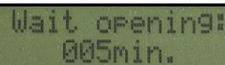
Select "4. Security and Alarms" in the main menu and press  to display the function subgroups. Use the arrow keys  and  to scroll through the subgroups.  
After 10 seconds, if no key is pressed, the system will emit a beep and switch off automatically.

### 4.1 Delayed opening Menu



You can set a **delay for the opening** of the safe/cabinet after recognition of any fingerprint or any code, which acts as a **anti-theft deterrent**. If activated, the delay will be operational for all stored fingerprints/codes and can be set from a minimum of one minute to a maximum of over four hours (255 minutes). If disabled, it corresponds to 000 minutes.  
If delayed opening is activated, the door will not open immediately when a fingerprint is swiped or a code is entered; the display will show how many minutes remain until the opening procedure can be carried out again.

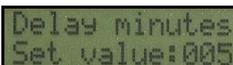
If any key is pressed during the aforesaid wait time, it will not be possible to read a fingerprint or enter a code, but the number of remaining minutes will be displayed instead.



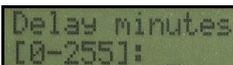
When the wait time is over, the system will emit a beep to confirm that the safe/cabinet can be opened. Three minutes are available to open the door, during which you can press  and swipe a stored fingerprint or enter a stored code. During these three minutes, the safe/cabinet emits a beep every thirty seconds to attract the user's attention.

**Note: the safe/cabinet can only be opened before the delayed opening expires by means of the mechanical emergency key.**

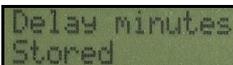
To access the setting of the delay, press the key , the display will show the current setting:



Enter the required delay. The max delay you can set is 255 minutes (4 hours and 15 minutes).



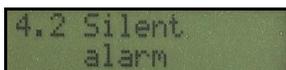
Once the delay has been set, press  to confirm. A beep is emitted and the following is displayed:



But if you press key , you will return to the previous submenu without changing any setting.

To disable an opening delay, enter 0 minutes.

## 4.2 Silent alarm Menu



You can **activate the "Silent alarm"** option for every single stored position (fingerprint/code). If the "silent alarm" is activated, the door will open as usual when you swipe your fingerprint or enter the code associated with the silent alarm, but at the same time the relay output is activated, which the user can connect when installing the safe/cabinet to a phone dialer or a burglar alarm/system.

For connection to an external alarm, see page 25.

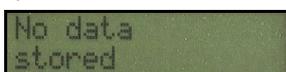
**Note:** the "Silent alarm" provides additional break-in protection, making it possible to activate remote alarms without the burglar being aware of it, since the user does not do anything unusual when opening the safe/cabinet under threat.

By storing two different codes (e.g. in positions 1 and 3) to open the safe/cabinet and associating only one of these (e.g. the one in position 3) with the silent alarm, the user can use the code stored in position 1 to open the safe/cabinet under normal conditions, while, if under threat, he/she can use the code stored in position 3 to open the safe/cabinet and at the same time activate the remote alarm without the burglar being aware of it.

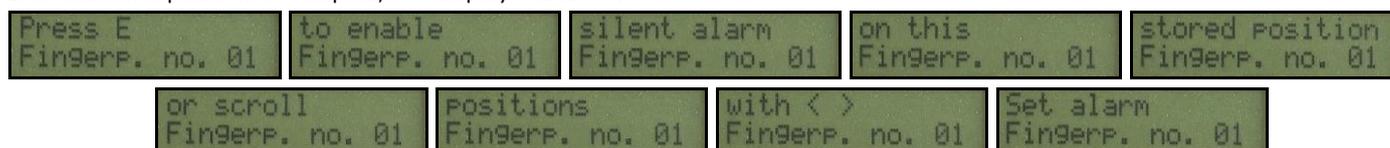
The same foregoing solution can be adopted with two different fingerprints: one to open under normal conditions and the other to be used in the event you are under threat, to warn silently.

Press the key  to access the alarm setting.

