

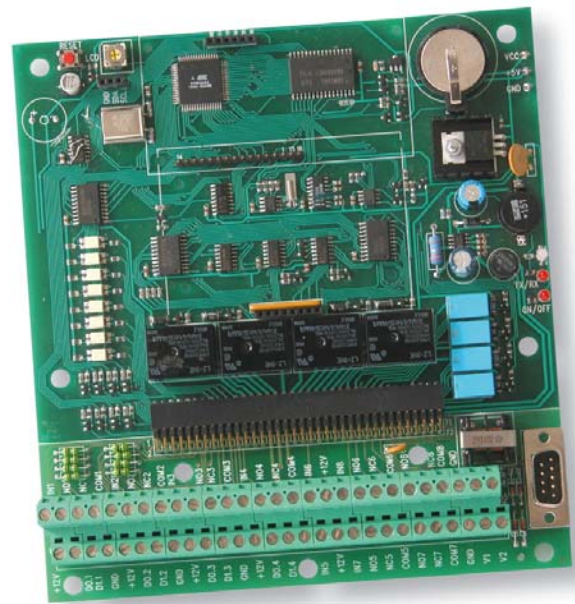
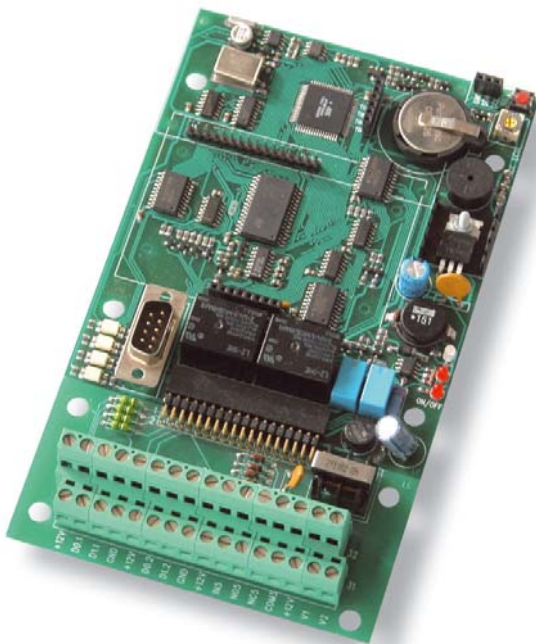


# MT4000-2

## ACCESS CONTROL UNIT 2 DOORS, 4000 USERS

# MT10000-4

## ACCESS CONTROL UNIT 4 DOORS, 10000 USERS



**WARNING!** Before installing, thoroughly read this manual that is an integral part of this Kit.

**N.B.** - Prastel S.p.A. declines any responsibility in the event current standards in the country of installation are not complied with



The symbol CE indicates conformity with Applicable European Directives

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**1. Main Features:**

**MT4000-2**

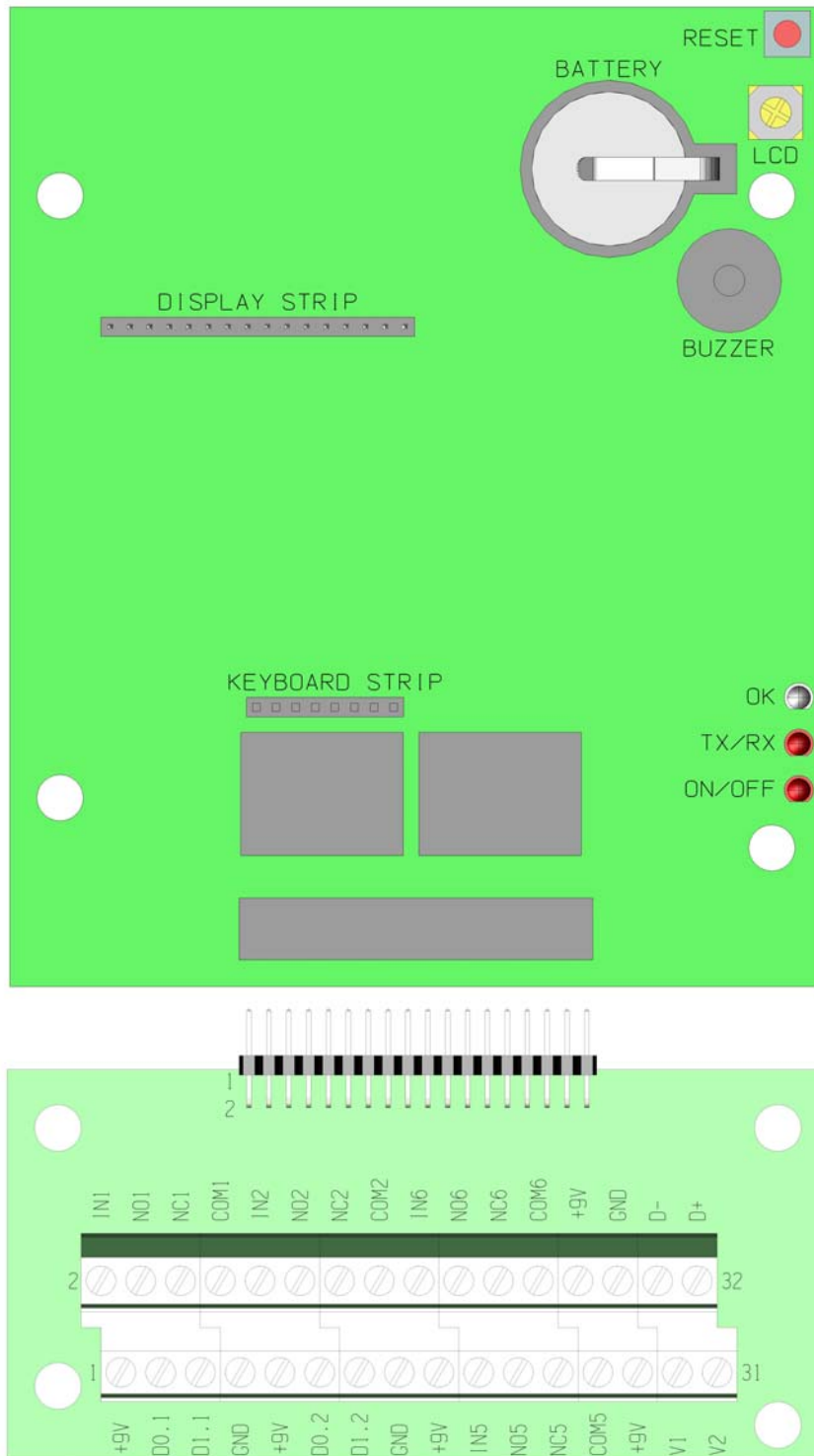
- **Power:** 12 VAC/DC
- **Consumption:** 100 mA (Control Unit without accessories). With the optional keypad/display, consumption is 200mA
- **Operating temperature:** from -5 to +55°C
- **Readers:** 2 external readers
- **User capacity:** 4000
- **Event record:** 2000
- **Time slots:** 16 (4 time intervals for each time slot)
- **Holidays:** 20
- **Relay outputs:** 2 main (5A) and 2 auxiliary (1A)
- **Digital inputs:** 4 (2 configurable as break-in inputs)
- **Antipassback:** control unit and user configurable
- **User identification:** badge or badge + PIN code from keyboard (with keypad/display kit)

**MT10000-4**

- **Power:** 12 VAC/DC
- **Consumption:** 100 mA (Control Unit without accessories).With the optional keypad/display, consumption is 200mA
- **Operating temperature:** from -5 to +55°C
- **Readers:** 4 external readers
- **User capacity:** 10000
- **Event record:** 16000
- **Time slots:** 16 (4 time intervals for each time slot)
- **Holidays:** 20
- **Relay outputs:** 4 main (5A) and 4 auxiliary (1A)
- **Digital inputs:** 8 (4 configurable as break-in inputs)
- **Antipassback:** control unit and user configurable
- **User identification:** badge or badge + PIN code from keyboard (with keypad/display kit)

