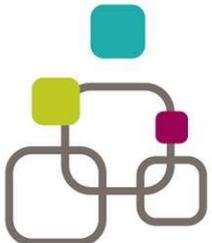
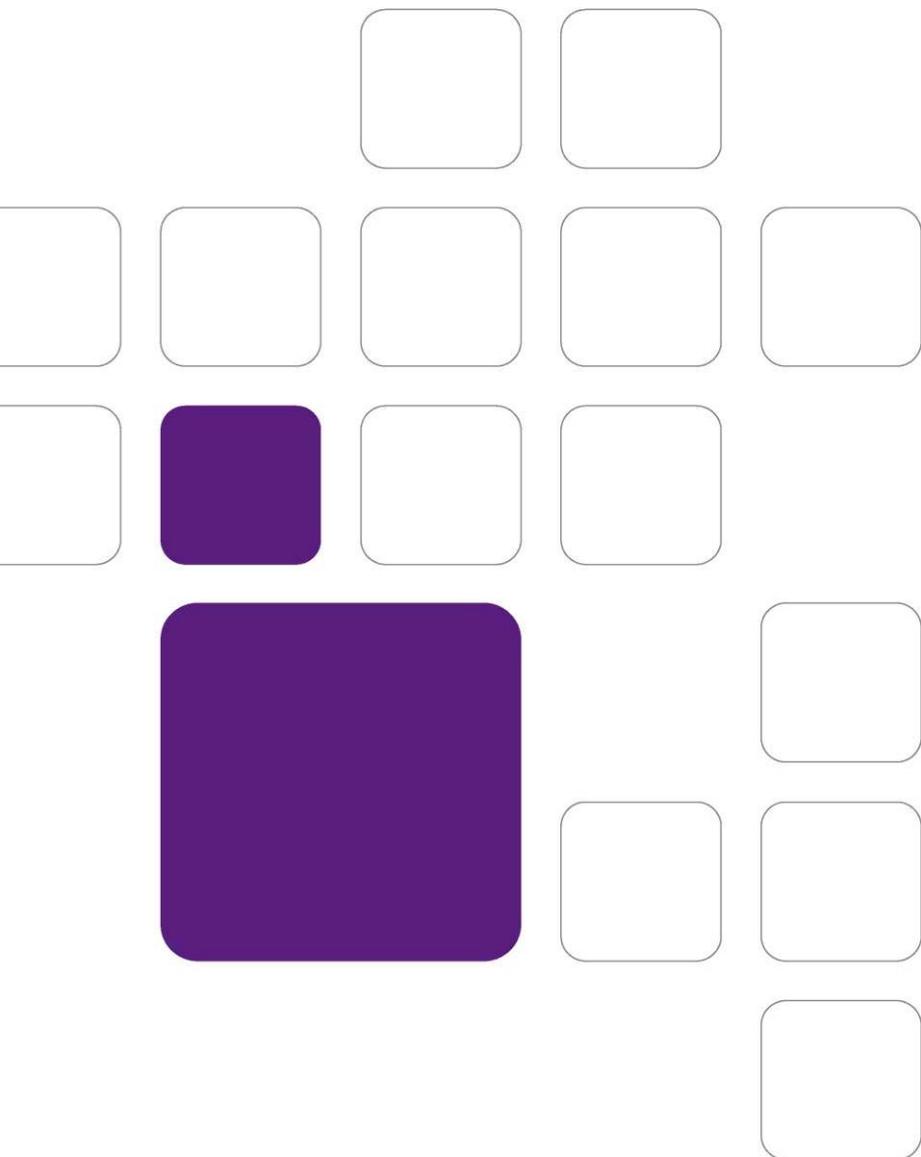


