



WIRING DIAGRAM AND SOFTWARE INSTALLATION OF THE UGM

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It's important to verify your power supply before starting programming the control unit system

I. INTRODUCTION

A. CONTROL UNIT

- 128-reader (UGM), 8-reader (UGL) and 4-reader (UGK) bus RS485
- 4 lift boards connected by bus RS485
- 4 Alarm controller boards
- 4 Relay output boards
- 2944 user files
- 30 time zones
- 16000 events memorized in the control unit (RAM)
- PC: Schedule reports.
- 6 badges per cardholder, total 17664 badges
- Different reader technologies (contact key, keypad, proximity, infrared,)
- Possibility to connect different reader technologies on the same control unit
- 0.5 second maximum of waiting if all the readers are being used at the same time
- Access Level Administrator
- Data saving on the PC and data downloading on the control unit
- Multiple sites control from P.C.
- Door status control (alarm)
- Security: access to programming by the user code and site access code
- COM to connect a thermal printer (real-time printing events)
- EPROM memory storage
- Alarm relay
- Input power supply 12VDC or AC

B. DIP SWITCHES ON THE CONTROL UNIT

DIP1: OFF Normal mode
 ON factory site code 12345

DIP2: OFF username not displayed on the event report
 ON username displayed on the event report

DIP3: OFF DTR mode for printer (missing paper)
 ON without DTR signal

DIP4: reserved, must always be on OFF position

DIP2 = OFF

The user who presents his badge will not have his name displayed or printed on the event list:

DIP2 = ON

The user who presents his badge will have his name displayed or printed on the event list:

WARNING: It is important to get informed at the national information commission of your country before putting the DIP 2 ON.

C. READERS

- The antenna is connected to the reader by 2 or 3 wires according to the technology used (1.5 m maximum), and 3 wires for the multicolor led, if this one is present on the antenna.
- Wiring to the control unit by using 2 wires (Bus RS485, 1 twisted pair shielded 9/10 MM; 1 twisted pair shielded AWG 20)
- Connection of different technology on the unit (contact key, proximity, keypad, IR,)
- External and internal push button
- Alarm relay
- Door open relay
- Must connect the readers in BUS RS485

WARNING: It is important to connect a 120 Ω resistor on the RS 485 bus of the last reader. Put to hearth the RS485 cable from one side only.

D. ELEVATOR RELAY BOARDS

- Connect to the control unit with 2 wires (Bus RS485, 1 twisted pair shielded 9/10 MM; 1 twisted pair shielded AWG 20)
- 14 Relay outputs
- Setting from dip switch

E. ALARM CONTROLLER AND RELAY OUTPUT BOARDS

- Connect to control unit 2 cable (Bus RS485, 1 twisted pair shielded 9/10 MM; 1 twisted pair shielded AWG 20)
- 14 relay inputs (contact input board)
- 14 relay outputs (relay output board)
- Setting from dip switch

WARNING: IMPORTANT DO NOT FORGET TO PUT THE 120 Ω RESITOR ON THE MOST DISTANT RELAY BOARD (TERMINAL A & B).

II.GETTING STARTED

After verifying carefully all the wirings

- Remove the protection on the battery
- Put DIP switch 4 ON (see page 8)
- Power on the control unit with 12V. Short circuit 12-13 terminal holes. The LED's red and green light on during 20 sec and then switch off.

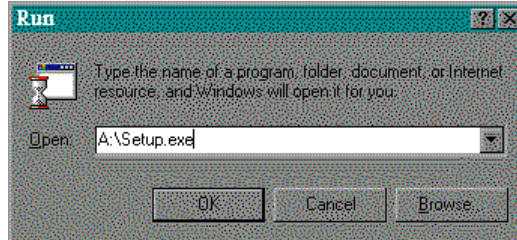
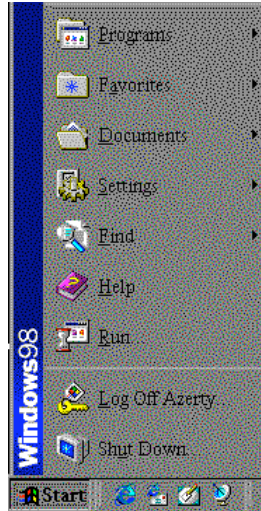
- Put back DIP switch 4 OFF. The control unit is now ready to be programmed.

III.INSTALLATION OF THE UGM SOFTWARE

Place the UGM installation Disk (1/3) into the your floppy drive ("A"), then on the Window 95 taskbar click on "Start»:

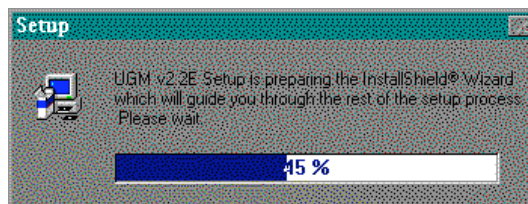


And choose the "Run" item:

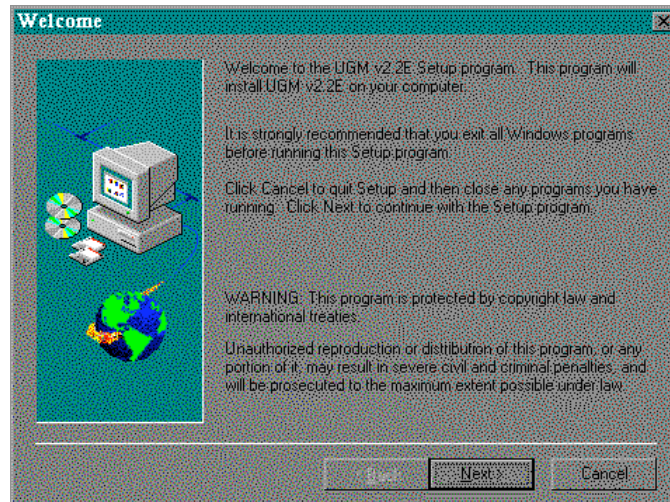


Type "A:\Setup.exe", and press enter («A" being the letter of your floppy drive).

Follow the on screen instructions:



The Install Shield program displays the next window:



Press on the "Next " button.

The next window displays the license agreement, click on the "Yes" button to accept this agreement.

Enter your name and your company name:

A simple form with two input fields. The first field is labeled "Name:" and the second is labeled "Company:". Both fields are empty and have a standard Windows-style border.

These two information are necessary if you want to continue the software installation. After entering the information click on the "Next" button.

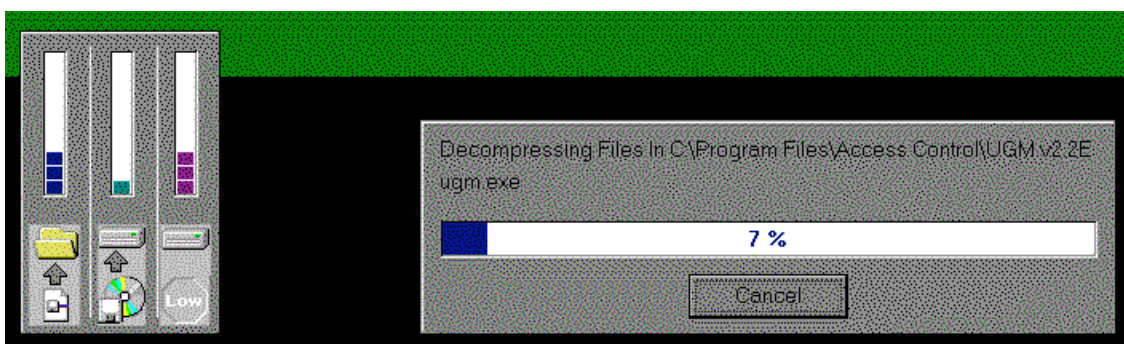
The next window allows you to choose the destination directory of the software.

Click on "Next ><:"

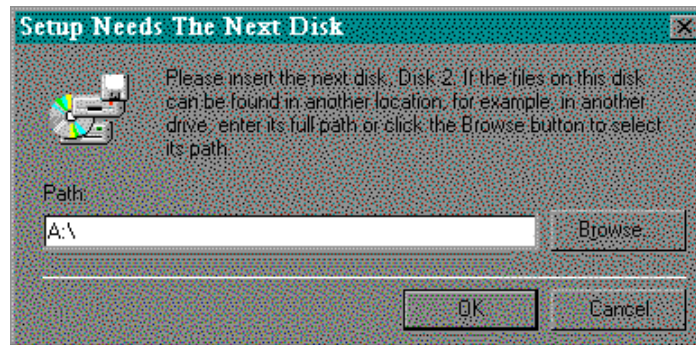
The next window allows you to choose the program group, in which the icon will appear, keep the default value by clicking on "Next" button.