2. Terminal strip board and connectors

MT4000-2 Layout

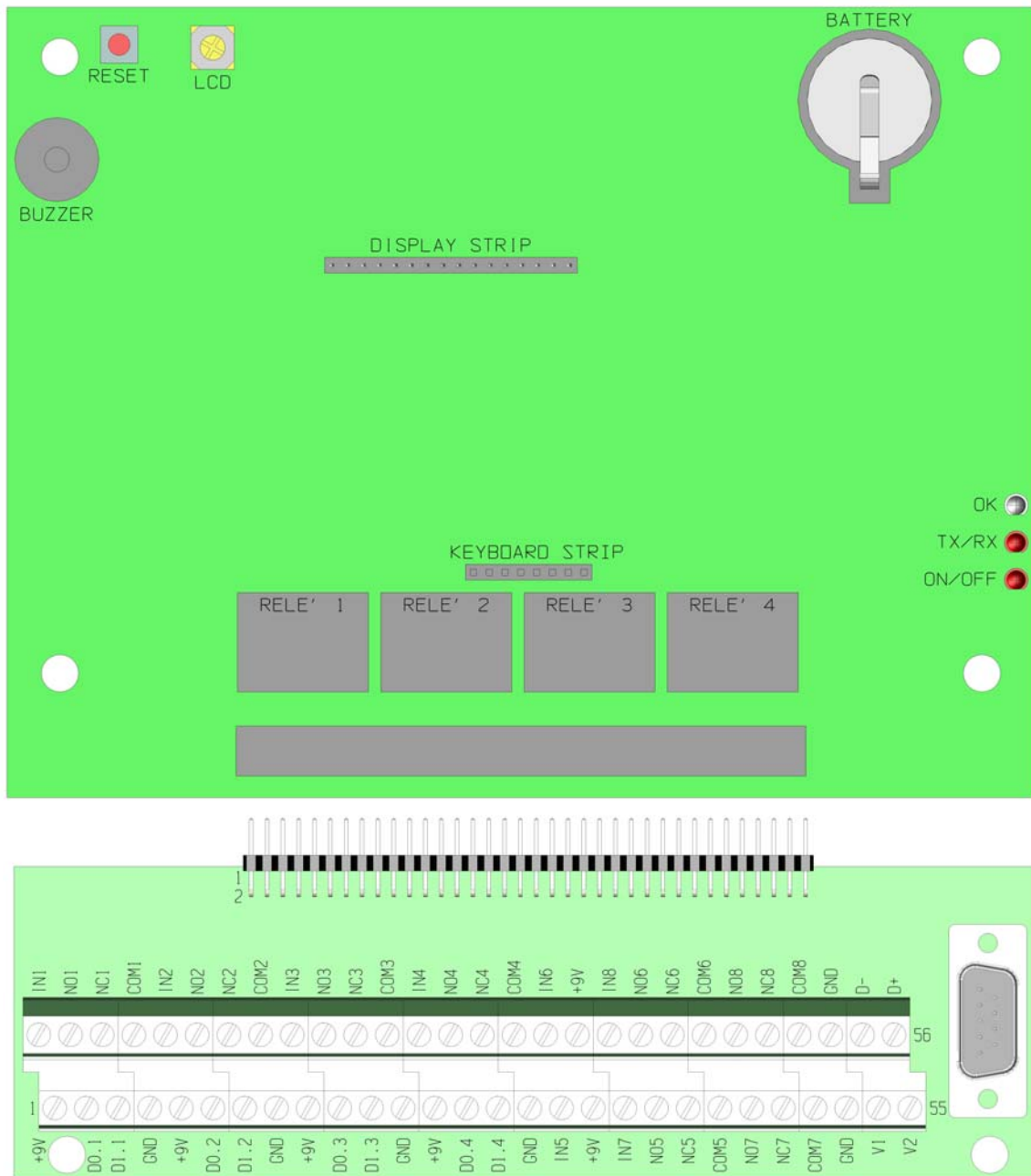


<b>RESET:</b>	Re-start the control unit
<b>BUZZER:</b>	1 prolonged beep → valid reading 2 rapid beeps → invalid reading
<b>Led OK:</b>	Green → valid reading Red → invalid reading Yellow → invalid reading because of incorrect system code
<b>Led TX/RX:</b>	Flashes when the control unit communicates on the RS485 bus.
<b>Led ON/OFF:</b>	Red → control unit powered.
<b>BATTERY:</b>	Back-up battery for keeping enablings in memory when the control unit is not powered (life-span 3 years with control unit not powered).
<b>DISPLAY STRIP:</b>	Strip for plugging in optional display.
<b>KEYBOARD STRIP:</b>	Strip for plugging in optional keypad.
<b>LCD:</b>	Trimmer for contrast adjustment of optional display

**Terminal board MT4000-2 description**

<b>V1</b>	Power 12Vac/dc (maximum consumption 2A)
<b>V2</b>	Power 12Vac/dc (maximum consumption 2A)
<b>GND</b>	Ground for reader powering and for the INT485C converter
<b>D+</b>	D+ Interface 485
<b>D-</b>	D- Interface 485
<b>+9V</b>	Positive for reader powering and for the INT485C converter
<b>D0.1</b>	Reader 1 DATA0 line
<b>D1.1</b>	Reader 1 DATA1 line
<b>D0.2</b>	Reader 2 DATA0 line
<b>D1.2</b>	Reader 2 DATA1 line
<b>IN1</b>	Port 1 Output Pushbutton Input (active with voltage +9V)
<b>IN2</b>	Port 2 Output Pushbutton Input (active with voltage +9V)
<b>IN5</b>	Port 1 Break-in Input active with voltage of +9V
<b>IN6</b>	Port 2 Break-in Input active with voltage of +9V
<b>NO1</b>	Relay 1 N.O. contact
<b>COM1</b>	Relay 1 common
<b>NC1</b>	Relay 1 N.C. contact
<b>NO2</b>	Relay 2 N.O. contact
<b>COM2</b>	Relay 2 common
<b>NC2</b>	Relay 2 N.C. contact
<b>NO5</b>	Relay 5 N.O. contact
<b>COM5</b>	Relay 5 common
<b>NC5</b>	Relay 5 N.C. contact
<b>NO6</b>	Relay 6 N.O. contact
<b>COM6</b>	Relay 6 common
<b>NC6</b>	Relay 6 N.C. contact
<b>Connector DB9</b>	RS232 connector for printer or firmware upgrade from PC

MT10000-4 Layout



- RESET:** Re-start the control unit
- BUZZER:** 1 prolonged beep → valid reading  
2 rapid beeps → invalid reading
- Led OK:** Green → valid reading  
Red → invalid reading  
Yellow → invalid reading because of incorrect system code
- Led TX/RX:** Flashes when the control unit communicates on the RS485 bus.
- Led ON/OFF:** Red → control unit powered.
- BATTERY:** Back-up battery for keeping enablings in memory when the control unit is not powered (life-span 3 years with control unit not powered).
- DISPLAY STRIP:** Strip for plugging in optional display.
- KEYBOARD STRIP:** Strip for plugging in optional keypad.
- LCD:** Trimmer for contrast adjustment of optional display

Terminal board MT10000-4 description

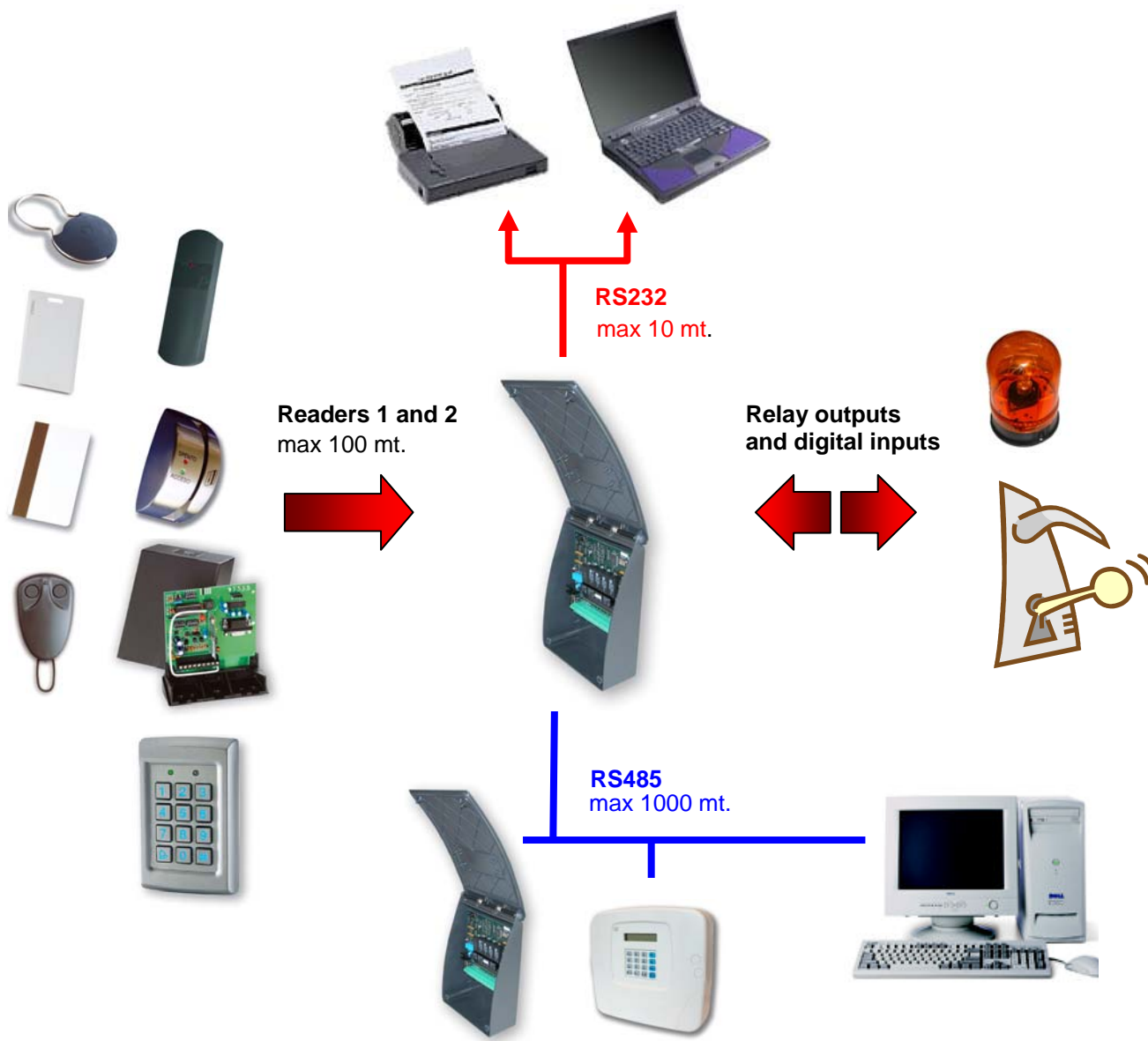
V1	Power 12Vac/dc (maximum consumption 2A)
V2	Power 12Vac/dc (maximum consumption 2A)
GND	Ground for reader powering and for the INT485C converter
D+	D+ Interface INT485C
D-	D- Interface INT485C
+9V	Positive for reader powering and for the INT485B converter
D0.1	Reader 1 DATA0 line
D1.1	Reader 1 DATA1 line
D0.2	Reader 2 DATA0 line
D1.2	Reader 2 DATA1 line
D0.3	Reader 3 DATA0 line
D1.3	Reader 3 DATA1 line
D0.4	Reader 4 DATA0 line
D1.4	Reader 4 DATA1 line
IN1	Port 1 Output Pushbutton Input (active with voltage +9V)
IN2	Port 2 Output Pushbutton Input (active with voltage +9V)
IN3	Port 3 Output Pushbutton Input (active with voltage +9V)
IN4	Port 4 Output Pushbutton Input (active with voltage +9V)
IN5	Port 1 Break-in Input active with voltage of +9V
IN6	Port 2 Break-in Input active with voltage of +9V
IN7	Port 3 Break-in Input active with voltage of +9V
IN8	Port 4 Break-in Input active with voltage of +9V
NO1	Relay 1 N.O. contact
COM1	Relay 1 common
NC1	Relay 1 N.C. contact
NO2	Relay 2 N.O. contact
COM2	Relay 2 common
NC2	Relay 2 N.C. contact
NO3	Relay 3 N.O. contact
COM3	Relay 3 common
NC3	Relay 3 N.C. contact
NO4	Relay 4 N.O. contact
COM4	Relay 4 common
NC4	Relay 4 N.C. contact
NO5	Relay 5 N.O. contact
COM5	Relay 5 common
NC5	Relay 5 N.C. contact
NO6	Relay 6 N.O. contact
COM6	Relay 6 common
NC6	Relay 6 N.C. contact
NO7	Relay 7 N.O. contact
COM7	Relay 7 common
NC7	Relay 7 N.C. contact
NO8	Relay 8 N.O. contact
COM8	Relay 8 common
NC8	Relay 8 N.C. contact
Connector DB9	RS232 connector for printer or firmware upgrade from PC



**3. Wiring**

MT4000-2 and MT10000-4 can be connected to a network of MT, TTD3000, M3000 or M5000 control units using the RS485 bus.

