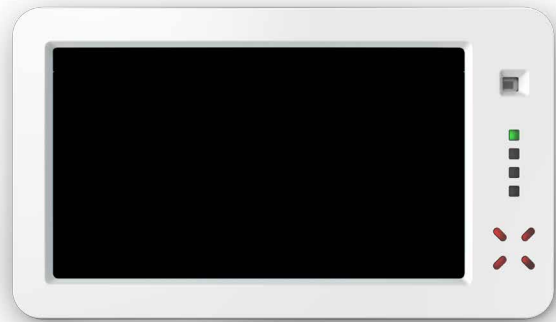TECHNICAL MANUAL

KARMA

Touch screen control keypad

Addressee for this information: Ⓤ User | Ⓘ Installer

1   DESCRIPTION

KARMA is a touch screen control keypad.
The LCD display uses a resistive touch sensor.
Keypad elements:

- proximity keys reader for M4 keys
- PIR proximity sensor
- I66 connector for connection of an external reader
- USB connector for configuration and firmware updating via BrowserOne
- slot for MicroSD card to store images to use in digital photo frame mode

The interface includes menus for zone status visualisation and sectors arming.
A configurable dashboard and a standard keypad emulation interface are available.
The keypad can be used as digital photo frame.
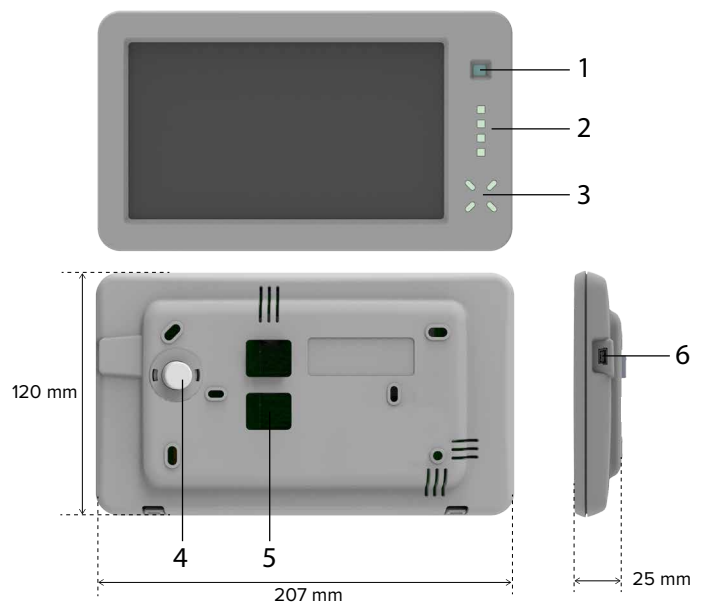The keypad can be connected over ULTRABUS RS-485 serial line.
KARMA is compatible with:

Control unit	Firmware version
VIDOMO2K	8.5.0 or above
PREGIO series	2.7.0 or above
TITANIA series	7 or above
PROXIMA series	1.0.2 or above

2   KEYPAD VIEW   Ⓘ

Front view, side view and rear view

1   Proximity sensor
2   LED indicators
3   Proximity keys reader
4   Protection against opening/removal from mounting surface
5   Hole for cable passage
6   USB connector

Model		KARMA	
General features			
Display dimension		7,0	in
Display resolution		800 × 480	pixels
Operating voltage	Power supply	12 (9 ÷ 15)	V
Consumption at power voltage	Display on	360,0	mA
	Display off	110,0	mA
Standards		compliant with EN50131-1, EN50131-3 grade 2, environmental class II	
Environmental class		2	
Protection class		IP3X	
Working temperature		+5 / +40	°C
Dimensions and weight		W207 × H120 × D25 mm, 407 g	

Parts supplied

Screws, inserts, 680 Ω resistor, cable with 10-pole JST connector for proximity key reader, technical manual.

4   PRECAUTIONS BEFORE DEVICE MOUNTING   [I]

⚠ *General warnings are at the end of this manual.*

- Typical installation involves mounting on a recessed box (model 503).
- Avoid installing the keypad where it may be directly lit by sunlight.
- Check the mounting surface is perfectly flat and smooth, in order to prevent base deformation during assembly.
- Make sure tamper protection works properly after mounting.