The next window displays the different option you have chosen; check all of them before clicking on "Next >".

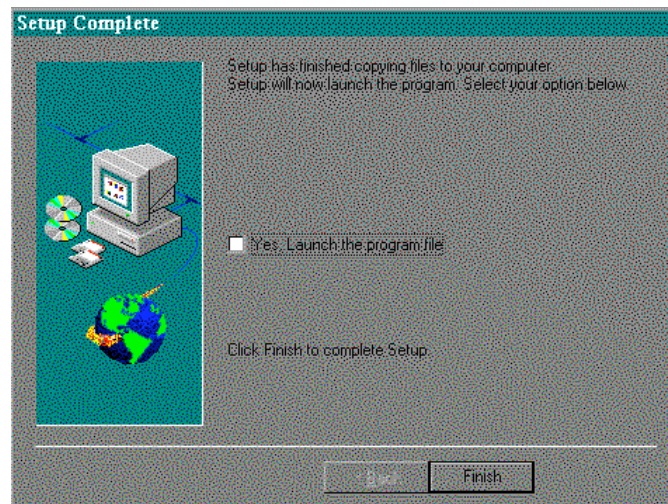
The program is getting installed:



After a couple of minutes, the installation disk asks to insert the second disk in your floppy drive (2/2).

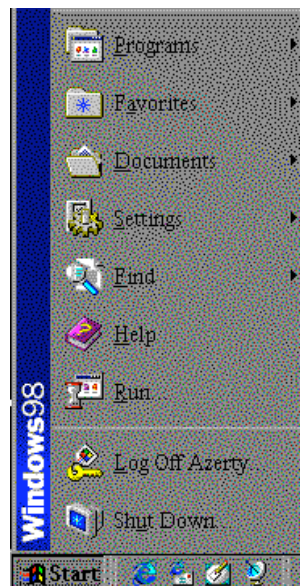


The Set up of the UGM software is now completed:



Click on the button "*Finish*"

To launch the UGM software, click on "**Start**" and select "**Program**"



Then choose " UGM v2.8...E " and "UGM". Or to start the program double click on the UGM icon.



IV. APPENDIX

A. RECOMMENDED PRINTER

KYOLINE MTP 640 KYOSHA

Paper: thermal, black printing
 width 112 mm
 diameter 38 mm
 reference : TP50XSE2C

connection:

RS232 with DTR signal (printer ready)

format: 9600 Baud

1 start

7 bits

parity: even

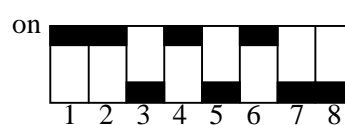
1 stop

Mode IBM

40 characters

CR = CR return of the carriage

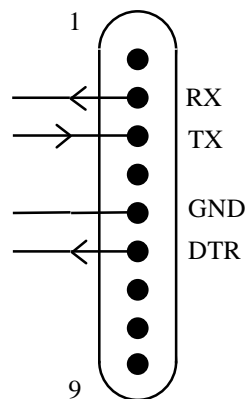
dips switches of the printer



signal DTR:

high level: printer on line

low level: printer off line



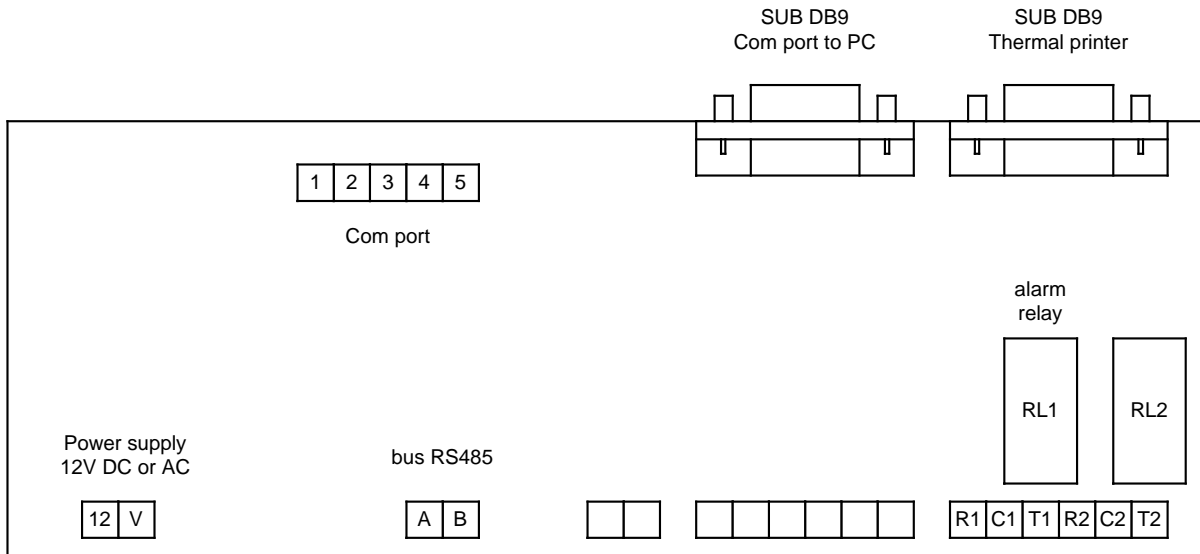
SUB.D 9 points
Male

Paper error:

When the paper tray is empty, the printer light flashes, the information is sent to the printer, which memorizes the data in its buffer.

Place a paper roll in the tray and press on the button advance paper, close the cover, the light is blinking slowly, press on the button advance paper, the printer is printing all the content of the buffer.

B. TERMINALS ON THE UGM



12V power supply 12 DC or AC

A bus RS485

B bus RS485

13 reserved

12 reserved

11 alarm board 4 contact

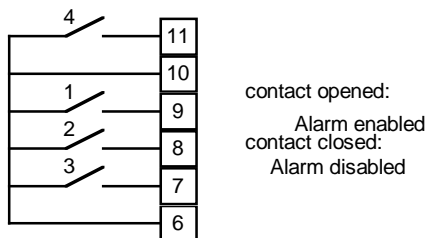
10 common

9 alarm board 1 contact

8 alarm board 2 contact

7 alarm board 3 contact

6 common



To by pass the alarm on the alarm controller board close the contact on the UGM control unit on the above terminal.

alarm output contact (readers):

R1 N/C alarm contact

C1 common

T1 N/O alarm contact

External alarms (alarm boards):