hager  **Group**

Welcome

to the Hager group



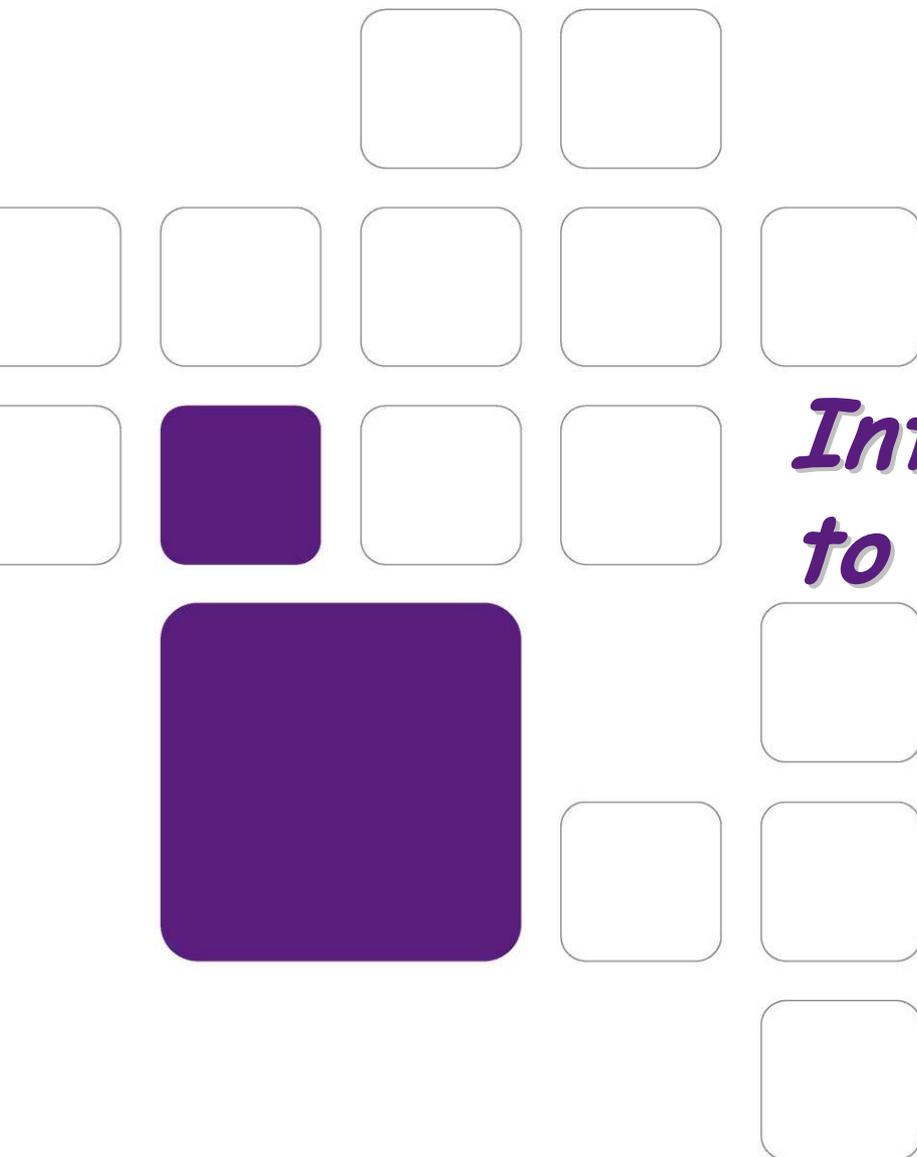
Wireless

Doorphone



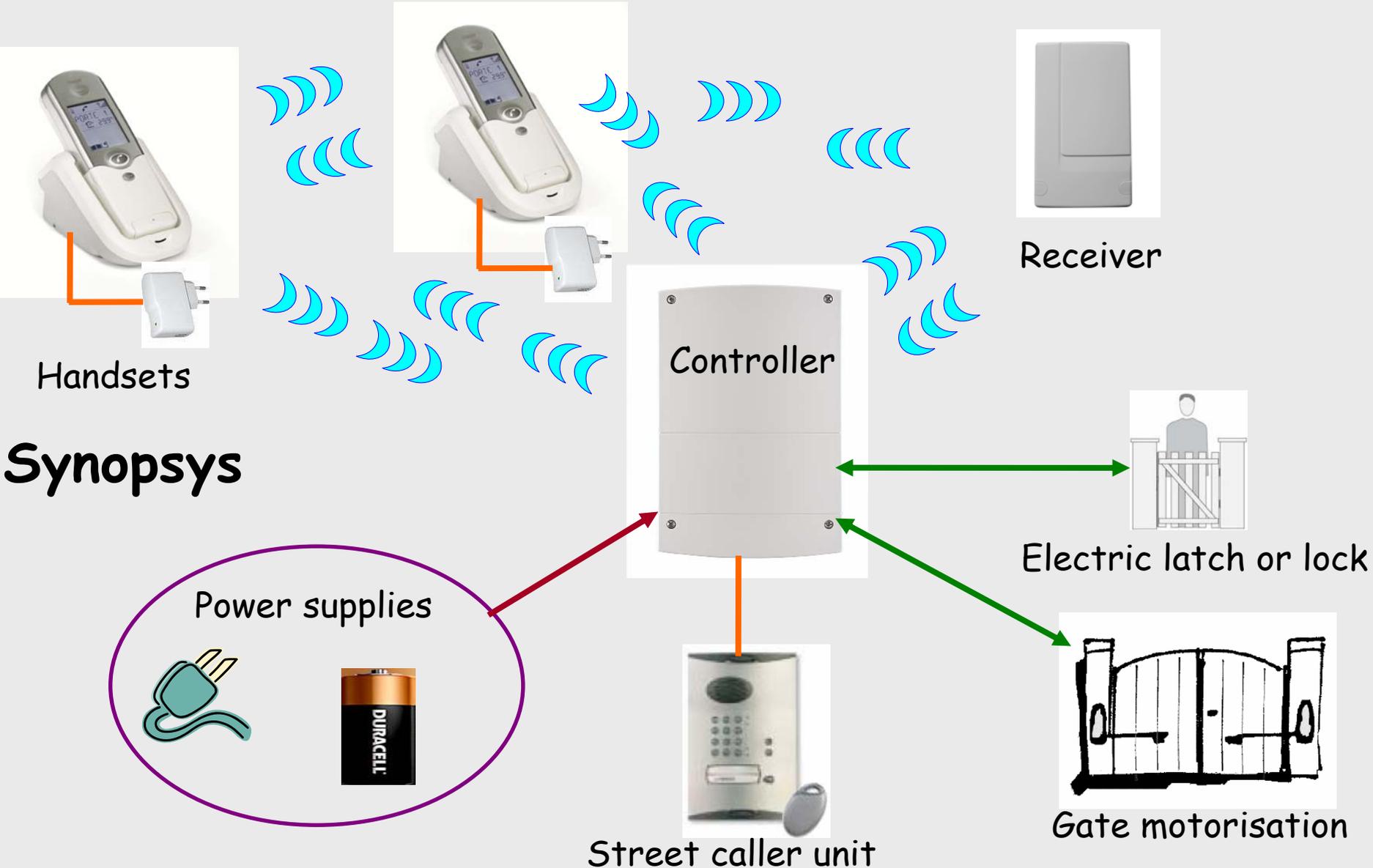
- Introduction to the products
- The Optwin® radio technology
 - Advantages of radio
 - Radio link creation principle
- Possible applications
- Wiring
- Getting started
- Installation benefits
- User benefits
- Improvements of the new range
- Receivers
- Case study





Introduction to the products

Introduction to the products



Synopsys

Introduction to the products

System components:

- Street unit:
 - A caller unit
 - A tag
 - A controller

Street caller units



Controller



STREET UNIT

- Interior handset unit:
 - A handset
 - A base

INDOOR STATION

Handset



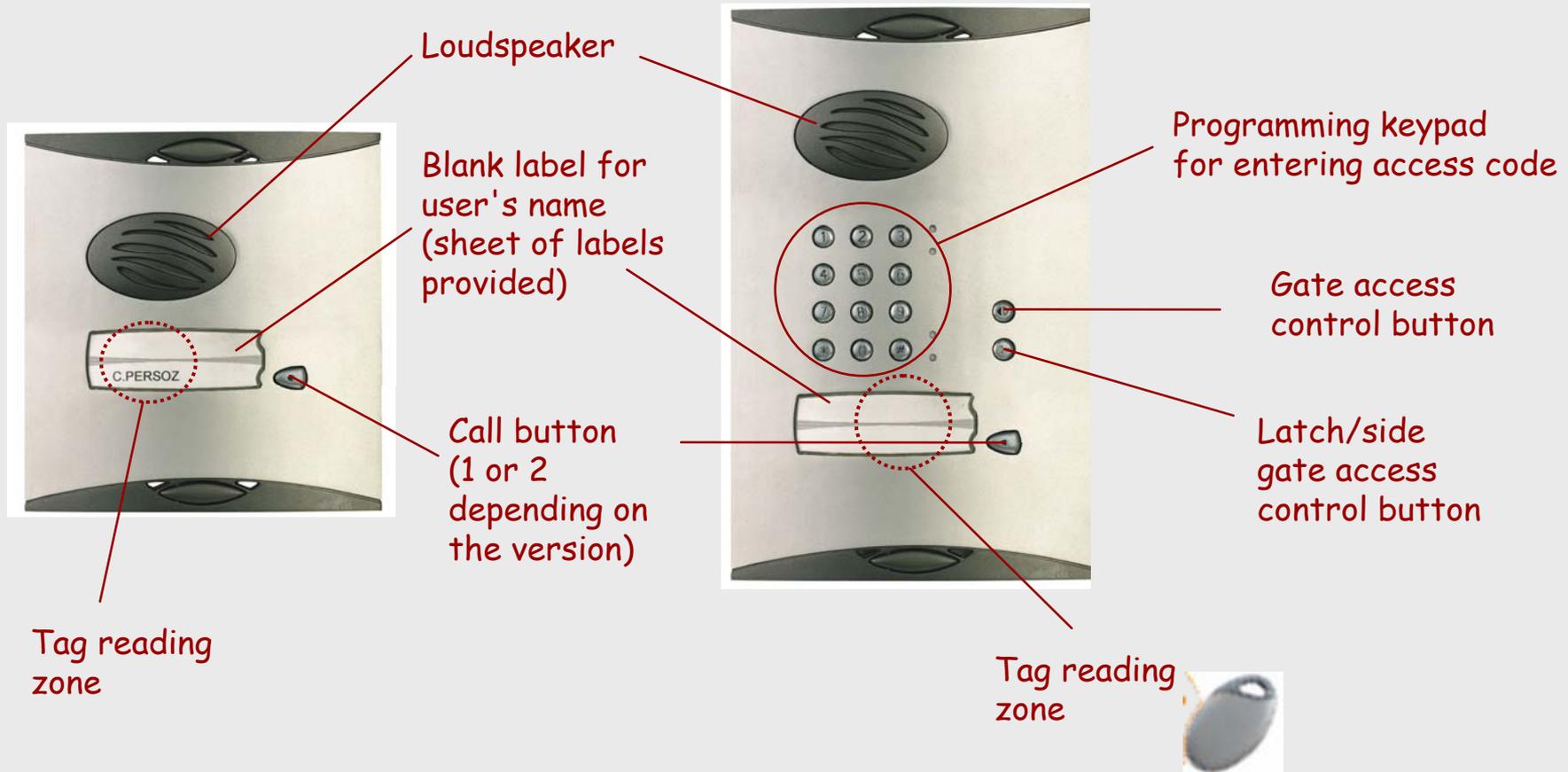
Base

Handset unit 1



Handset unit 2

Caller units



Introduction to the products

Caller units



1 and 2-button caller units



Hardened 1 and 2-button caller units



1 and 2-button caller units with keypad



Hardened 1 and 2-button caller units with keypad

Caller units

- **To be fixed on the street side of the pillar**
 - Connected to and powered by the main controller installed on the other side of the pillar
- **Various versions**
 - Hardened or not
 - with keypad or not
 - with one or two call buttons
- **Used to talk to the visitor**
 - Built-in microphone and loudspeaker
- **Used to control a door or gate**
 - All caller units are fitted with a tag reading zone