Control unit configuration and access badge enable may be made via the keyboard and display (requires the optional keypad/display kit) or via the optional SWAMIGO software.



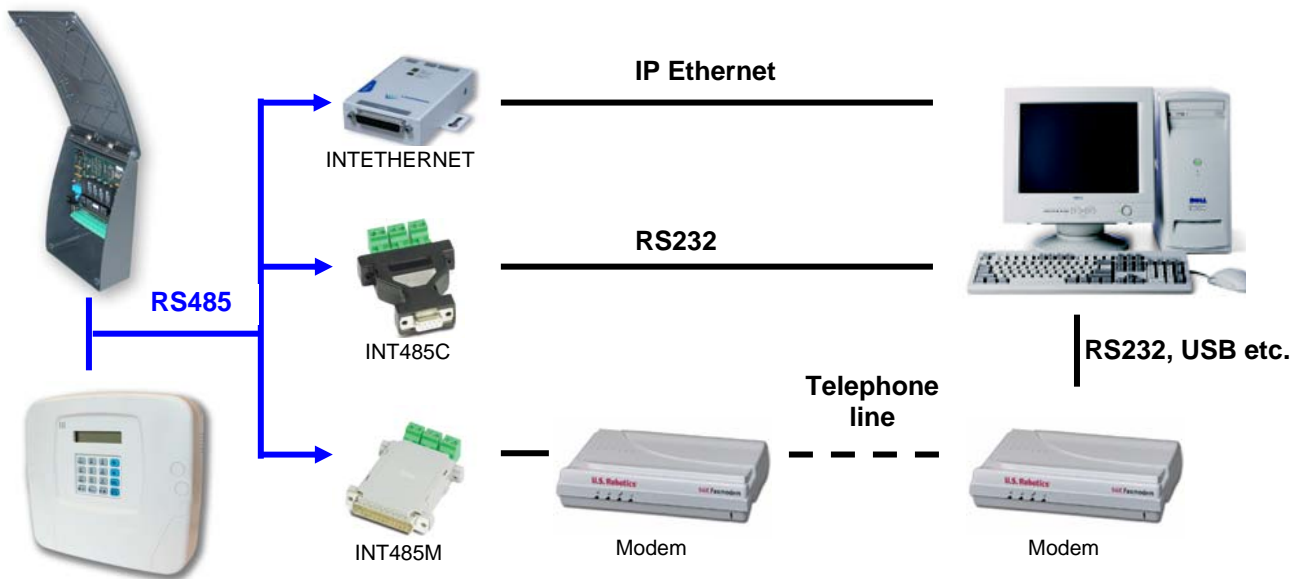
**Readers 1 and 2:** proximity, magnetic, radio or keypad readers can be connected to Wiegand 26, Wiegand 30, Wiegand 37, or Dataclock outputs.

**RS232:** a serial printer for the event printout or a PC/Notebook for firmware updating can be connected.

**RS485:** up to a maximum of 32 MT4000-2, MT10000-4, TTD3000, M3000 or M5000 control units can be connected to the bus. Use an INT485C converter for control unit network management via PC.

Control unit or control unit network management via PC is made through the RS485 bus. Connection between the PC on which the SWAMIGO software is installed and the RS485 bus may be made via Ethernet, the RS232 serial line, or the telephone line using INTETHERNET, INT485C, and INT485M converters, respectively, as shown in the following figure





Wiring notes and recommendations:

- Maximum line lengths of readers 1 and 2 (control unit reader) is 100 meters
- Maximum RS485 bus length is 1000 metres.
- Maximum RS232 line length of 10 metres.
- Only use STP class 5 or FTP class 5 cables or superior.
- Connect reader – control unit wiring shielding to the GND of the control unit to which the wiring is connected.
- Connect RS485 control unit – control unit wiring shielding with each other.
- Never connect reader – control unit and control unit – control unit wiring shielding with each other.
- Never route system wiring in proximity to power cables.
- Never exceed 1A consumption when using external readers.
- Each control unit should be powered by the appropriate ALI13V8A3 or an equivalent power supply unit with similar characteristics ( 13.8VDC, 3A)
- Any electric locks or external relays must be powered separately (see next paragraph) and must be fitted with tension suppressors (included)

**3.1. Installation example with electric lock**

A typical door-control installation with electric lock is made up as follows:

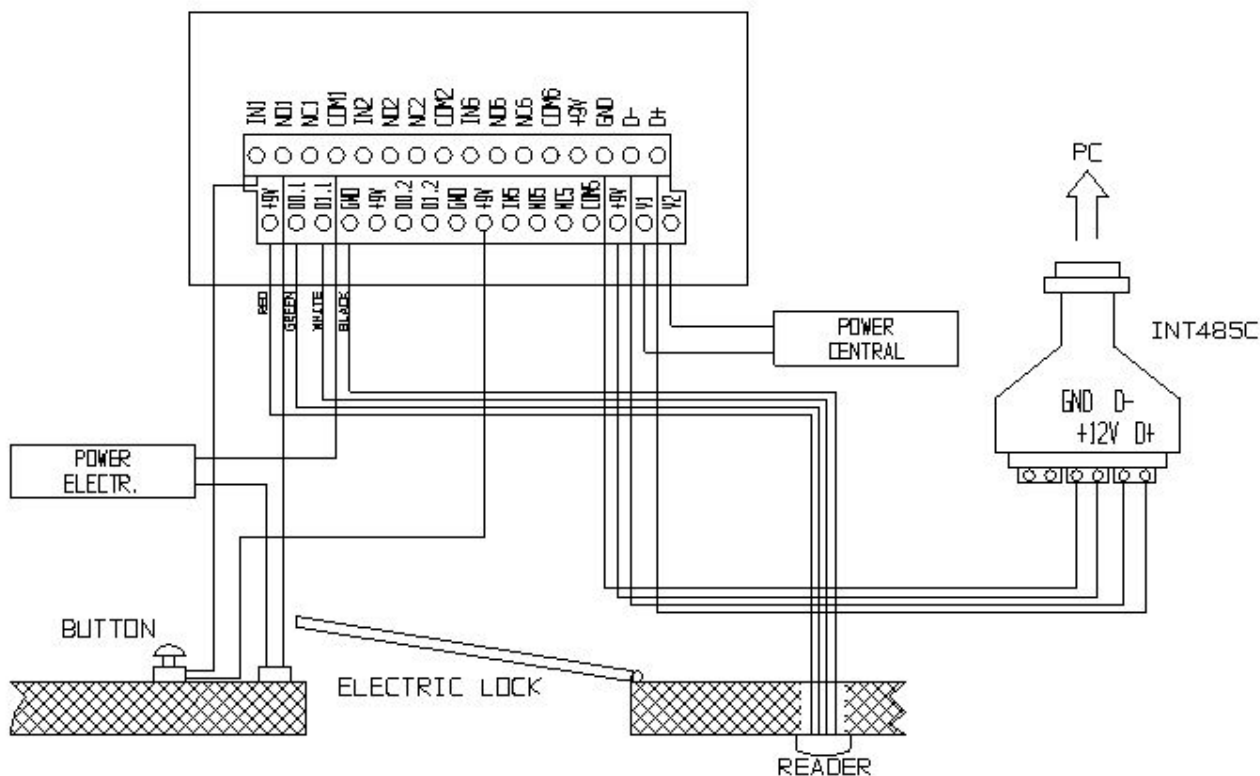
- 1 in reader.
- 1 out door-opening push-button.
- 1 door-opening electric lock.

Connect in reader 1 to terminals D0.1, D1.1, GND, and +9V of the control unit.  
 Connect the electric lock to the terminal NO1 and through the power supply unit to the COM1.  
 Connect the manual door opening button between terminals IN1 and +9V of the control unit.

Using SWAMIGO software:

Duly configure reader 1 for relay 1 tripping  
 Duly configure the IN1 input for relay 1 tripping  
 Set relay 1 tripping and delay times to 1 and 0 seconds, respectively  
 Programme a badge for default access enable (5 Control Unit programming and testing, pag. 16).

Electric lock is activated for 1 second following valid read or pushing of manual opening out button.



**Note 1:** Power electric lock and control unit with separate power supply units.

**Note 2:** the figure shows the wiring with the MT4000-2 control unit terminal board but can easily be applied to an installation with the MT10000-4 control unit.

**3.2. Installation example with automatic door**

A typical automatic door-control installation is made up as follows:

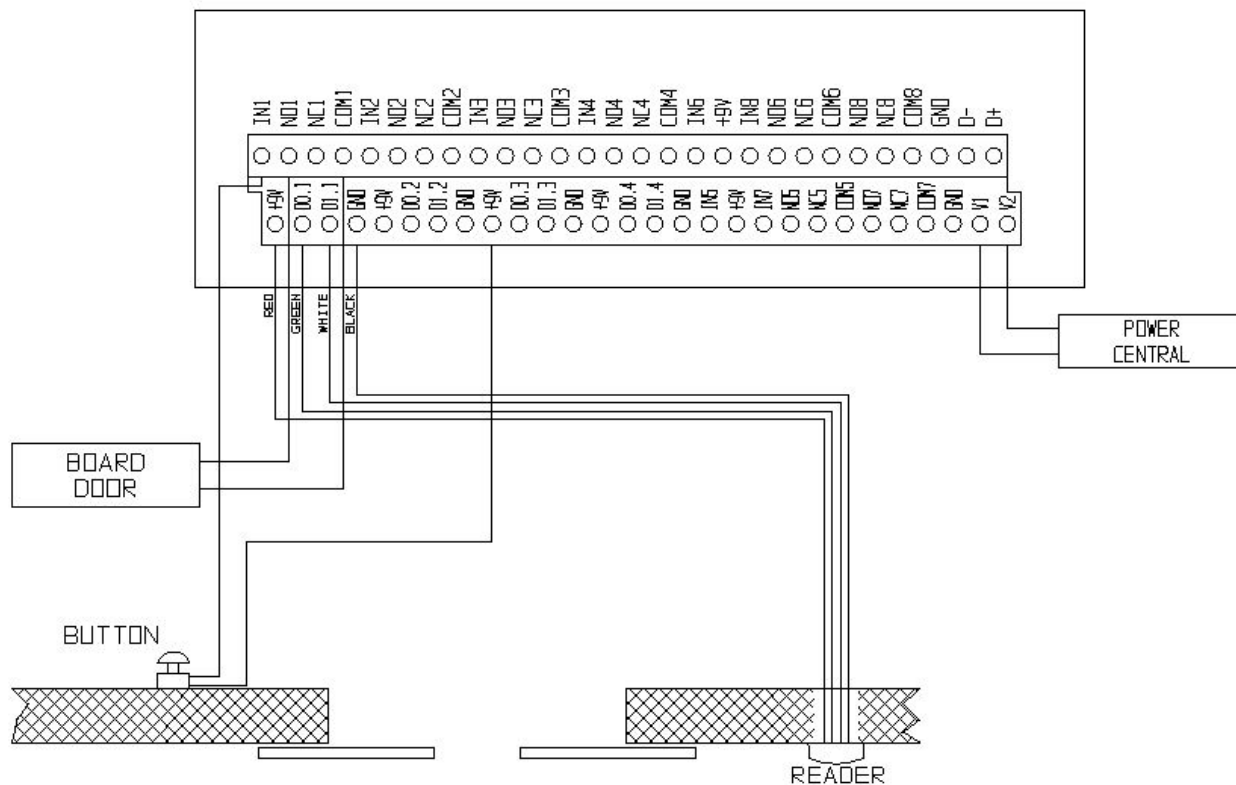
- 1 in reader;
- 1 out door-opening push-button;
- 1 automatic door.

