



MIDAS

Control keypad for
microprocessor based
NET, ET4, ETR series

090010403



IMQ-SISTEMI DI SICUREZZA

IT08020000001624



FOREWORD

FOR THE INSTALLER:

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.

FOR THE USER:

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...).

This device has been designed, built and tested with the utmost care and attention, adopting test and inspection procedures in accordance 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:

Control keypad for microprocessor based NET, ET4, ETR series

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 componentry adopted is 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 performed only by personnel with suitable skills and knowledge required to work safely so as to prevent any accidents. It is vital that systems be installed in accordance with current legislation. The internal parts of certain equipment are connected to the mains and therefore there is a risk of electrocution when maintenance work is performed inside without first disconnecting the primary and emergency power supplies. Certain products include batteries, rechargeable or otherwise, as an emergency backup power supply. If connected incorrectly, they may cause damage to the product or property, and may endanger the operator (explosion and fire).

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: elmospa.com – registration is quick and easy.

DISPOSAL INSTRUCTIONS - USER INFORMATIONS



According to Directive 2012/19/EU on the Waste of Electric and Electronic Equipment (WEEE), it is here specified that this Electrical-Electromechanical Device started to be commercialized after 13th August 2005, and it shall be disposed of separately from ordinary waste products.

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1. GENERALS

The MIDAS keypad has been designed to fully handle operation and programming from remote locations of NET, ET4 and ETR- series control units and of other expressly compatible devices. The maximum amount of keypad installable depends on the control unit: one for ET4 series, four for NET series, up to 32 for the ETR series.

The MIDAS keypad controls all system zones and their operating status, and it allows arming control units totally or partially. Please note that microprocessor-based control units of the ETR series only allow a basic maintenance of the system, and require the dedicated browser for the system full setup.

The MIDAS keypad is also equipped with a built-in proximity key reader for fast arming/disarming. The reader plays a sound when a key approaches.

All information and commands are transmitted via a specific communication protocol for ETR-series control units. A four-wire cable is used for serial communications; keypads have to be connected to control units using a quality shielded cable for intrusion systems using a star connection or wiring it to a previous keyboard.

The MIDAS keypad features a backlit LCD display for status control and message management (it starts up by pressing any key and automatically switches off after being idle for a set time), an alphanumeric keypad and four functional keys; its clear display messages and specific LED indications greatly simplify the use of the unit controlled by a MIDAS keypad.

The horizontal and carefully conceived design, together with easy-to-read indications, are suitable for a wide range of installations, even the most demanding and refined interiors.

2. FEATURES

Model:	MIDAS
Protection class:	IP3X
Performance level:	2nd (or control unit level, whichever is lower).
Environmental class:	II
Security grade:	2
Power supply:	12 Vdc (9 ÷ 15 V) from the control unit.
Power consumption @ 12 V:	35 mA with disarmed unit, 47 mA with armed unit, 83 mA without readers.
Terminal connections:	RS-485 serial line, display output (for ETR unit only).
Switches:	Internal jumper for switching to configuration mode.
User interface:	keypad with 20 keys divided in two groups.
Indications:	System status LEDs, display messages, LEDs
Control access:	Code-protected (codes according to unit capacity).
Protections:	Tamper protection against opening and removal.
Wiring:	Use a 4-wire flame-resistant shielded cable (min. $2 \times 0.75 \text{ mm}^2 + 2 \times 0.22 \text{ mm}^2$).
Operating temperatures:	+5 / +40 °C, 93% r.h.
Dimensions:	W 155 × H 97 × D 25 mm
Weight:	172 g
Parts supplied:	Technical manual, fixing screws and dowels.

The MIDAS keypad is an accessory for compatible control units featuring CE marking.

Only the following products are IMQ certified and in accordance with EN50131: ETR512, ETR256, ETR128 control units. For further details, please see the relevant technical documentation.