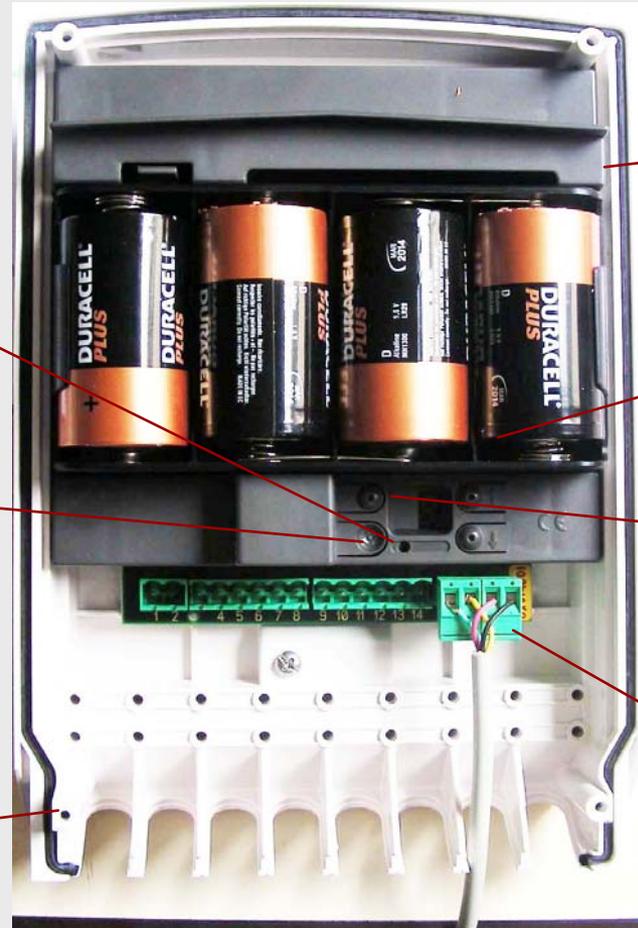


The controller

Radio link creation LED

Radio link creation button

Cover



Base

Slot for batteries

Validation button

Removable terminal blocks

The main controller

- **Establishes the radio link to the handsets**
 - Placed outdoors, used to control an electrical latch/lock and/or an electrical gate
 - manages up to 4 handsets by call button
- **Controls and powers directly the electrical latch**
 - Completely standalone installation, the main controller provides power for the latch even when battery powered.
- **User benefits:**
 - No important installation works to undertake
 - No antenna visible, fits neatly into the environment