Connect entrance reader 1 to terminals D0.1, D1.1, GND, and +9V of the control unit.  
 Connect the automatic door triggering contact to terminals NO1 and COM1.  
 Connect the manual door opening button between terminals IN1 and +9V of the control unit.

Using SWAMIGO software:

- Duly configure reader 1 for relay 1 tripping
- Duly configure the IN1 input for relay 1 tripping
- Set relay 1 tripping and delay times to 1 and 0 seconds, respectively
- Programme a badge for default access enable (5 Control Unit programming and testing, pag. 16)

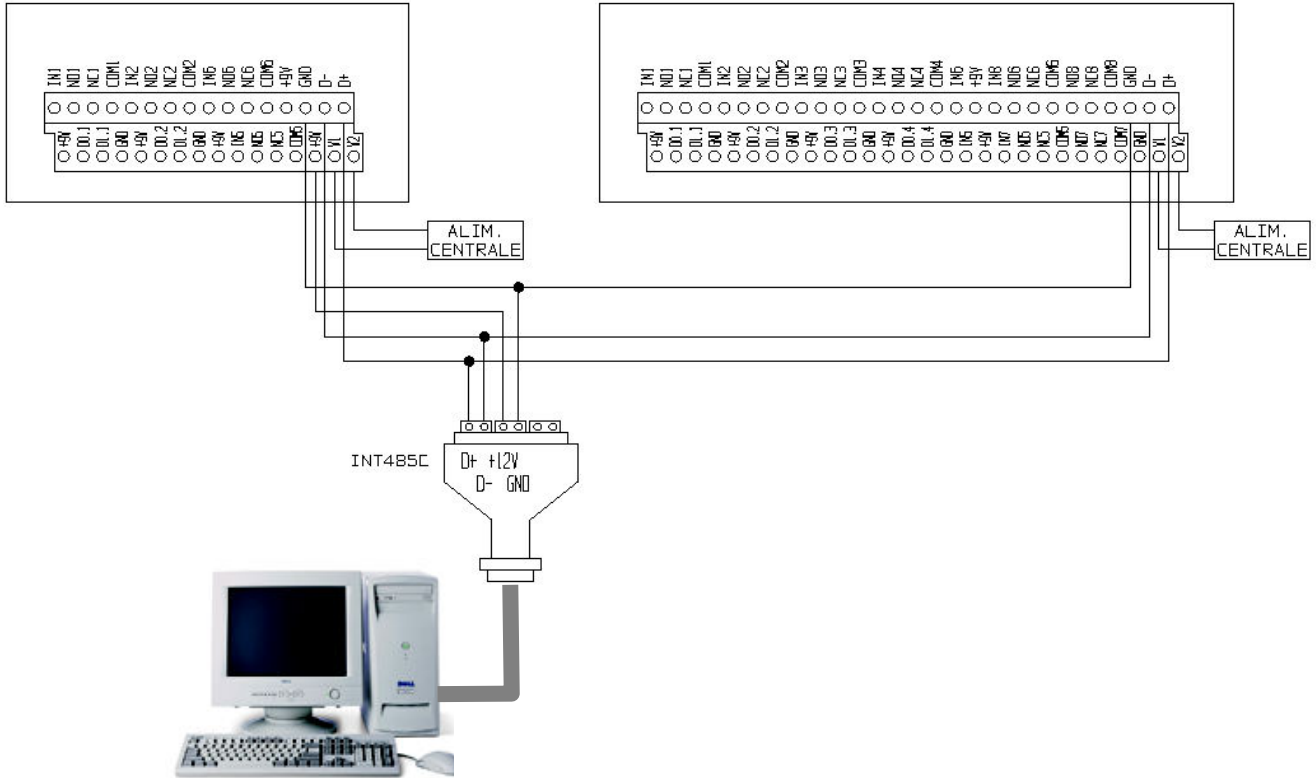
Automatic door opens after 1 second following valid read or pushing of manual opening out button.



**Note: the figure shows the wiring with the MT10000-4 control unit terminal board but can easily be applied to an installation with the MT4000-2 control unit.**

3.3. Example of connection between two control units

To connect more than one control unit to a single bus make the following connection.



**Note:** Power the control units with separate power supply units.

**4. Management of Alarm Events**

The control unit is capable of managing a number of different alarm conditions, depending on input and output configuration settings.

One of the break-in digital inputs, IN5 or IN6, may be associated to each reader. The break-in input may in turn be associated to one or both secondary R5 or R6 relays.

In the event of the break-in input triggering without enabled access badge reading, an EFR (break-in) event is generated by the control unit and associated relays are instantly tripped, regardless of tripping delay time settings.

In the event of the break-in input triggering after an enabled access badge has been read and cleared and before the tripping time of the associated relay has expired, no alarm event is generated by the control unit.

In the latter case, the triggered break-in input must be re-set before expiry of relay tripping delay time, otherwise an ATL-type (door-open-too-long) event is generated by the control unit and associated relays are tripped.

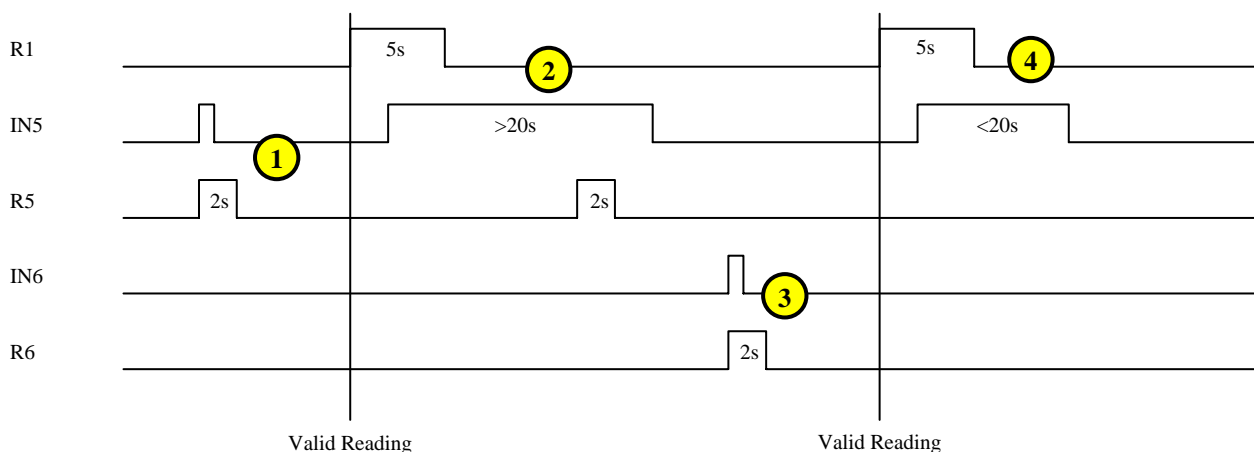
Triggering of an input not associated to a reader as a break-in input gives rise to an ALL-type (general alarm) event and causes associated relay tripping.

*Input IN5 is associated to reader 1 as a break-in input along with relay R1, with a delay time of 0 and a triggering time of 5 seconds.*

*Input IN5 is associated to secondary relay R5 with delay and triggering times of 20 and 2 seconds, respectively.*

*Input IN6 is not associated to any reader as a break-in input and is associated to secondary relay R6 with delay and triggering times of 0 and 2 seconds, respectively.*

*The following diagram shows the different alarm events that may occur.:*



1. *When the Break-in input IN5 is triggered without a valid reading an EFR event is triggered (break-in).*
2. *If After a valid reading the break-in input IN5 is triggered during the activation time of the R1 relay (associated to the reader) and remains active for longer than the associated relay activation delay an ATL event is triggered (door open for too long).*
3. *The activation of input IN6, which is not associated to any reader as a break-in input, triggers an ALL event (generic alarm).*
4. *If after a valid reading break-in input IN5 is triggered during the activation time of the R1 relay associated to the reader and is deactivated within the activation delay time of relay R5 to which it is associated no alarm event is triggered.*

#### 4.1. Example of installation with management of alarm events

An installation complete with alarm management includes:

- 2 readers, one in and one out;
- 2 push-buttons for manual door opening;
- 1 electric lock for commanding door opening;
- 1 break-in control opening contact;
- 1 buzzer or other alarm device for signalling break-in.

Connect the input reader 1 to terminals D0.1, D1.1, GND, and +9V of the control unit.

Connect the output reader 2 to terminals D0.2, D1.2, GND, and +9V of the control unit.

Connect the manual door opening push-button 1 between terminals IN1 and +9V of the control unit.

Connect the manual door opening push-button 2 between terminals IN2 and +9V of the control unit.

Connect door electric lock to terminals NO1 and COM1.

Connect opening contact to terminals IN5, deriving +9V of the control unit.

Connect the buzzer to terminals NO5 and COM5.

Configure reader 1 for relay 1 tripping with break-in input IN5.

Configure reader 2 for relay 1 tripping with break-in input IN5.

Configure input IN1 for relay 1 tripping.

Configure input IN2 for relay 1 tripping.