R2 N/C alarm contact

C2 common

T2 N/O alarm contact

1 TX

2 RTS

3 RX

4 CTS

5 GND

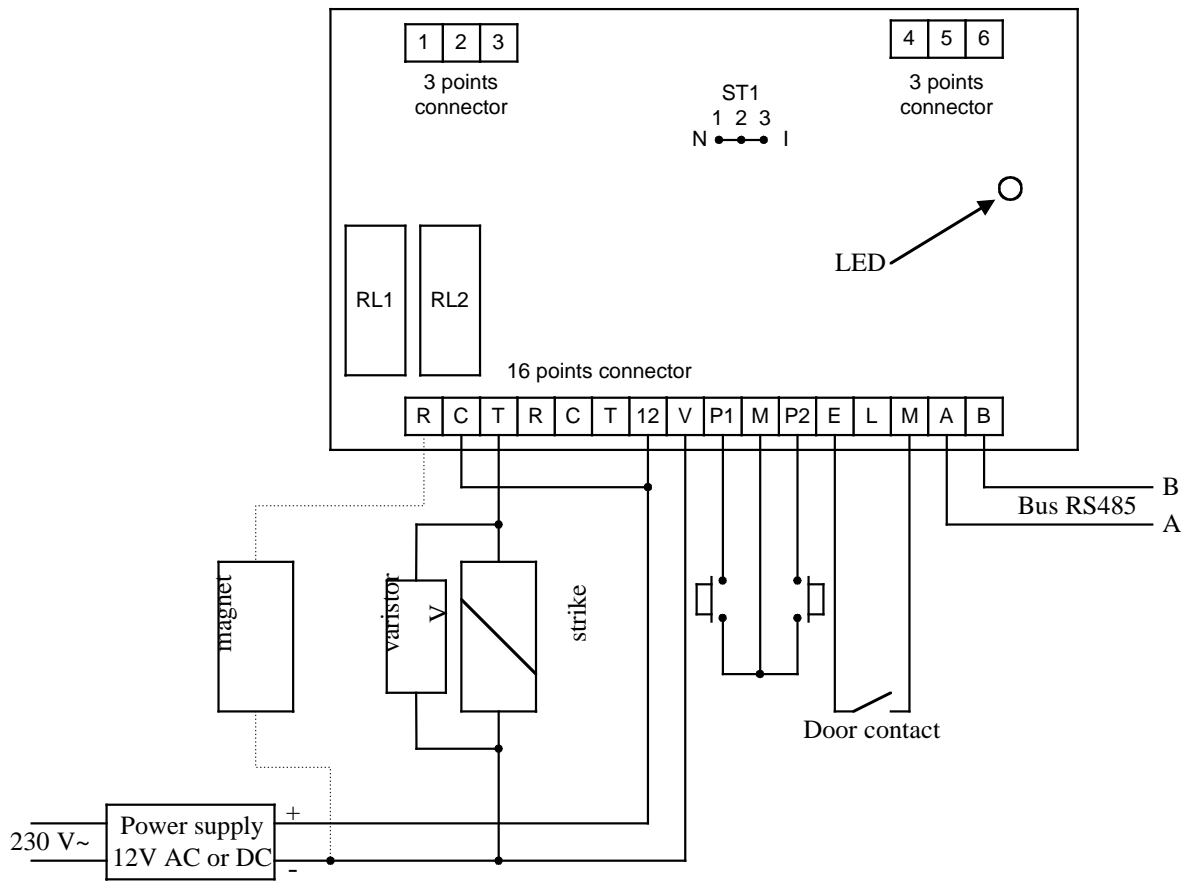
com port in parallel to the SUB DB9

Red LED Switch on: alarm board of alarm reader triggered

Switch off: no alarm

Green LED Switch on: when at least one reader is set

C. TERMINALS ON THE READER



1. LED status

- Installation: Red LED: ready to be installed
 Green LED: reader installed (put back the jumper on normal position)
- Normal: Orange LED blinking: normal operating
 Orange LED steady: default connection between the reader and the UGM
 Green LED: door open relay
 Red LED: Forced open door or door open after entering
 Green LED flashing: reader not installed or deleted.

2. 16 point terminal

- | | | |
|---|-------------------|----------------|
| R | N/C contact alarm | |
| C | common | |
| T | N/O contact alarm | |
| R | contact N/C door | magnet (+) |
| C | common | + power supply |
| T | N/O contact door | strike |

12V power supply 12 V DC or AC

P1 Exit push button

M common

P2 external push button

E N/O contact door open,

L reserved

M common

If the door contact is not used, short circuit E and M of the terminal.

A bus RS485 (all A must be wired between them in chain)

B bus RS485 (all B must be wired between them in chain)

3. 3 point terminal 1,2, 3 & 4, 5, 6

a) LAM Contact badge

1 terminal 1

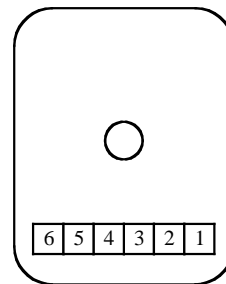
2 terminal 2

3 not used

4 terminal 4

5 terminal 5

6 terminal 6



b) KCM Keypad

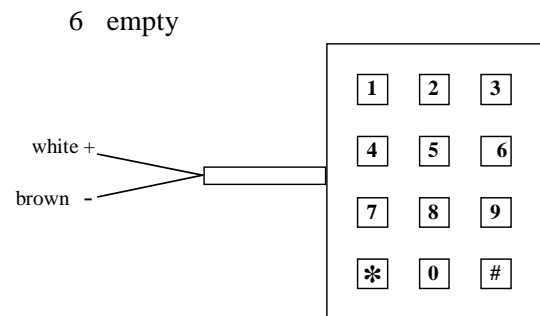
1 keypad white -

2 keypad brown +

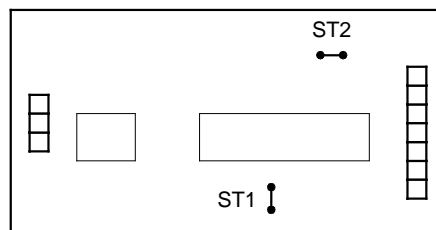
3 empty

4 empty

5 empty



On the PCB of the reader, there are two different jumpers (ST1 and ST2) :



ST1 with the jumper: 5-digit access code

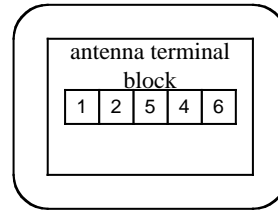
without the jumper: 4-digit access code

ST2 with the jumper: buzzer enabled

without the jumper: buzzer disabled

c) LPM or LPMI Proximity

- 1 antenna terminal 1
- 2 antenna terminal 2
- 3 Not used
- 4 antenna terminal 4
- 5 antenna terminal 5
- 6 antenna terminal 6

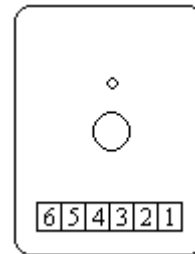


IMPORTANT:

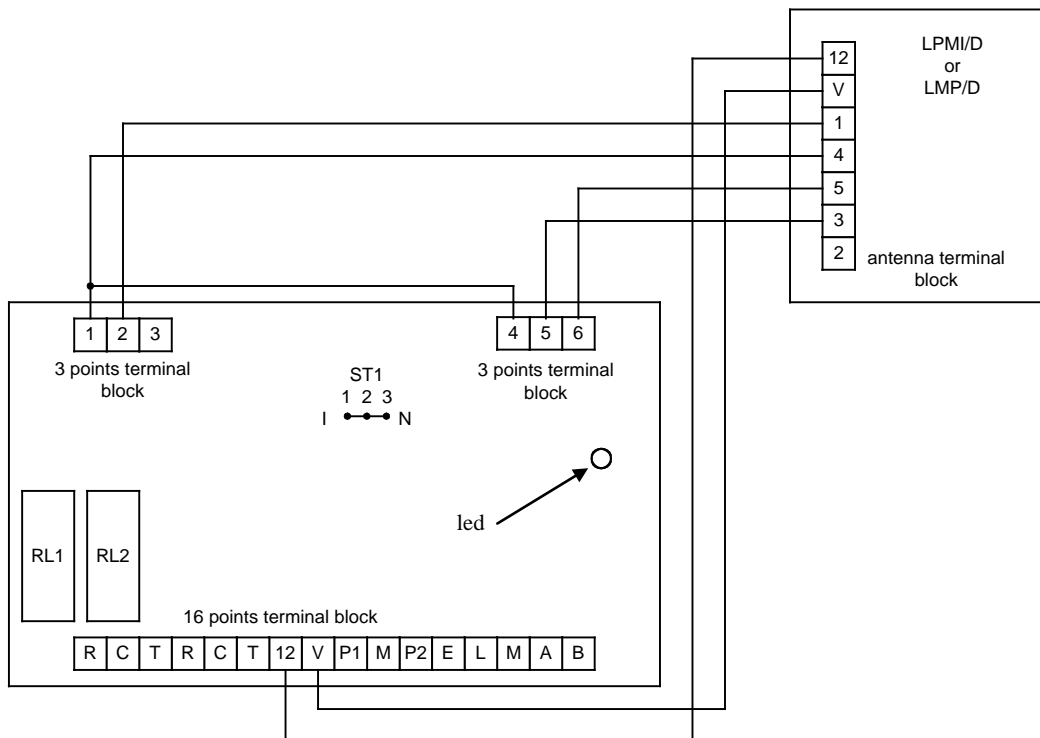
In case of using two proximity readers in/out on the same door, it is recommended to keep a minimum distance of 20 cm between them in any direction. In case the separation is inferior to 20 cm, the two readers must be moved from each other vertically or horizontally.

d) LIM Infrared

- 1 terminal 1
- 2 terminal 2
- 3 terminal 3
- 4 terminal 4
- 5 terminal 5
- 6 terminal 6



e) LMPID or LMPD Proximity reader distance (50m max)