3. INSTALLATION

3.1 Operating procedures

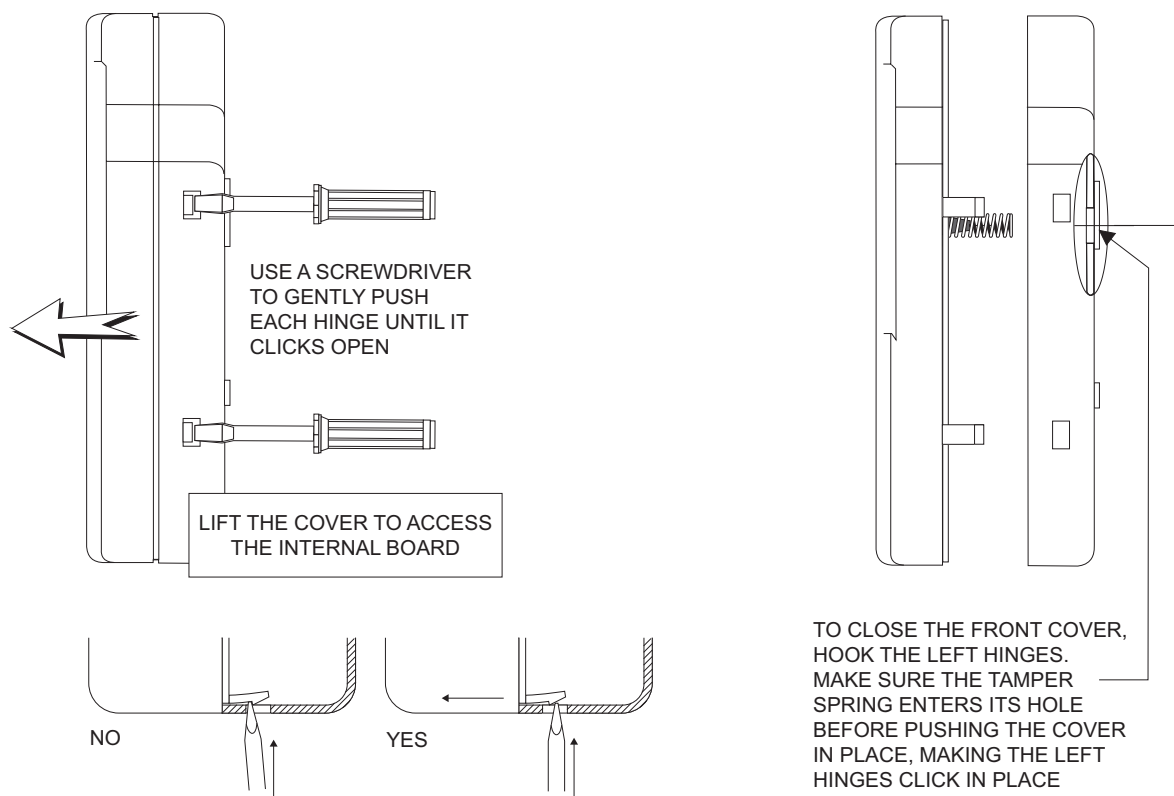
WARNING:

If installing MIDAS in an existing system, take adequate precautions to avoid generating alarms that might disturb the peace.

- 1 - Open the control unit housing by loosening the side screws on the top side.
- 2 - Isolate tamper alarm device, switch off external self-powered sirens and any other alarm device (diallers, etc.)
- 3 - Choose a suitable installation position, taking into account the correct height for a comfortable reading of the keypad display. Wire the keypad to the control unit, then mount it according to mounting diagrams below.
- 4 - Feed the wires through the pre-punched holes, then wire the keypad following the labels of its terminals and of the control unit terminals.
- 5 - Make sure this operation is performed while the unit is **unpowered** and do not leave loose, naked wires inside the keypad casing to avoid short-circuits between PCB tracks.
- 6 - Power the keypad and set it up as indicated below.
- 7 - Close the control keypad, verify its operating mode, setup the control unit, switch the sirens and any diallers back on, then close the control unit.