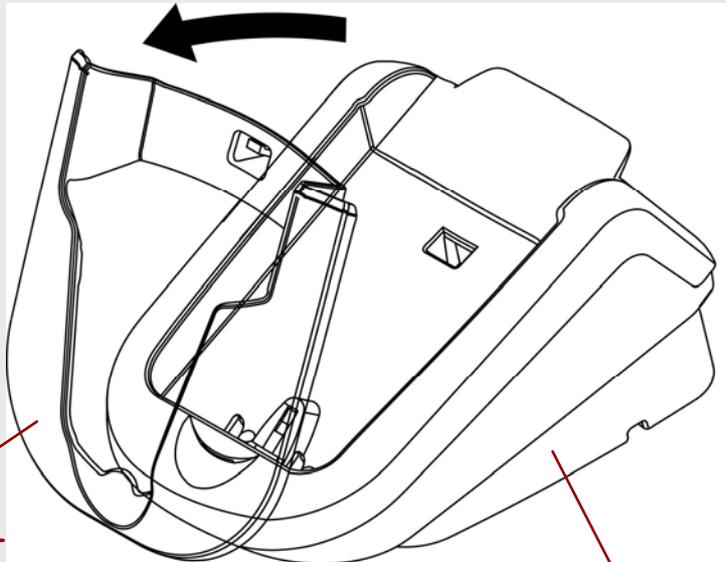


Introduction to the products

The indoor station

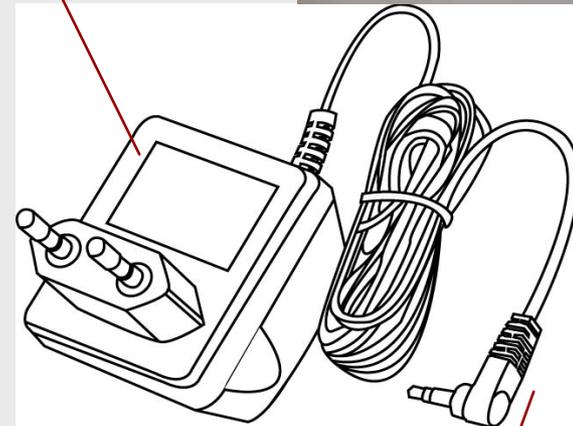
- The base

Mains power supply



Transparent removable shell

Base of the handset



Base connection Jack

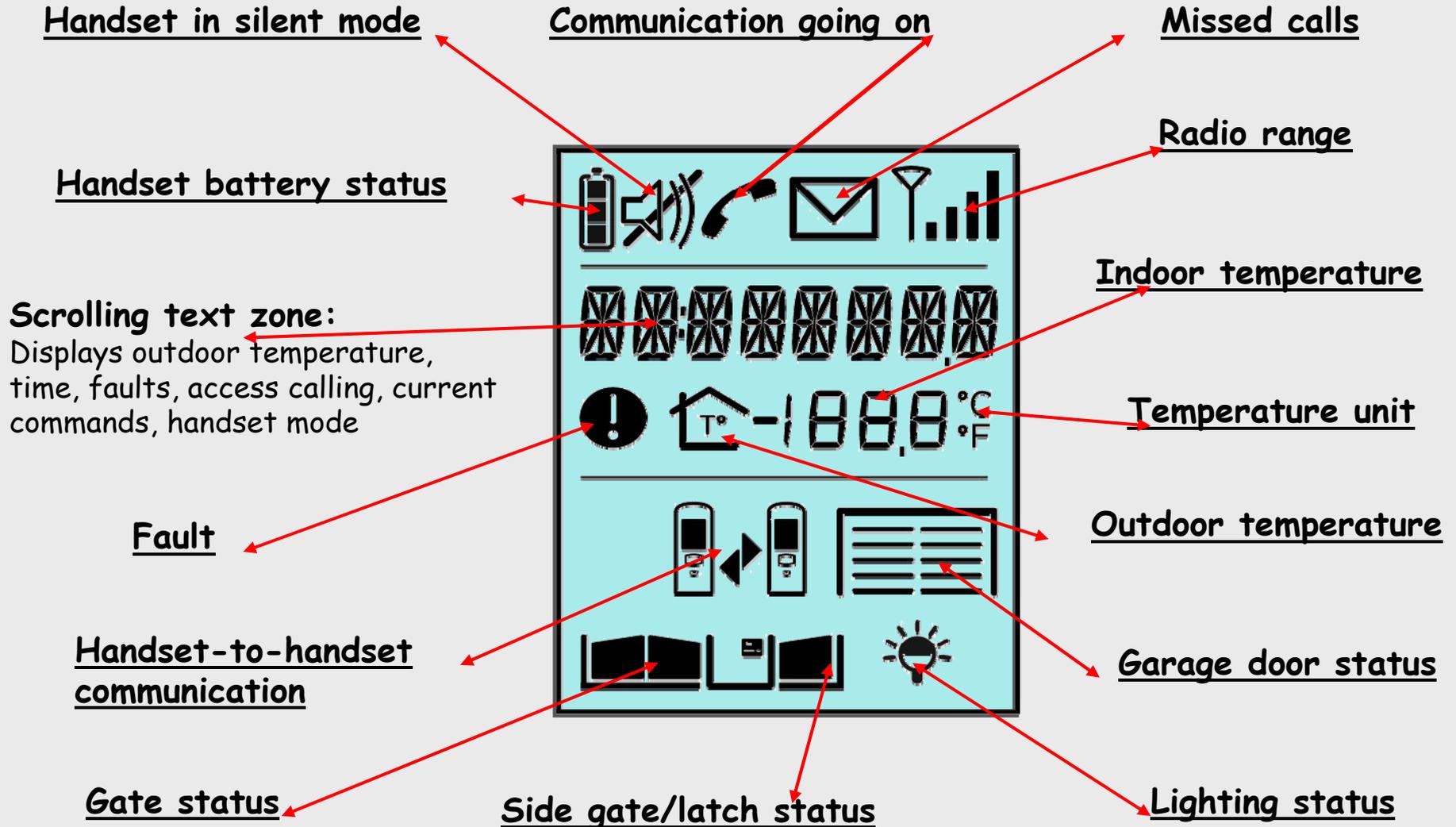
The indoor station

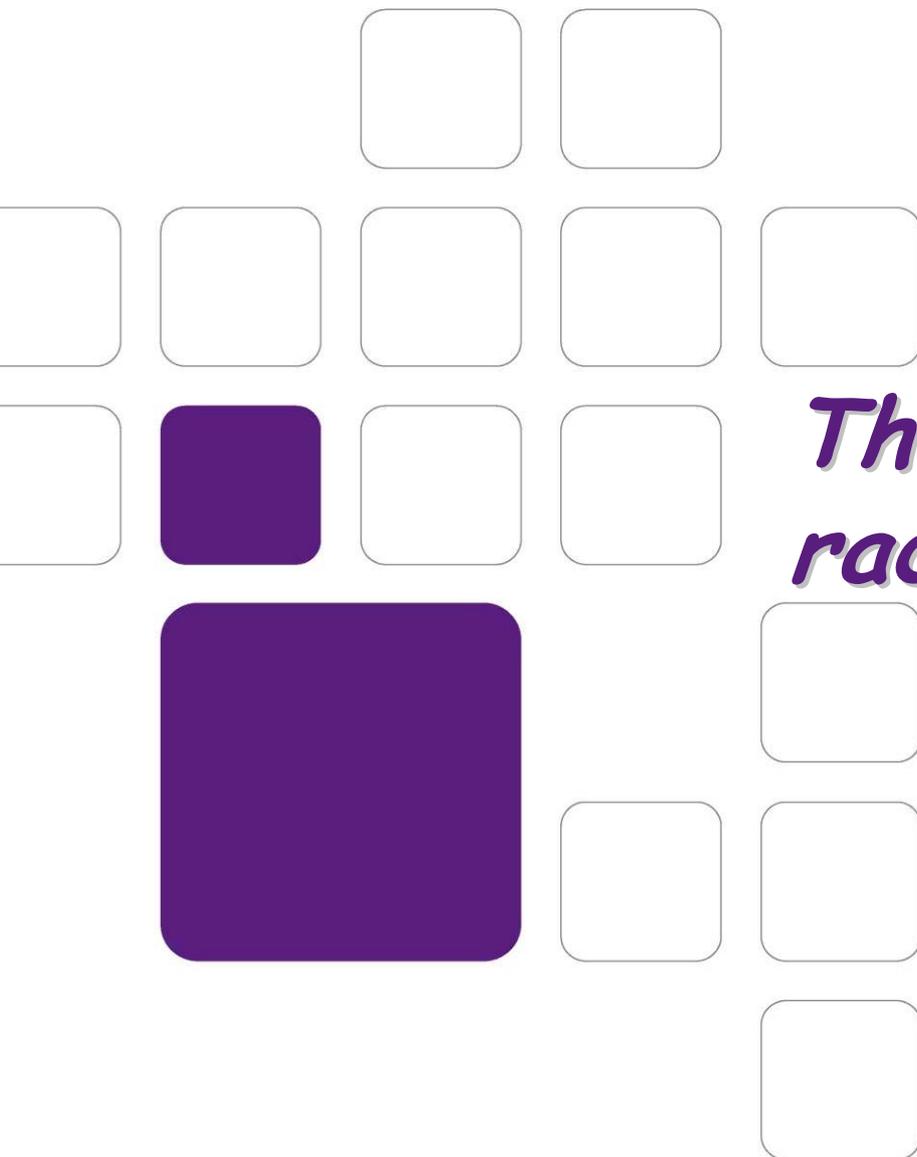
- The handset



Introduction to the products

• Description of the display





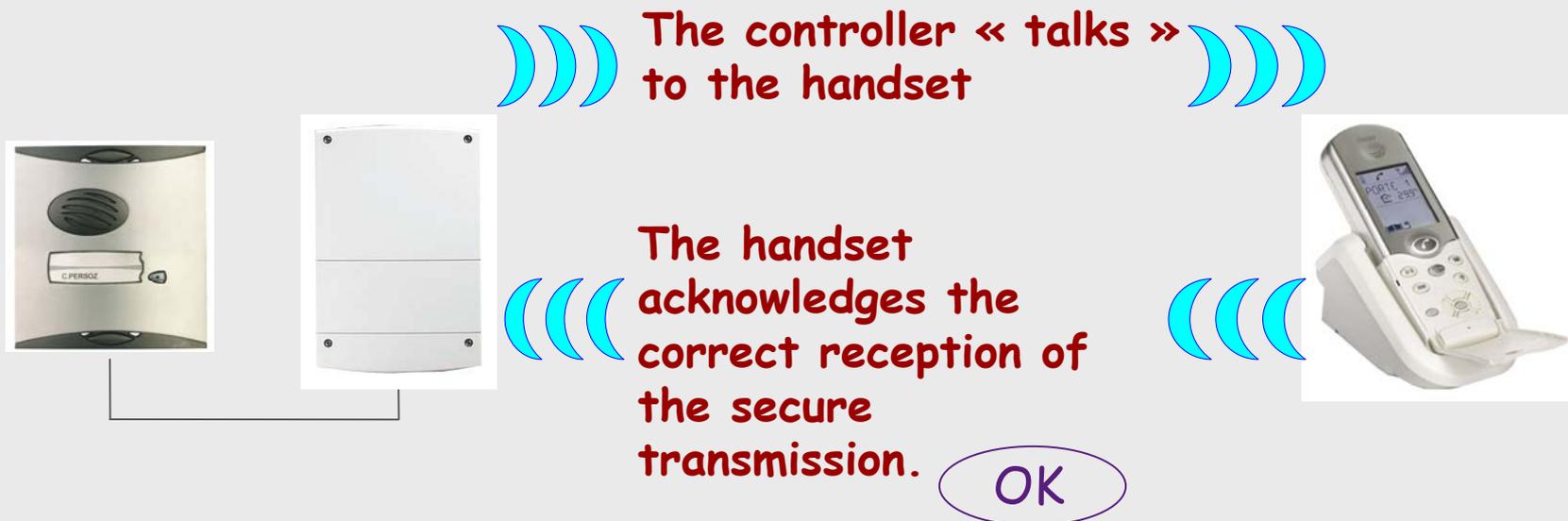
*The Optwin®
radio technology:*

Advantages of radio:

- **Two-direction multiple frequency radio transmission:** choice of the most efficient transmission channel
- **Increased audio quality** independently of the range, by using 4 different high-speed frequencies (838 Mhz band) for digital audio transmission
- **Two-band secure protocol:**
 - encryption of messages
 - use of a self-implementing changing code and link key
- **Information feedback** on controls thanks to the interoperability of the protocol

- example: link between a main controller and a handset

At the beginning of a communication, the components run a radio environment test and synchronize on the optimal frequency. Transmission is then carried out with help of two-direction radio exchanges, with information reception acknowledging.



Radio link creation principle

A wireless doorphone installation is a set of products communicating together via radio link.

It comprises two different types of products:

- **"Transmitters"**: they send commands that are associated to actions (i.e. pressing of the Lighting button of a handset) or to events (closing of the gate, for the main controller)
- **"Receivers"**: they receive commands, activate the connected applications (lighting, automation, etc...), and act according to their programming.

This wireless exchange between the devices is carried out by the establishment of a radio link and the allocation of a chosen function.