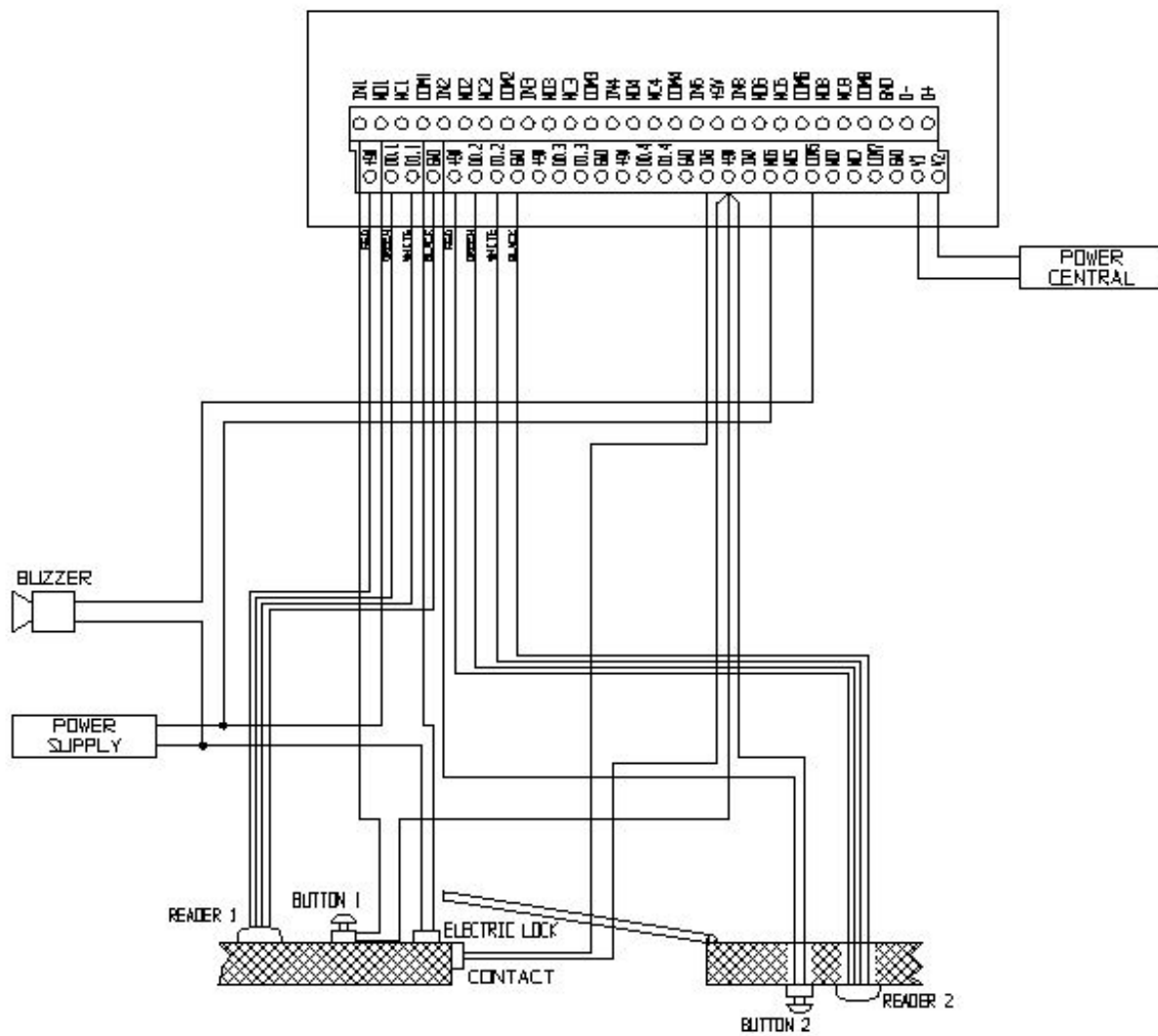
Configure input IN5 for relay 5 tripping.

Set relay 1 tripping and delay times at 5 and 0 seconds, respectively.

Set relay 5 tripping and delay times at 10 and 20 seconds, respectively.

Programme a badge for default access enable (5 Control Unit programming and testing, pag. 16)

After badge clearance the electric lock is tripped and the door released. The door must open within 5 seconds, after which it must close again within 20 seconds. Failing the foregoing, an ATL event is generated (door open too long) and the buzzer sounds for 10 seconds.



**Note 1:** To use an automatic door, connect terminals NO1 and COM1 to the board of the automatic door.

**Note 2:** the figure shows the wiring with the terminal board of the MT10000-4 control unit but can easily be applied to an installation with a MT4000-2 control unit.

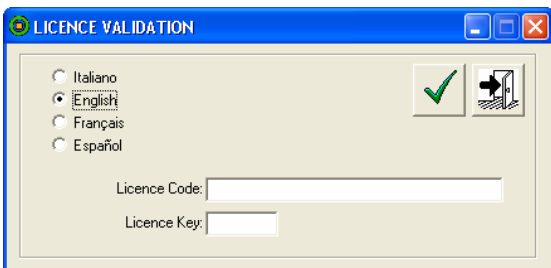


**5. Control Unit programming and testing**

This chapter outlines a practical example of the configuration of a control unit with SWAMIGO software. To obtain more detailed information on the programming of the terminal consult the software manual. The manual is available in PDF format in the Manuals section of the SWAMIGO installation CD

**5.1. Creating the site**

To start the application, use the "Amigo" link which was created on the desktop during program installation: the Amigo activation dialog will appear:



Enter the licence code and key (supplied together with the programme) and press the green button to confirm.

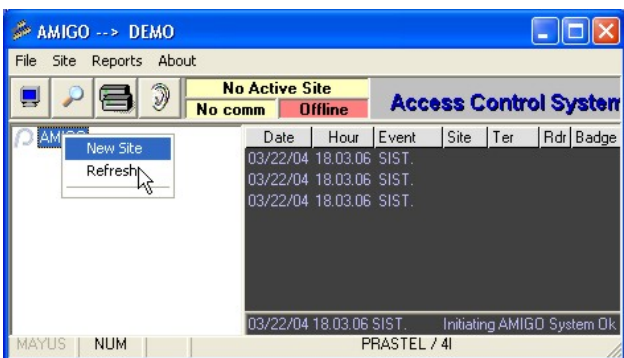
If the entered codes are correct, the program will be activated and the system access window will appear.



Type in the following codes and click the green button:

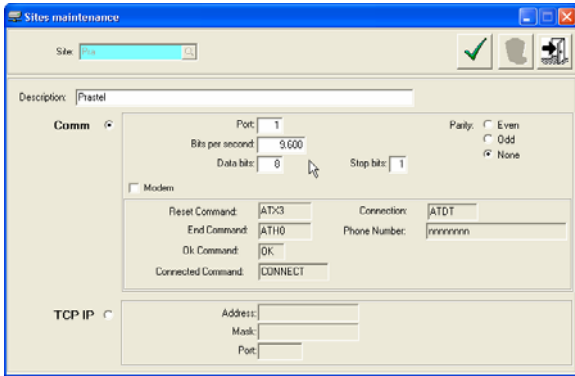
*Operator:* ADMIN  
*Password:* ADMIN

Hover the mouse pointer over the "Amigo" label and right-click the mouse to display the menu shown in the figure:



Select the "New site" item

A window appears which can be used to create a new site and set up communication with the terminals.



Enter the name to be assigned to the site in the "site" box (e.g. PRA) and press the [ENTER] key.

Enter a descriptive text (e.g. PRASTEL) and configure the communication settings.

Configure the communication as required, Note: the default communication setting is on serial port 1..

If a PC with serial port is not available, use a Manhattan/prolific type USB/RS-232 converter (see the FAQ page).

Click the green button in the top right to confirm

Check that the tree for the new system has been created:




**5.2. Searching for and configuring the terminal**

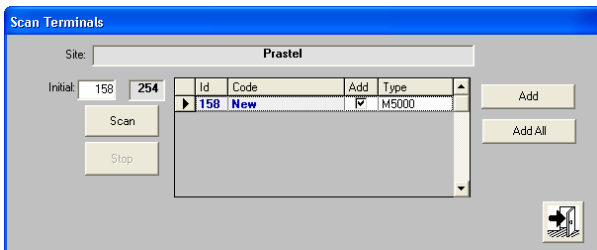
Connect the powered control unit fitted with a badge reader to the PC (via INT485C interface) on data lines D0.1 and D1.1.

Check that the description assigned to the previously created site appears in the yellow box on the toolbar.



If this is not the case, use the "Select Active Site" item in the menu invoked by right-clicking the mouse on the newly created site.

Click the  button on the toolbar to open the scan for terminals window.



Press the [SCAN] button.

At the end of the search (approximately 2 minutes) a list of the connected terminals should appear as shown in the figure.

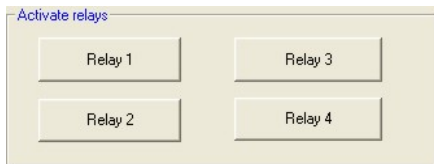
Click the "Add All" button and respond "Yes" to the system message prompts.

Double-click the mouse on the icon of the newly added terminal to open the terminal configuration window.



Double Click

To check that communication with the terminal is operating correctly, it is possible to test remote activation of the relays using the buttons on the special panel.



The example below shows the configuration data for a terminal equipped with a Wiegand 30 badge reader:



Remember to select the checkbox which enables on-line logging of events.

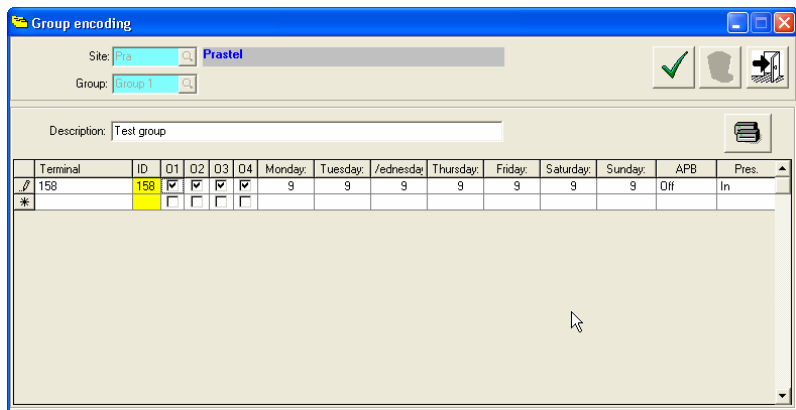


Perform the configuration, then click the green button to confirm and respond "Yes" to the various system prompts.

**5.3. Auto-learn of badges and assignment of authorisations**

Select the "New Group" item from the menu invoked by right-clicking the mouse on the "Badge Groups" icon. The following window will appear:

Type in the name to assign to the group (e.g. GROUP1) and press [ENTER].