3.2 Open/Close the keypad housing

Follow instructions below to open/close the keypad housing:

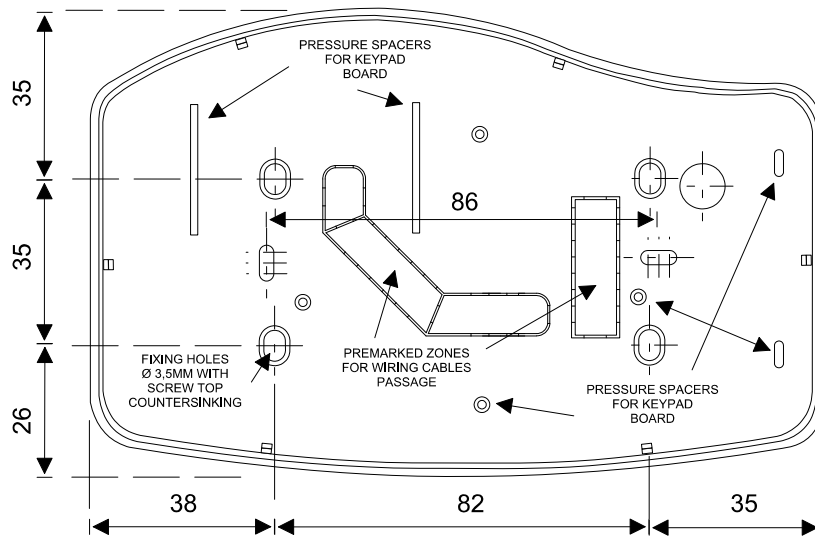


NOTE: fix a screw plug to the wall so that its $\varnothing 5$ mm the screw pushes in the tamper spring. Fasten the screw so that its head is at a height of 2 mm from the inner side of the plastic base.