If no fingerprints/codes have been stored, the display will show:



If at least one position is occupied, the display will show:



Press E  
Fingerp. no. 01

to enable  
Fingerp. no. 01

silent alarm  
Fingerp. no. 01

on this  
Fingerp. no. 01

stored position  
Fingerp. no. 01

or scroll  
Fingerp. no. 01

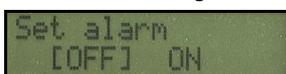
positions  
Fingerp. no. 01

with < >  
Fingerp. no. 01

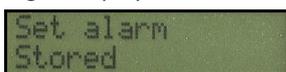
Set alarm  
Fingerp. no. 01

Use the arrow keys  and  to scroll through the various memory positions (only those in which a fingerprint/code has been previously stored will be displayed). For each of these, you can see whether the silent alarm is activated/deactivated.

Press this key  to access a submenu to change the alarm settings relating to the chosen position, the display will show:



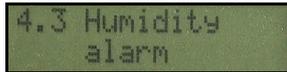
Use the arrow keys  and  to select the required option. If the key  is pressed again, the selected option is confirmed. Upon confirmation, a beep is emitted and the following is displayed:



But if you press key  you will return to the previous submenu without changing any setting.

**Note:** if both the delayed opening and silent alarm are activated, the door will not open immediately due to the delayed opening when an attempt is made to open the safe/cabinet by swiping a fingerprint or entering a code, associated with the silent alarm; you must wait for the minutes set in the delayed opening before restarting the procedure for opening the safe/cabinet; the remote alarm will however be activated both at the first opening attempt and when opened in actual fact.

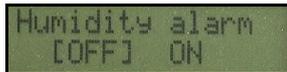
### 4.3 Humidity alarm Menu



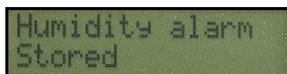
**Note:** this prevents damage due to the possible condensation which could oxidize jewellery and watches and damage any paper documents in the safe/cabinet.

The **RAM-TOUCH II** system measures temperature and humidity inside the safe/cabinet every ten minutes. If relative humidity exceeds 90% (condensate formation danger threshold) an alarm consisting of beeps and visual signals is activated for thirty seconds. This alarm is repeated every hour, on the hour, until humidity falls below 90%, but can be interrupted at any time by pressing any button.

Press the key  to access the alarm setting. The display will show:



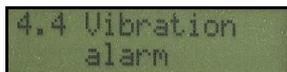
Use the arrow keys  and  to select the required option. If the key  is pressed, the selected option is confirmed. Upon confirmation, a beep is emitted and the following is displayed:



But if you press key  you will return to the previous submenu without changing any setting.

**Note:** the humidity alarm is useful only if the safe/cabinet is located in a place where the beeps can be heard; if not, there is the risk that the alarm is activated and keeps beeping without anyone hearing it, thus decreasing the batteries' life. For the same reason, it is advisable to deactivate the alarm if you go away for a long period of time.

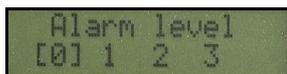
### 4.4 Vibration alarm Menu



You can activate the vibration alarm that allows you to detect any break-in attempts on the door of the safe/cabinet by activating the relay output that the user can connect, when installing the safe/cabinet, to a phone dialer or a burglar alarm/system. For connection to an external alarm, see page 25.

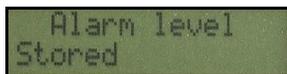
**Note:** this option is particularly effective in improving security, since it can detect any break-in attempts before the safe/cabinet is opened in actual fact.

Press key  to access the menu in which to adjust alarm sensitivity: four sensitivity settings are available: 0 = alarm deactivated, 1 = high level sensitivity, 2 = medium level sensitivity, 3 = low level sensitivity.



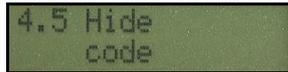
**Note:** set sensitivity taking into account the fact that the room in which the safe/cabinet is more or less subject to external vibrations (e.g. the perimeter walls of a house on the same side of a street where trucks or buses pass).