Radio link creation principle



Transmitter



Receiver

1. Bring into Radio link creation mode

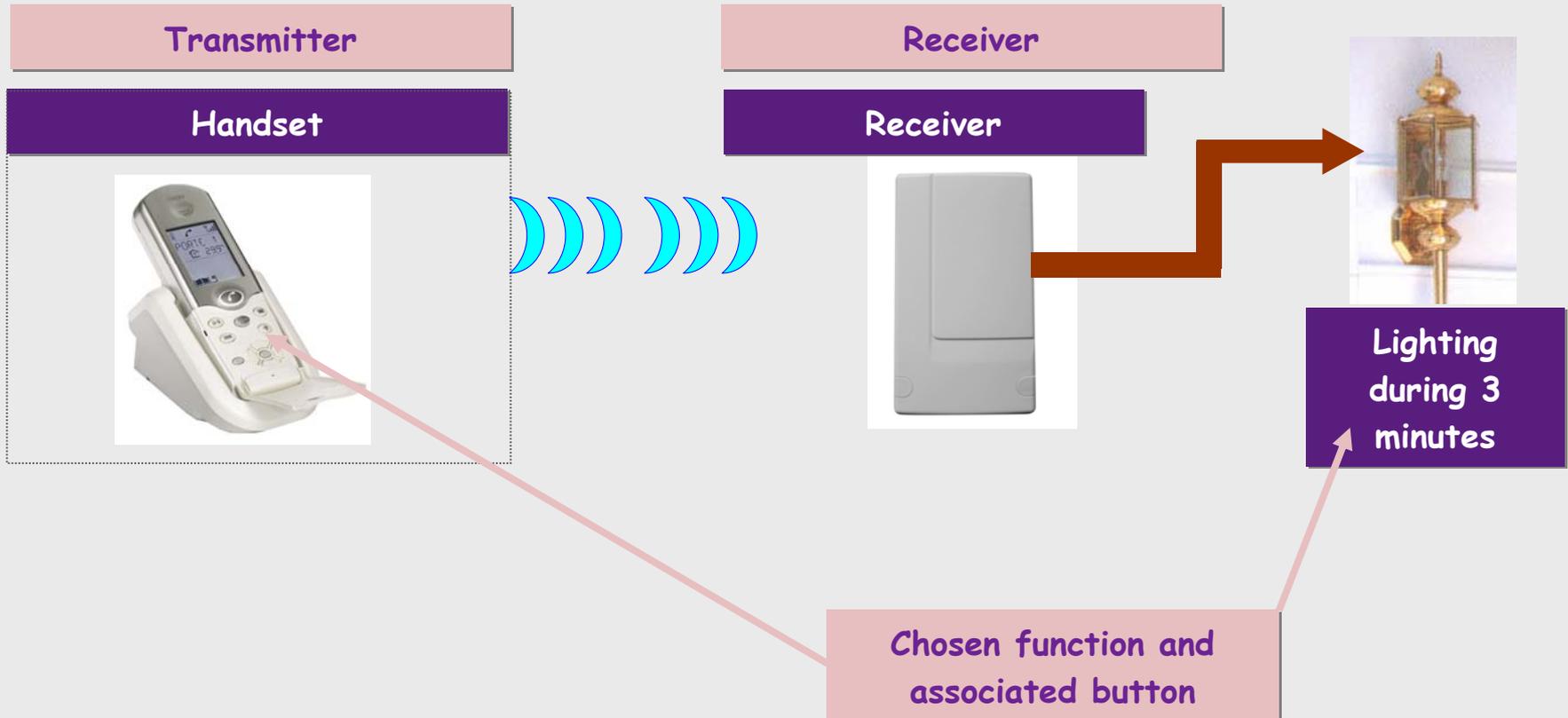
2. Bring into Radio link creation mode

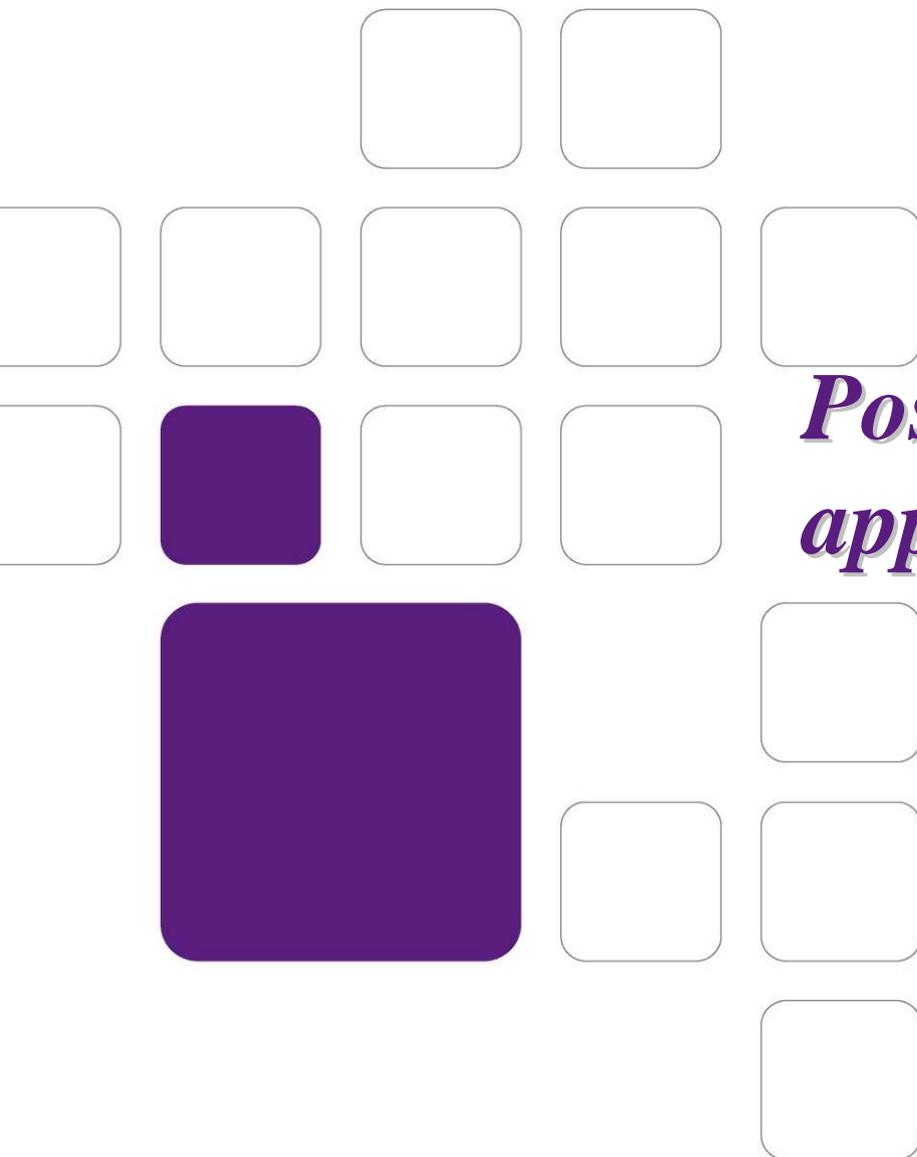
3. Choose the function

4. Choose the button or event associated to the function

5. Validation of the process.

Example of creating a radio link





Possible applications

Possible applications

1. Answering a call and controlling a side door latch with the handset or the street caller unit

Caller unit with keyboard and controller