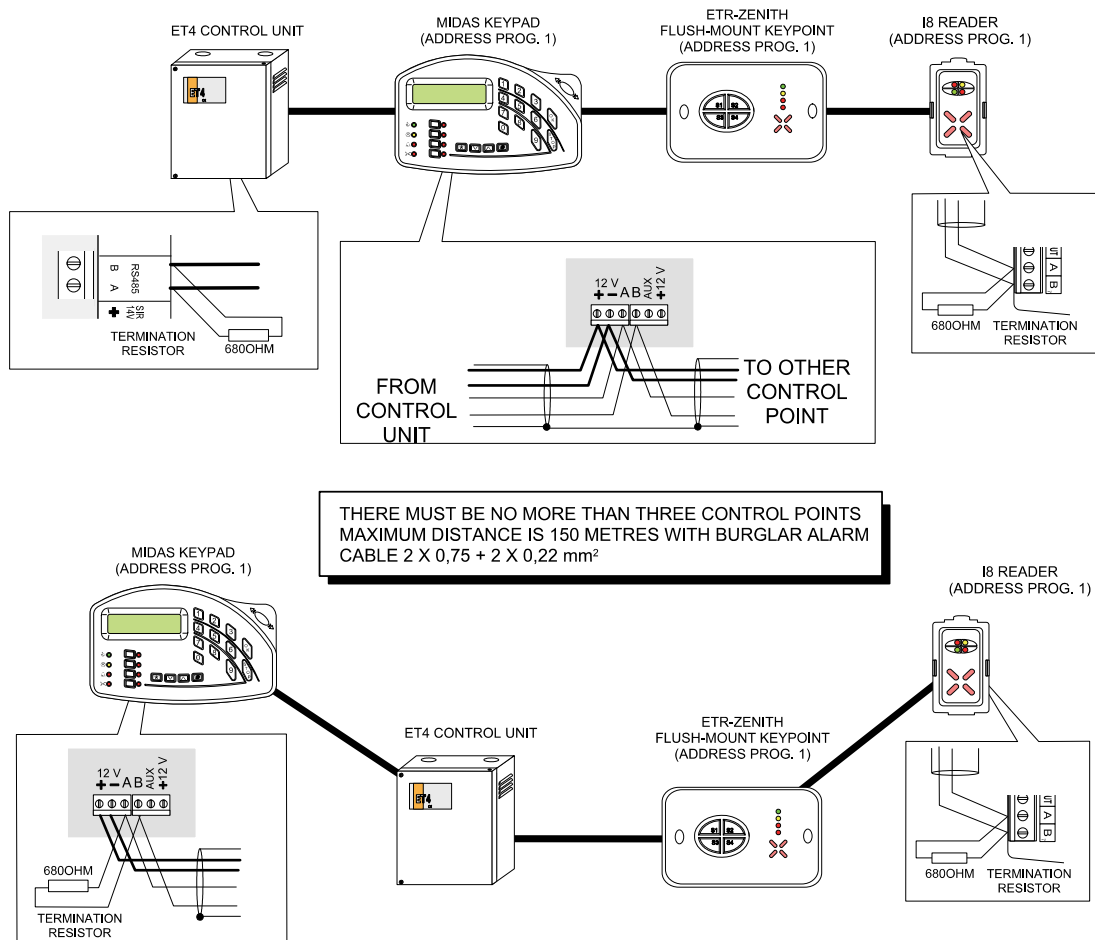
3.3 Keypad mounting

Measurements in millimetres for surface mounting holes.



4. WIRING

ET4 control unit connection diagram.



The serial line **only** allows connecting one MIDAS keypad or, as an alternative, one NIRVA keypad, one ETR-ZENITH key-point and one I8 reader, provided that enough power is supplied.

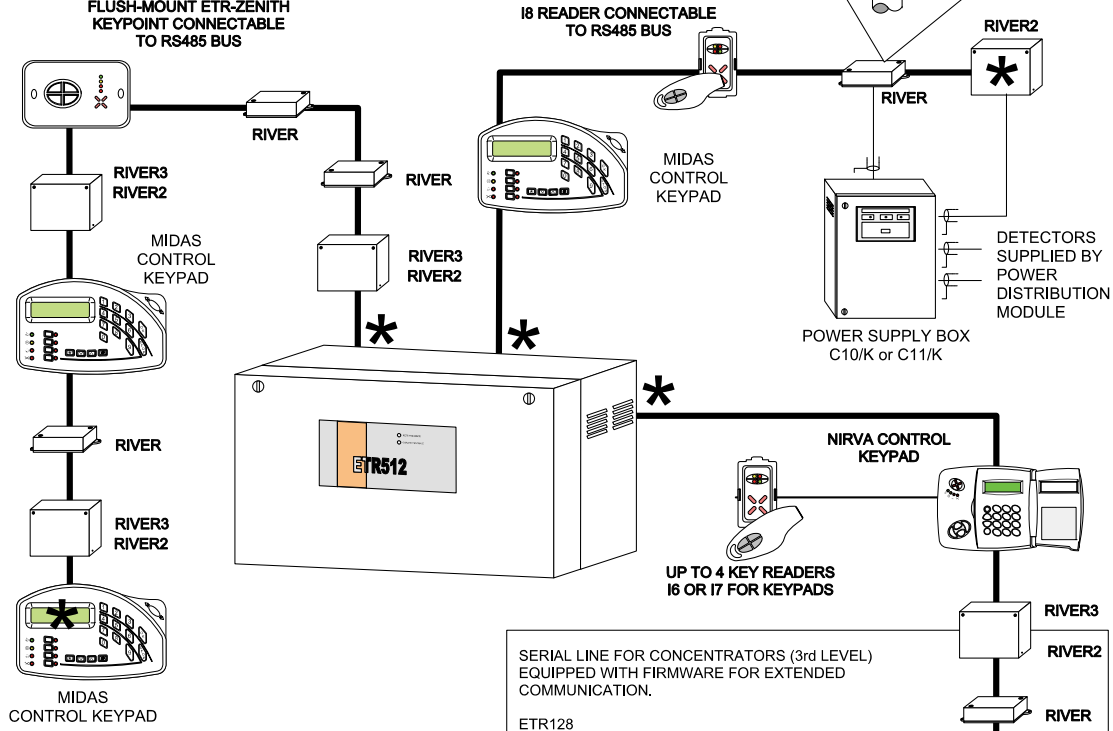


ETR control unit connection diagram.

ETR CONTROL UNIT SERIAL LINES CONNECTION DIAGRAM

WARNING:
THE DIAGRAM INDICATES GENERAL CONNECTIONS OF AUXILIARY POWER UNITS, i.e. C11/K.
PWR UNITS MUST ALWAYS BE INSTALLED ON SITE TO POWER CONCENTRATORS CONNECTED TO RS485 SERIAL LINE AND OTHER DEVICES.