⚠ *The electronic board may be damaged by electrostatic discharges. The installer must avoid any presence of electrostatic discharges.*
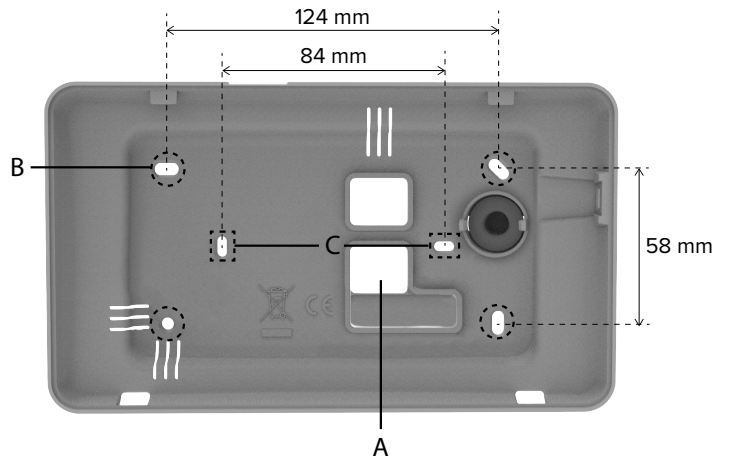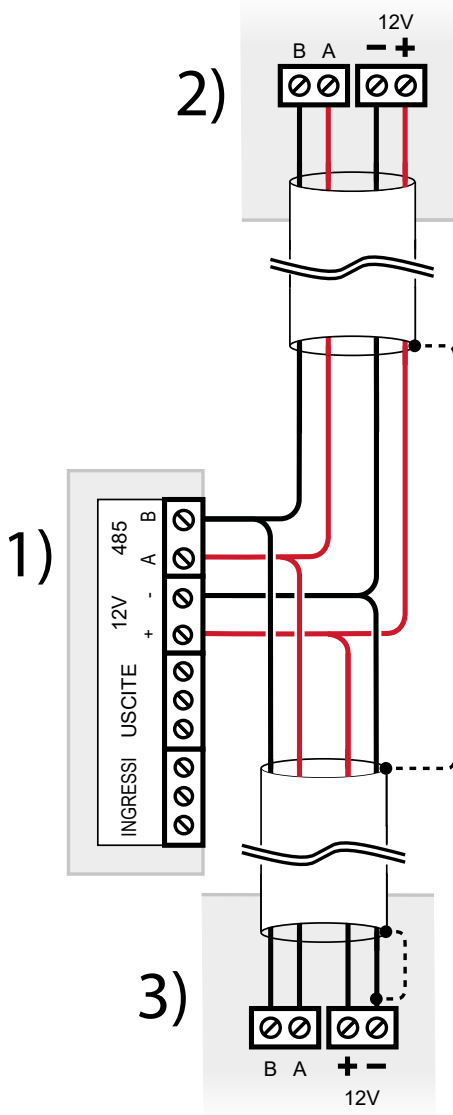
- **Opening the housing**
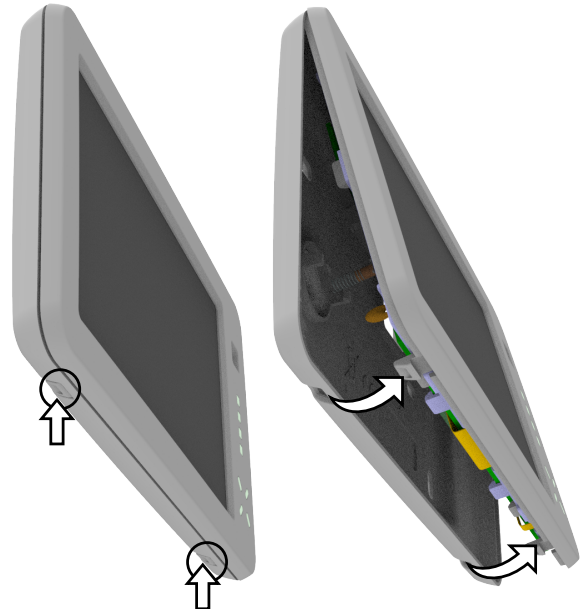
– press the hooks on the base lower rim
– lift the cover by pivoting on the long side
– separate the cover from the base

- **Base wall mount**

– feed system cables through hole A
– use the four external holes (B) for standard wall mounting
– use the two central holes (C) for installation on 503 recessed box.

- **Wirings**

2)

1)

3)

1 KARMA terminal board
**2** Previous device over serial line
3 Next device over serial line

– wire terminals

Use cables with the following section: 2×0.75 mm² (power) + 2×0.22 mm² (signal).

⚠ *Wire cable screen as indicated in picture (dashed line)*

The serial line may be extended with branches, provided that the following rules are followed:
- the sum of the lengths of the branches must not exceed 1 km
- 680 Ω termination resistors must be connected to the ends of the two longest branches

Up to 4 KARMA keypads can be connected to VIDOMO2K and PREGIO series control units.