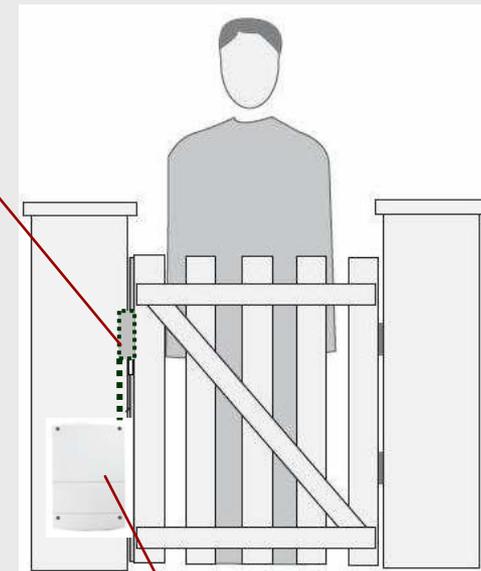
Gate release control button

Handset



Gate release control button

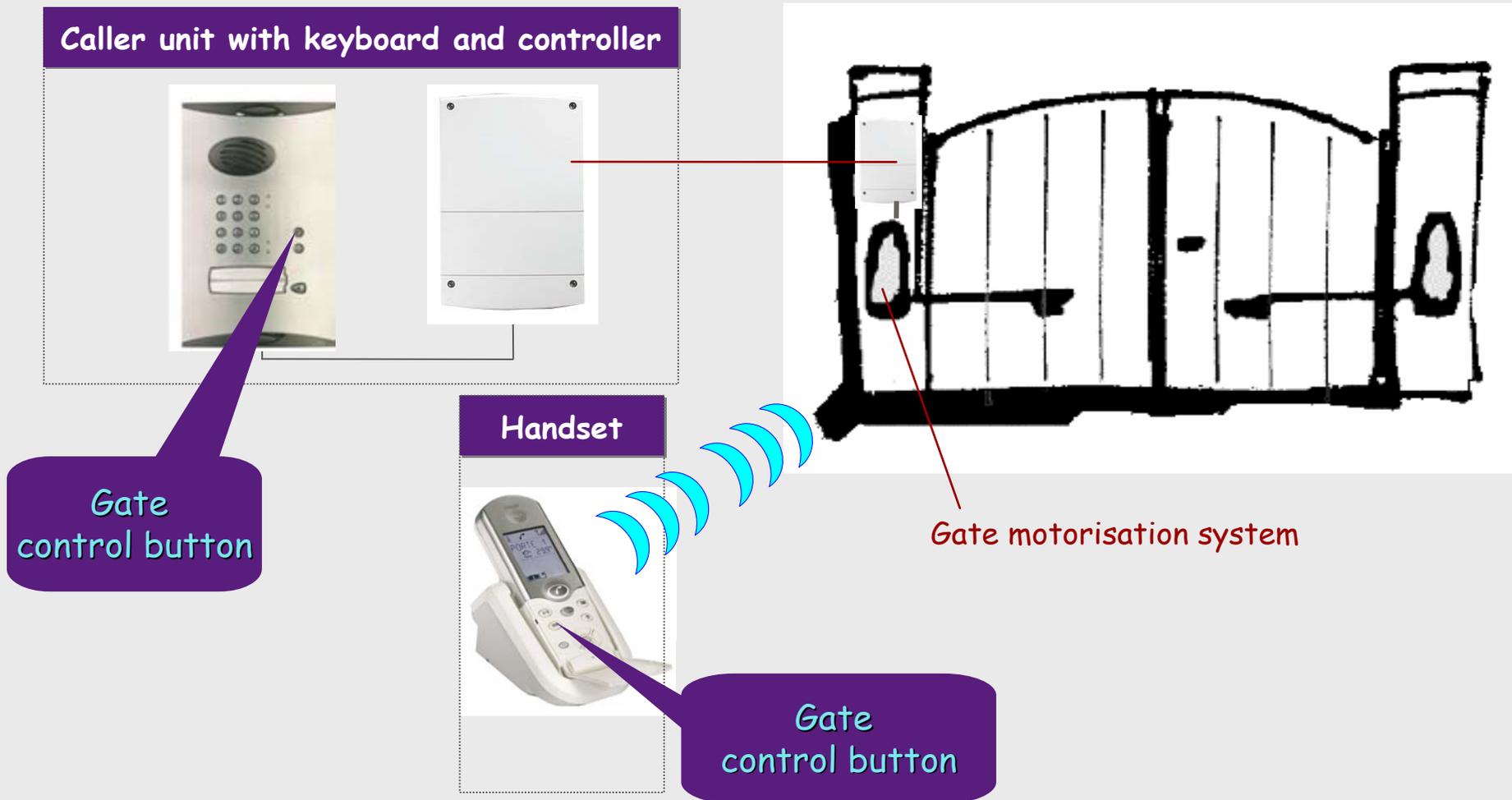
Gate release



Main controller

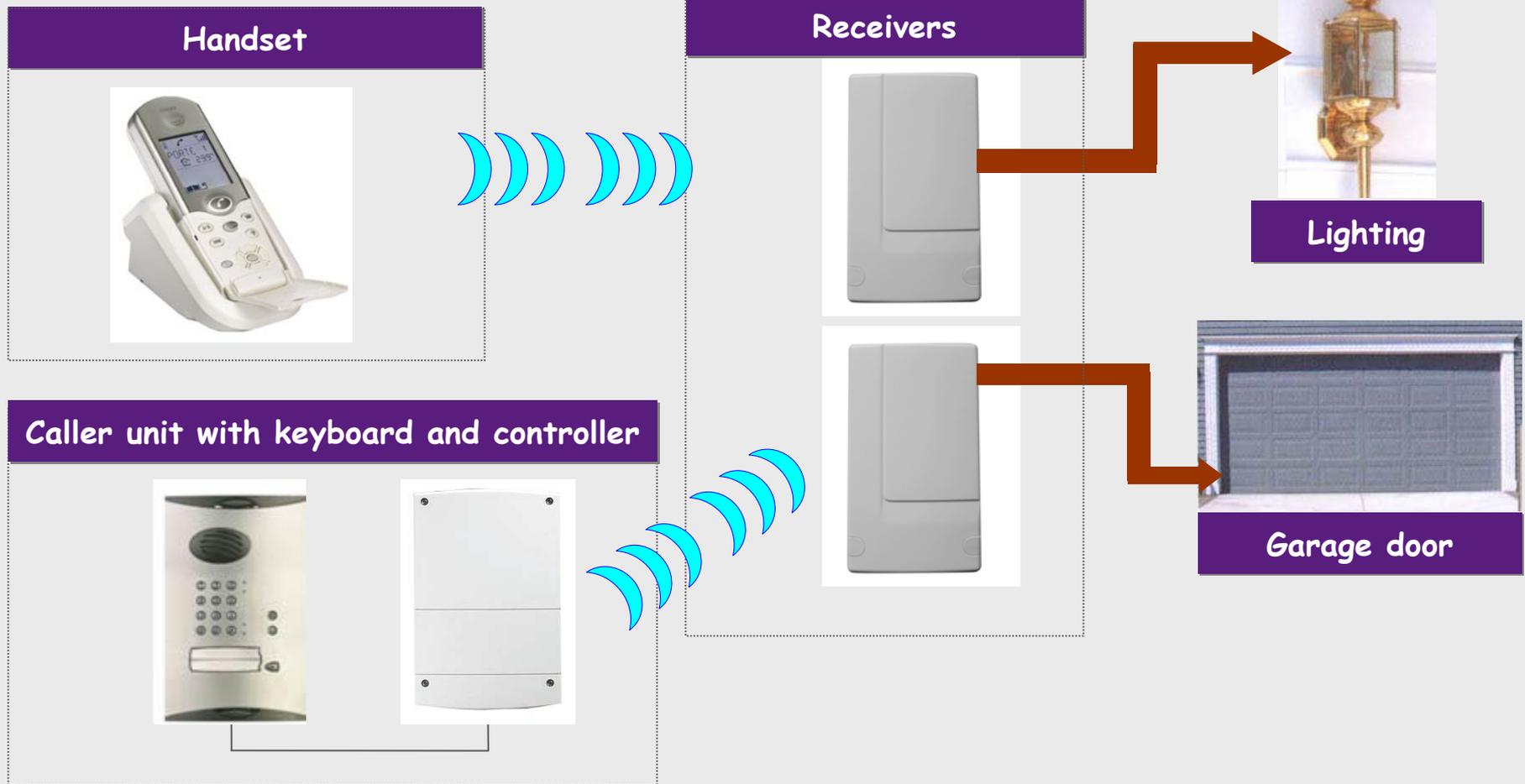
Possible applications

2. Answering a call and controlling a gate motorisation system with the handset or the street caller unit



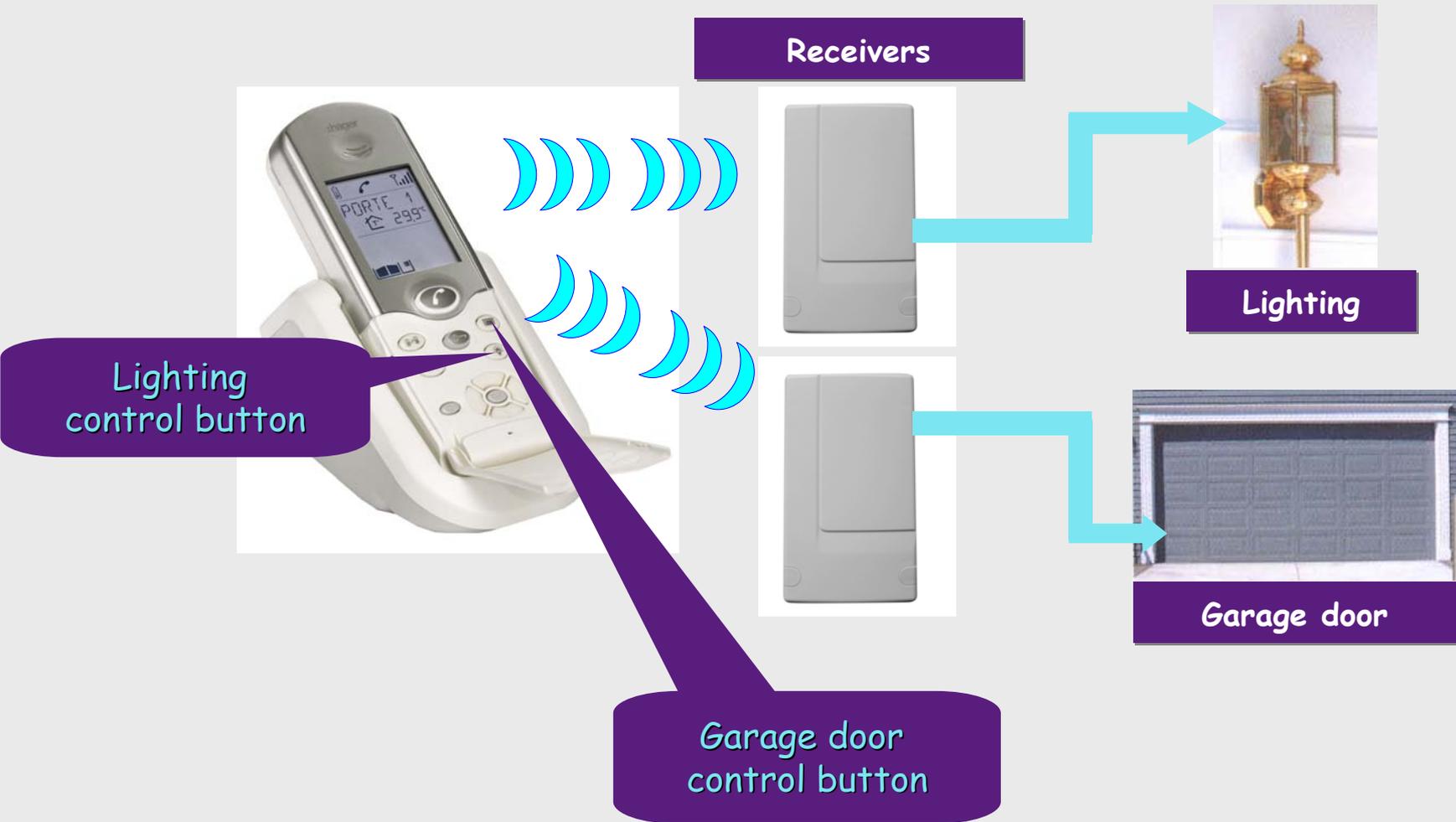
Possible applications

3. Controlling a lighting and garage door



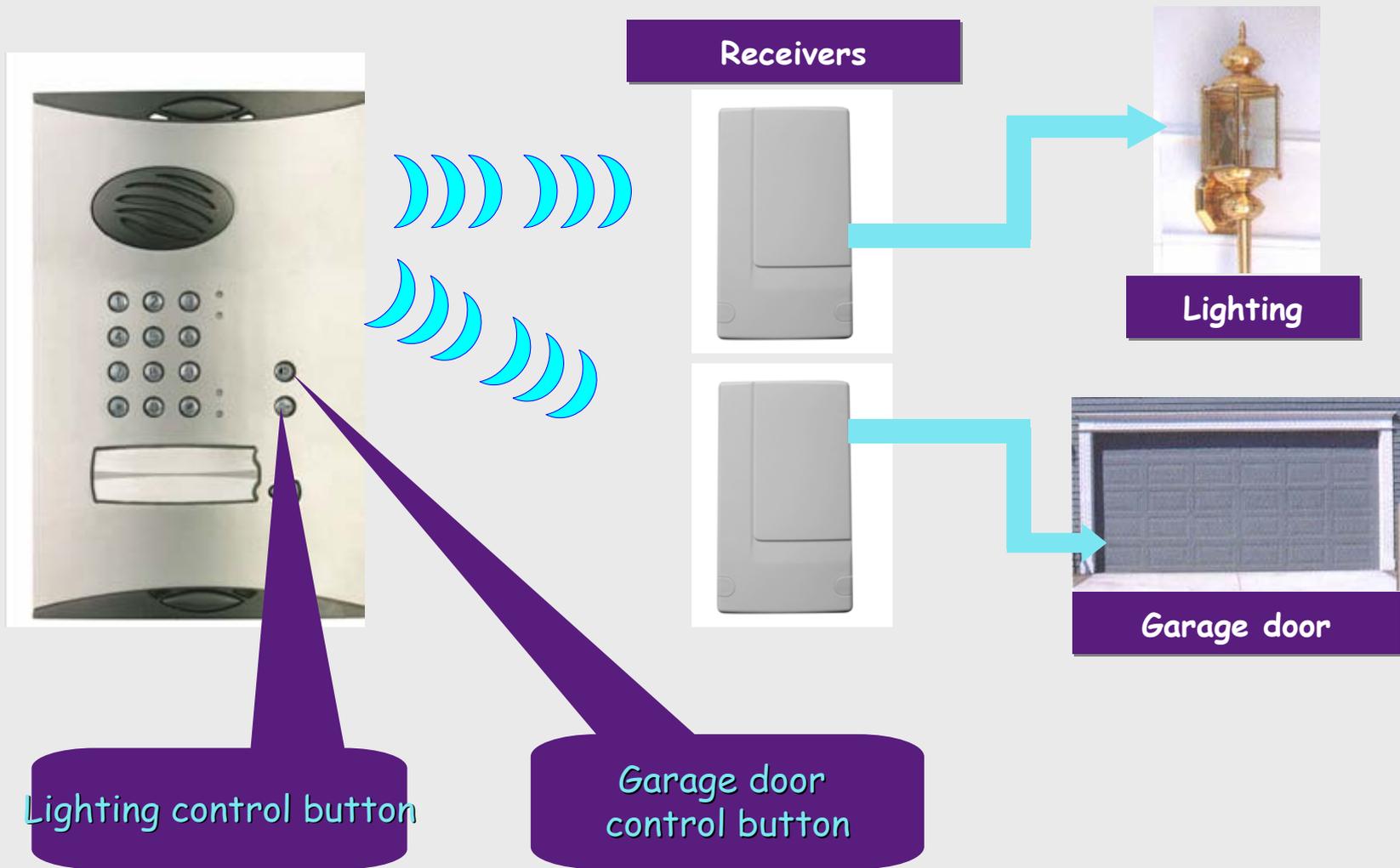
Possible applications

- From the handset



Possible applications