Position the cursor on the Terminals field and click the button: a list of the terminals will appear

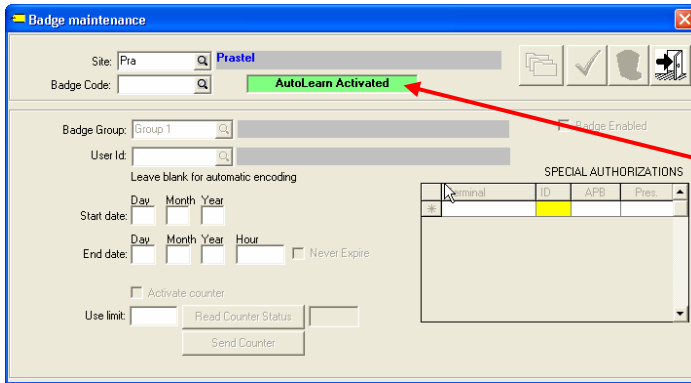
Double click to select a terminal from the list.

The system's default authorisations are sufficient for running the test, therefore confirm by clicking the green button and respond "Yes" to the system message prompts.

Click the button to switch to on-line mode.



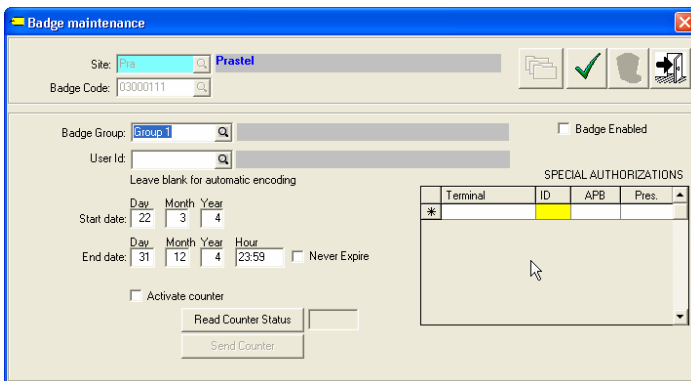
Select the "New Badge" item from the menu invoked by right-clicking the mouse on the icon of the newly created group.



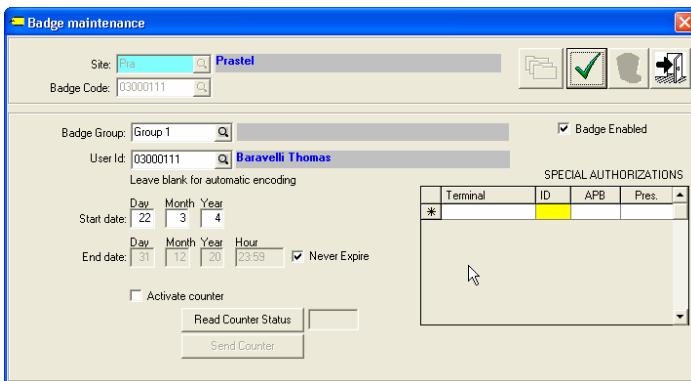
Auto-learn activated

Present a badge to the reader.

If the terminal has been correctly installed and configured, it should sound a beep and display the badge code in the "Badge Code" field. If this does not happen, double-check the connections and the terminal configuration.




Position the cursor on the "User code" field and press [ENTER]. The create user window will appear: accept the code suggested by the system and enter the details of the user, then click the green button to confirm.



Remember to select the "Badge enabled" checkbox (in the top right side).  
 Confirm the creation of the badge and respond "Yes" to the system message prompts.

Subsequent readings of the badge should generate a green line to appear in the events display area and the activation of relay 1 of the control unit.

Date	Hour	Event	Site	Ter	Rdr	Badge	Description	
03/22/04	18.28.19	ACC_OK	Pra	158	1	03000111	Thomas Baravelli	In
03/22/04	18.26.36	NO_ACC	Pra	158	1	03000111	No user Unauthorized code	In

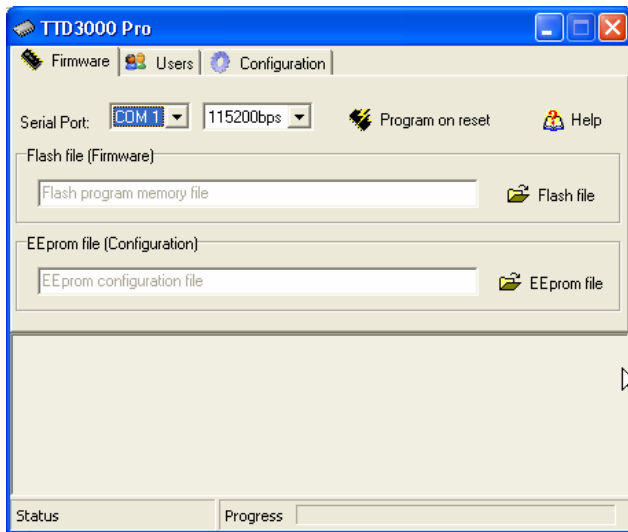





If the green event description text does not appear, double check the connections and the terminal configuration, and repeat the procedure described in this chapter.

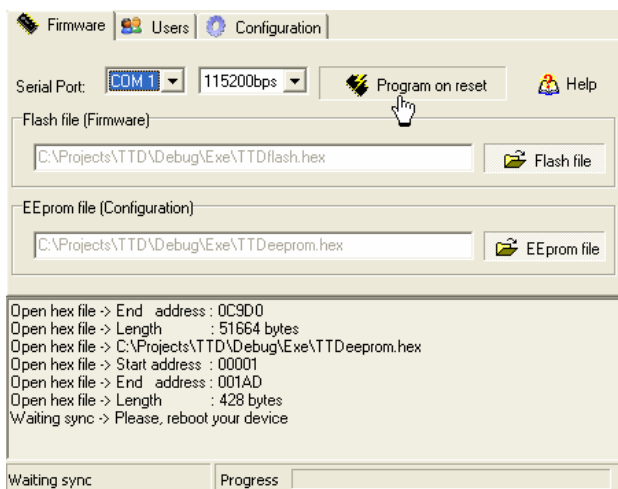
**6. Control Unit Firmware Upgrading**

Control unit firmware may be upgraded by means of the TTD3000Pro programme. Upgrades are available at Prastel's web site, [www.prastel.it](http://www.prastel.it).

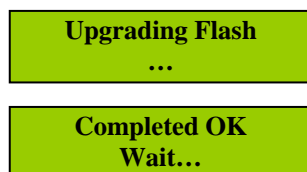
Connect control unit connector DB9 to a PC serial port, using the cable provided. Access the TTD3000Pro programme and select the serial port to which the control unit has been connected.



Upgrades always require a Flash file and sometimes an EEPROM file, as well. Press the "Flash file" (  Flash file ) key and select the most updated version of the MTFlash.hex file. In the event of the upgrade calling for an EEPROM file as well, press the "EEPROM file" (  EEPROM file ) key and select the most updated version of the MTEEPROM.hex file. Press the "Program on reset" (  Program on reset ) key.



The programme is now ready for upgrade transmission to the control unit. Press the RESET key (card top left-hand corner) of the control unit to proceed. A beep will be heard and the following messages will appear on the control unit display (optional):



The upgraded firmware has at this point been downloaded and after a few seconds the control unit picks up again and is ready to operate.

7. FAQ

Q: Are MT4000-2 and MT10000-4 compatible with control units TTD3000, M3000 and M5000?

R: Yes, MT4000-2, MT10000-4, TTD3000, M3000 and M5000 control units may be linked up to form a LAN on the same RS485 bus and may perform antipassback operations in LAN among each other.

Q: Which software can be used for MT and TTD management from the PC?

R: The MT and TTD are compatible with all versions of SWAMIGO and with the 4.01.XX version of SW5000. In any case, the use of the most recent SWAMIGO version is advisable, as this version incorporates the latest characteristics introduced in the new control units. To be sure of using the latest SWAMIGO version, run the programme self-update routine from Internet.

Q: The control unit is protected and I've lost the protection code: how can I access it?

R: Perform the control unit upgrade procedure (6 Control Unit Firmware Upgrading, pag. 21) but only load the EEprom configuration file. Control unit configuration will be restored to factory setting, with time slots and holidays fully reset but user authorisations retained perfectly unchanged.

Q: My computer doesn't have a serial port: what should I do?

R: Use a commercially available USB→RS232 converter. Note: Prolific converters are recommended, as the system may not function with some commercial makes and models.

Q: What type of printer can be connected to the MT ad TTD serial ports?

R: A serial printer with a data reception capacity in the serial ASCII format of 96000 bps and a printing capacity on at least 32 columns.

Q: What's the procedure in case of control unit power failure and clock resetting and loss of badge authorisation?

R: Replace the battery. Use CRC25- or CRC32-type 3 volt batteries.

Q: How are the Wiegand formats implemented in the MT and TTD defined?

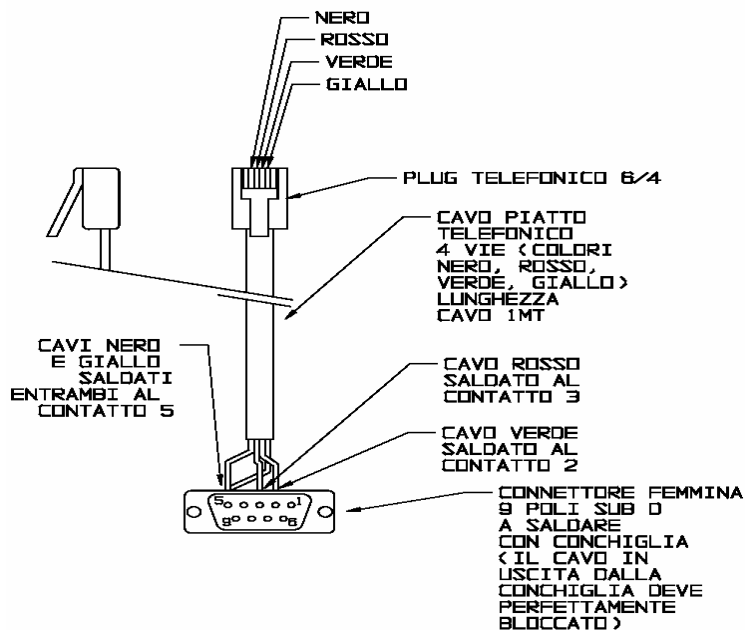
R: The defined Wiegand protocols are the standard ones;

- Wiegand 26: Bit 2-8 = Site code, in the range 0-255  
Bit 9-25 = User code in the 0-65535 range
- Wiegand 30 (Prastel badge standard): Bit 2-5 = Reserved (default: 0000)  
Bit 6-29 = User code in the 0-16777215 range
- Wiegand 37: Bit 2-36 = User code in the 0-3435973836 range

Q: I've misplaced the serial cable provided: what should I do?

R: Use a cable with the following characteristics:

- MT4000-2 and MT10000-4: data cable (straight, pin to pin) with female-female DB9 connectors
- TTD3000: make a cable following the indications shown in the design below.