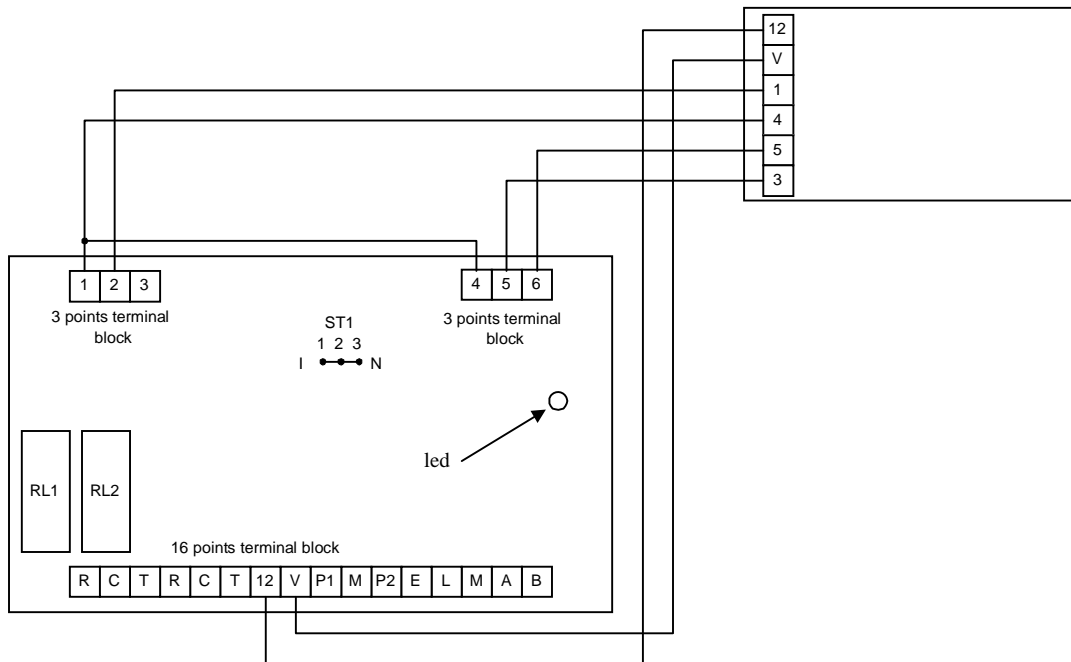


Recommended cable between the reader and the reader controller: 3 twisted pair cable SYT1 9/10 mm

IMPORTANT:

In case of using two proximity readers in/out on the same door, it is recommended to keep a minimum distance of 20 cm between them in any direction. In case of, the separation is inferior to 20 cm, the two readers must be moved from each other vertically or horizontally.

f) LMPID/FN or LMPD Proximity reader (50 meter max)

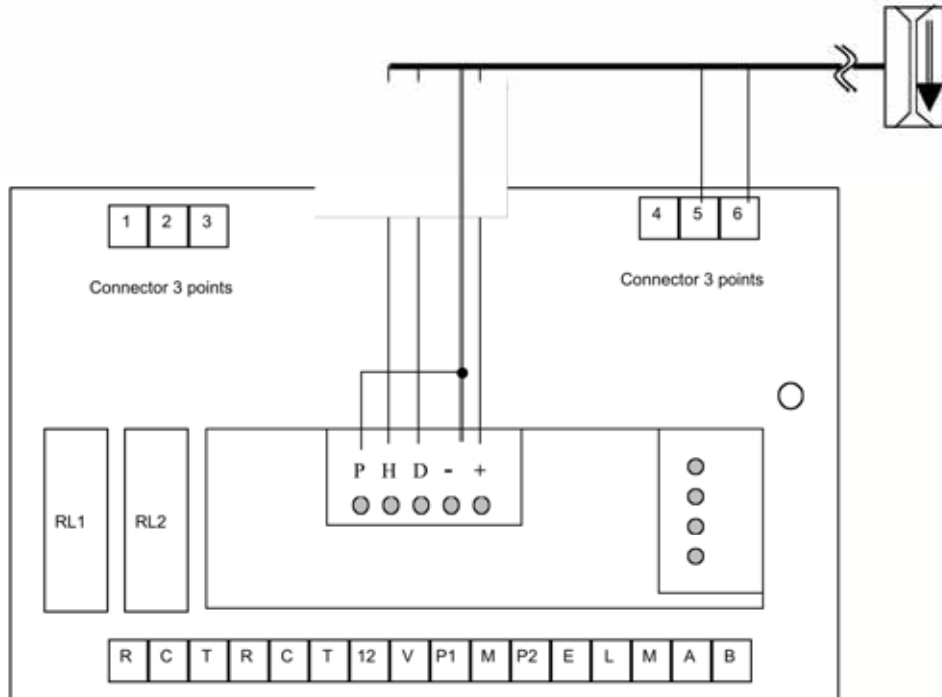


Recommended cable between the reader and the reader controller: 3 twisted pair cable SYT1 9/10 mm

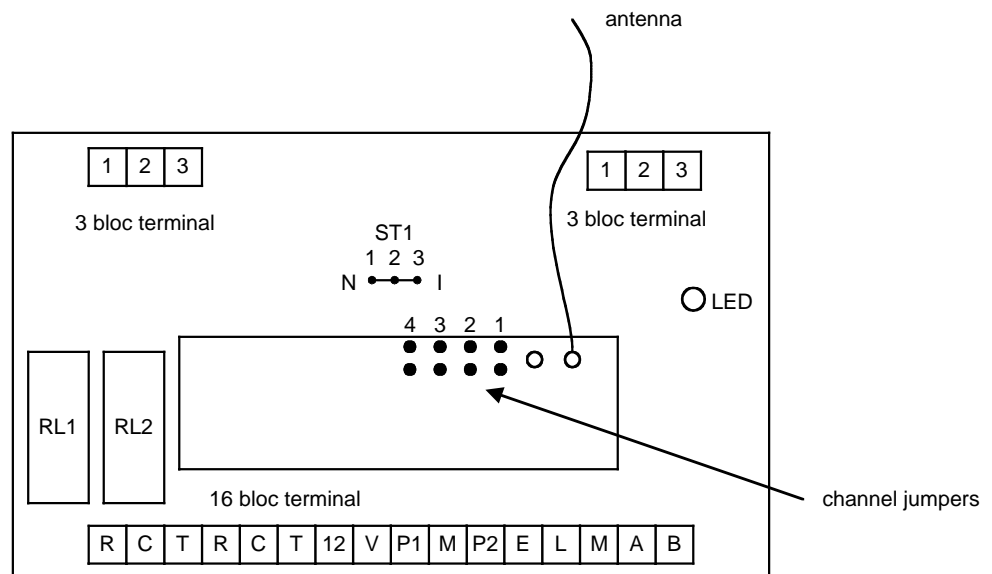
IMPORTANT:

In case of using two proximity readers in/out on the same door, it is recommended to keep a minimum distance of 20 cm between them in any direction. In case of, the separation is inferior to 20 cm, the two readers must be moved from each other vertically or horizontally.

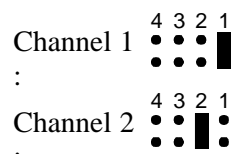
g) LMM Magnetic stripe reader (format Clock & Data)



h) LMR RF reader



the RF reader comes in a plastic enclosure. To select one of the 4 channels insert the jumper:



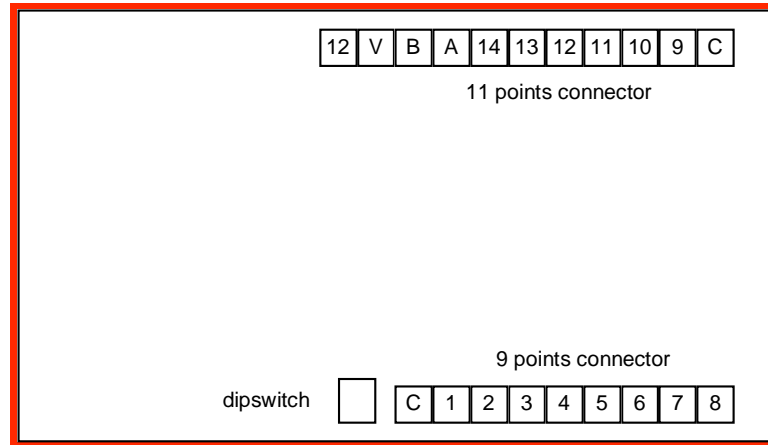
Replace the antenna if there is any problem receiving the signal from the remote (cable of 0,22 mm², length 17,3 cm).

4. Jumper ST1

Jumper in position 2-3 : installation mode





Jumper in position 1-2 : normal mode


D. TERMINALS ON THE LIFT RELAY BOARD



1. Configuration of the lift boards

Place dipswitches 1 and 2 as follow:

board 1 :  , board 2 :  , board 3 :  , board 4 :  .