Use the arrow keys  and  to select the required sensitivity level and confirm you selection by pressing key . A beep is emitted by the system and the following message is displayed:



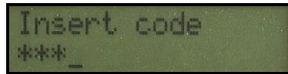
But if you press key  you will return to the previous submenu without changing any setting.

## 4.5 Hide code Menu



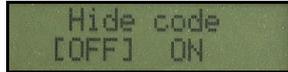
4.5 Hide  
code

If the safe/cabinet is installed in a position visible to unauthorised persons (e.g. in an office open to the public), you can **hide the codes entered** during the opening procedure (e.g. as in an ATM).



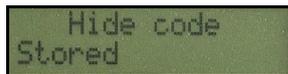
Insert code  
\*\*\*\_

Press the key  to access the function setting. The display will show:



Hide code  
[OFF] ON

Use the arrow keys  and  to select the required option. If key  is pressed, the selected option is confirmed. Upon confirmation, a beep is emitted and the following is displayed:

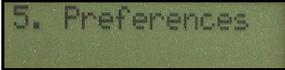


Hide code  
Stored

But if you press key  you will return to the previous submenu without changing any setting.

# Menu 5: Preferences

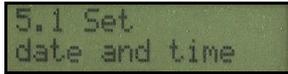
(accessible only with the door open)



Use this menu to **change the date and time, display brightness, to activate/deactivate sounds and set the language** of the **RAM-TOUCH II** system and **activate/deactivate the inside lighting**.

Press key **E** in the main menu "5. Preferences" to view function subgroups. Use the arrow keys **4** and **6** to scroll through the subgroups.

## 5.1 Set date and time Menu



You can change the date and time.

Press the key **E** to change first the date and then the time.



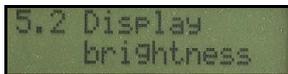
Press key **E** to get to the following value that needs to be changed (the cursor moves forward). But if you press key **C**, you get to the previous value that needs to be changed (the cursor moves backward).

Upon confirmation, a beep is emitted and the following is displayed:



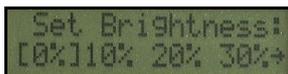
**Note:** the system automatically manages leap years and the change between wintertime and summertime (on the nights of the last Sundays in March and October, subject to legal changes).

## 5.2 Display brightness Menu

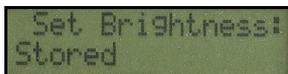


You can adjust the backlighting of the display from 0% (display not backlit) to 100%, in steps of 10%.

Press the key **E** to change the brightness.



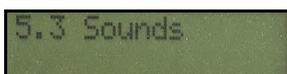
Use the arrow keys **4** and **6** to select the required value, brightness changes instantly, displaying the selected level. Upon confirmation, a beep is emitted and the following is displayed:



But if you press key **C** you will return to the previous submenu without changing any setting.

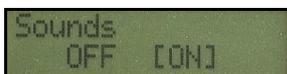
**Note:** the safe/cabinet default backlighting is set to 10%.  
Battery consumption is directly proportional to display brightness (less backlighting, longer battery life).

### 5.3 Sounds Menu



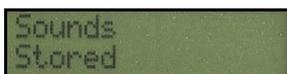
**Note:** The safe/cabinet is delivered with all sounds activated.

Press the key  to access the submenu to activate/deactivate the sounds ("beeps") you hear when pressing the keys. The display will show:



Use the arrow keys  and  to select the required option.

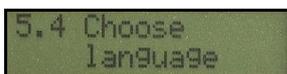
If the key  is pressed, the selected option is confirmed. Upon confirmation, a beep is emitted and the following is displayed:



But if you press key  you will return to the previous submenu without changing any setting.

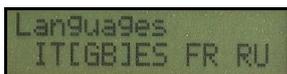
**Note:** the beeps relating to battery replacement and battery level alarm, humidity alarm and delayed opening (if they were set), cannot be deactivated.

### 5.4 Choose language Menu



You can choose the language of the display messages.