SERIAL LINES TOTAL LENGHT MUST NOT EXCEED 1000M.
CABLES SECTION MUST BE ADEQUATE.
USE CABLE FOR INTRUSION SYSTEMS WITH 2 X 1 + 2 X 0,50 mm² SECTION.
FOR SHORTER WIRINGS, USE CABLE WITH 2 X 0,75+ 2 X 0,22 mm² SECTION.



CONTROL KEYPADS CAN BE CONNECTED TO WHATEVER POINT ALONG THE THREE SERIAL LINES (32 KEYPADS MAX CONSIDERING ALL THREE LINES)

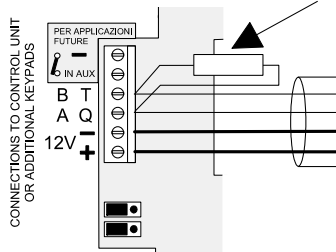
SERIAL LINE FOR CONCENTRATORS (3rd LEVEL) EQUIPPED WITH FIRMWARE FOR EXTENDED COMMUNICATION.

ETR128	14 CONCENTRATORS MAX (RIVER OR RIVER2)
ETR256	30 CONCENTRATORS MAX (RIVER OR RIVER2)
ETR512	62 CONCENTRATORS MAX (RIVER OR RIVER2)

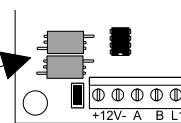
NOTE : FORMER 48 ETR EXTERNAL ZONES CAN BE ASSOCIATED TO RADIO SENSORS OH HELIOS SYSTEM

***** MARKED DEVICES MUST BE EQUIPPED WITH SERIAL LINE TERMINATIONS

NIRVA KEYPADS MUST BE TERMINATED WITH A 680 Ω 1/4W RESISTOR CONNECTED TO TERMINAL BOARD

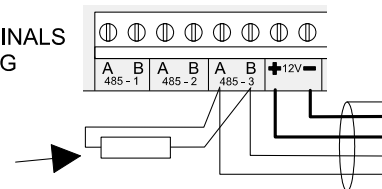


CLOSE JUMPER WHEN USING RIVER, RIVER2 AND RIVER3 CONCENTRATORS.



PANEL MAIN BOARD

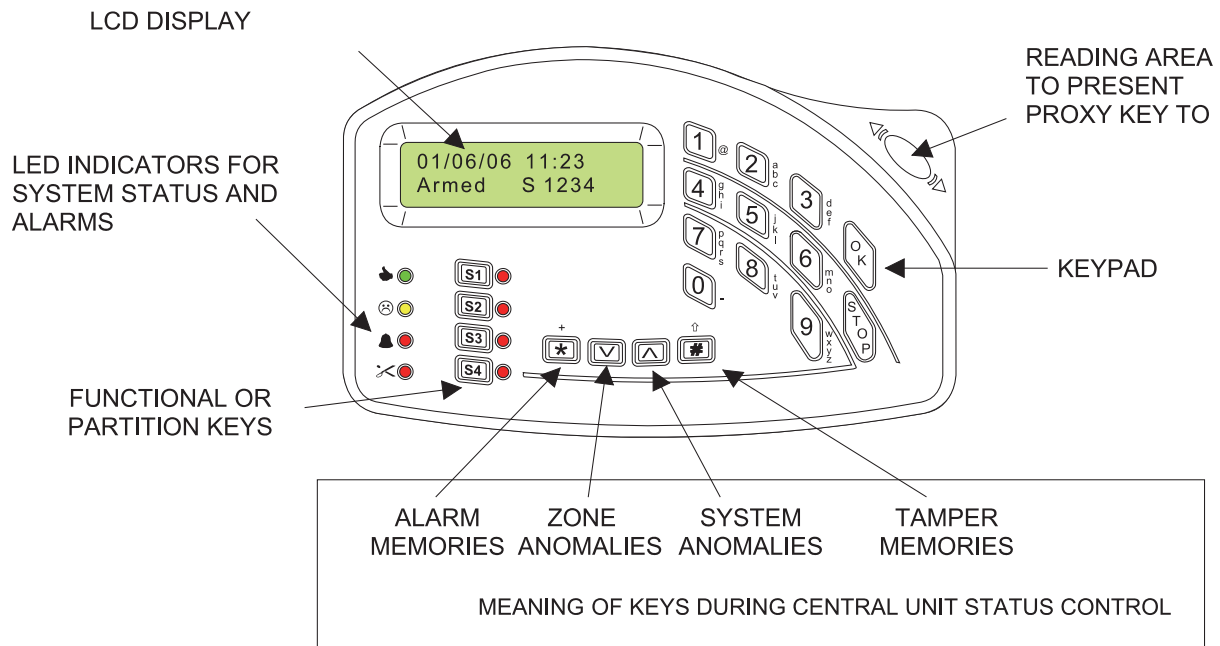
USE CONTROL UNIT TERMINALS AS SERIAL LINES STARTING POINTS, AND CONNECT A 680Ω 1/4W RESISTOR TO EACH LINE