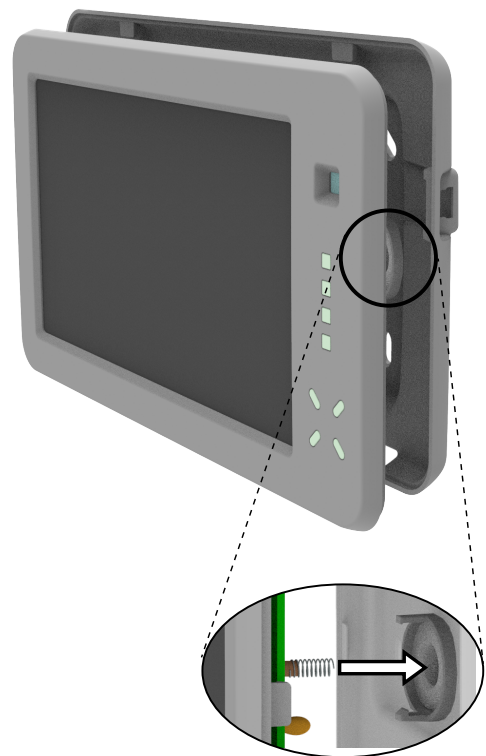
I66 READER

KARMA PCB
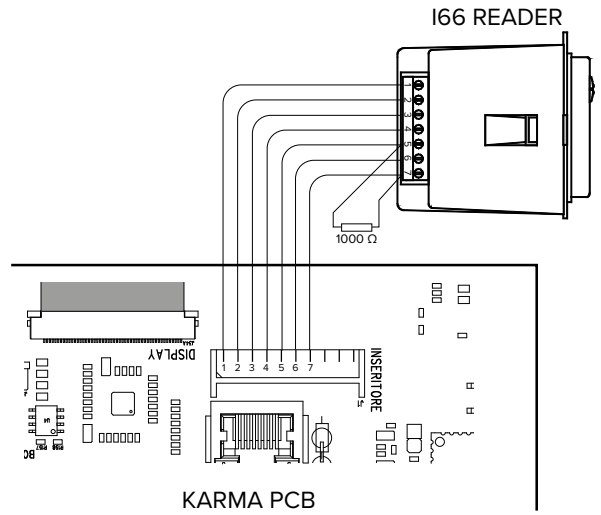
A connector (INSERITORE) is also available to connect a I66 reader: if necessary, wire it as indicated in the picture above and in its manual.
Use the supplied cable.

- **Device setup**

Proceed with device setup (see chapter 6).

- **Closing the housing**

– draw the cover close to the base so that the spring protecting against housing opening/removal fits correctly

– join cover upper side and base upper side together: insert the tabs on base (A) into the slits on cover (B)
– lower the cover until it closes

6 STARTING THE DEVICE

When powered for the first time, the keypad is already operating with address 1.
If you want to change the address:
– go to **Setup** keypad menu
– select **Change address**
– key in installer code
– confirm pressing "V"
– enter the new address
– press **Save**

6.1 Setup via BrowserOne

The device can be set using BrowserOne v.3.9.28 or above.
– open BrowserOne
– load the latest module available for the control unit in use
– start control unit connection
– select **Read setup** key to read control unit setup
– for Villeggio, Pregio, Proxima control units: go to **Control devices** page
– for Titania control units: go to **Devices** page
– click on **Keypad** tab
– select the grid row corresponding to the keypad
– in **Type** drop-down menu select **Advanced keyboard**

⚠ *The displayed address must be the same as the one set in the* **Setup** *keypad menu.*

– click on **Open management window** button
A window will open showing three tabs: **Setup**, **Dashboard**, **Images SD**

– click on a tab
– set parameters as indicated in the following paragraphs
Once all changes have been done, write the new setup to the control unit.

6.1.1 Setup
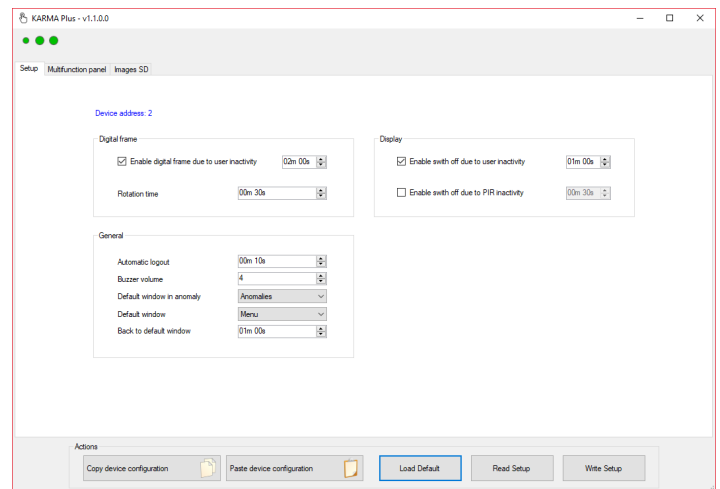
Digital frame

Use this panel to configure the keypad as digital photo frame.