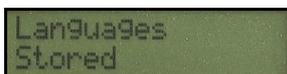
Press the key . The display will show:



Use the arrow keys   to select the required language.

Use key  to confirm the selected language.

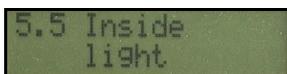
Upon confirmation, a beep is emitted and the following is displayed:



But if you press key  you will return to the previous submenu without changing any setting.

**Note:** The language factory setting of the safe/cabinet is Italian. You can choose English, Spanish, French and Russian.

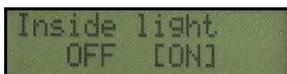
### 5.5 Inside light Menu



**Note:** this menu is present only for safes that the factory supplies with inside lighting activated.

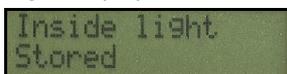
You can activate and deactivate the light in the inner compartment.

Press key . The display will show:



Press key  to confirm the selected language.

Upon confirmation, a beep is emitted and the following is displayed:



But if you press key  you will return to the previous submenu without changing any setting.

# Appendix

## Inside lighting module (item 1.4383.0312) – Optional accessory

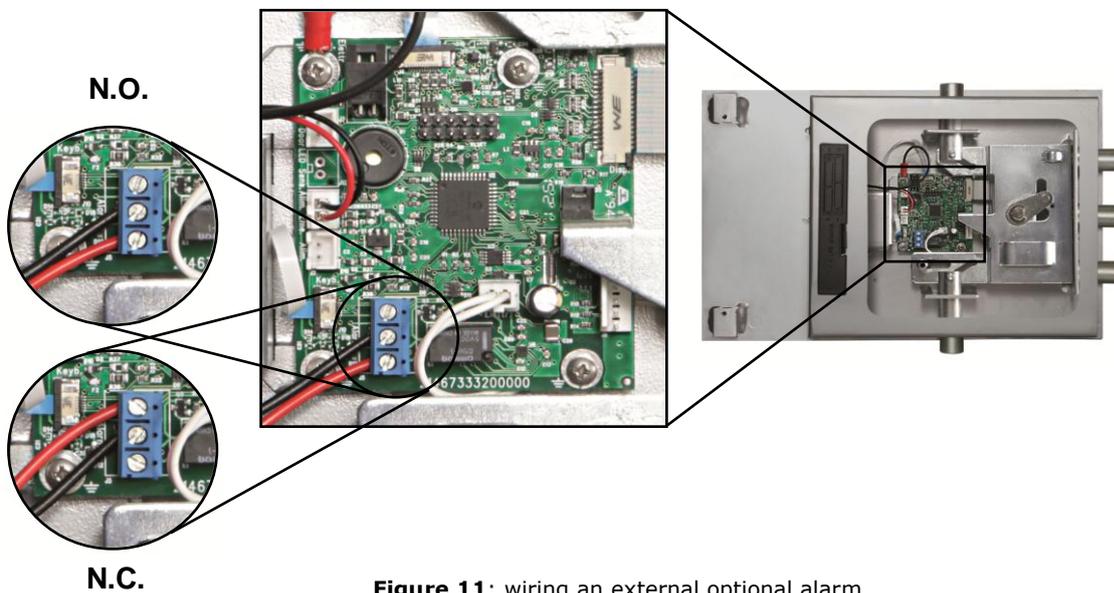
As an optional accessory, an inside lighting module is available to light up the inside compartment and/or safety box of the safe/cabinet. This module automatically switches on a light when the door is opened to illuminate the inside compartment.

The light switches off automatically when the door is closed.

Follow the instructions provided with the module for installation and use.