(switch on position ON : )

2. 11 point terminal

C : common

9 : relay 9

10 : relay 10

11 : relay 11

12 : relay 12

13 : relay 13

14 : relay 14

A : bus RS485 (all A must be wired between them in chain)

B : bus RS485 (all B must be wired between them in chain)

12 V : Input voltage DC or AC 12V

3. 9 point terminal

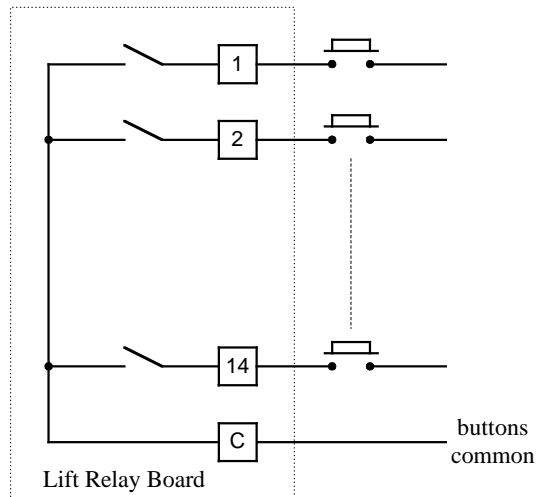
8 : relay 8

7 : relay 7

6 : relay 6

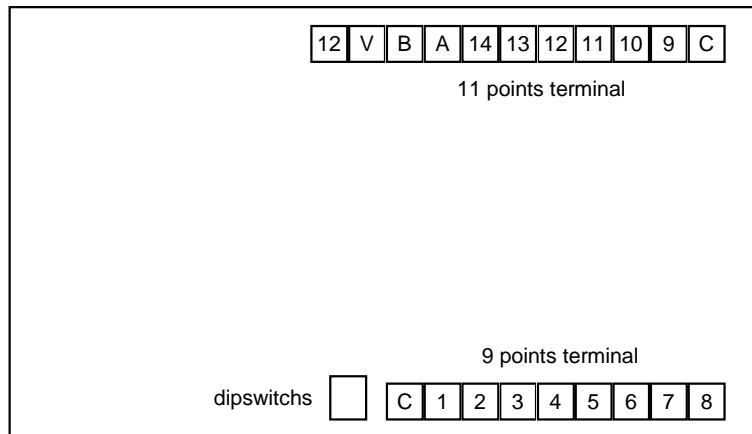
- 5 : relay 5
- 4 : relay 4
- 3 : relay 3
- 2 : relay 2
- 1 : relay 1
- C : Common

The relays on the lift board are Normally Open contacts N/O.



Wiring in serial for the lift buttons.

E. ALARM CONTROLLER AND RELAY OUTPUT BOARDS







1. Alarm Controller and Relay Output boards

There are two types of boards: The Alarm controller board, which can be defined as alarms or any other environmental conditions. The relay output board responds to environmental inputs from the alarm controller. For each alarm controller corresponds only one relay output board and vice versa.

2. Setting the Alarm Controller and Relay Output boards

Set the dip switches 1 and 2 as below:

board 1 :  , board 2 :  , board 3 :  , board 4 :  .

(switch ON : )

3. 11 point terminal (Alarm Controller)

C : common contact inputs

9 : contact 9

10 : contact 10

11 : contact 11

12 : contact 12

13 : contact 13

14 : contact 14

A : bus RS485 (all A must be connected to each other in chain)

B : bus RS485 (all B must be connected to each other in chain)

12 V : Input voltage 12V DC or AC

4. 9 point terminal (Alarm Controller)

8 : contact 8

7 : contact 7

6 : contact 6

5 : contact 5

4 : contact 4

3 : contact 3

2 : contact 2

1 : contact 1

C : common contact inputs

When the board is in use the LED blinks.

The inputs on the contact board are dry contacts.

WARNING : the opening or closing delay of the relay cannot be less than 1 second.

5. 11 point terminal (Relay Output Board)

C: common

9: relay 9

10: relay 10

11: relay 11

12: relay 12

13: relay 13

14: relay 14

A: bus RS485 (all A must be connected to each other in chain)

B: bus RS485 (all B must be connected to each other in chain)

12 V: input voltage 12V DC or AC

6. 9 point terminal (Relay Output Board)