▼ **Enable digital frame due to user inactivity**
   Flag to enable the "digital photo frame" function in case of user inactivity. Set a time in the field alongside. After this time, in case of user inactivity, photos visualisation will automatically start.

▼ **Rotation time**
   Set a time. The keypad will display each single photo for the set time before switching to the next one.

Display

Use this panel to set the display automatic switch off options.

▼ **Enable switch off due to user inactivity**
   Flag to enable keypad automatic switch off in case of user inactivity. Set a time in the field alongside. After this time, in case of user inactivity, the keypad will automatically switch off.

▼ **Enable switch off due to PIR inactivity**
   Flag to enable keypad automatic switch off in case of PIR sensor inactivity. Set a time in the field alongside. After this time, in case of inactivity of the proximity sensor, the keypad will automatically switch off.

General

Use this panel to configure some keypad general options.

▼ **Automatic logout**
   Set a time. Automatic user logout will occur after this time.

▼ **Buzzer volume**
   Set the volume for sound signals.

▼ **Default window**

Select a window from the drop-down menu.

When the time set in the **Back to default window** field is over, the selected window will be shown on keypad screen.

▼ **Default window in anomaly**

In case of anomaly, this window is used instead of the default window defined in previous item.

Select a window from the drop-down menu.

In case of anomaly, after the time set in the **Back to default window** field is over, the selected window will be displayed on keypad screen.

▼ **Back to default window**

Set a time.

After this time has passed with no activity, the keypad will display the window selected in **Default window** field or, in case of anomaly, the window selected in **Default window in anomaly** field.

▼ **Show only alarms (...) multifunction panel**

If flagged, the dashboard will only show the alarmed zones (not anomalies or anomaly memories).

▼ **Turn off the LEDs when the display turns off**

If flagged, when the display is off the status LEDs will be turned off too.

Actions

Use these keys to manage keypad configuration.

▼ **Copy device configuration**

Click to copy the device configuration to the memory.

▼ **Paste device configuration**

Click to paste the configuration values previously copied.

▼ **Load default**

Click to set the configuration to factory default.
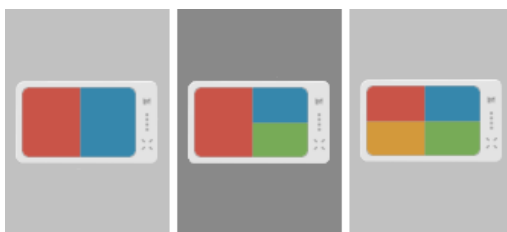
▼ **Read setup**

Click to retrieve the current configuration values.

▼ **Write setup**

Click to save the set values as current keypad configuration.

6.1.2 Dashboard

Use this tab to configure the areas to include in the dashboard.

– select a layout from the column on the left

Three layouts are available to split the display into 2, 3 or 4 areas.

– click on an area

– select the menu to display on that area
– repeat for all areas

6.1.3 Images SD

Use this tab to load images to the MicroSD card.
See paragraph 6.3 *p. 5*.

6.2 Connecting to the control unit via keypad

Once KARMA has been configured, it will be possible to use the USB port on side to connect the PC that runs BrowserOne to the control unit.

This makes control unit maintenance operations easier in case control unit position is hard to reach.

6.3 Digital photo frame configuration

Perform the following operations to prepare the keypad to use digital photo frame function.

⚠ *To use KARMA as digital frame it is required either a SDHC MicroSD card (storage capacity up to 32 GB) or a SDXC MicroSD card (storage capacity greater than 32 GB). The MicroSD card is not supplied.*
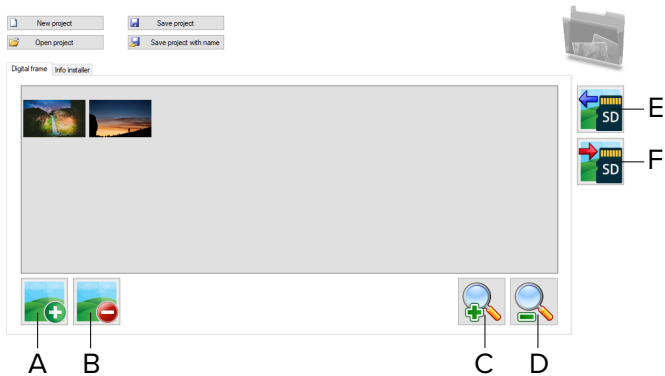

Preparing the MicroSD card

⚠ *SD card preparation does not require the keypad to be*

connected to the PC.