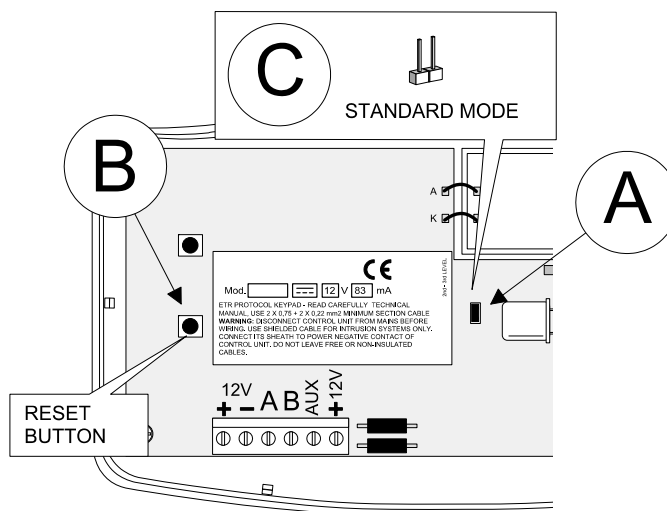
5. KEYPAD VIEW

The MIDAS control keypad is a control, display and setup point for compatible control units. It is equipped with a backlit display for a more comfortable view of the status of the control unit and of setup messages.
Front view:



5.1 Setup

To enable the communication with the control unit over the serial line, perform a local setup: connect and power the keypad, then close the "PROG.LOC." jumper (A), and press the reset button (B).





The following message will be displayed (the display will not be backlit at this stage):

Tast/Kbr n: 1

To change displayed value, press the **Ok** key. The displayed ID number will start blinking and the second row will show the actions issued by pressing certain function keys:

Tast/Kbr n: 1
Ok = Conf. Stp = Exit

The value set has to be compatible with the processing capacity of the control unit; **for compatible units derived from ET4 it always has to be 1**, other values can only be accepted by advanced units, e.g. ETR series. Invalid values will not be accepted.

Press **Ok** to confirm, then **^** to display the selection of the sound that signals the contact of a proxi key to the reader set on the corner of the keypad.

Buzzer(key): Si

To change the displayed value, press **Ok**: it will start blinking.

Buzzer(key): Si
Ok = Conf. Stp = Exit

Press **^** and **v** to change the blinking value. Press **Ok** key to confirm and check the message on the display. Press **^** to display following message.

Default

This menu can be used to set the factory default values again.

Press **Ok** to delete your settings. The default values are:

Keypad n: 1 - Buzzer(key) Yes.

Press **^** to display the **“EXIT”** message:

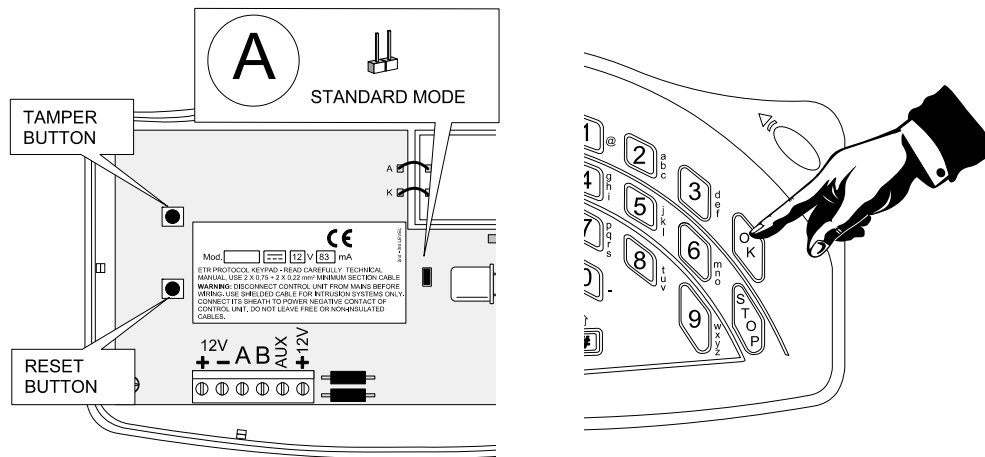
Exit

Press **^** again to go back to the starting message; press **v** to go back to the previous menu.

To end the local setup, open the **“PROG.LOC.”** jumper (A) and press the **Ok** key on the keypad.



Procedure steps are as follows:



Upon pressing the **Ok** key, the keypad emits a long beep sound and it displays the unit's messages as a confirmation of correct communication with it.

Close the keypad housing to enable keypad operation.

If this message is still displayed

mKeypad r1.x

(where r1.x is your firmware version), it indicates an anomaly status of the keypad Tamper protection. Close the tamper circuit to restore communication.

This message may as well indicate the incorrect wiring of the serial line to the control unit.

NOTE: If an ETR series control unit is used for the first time, it is necessary to learn peripherals again for a correct acknowledgement of the keypad.

5.2 Menu display





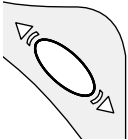

A MIDAS keypad enables displaying several control unit setup menus available to installers.

For further information, please see the technical manual of the connected control unit; its features may allow displaying different menus from the ones described in this manual.



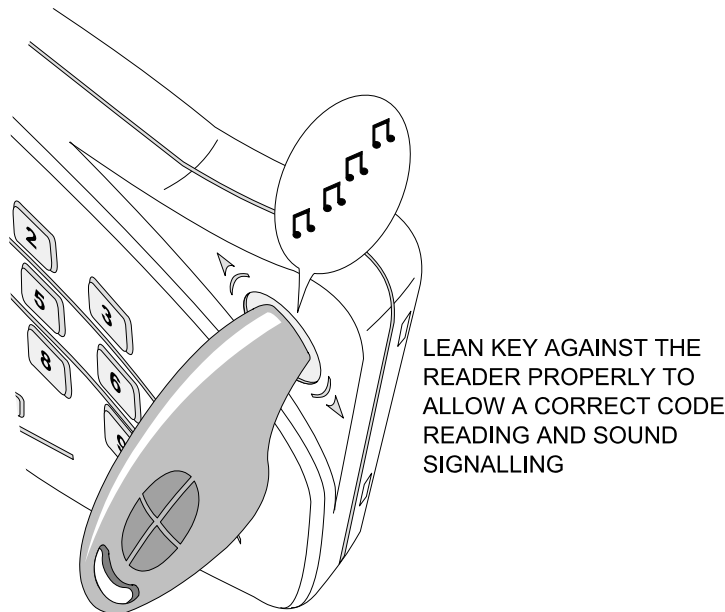
6. LED INDICATORS

MIDAS keypad LEDs generally indicate control unit operating status. For further information, please see the technical manual of the connected control unit. Standard LED indications are as follows:

- 
Green LED: indicates several status concerning the armed/disarmed condition of the system.
- 
Yellow SYSTEM ANOMALIES LED: indicates the operating status of the control unit.
- 
Red SCISSORS LED: indicates that a TAMPER or 24H alarm has been stored on unit memory.
- 
Red BELL LED: indicates that a general alarm has been stored on unit memory.
- 
Reading area for PROXY keys.
- 
Side-lit keys to display the partially/totally armed status of the control unit, also used to select sectors to be armed and during control unit setup.

7. OPERATING MODE WITH PROXIMITY KEY

To operate with a PROXI key, approach it to the reading area of the keypad. The control unit acknowledges the key and authorizes the corresponding user to operate.



It is possible to disable the sound signal from the internal menu of the keypad.

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