8: relay 8

7: relay 7

6: relay 6

5: relay 5

4: relay 4

3: relay 3

2: relay 2

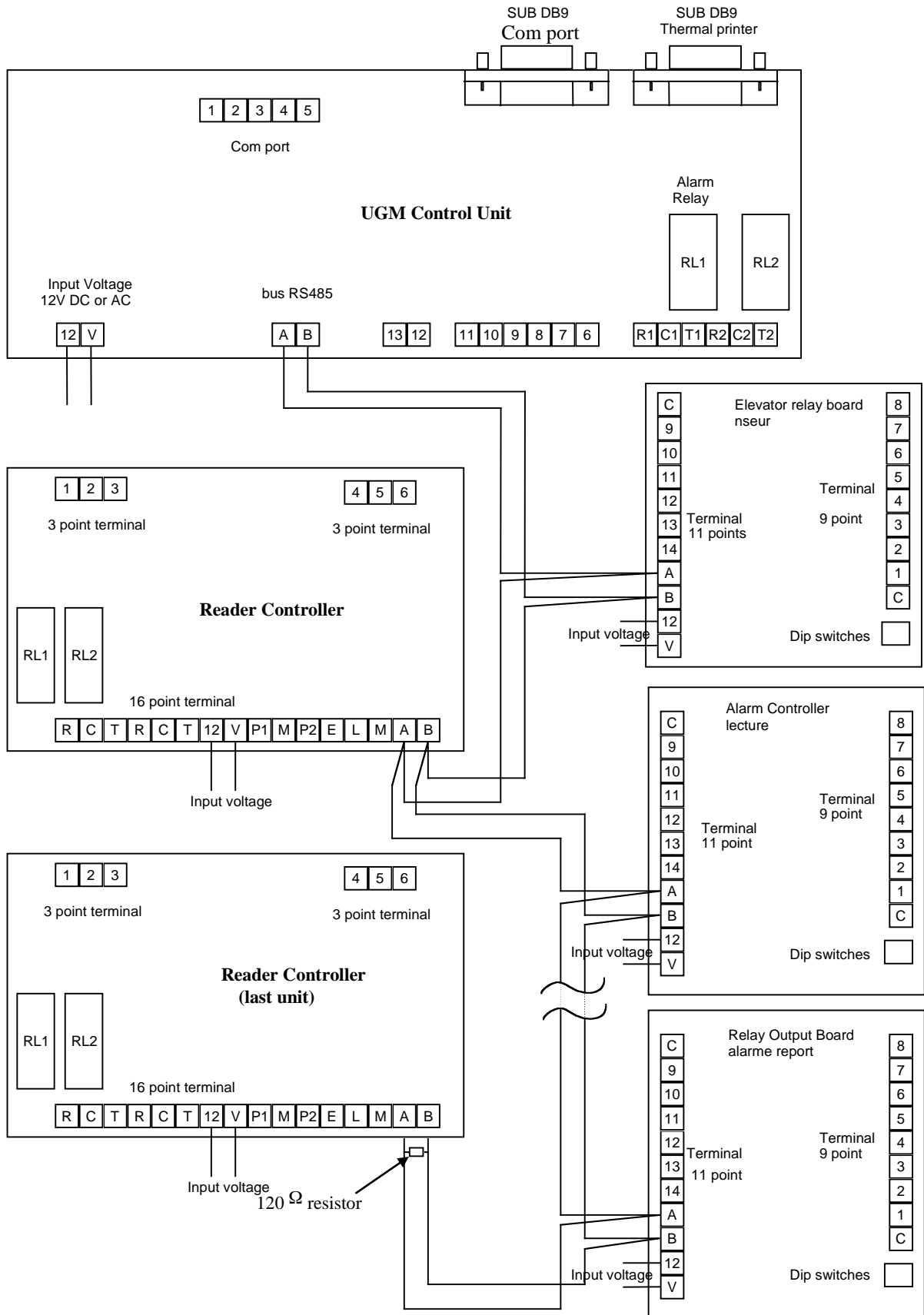
1: relay 1

C: common

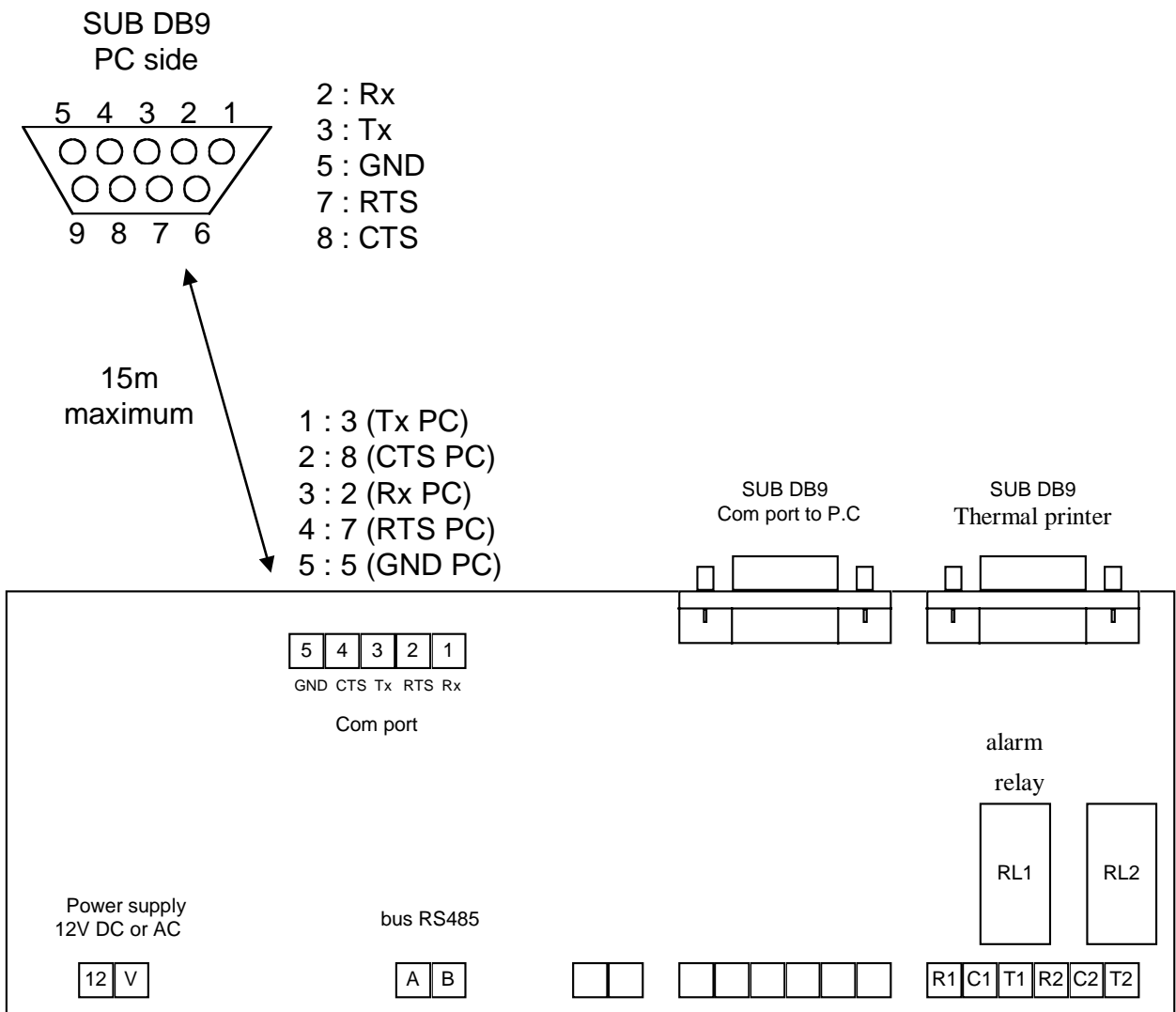
The LED is off if there isn't any Alarm. The LED is switched on as soon as a transaction input is detected.

The Relay Outputs are N/O contacts (normally open), contact closed: alarm in progress, the LED on the board lights ON.

F. WIRING DIAGRAM



G. COMMUNICATION PORT ON THE UGM



H. KCM KEYPAD

1. Description

- . key-in keypad time delay 10 seconds
- . 4 or 5-digit access code
- . 1 keypad: 12-digit keypad with built-in buzzer
1 cable for wiring
- . 1 audible beep at every key-in
- . Access code 0 to 9 and *

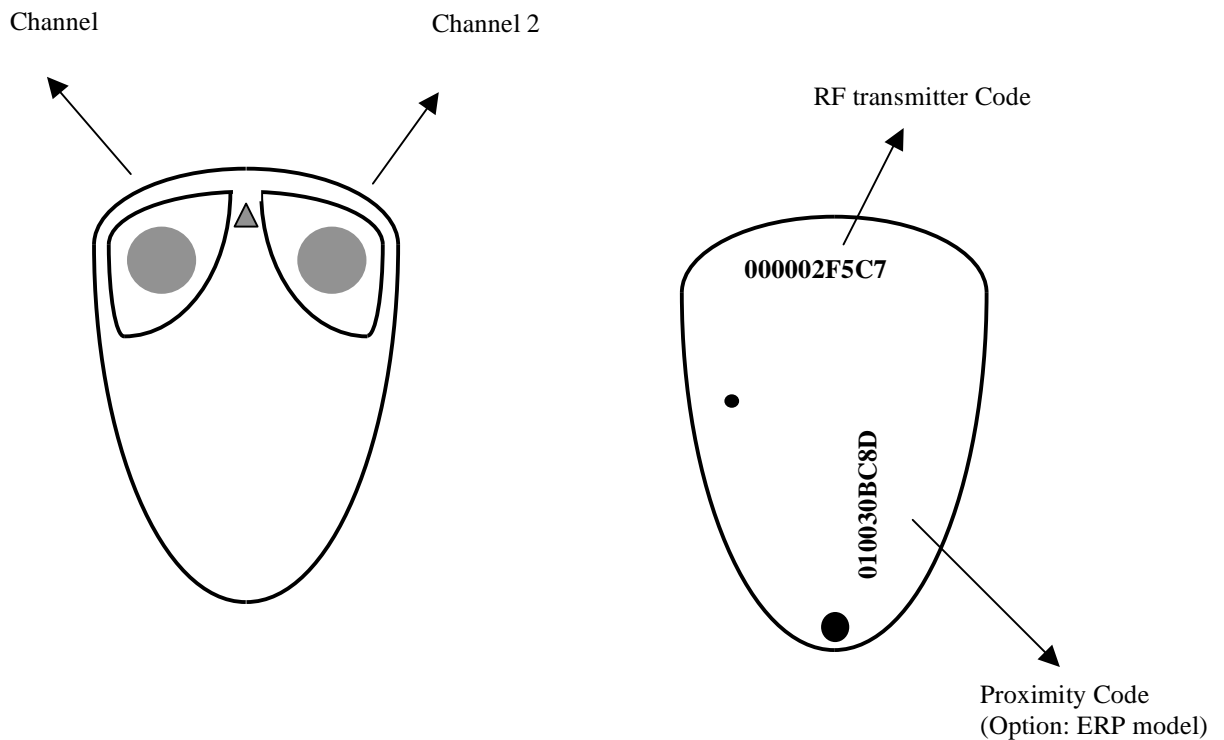
2. How to operate

Enter the 4 or 5-digit access code and then press the # button, the code is transmitted toward the control unit UGM which will activate the door relay if the access code is recognised and authorized.

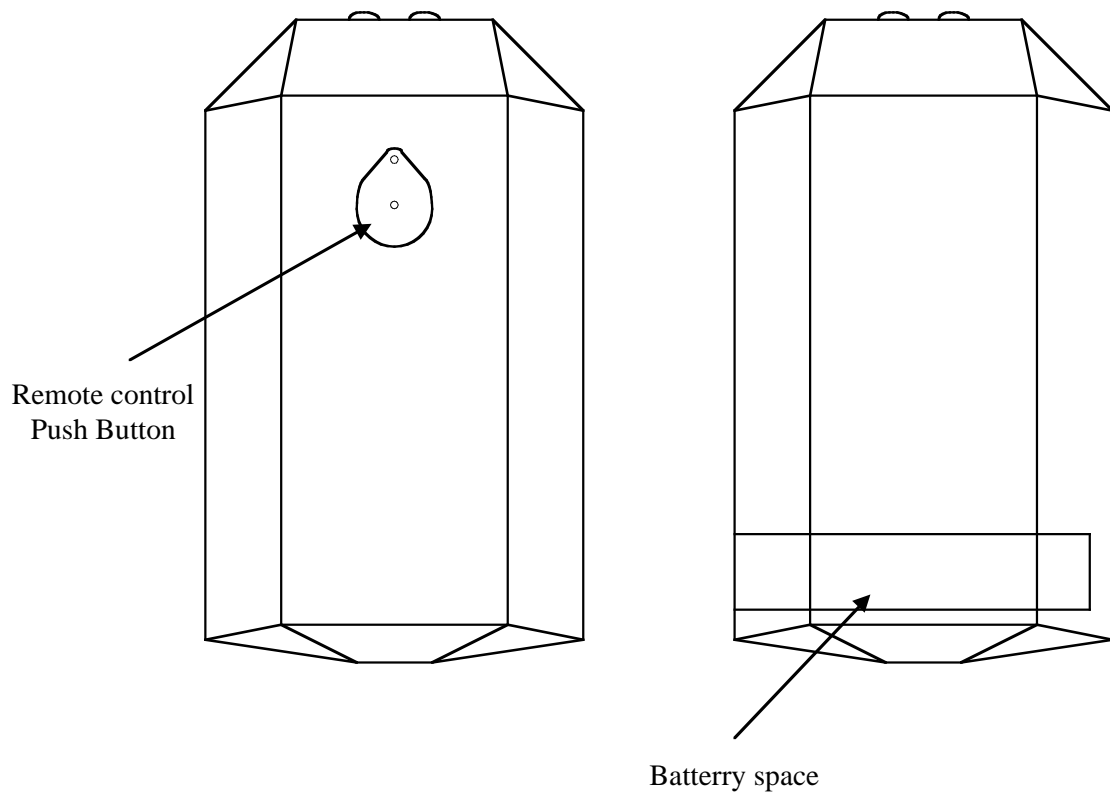
IMPORTANT: when pressing on the # button this will send the 4 or 5-digit access code previously entered.