- insert the MicroSD card in the PC
- click on **Images SD** tab in the keypad configuration window in BrowserOne (see paragraph 6.1 *p. 4*)

A Add images
B Delete images
C Preview zoom in
D Preview zoom out
E Import images from micro SD
F Export images to micro SD

- create a new project or open an existing one

To create a new project:
- click on **New project** button
- enter a name for the project and click on **Save**

To open an existing project:
- click on **Open project** button
- find the project and click on **Open**

After creating or opening a project:
- click on **Digital frame** tab to open the pane where to load digital frame images, or click on **Info installer** tab to open the pane where to load the installer logo image
- click on button E to import images from the SD card: the SD card will be automatically detected and the images will be imported in the panel
- click on button A to add images from the PC
- select one or more images
- click on **Open**

In case you are adding one single image, you can crop it.
- click on the image: a cropping window will appear
- move and extend the cropping window to the required size
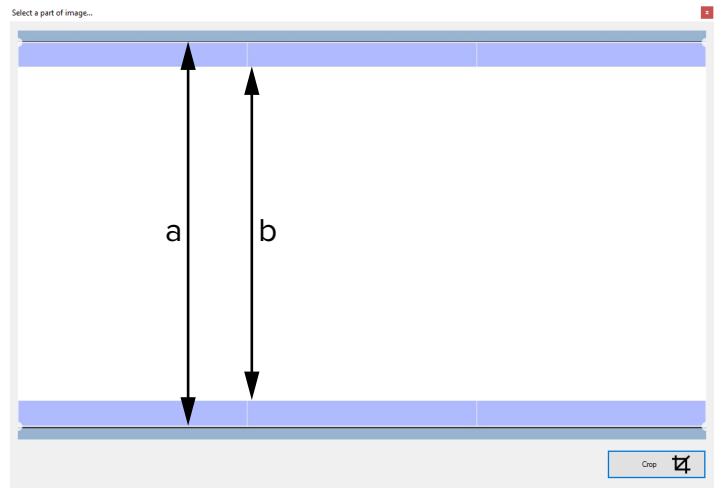
The whole window enclosed in the rectangle (height a) will be displayed in the digital photo frame menu.
The image portion included between the blue bands (height b) will be displayed in the dashboard.
- click on **Crop** button

The image preview will appear in the list.
- to delete images, select them and click on button B
- to increase or reduce image preview dimensions, click on buttons C or D
- click on **Save project**
- click on button F to store the images to the SD card: the SD card will be automatically detected and the images will be exported to it
- when finished, remove SD card from PC

Inserting the SD card

With keypad disconnected:
- open the keypad cover as illustrated in the mounting procedure
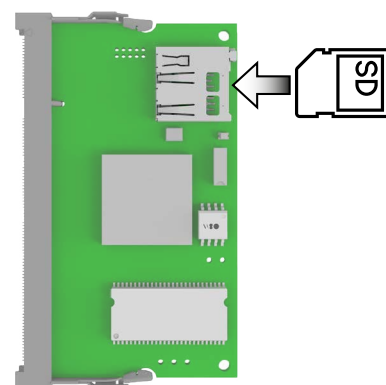
- insert the SD card in the indicated slot
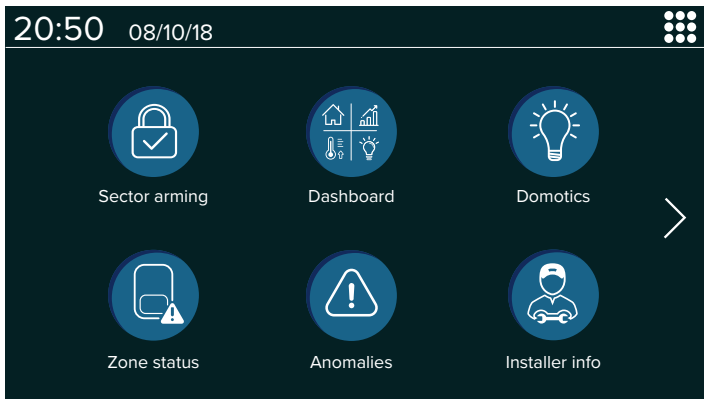
Configuring the display as digital photo frame

- open keypad configuration window in BrowserOne (see paragraph 6.1 *p. 4*)
- set parameters in **Digital frame** pane

7   KEYPAD MENU

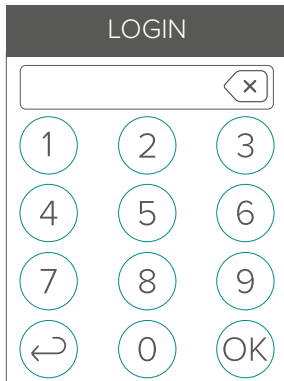Several menus can be accessed from the Home screen.