D: *The control unit is not detected with the "Terminal search" function (SWAMIGO) or does not communicate with the PC.*

R: Start the "Terminal search". Check that the serial LED flashes. If the LED does not flash, check the wiring.

D: *The PC on which was installed has been changed, how can the old configuration be recovered?*

R: Install SWAMIGO in the new PC. Replace the "Amigo.mdb" database in the "Amigo\DB" file with the copy taken from the old PC.

D: *The control unit loses the programming.*

R If electrical locks are being used, check that the connections are made as recommended in the installation examples.

## AVVERTENZE PER LA SICUREZZA

Le presenti avvertenze sono parti integranti ed essenziali del prodotto e devono essere consegnate all'utilizzatore. Leggerle attentamente in quanto forniscono importanti indicazioni riguardanti l'installazione, l'uso e la manutenzione. E' necessario conservare il presente modulo e trasmetterlo ad eventuali subentranti nell'uso dell'impianto. L'errata installazione o l'utilizzo improprio del prodotto può essere fonte di grave pericolo.

### ISTRUZIONI PER L'INSTALLAZIONE

- L'installazione deve essere eseguita da personale professionalmente competente e in osservanza della legislazione locale, statale, nazionale ed europea vigente.
- Prima di iniziare l'installazione verificare l'integrità del prodotto.
- La posa in opera, i collegamenti elettrici e le regolazioni devono essere effettuati a "Regola d'arte".
- I materiali d'imballaggio (cartone, plastica, polistirolo, ecc.) non vanno dispersi nell'ambiente e non devono essere lasciati alla portata dei bambini in quanto potenziali fonti di pericolo.
- Non installare il prodotto in ambienti a pericolo di esplosione o disturbati da campi elettromagnetici. La presenza di gas o fumi infiammabili costituisce un grave pericolo per la sicurezza.
- Prevedere sulla rete di alimentazione una protezione per extratensioni, un interruttore/sezionatore e/o differenziale adeguati al prodotto e in conformità alle normative vigenti.
- Il costruttore declina ogni e qualsiasi responsabilità qualora vengano installati dei dispositivi e/o componenti incompatibili ai fini dell'integrità del prodotto, della sicurezza e del funzionamento.
- Per la riparazione o sostituzione delle parti dovranno essere utilizzati esclusivamente ricambi originali.
- L'installatore deve fornire tutte le informazioni relative al funzionamento, alla manutenzione e all'utilizzo delle singole parti componenti e del sistema nella sua globalità.

### MANUTENZIONE

- Per garantire l'efficienza del prodotto è indispensabile che personale professionalmente competente effettui la manutenzione nei tempi prestabiliti dall'installatore, dal produttore e dalla legislazione vigente.
- Gli interventi di installazione, manutenzione, riparazione e pulizia devono essere documentati. Tale documentazione deve essere conservata dall'utilizzatore, a disposizione del personale competente preposto.

### AVVERTENZE PER L'UTENTE

- Leggere attentamente le istruzioni e la documentazione allegata.
- Il prodotto dovrà essere destinato all'uso per il quale è stato espressamente concepito. Ogni altro utilizzo è da considerarsi improprio e quindi pericoloso. Inoltre, le informazioni contenute nel presente documento e nella documentazione allegata, potranno essere oggetto di modifiche senza alcun preavviso. Sono infatti fornite a titolo indicativo per l'applicazione del prodotto. La società Prastel S.p.A. declina ogni ed eventuale responsabilità.
- Tenere i prodotti, i dispositivi, la documentazione e quant'altro fuori dalla portata dei bambini.
- In caso di manutenzione, pulizia, guasto o cattivo funzionamento del prodotto, togliere l'alimentazione, astenendosi da qualsiasi tentativo d'intervento. Rivolgersi solo al personale professionalmente competente e preposto allo scopo. Il mancato rispetto di quanto sopra può causare situazioni di grave pericolo.

## SAFETY WARNINGS

These warnings are an integral and essential part of the product, and must be delivered to the user. Read them carefully: they provide important installation, operating, and maintenance instructions. Keep this form and give it to any persons who may use the system in the future. Incorrect installation or improper use of the product may cause serious danger.

### INSTALLATION INSTRUCTIONS

- Installation must be performed by a qualified professional and must observe all local, state, national and European regulations.
- Before starting installation, make sure that the product is in perfect condition.
- Laying, electrical connections, and adjustments must be done to "Industry Standards".
- Packing materials (cardboard, plastic, polystyrene, etc.) are potentially dangerous. They must be disposed of properly and kept out of the reach of children
- Do not install the product in an explosive environment or in an area disturbed by electromagnetic fields.
- The presence of gas or inflammable fumes is a serious safety hazard.
- Provide an overvoltage protection, mains/knife switch and/or differential on the power network that is suitable for the product and conforming to current standards.
- The manufacturer declines any and all liability if any incompatible devices and/or components are installed that compromise the integrity, safety, and operation of the product.
- Only original spares must be used for repair or replacement of parts.
- The installer must supply all information regarding the operation, maintenance, and use of individual components and of the system as a whole.

### MAINTENANCE

- To guarantee the efficiency of the product, it is essential that qualified professionals perform maintenance at the times and intervals required by the installer, by the manufacturer, and by current law.
- All installation, maintenance, repair and cleaning operations must be documented. The user must store all such documentation and make it available to competent personnel.

### WARNING FOR THE USER

- Carefully read the enclosed instructions and documentation.
- This product must be used for its intended purpose only. Any other use is improper and therefore dangerous. The information contained herein and in the enclosed documentation may be changed without notice, and are in fact provided in an approximate manner for application of the product. Prastel S.p.A. declines any and all liability in this regard.
- Keep this product, devices, documentation and all other items out of the reach of children.
- In case of maintenance, cleaning, breakdown or malfunction of this product, turn off the unit and DO NOT try to repair it yourself. Call a qualified professional only. Disregard of this instruction may cause extremely dangerous situations.

## CONSIGNES DE SECURITE

Les présentes consignes sont une partie intégrante et essentielle du produit et doivent être remis à l'utilisateur. Il faut les lire attentivement car elles fournissent des indications importantes concernant l'installation, l'utilisation et l'entretien. Cette notice doit être conservée et remise, éventuellement, à tout autre utilisateur. Une mauvaise installation et une utilisation inappropriée du produit peuvent être à l'origine de graves dangers.

### INSTRUCTIONS POUR L'INSTALLATION

- L'installation doit être effectuée par du personnel qualifié, conformément aux normes locales, régionales, nationales et européennes en vigueur.
- Avant de procéder à l'installation, vérifier l'intégrité du produit.
- La mise en oeuvre, les raccordements électriques et les réglages doivent être effectués selon les "règles de l'art".
- Les matériaux d'emballage (carton, plastique, polystyrène, etc...) ne doivent pas être jetés dans la nature et ne doivent pas être laissés à la portée des enfants car ils peuvent être à l'origine de graves dangers.
- Ne pas installer le produit dans des locaux présentant des risques d'explosion ou perturbés par des champs électromagnétiques.
- La présence de gaz ou de fumées inflammables constitue un grave danger pour la sécurité.
- Prévoir, sur le réseau d'alimentation, une protection contre les surtensions, un interrupteur/sectionneur et/ou un différentiel adaptés au produit, conformément aux normes en vigueur.
- Le fabricant décline toute responsabilité en cas d'installation de dispositifs et/ou de composants compromettant l'intégrité du produit, la sécurité et le fonctionnement.
- Pour la réparation ou le remplacement des pièces, utiliser exclusivement des pièces détachées d'origine.
- L'installateur doit fournir toutes les informations relatives au fonctionnement, à l'entretien et à l'utilisation de chaque élément constitutif et de l'ensemble du système.

### ENTRETIEN

- Pour garantir le bon fonctionnement du produit, il est indispensable que l'entretien soit effectué par du personnel qualifié, dans les délais indiqués par l'installateur, par le fabricant et par les normes en vigueur.
- Les interventions d'installation, d'entretien, les réparations et le nettoyage doivent être documentés. Cette documentation doit être conservée par l'utilisateur et mise à la disposition du personnel qualifié préposé à ces tâches.

### AVERTISSEMENTS POUR L'UTILISATEUR

- Lire attentivement les instructions et la documentation ci-jointe.
- Le produit doit être destiné à l'usage pour lequel il a été expressément conçu. Toute autre utilisation est considérée comme inappropriée et, par conséquent, dangereuse. En outre, les informations contenues dans cette notice et dans la documentation ci-jointe pourront faire l'objet de modifications sans préavis. En effet, elles sont fournies à titre indicatif, pour l'application du produit. La société Prastel S.p.A. décline toute responsabilité éventuelle.
- Garder les produits, les dispositifs, la documentation et autre hors de la portée des enfants.
- En cas d'entretien, de nettoyage, de panne ou de mauvais fonctionnement du produit, couper l'alimentation, en s'abstenant de toute tentative d'intervention. S'adresser uniquement à du personnel qualifié et préposé à ces tâches. Le non-respect des consignes ci-dessus peut causer des situations de grave danger.

## SICHERHEITSHINWEISE

Dieses Hinweisblatt stellt einen wichtigen und unverzichtbaren Bestandteil des Produkts dar und muß dem Anwender ausgehändigt werden. Lesen Sie den Inhalt bitte aufmerksam durch, da hier wichtige Informationen betreffend Installation, Bedienung und Wartung geliefert werden. Das Hinweisblatt muß sorgfältig aufbewahrt und auch späteren Benutzern übergeben werden. Fehlerhafte Installation und unsachgemäßer Gebrauch können schwere Gefahren hervorrufen.

### ANLEITUNG ZUR INSTALLATION

- Die Installation muß von qualifiziertem und kompetentem Fachpersonal durchgeführt werden. Dabei sind die geltenden örtlichen Vorschriften sowie die staatlichen Gesetze auf nationaler und europäischer Ebene zu befolgen.
- Überzeugen Sie sich vor dem Beginn mit der Installation von der Unversehrtheit des Produkts.
- Die Inbetriebsetzung, die elektrischen Anschlüsse sowie die Einstellungen müssen nach „den Regeln der Kunst“ durchgeführt werden.
- Die Verpackungsmaterialien (Karton, Plastik, Polystyrol usw.) dürfen nicht in umweltschädigender Weise entsorgt werden und sind von Kindern fernzuhalten, da diese durch die Materialien gefährdet werden können.
- Installieren Sie das Produkt nicht in explosionsgefährdeten Umgebungen oder dort, wo elektromagnetische Störfelder wirken. Das Vorhandensein von Gas oder entzündlichen Dämpfen stellt eine große Gefahr für die Sicherheit dar.
- Das Versorgungsnetz muß mit einem Überspannungsschutz ausgestattet werden. Dazu ist die Installation eines passenden, den geltenden Vorschriften genügenden (Trenn-) Schalters und/oder Differentialenschalters vorzusehen.
- Der Hersteller übernimmt keinerlei Verantwortung für Schäden, die entstehen aufgrund der Installation mit dem Produkt nicht verträglicher, das heißt, dieses schädigender beziehungsweise dessen Betriebssicherheit gefährdender Vorrichtungen und/oder Komponenten.
- Für Reparaturen und Auswechslungen dürfen ausschließlich Originalersatzteile verwendet werden.
- Der Installateur muß alle Informationen zur Funktionsweise, zur Wartung und zur Bedienung der einzelnen Komponenten sowie des Systems insgesamt zur Verfügung stellen.