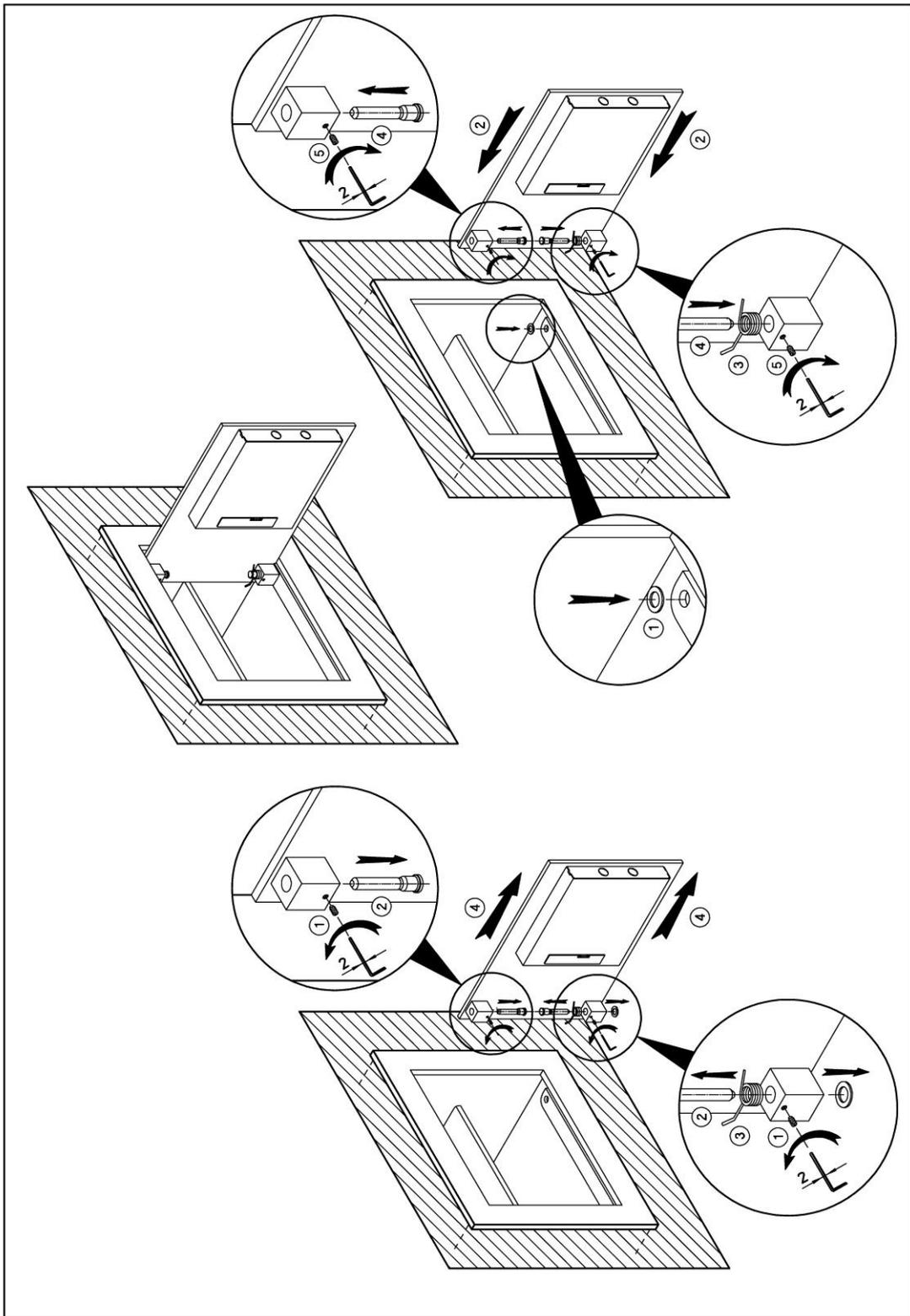
## Set-up for connection to an external alarm

When you install the safe/cabinet, you can connect the **RAM-TOUCH II** system to a phone dialer or a burglar alarm/system . Below is an example of how to wire an external optional alarm to the **RAM-TOUCH II** electronic card, using either the **N.O.** contact or the **N.C.** contact, depending on installation requirements.



**Figure 11:** wiring an external optional alarm

**REPLACING THE DOOR WITH SAFE ALREADY INSTALLED**



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