Touch an icon to enter the corresponding menu.

Six menu icons are displayed in each page of the Home screen.
Touch ◁ or ▷ to change page.
Some menus require the user to log in.

When the login pop-up appears:
– key in user code
– select OK
If a Titania control unit is used (with "simplified codes" mode disabled), firstly enter user number:
– type user number (3 digits)
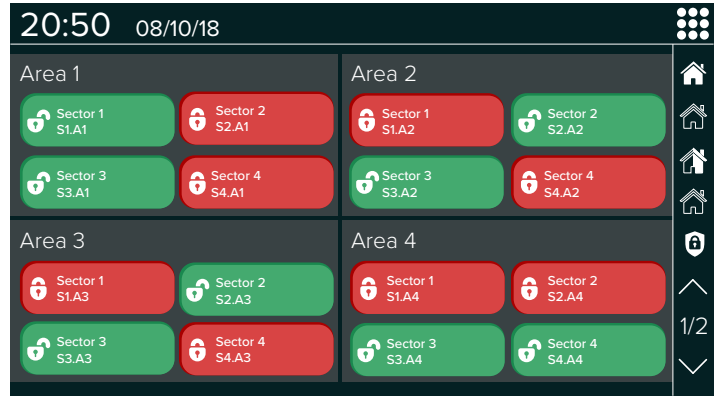– select OK
– key in user code
– select OK
Inside each menu, some buttons are always available:

 back to Home screen

 log out
(only available if the user logged in)

7.1 Sector arming

Use this menu to show the areas and sectors associated to the keypad and perform arming operations.

Touch a sector icon to change its arming status.
Sectors grayed out cannot be armed.
If the user has not logged in yet, the login pop-up appears.
Some keys are available to arm/disarm several sectors at once:

 Total arming
Arm all sectors authorised to the user.

 Total disarming
Disarm all sectors authorised to the user.

 Partial arming 1
Arm sectors proposed to the user.

 Partial arming 2
Arm sectors authorised but not the proposed ones.

 Max Security
Enable/disable Max Security function.
If Max Security function is enabled, only a user with Max Security property can use the arming commands previously described.

⚠ *Use BrowserOne software to assign the Max Security property to an user. Please see programming manual of the control unit in use.*

7.2 Zone status

Use this menu to display the status of the control unit zones in use.
Touch the side buttons to apply filters to the visualisation:

 Display alarmed zones.

 Display tampered zones.

 Display bypassed zones.

 Display the zones in anomaly state.

The following icons represent the status of each zone:

 idle zone

 bypassed zone

7

 anomaly zone

 tampered zone

 zone in alarm

 bypassed zone in alarm

If there is a memory, the following items will appear:

- an exclamation mark at the right of the zone status icon;
- at the top right of the zone status icon, / / according to the type of memory (alarm / tamper / anomaly).

In case there are both an alarm memory and a tamper memory, only the tamper memory will be displayed.

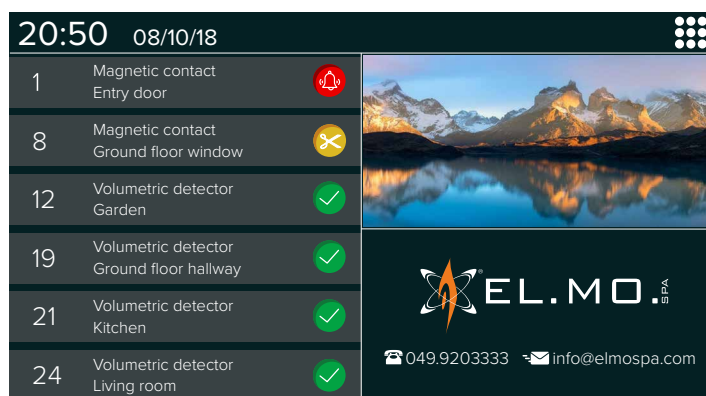Touch a zone to open a pop-up window.

Available actions
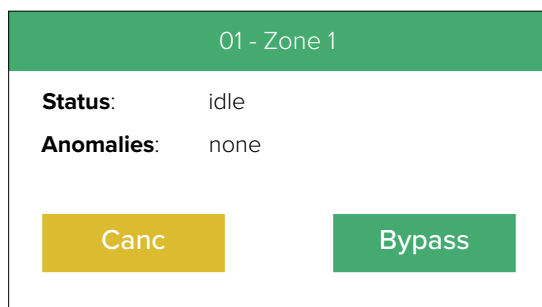
These actions can only be performed after logging in.