The key-in delay between each digit is of 10 seconds. Beyond this time the digit entered will be cancelled.

I. RF TRANSMITTER CODE



J. INFRARED REMOTE CONTROL



Recommended batteries to use (according to the different brands):

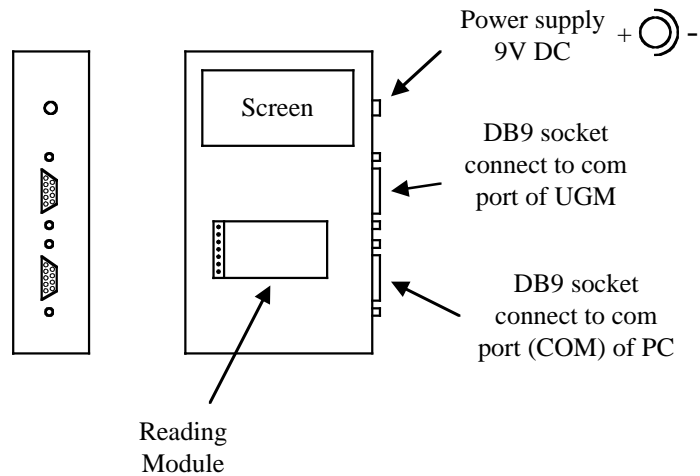
GP23A

L1028

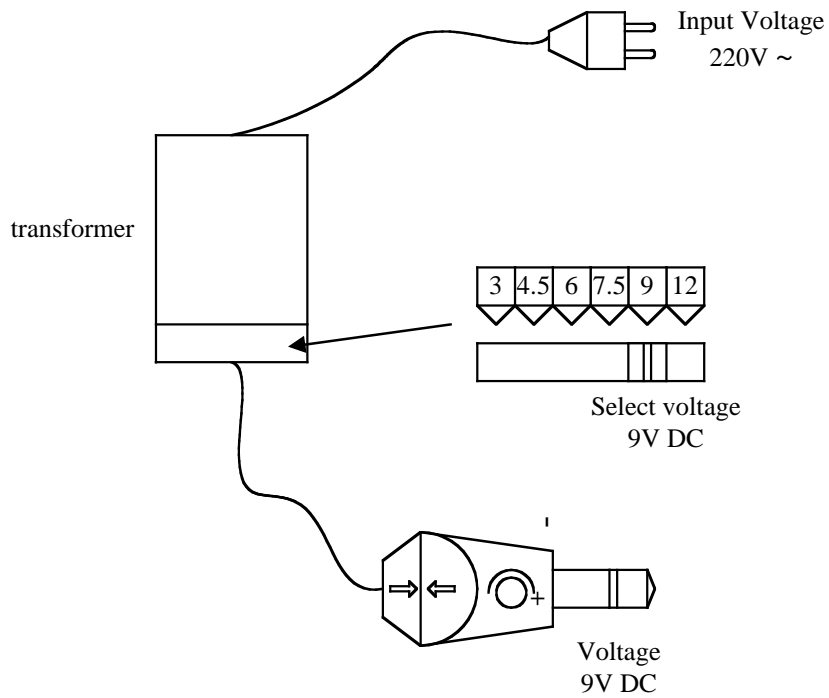
MN21

E23A

K. BADGE ENROLLER UNIT



Present the badge in front of the reading module. The badge code is transmitted to the PC and displayed on the screen. When it is not being used as a learning device the recording reader connected or not to PC and UGM, can help visualizing the badge code.



L. COM PORT

The mouse can be connected to your PC:

1. on the PS/2.
2. on a serial COM port.

There are three possible configurations for the UGL/UGM

3. Direct connection (DB9 cable male-female connects the control unit to the PC).
4. The UGL/UGM is connected to a modem.
5. The UGL/UGM is connected to an interface unit RS232/LAN.

In configuration 3, the CMPP badge enroller is connected on the same serial com port between the PC and the UGL/UGM control unit.

In configuration 4, the CMPP badge enroller is connected on the different serial com port than the com port for the modem.

In configuration 5, the CMPP badge enroller is connected to a serial com port on the PC, which is different from the com port selected for the RS232/LAN interface unit (refer to the .

COM1 and COM3 have the same synchronization and therefore cannot be used simultaneously. As well as COM2 and COM4 have the same synchronization and therefore cannot be used simultaneously. It is then **IMPOSSIBLE** to use more than 2 com ports simultaneously.

Configuration (1) and (3) (mouse on PS/2 and direct connection), need only one com port.

Configuration (1) and (4) (mouse on PS/2 and modem), need two com ports.

Configuration (2) and (3) (mouse on com port and direct connection), need two com ports.

Configuration (2) and (4) (mouse on com port and modem), need three com ports, configuration not possible.

M. READERS ADDRESS SET UP ON THE UGM-UGL

Install a Reader:

WARNING: THE READERS MUST BE INSTALL ONE BY ONE AT THE TIME.

Once the reader(s) has been connected to the RS485 Bus and powered with 12v AC or DC, you need to installed the reader(s) on the UGM or UGL control unit.

Below the different step you must follow:

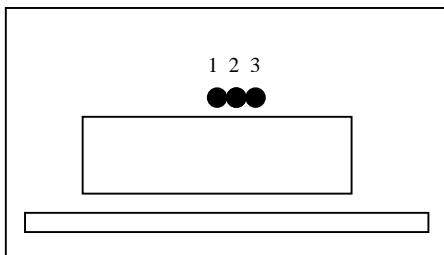
- On the main menu of the LOG/MTSE software click on the configuration icon



- Then click on the reader configuration icon



- On the reader that you wish to add go to the reader controller, then change the jumper from position 1-2 to position 2-3 (Installation mode); the LED becomes red.



- Click on the add reader icon



- Click on the diskette icon to save it



- Once the reader is installed the LED switches to green. Put the jumper back to position 1-2. The LED starts flashing and changes color to amber.

Reader 1 is now set on the control unit

Repeat the same procedure for installing the other readers.

Delete a Reader:

- On the main menu of the LOG/MTSE software click on the configuration icon



- Then click on the reader configuration icon



- Select the reader to be deleted, click on the drop list icon to display the readers.

Nom du lecteur : Lecteur 1

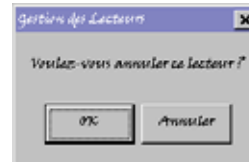
- Click on the delete icon



- Click on the diskette icon



-Then click on OK to confirm the deletion of the reader



To install a reader that was delete:

- On the main menu of the LOG/MTSE software click on the configuration icon



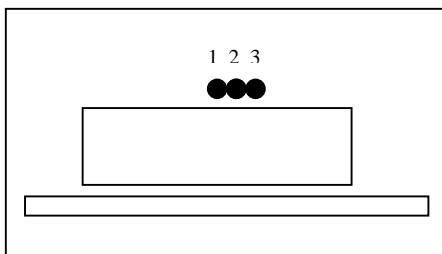
- Then click on the reader configuration icon



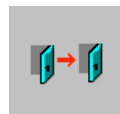
- Select the reader to be reinstalled, click on the drop list icon to display the readers

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- On the reader that you wish to reinstall go to the reader controller, then change the jumper from position 1-2 to position 2-3 (Installation mode); the LED becomes red.