### WARTUNG

- Zur Gewährleistung der Effizienz des Produkts ist es unverzichtbar, daß die Instandhaltungsarbeiten von kompetentem Fachpersonal innerhalb der vom Installateur, dem Hersteller sowie von der geltenden Gesetzgebung vorgesehenen Zeiten durchgeführt werden.
- Die Eingriffe betreffend Installation, Wartung, Reparatur und Reinigung müssen dokumentiert werden. Diese Unterlagen müssen vom Verwender aufbewahrt und dem zuständigen Personal zur Verfügung gestellt werden.

### HINWEISE AN DEN BENUTZER

- Lesen Sie die beigelegten Anleitungen und Unterlagen sorgfältig durch.
- Das Produkt muß für diejenigen Bereiche eingesetzt werden, für welche es konzipiert wurde. Jede davon abweichende Verwendung ist als unzulässig und somit gefährlich zu betrachten. Die in diesem Dokument sowie in den beigelegten Unterlagen enthaltenen Informationen können daher jederzeit ohne Vorankündigung Änderungen unterzogen werden. Sämtliche Angaben verstehen sich mithin als Richtwerte für die Anwendung des Produkts. Die Firma Prastel lehnt jede weitere Verantwortung ab.
- Das Produkt, die Vorrichtungen, die Unterlagen und alles weitere sind von Kindern fernzuhalten.
- Bei Instandhaltungs- oder Reinigungsarbeiten, Defekten oder Betriebsstörungen des Produkts die Energieversorgung abtrennen und in keiner Weise versuchen, Eingriffe vorzunehmen. Für diese Fälle ist ausschließlich kompetentes Fachpersonal zuständig. Die Nichteinhaltung dieser Vorschriften kann zu Situationen großer Gefahr führen.

## ADVERTENCIAS PARA LA SEGURIDAD

Las presentes advertencias son partes integrantes y esenciales del producto y tienen que ser entregadas al usuario. Hay que leerlas atentamente ya que ofrecen indicaciones importantes que se refieren a la instalación, el uso y la manutención. Es necesario conservar este módulo y entregarlo a eventuales nuevos usuarios de la instalación. La instalación errónea o la utilización indebida del producto puede ser fuente de grave peligro.

### INSTRUCCIONES PARA LA INSTALACIÓN

- La instalación debe ser llevada a cabo por personal profesional competente y que tenga en cuenta la legislación local, estatal, nacional y europea vigente.
- Antes de iniciar la instalación comprobar la integridad del producto.
- El emplazamiento, las conexiones eléctricas y las regulaciones tienen que ser llevadas a cabo a "Regla de arte".
- Los materiales de embalaje (cartón, plástico, poliestireno, etc.) no deben ser arrojados en el ambiente y no deben estar al alcance de los niños ya que pueden ser fuente de peligro.
- No instalar el producto en ambientes con peligro de explosión o afectados por campos electromagnéticos. La presencia de gas o humos inflamables constituye un grave peligro para la seguridad.
- Prever en la red de alimentación una protección para extratensiones, un interruptor / seccionador y/o diferencial adecuados al producto y conforme con la normativa vigente.
- El constructor declina toda responsabilidad en el caso de que se instalen dispositivos y/o piezas incompatibles que afecten a la integridad, la seguridad y el funcionamiento del producto.
- Para la reparación o sustitución de las piezas será necesario utilizar sólo recambios originales.
- El instalador debe facilitar toda la información relativa al funcionamiento, al mantenimiento y a la utilización de cada una de las piezas de que se compone, y del sistema en su totalidad.

### MANTENIMIENTO

- Para garantizar la eficacia del producto, es indispensable que personal profesional y competente lleve a cabo el mantenimiento en los periodos indicados por el instalador, por el productor y por la legislación vigente.
- Las intervenciones de instalación, mantenimiento, reparación y limpieza tienen que estar ratificadas por documentos. Estos documentos deben ser conservados por el usuario y estar siempre a disposición del personal competente encargado.

### ADVERTENCIAS PARA EL USUARIO

- Leer atentamente las instrucciones y la documentación adjunta.
- El producto tiene que ser destinado al uso para el que ha sido concebido. Otro uso será considerado impropio y por tanto peligroso. Además, las informaciones que contiene el presente documento y la documentación adjunta, podrán ser objeto de modificaciones sin previo aviso. Se entregan, de hecho, como información para la aplicación del producto. La sociedad Prastel S.p.A. declina cualquier responsabilidad.
- Mantener los productos, los dispositivos, la documentación y todo lo demás fuera del alcance de los niños. En caso de mantenimiento, limpieza, avería o mal funcionamiento del producto, quitar la alimentación y no llevar a cabo ninguna intervención. Dirigirse sólo al personal profesional y competente encargado para tal fin. La no observancia de lo anterior puede causar situaciones de grave peligro.

### LIMITI DELLA GARANZIA

La garanzia è di 24 mesi decorrenti dalla data del documento di vendita ed è valida solo per il primo acquirente. Essa decade in caso di: negligenza, errore o cattivo uso del prodotto, uso di accessori non conformi alle specifiche del costruttore, manomissioni operate dal cliente o da terzi, cause naturali (fulmini, alluvioni, incendi, ecc.), sommosse, atti vandalici, modifiche delle condizioni ambientali del luogo d'installazione. Non comprende inoltre, le parti soggette ad usura (batterie, ecc...). La restituzione alla PRASTEL S.p.A. del prodotto da riparare deve avvenire in porto franco destinatario. La Prastel S.p.A. restituirà il prodotto riparato al mittente in porto assegnato. In caso contrario la merce verrà respinta al ricevimento o trattenuta alla spedizione. L'acquisto del prodotto implica la piena accettazione di tutte le condizioni della garanzia. Per eventuali controversi il foro competente è quello di Bologna - Italia.

### TERMS AND LIMITS OF WARRANTY

This product has a warranty of 24 months starting on the date of selling document and is valid for the first purchaser only. The warranty will expire in the event of: negligence, incorrect or improper use of the product, use of accessories not conforming to the manufacturer's specifications, tampering by the customer or by third parties, natural causes (lightning, flood, fire, etc.), insurrection, acts of vandalism, changes in environmental conditions of the installation site. In addition, it does not cover parts subject to wear (batteries, etc.). If the product has to be returned to PRASTEL S.p.A. for repair, it must be sent postage paid. Prastel S.p.A. will return the repaired product to the sender COD. Under any other circumstances, the product will be refused upon receipt or held at the time of shipment. Purchase of this product implies full acceptance of all of the terms of this warranty. In the event of dispute, the competent forum will be that of Bologna, Italy.

### LIMITES DE GARANTIE

L'appareil est garanti 24 mois à compter de la date du document d'achat et n'est valable que pour le premier acheteur. La garantie cesse en cas de: négligence, erreur ou mauvaise utilisation du produit, utilisation d'accessoires non conformes aux spécifications du fabricant, altérations effectuées par le client ou par des tiers, causes naturelles (foudre, inondations, incendies, etc...), émeutes, actes de vandalisme. Sont également exclues de la garantie les pièces susceptibles d'usure (piles, etc...). Le produit à réparer doit être expédié franco de port à PRASTEL S.p.A.. Prastel S.p.A. retournera le produit réparé à l'expéditeur en port dû. Sinon, la marchandise sera refusée ou retenue à l'expédition. L'achat du produit implique l'acceptation totale de toutes les conditions de garantie. En cas de litige, la seule juridiction compétente est le Tribunal de Bologne - Italie.

### GARANTIELEISTUNG

Die Garantie hat eine Dauer von 24 Monaten vom Datum von der Urkunde von Verkauf und gilt nur für den Erstkäufer. Die Garantie verfällt unter den folgenden Bedingungen: Einsatz von Zubehör, welches nicht den Spezifikationen des Herstellers entspricht, Manipulationen (Beschädigungen) durch den Kunden oder Dritte, natürliche Ursachen (Blitz einschläge, Überschwemmungen, Brände usw), Aufruhr, Vandalismen sowie Änderungen der Umweltbedingungen am Installationsort. Darüber hinaus sind Verschleißteile (Batterien usw.) von der Garantieleistung ausgeschlossen. Zu reparierende Produkte sind portofrei an die PRASTEL S.p.A. einzusenden. Die Firma Prastel S.p.A. schickt das reparierte Produkt gegen Erstattung des Portos an den Sender zurück. In gegenteiligem Fall wird die Ware nicht angenommen beziehungsweise vom Versand zurückgehalten. Mit dem Erwerb des Produkts akzeptiert der Käufer alle Garantiebedingungen. Im Falle von Rechtsstreitigkeiten ist der Gerichtsstand Bologna - Italien zuständig.

### LIMITES DE LA GARANTIA

La garantía es de 24 meses a partir de la fecha impresa en el documento de venta y es válida sólo para el primer comprador.

La misma pierde valor en caso de: negligencia, error o mal uso del producto, uso de accesorios no conformes con las especificaciones del constructor, daños producidos por el cliente o por terceros, causas naturales ( rayos, aluviones, incendios, etc.), movimientos bruscos, actos vandálicos, modificaciones de las condiciones ambientales del lugar de instalación. Además no comprende las piezas sujetas a desgaste ( pilas, etc.). La restitución a la PRASTEL S.p.A. del producto por reparar tiene que llevarse a cabo en puerto franco del destinatario. La Prastel S.p.A. restituirá el producto arreglado al remitente con porte a franquear en su destino. En caso contrario la mercancía será rechazada cuando se reciba o retenida cuando se envíe. La adquisición del producto conlleva que se aceptan completamente todas las condiciones de garantía. Para eventuales controversias el tribunal competente es el de Bologna - Italia.

**PRASTEL**  
S.p.A.

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