If the user has not logged in yet, the login pop-up appears.

▼ **Bypass**

Touch to bypass the zone.

▼ **Canc**

Touch to quit.

7.3 Dashboard

Customisable presentation window.

The frames can be configured inserting any menu item.

To configure the dashboard:

- open keypad configuration window in BrowserOne (see paragraph 6.1 *p. 4*)
- click on **Dashboard** tab (see paragraph 6.1.2 *p. 5*)

Notes on menu visualisation in the dashboard:

Sector arming

If more than one areas are associated to the keypad, only the first will be displayed.

Zone status

The zones are displayed in this order:

1. zones with alarm memory
2. anomaly zones
3. tampered zones
4. zones in alarm

If the window covers a quarter of the screen, only the first 3 zones will be displayed.

Recent events

The events logged since last keypad start-up are displayed.

If the window covers half the screen, up to 6 events will be shown.

If the window covers a quarter of the screen, up to 3 events will be shown.

7.4 Anomalies

Use this menu to display all the anomalies.

The icon indicates memory of anomaly.

7.5 Domotics

Use this menu to manage the outputs used for domotic applications.

All the outputs in use are shown here.

Touch the side buttons to apply filters to the visualisation:

 Display enabled outputs.

 Display disabled outputs.

An user can manage domotic outputs only if he has been enabled.

The following outputs can be controlled:

- manual control outputs
- outputs for which the **Manual control** has been enabled in BrowserOne
- outputs related to the weekly programmer whose programs can be modified by the user

Outputs that cannot be used are marked in gray.

Several icons represent the status of each output that can be controlled:

 The output is active.

 The output is not active.

Available actions

01 - Output 1
Status: Disabled
Canc   Enable
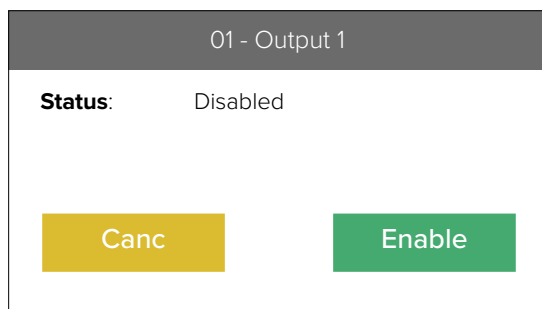
▼ **Enable**
  Touch to enable this output.

▼ **Disable**
  Touch to disable this output.

Use BrowserOne to enable or disable user authentication request when an user tries to activate the output.

If the authentication request has been disabled for KARMA keypads with firmware version 1.4.4 or higher, just one click will enable the outputs, with no need for confirmation.

– open BrowserOne
– load the latest module available for the control unit in use
– go to **Output** page
– click on **Output** tab
– select the grid row corresponding to the output
– in the bottom right of the page, find the option:

▼ **Activated without authentication**
  If checked, no code will be requested to activate the output.
  If unchecked, the user code will be requested to activate the output.

7.6   Installer info

Use this menu to display installer logo and information (if available).

7.7   Standard interface

Use this menu to emulate all the features of a standard keypad.

The interface includes sector keys **S1**, **S2**, **S3**, **S4**, a numeric keypad, ⬆ and ⬇ arrow keys, **STOP** and **OK**.

You can use the standard keypad to access user menu, installer menu and all the arming functions of the connected unit.

7.8   Digital frame

Enter this menu to use the keypad screen as digital photo frame.
The images loaded in the SD card will be displayed in sequence.

7.9   Settings

Keypad configuration menu.
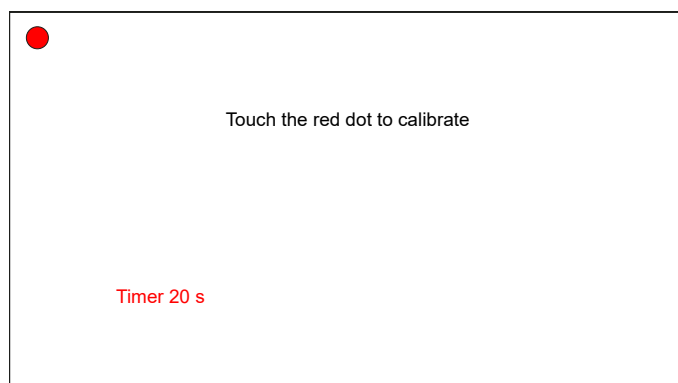Use this menu to change keypad address and perform calibrations.