- Click on the replace reader icon

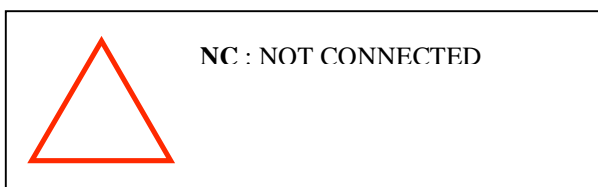


- Click on the diskette icon



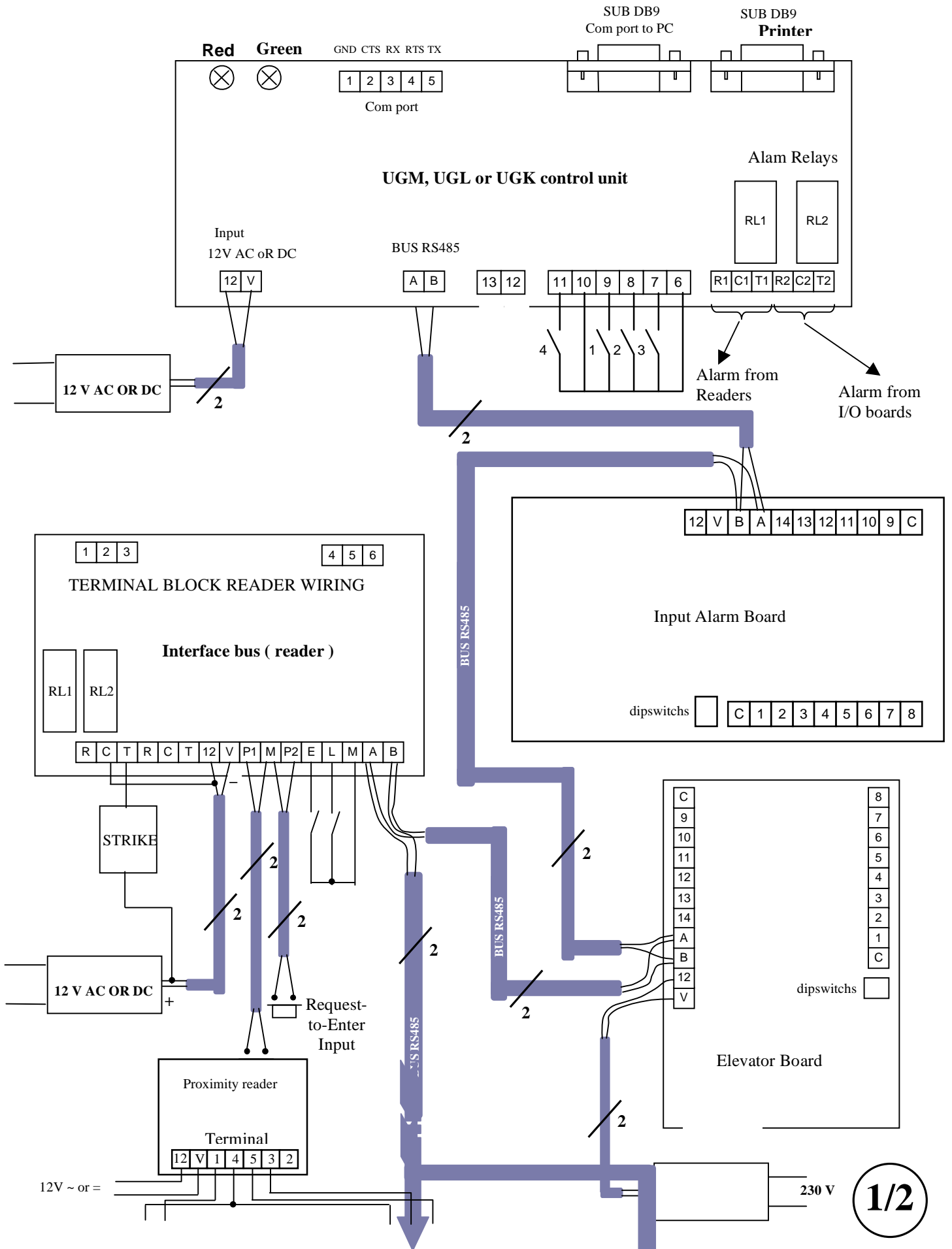
- Once the reader is installed the LED switches to green. Put the jumper back to position 1-2. The LED starts flashing and changes color to amber.

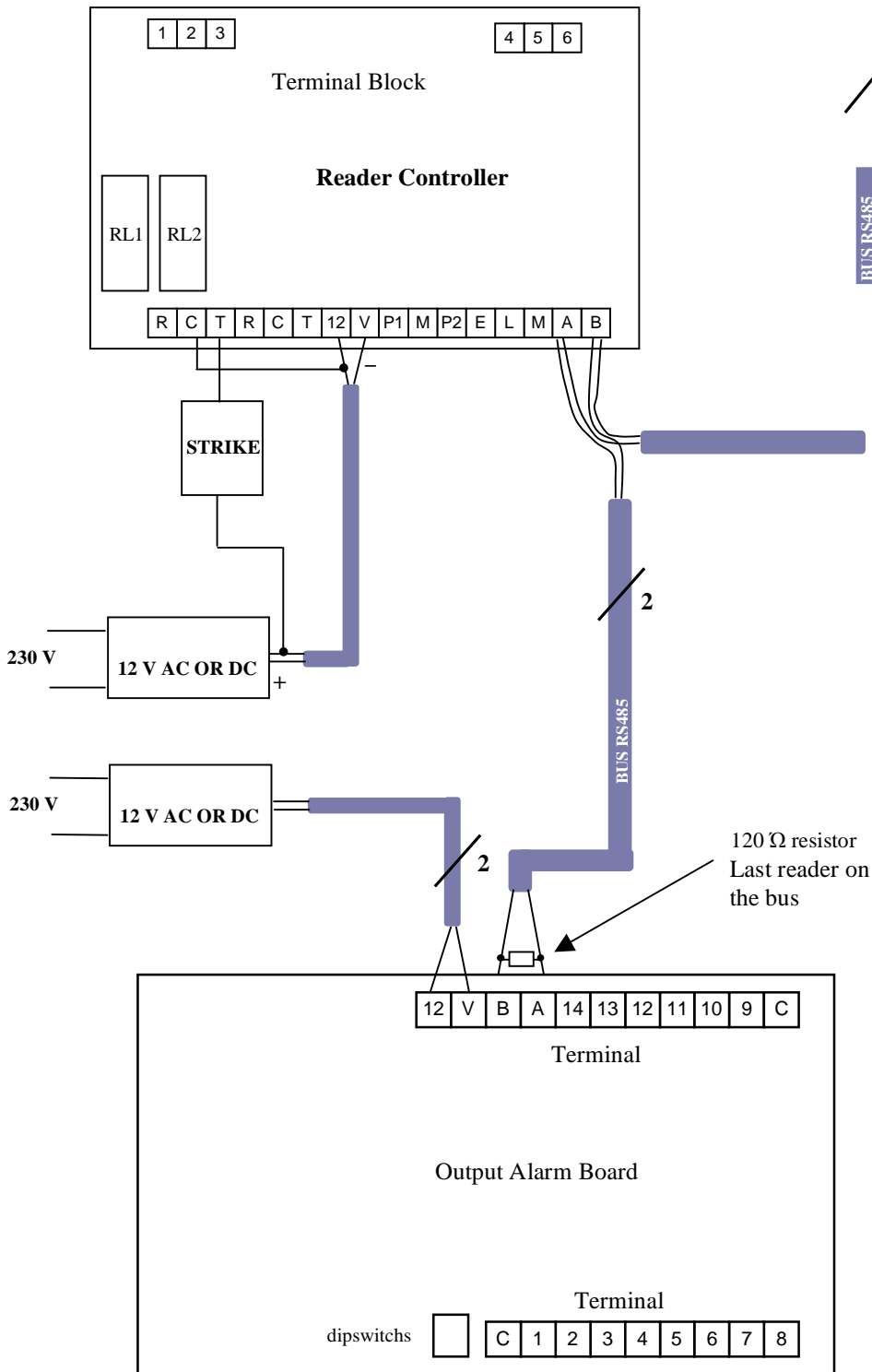
The reader has been reinstalled.





Refer to a more detailed wiring diagram for each unit





NOTE : The 120 Ω resistor must be installed on the last unit of the RS485 BUS line.

Recommended cable 1 twisted pair shielded 9/10 MM or 1 twisted pair shielded AWG 20)