8   MAINTENANCE

8.1   Display calibration

Use this function to calibrate keypad screen in case of necessity.
– go to **Setup** keypad menu
– select **Calibration**
– key in installer code
– use a stylus to touch the red dot where indicated

Touch the red dot to calibrate
Timer 20 s

⚠ *Only touch the dot. Touching a position away from the red dot causes wrong calibrations.*

Touch each single dot within 20 seconds: once this time has expired, the keypad will leave calibration without saving it. Once you have touched all 9 dots, a test screen will appear.
– touch the screen in several points to check reachability.
Perform calibration test within 60 seconds: once this time has expired, the keypad will leave calibration without saving it.
– press OK to proceed and save calibration, BACK to perform calibration again
– once done, press **Exit**

8.2   Forced display calibration

Use this procedure to calibrate the keypad display in case the display is not calibrated and the **Setup** keypad menu

cannot be accessed.

– lock the system
– open the keypad cover as illustrated in the mounting procedure
– while the keypad is on, close and open again jumper BOOTLOADER
– proceed following the instuction on paragraph 8.1 *p. 9*: touch the indicated dots on screen and then confirm

8.3 Factory default

Two alternative ways exist to restore keypad default configuration.

Via BrowserOne

– connect the keypad to BrowserOne
– open keypad configuration window in BrowserOne (see paragraph 6.1 *p. 4*)
– click on **Setup** tab (see paragraph 6.1.2 *p. 5*)
– in **Actions** pane, click on **Load default**

From keypad

– start calibration procedure (see paragraph 8.1 *p. 9*)
– once done, press **Write default**

8.4 Firmware update

⚠️ *Firmware update requires keypad opening and temporary and automatic disconnection from the control unit. In order to avoid undesired alarms, set "System block" mode for the unit before proceeding.*

– open keypad cover as indicated in mounting procedure so to be able to operate on internal board jumpers
– use a USB-MiniB cable to connect the keypad to a PC equipped with BrowserOne software
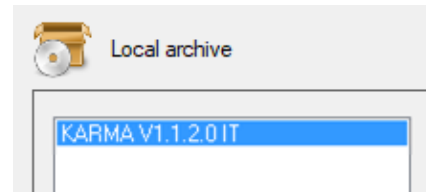– start BrowserOne and update it to the latest version available
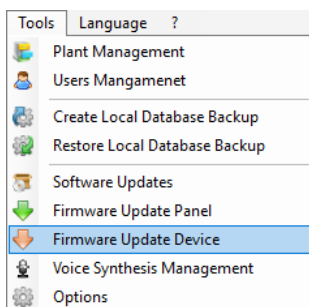
– select **Firmware update device** option in menu **Tools**
– select "USB" then select **Next**
– select "KARMA" in drop-down menu then select **Next**
In the next window:
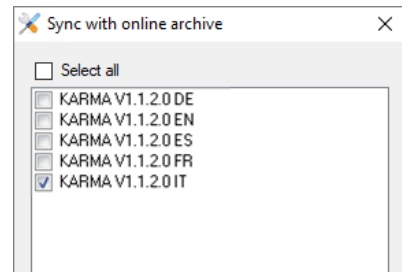
– select **Sync with online archive**
– select the language for the firmware, then select **Ok**
– when BrowserOne has finished downloading the firmware, select **Ok**

– select firmware downloaded listed in **Local archive**panel
– press **Next**
– it will be displayed a summary window: select **Next**
– select Virtual COM serial port to which USB Mini-B cable is connected to (if such port is not listed, select update icon) then select **Next**

⚠️ *If error 103 disappears, press reset button and repeat update procedure.*

– continue following on-screen instructions until a confirmation message displays, then select **End**
– close keypad case

9   PULIZIA E MANTENIMENTO Ⓤ

If display surface is slightly dirty, clean it using a dry cloth.
If the surface is dirty, clean it using a damp cloth with isopropyl alcohol or ethyl alcohol.
Do not use other type of cleansers.
Do not rub vigorously: it may damage the surface.

⚠️ *If the display panel is damaged and the liquid crystal substance pours out, do not touch it and do not put your hands near your mouth. Shall such substance come into contact with your skin or clothes, rinse it with water and soap thoroughly.*

EU DECLARATION OF CONFORMITY

The product complies with current European EMC and LVD directives.

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

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:

Touch screen control keypad.

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.

Work involved in the design, installation and maintenance of systems incorporating this product should be performedonly 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).

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 performedonly 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).

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...)

MAIN SAFETY RULES

The use of the device is forbidden for children and unassisted disabled individuals.

Do not touch the device when bare footed, or with wet body parts. Do not directly spray or throw water on the device.

Do not pull, remove or twist the electric cables protruding from the device even if the same is disconnected from the power source.

DISPOSAL WARNINGS
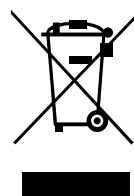
IT08020000001624

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.