• From the street caller unit





Wiring

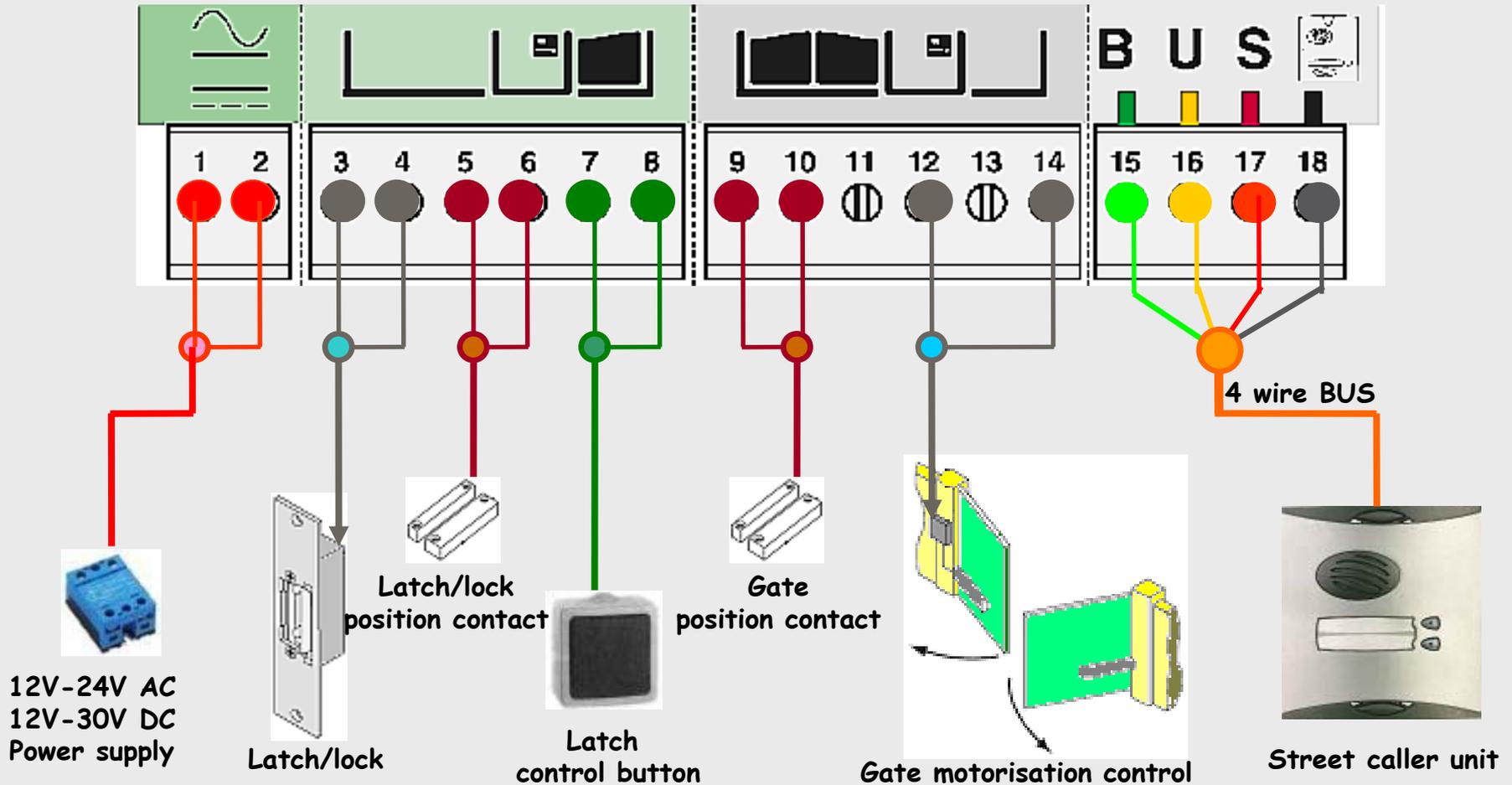
Wiring



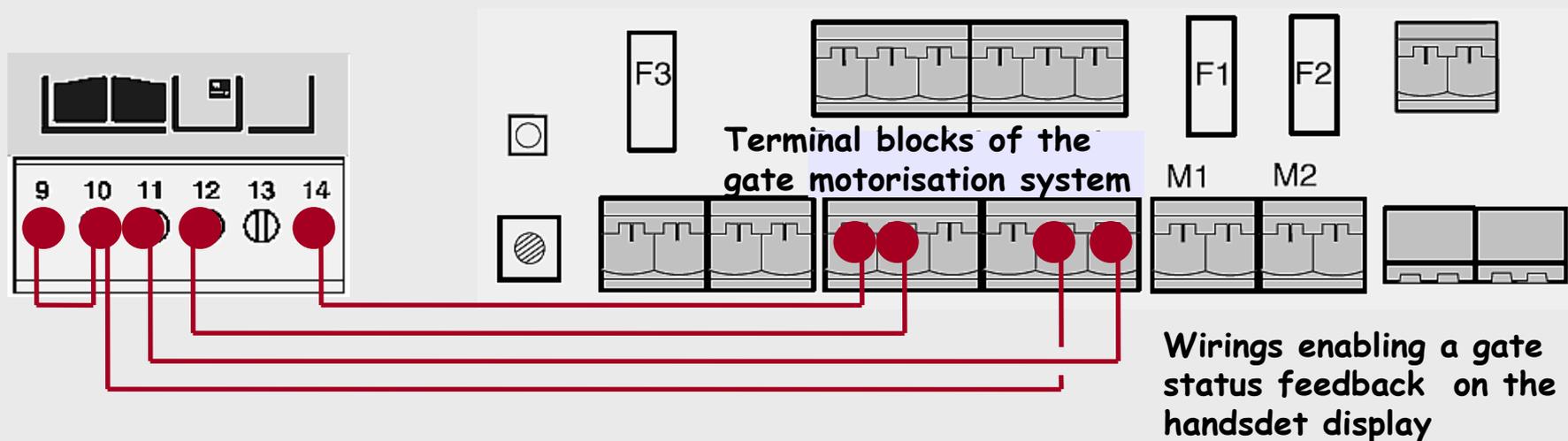
WIRING



Plug the 4 alkaline batteries or the external power supply



Connecting a Logisty gate motorisation system



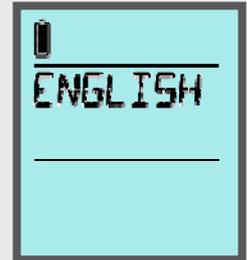


Getting started

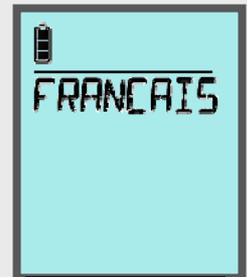
Getting started

1st step: Language, time

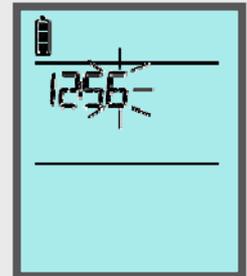
1) After powering on, the display shows:



2) Take the handset and choose the language using the buttons



2) Program the time



2) The handset goes into radio link creation mode and the display shows:

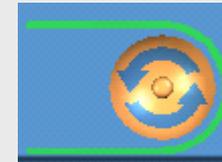


2nd step: creating the radio link to the controller

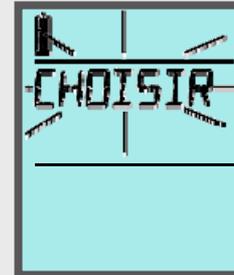
1) The controller has a built-in programming interface



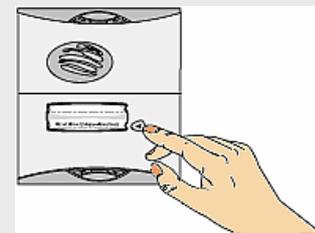
2) Bring the controller into radio link creation mode, the LED lights up orange



3) The handset display shows:



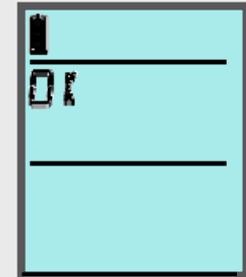
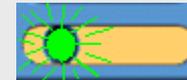
4) Press the call button allocated to this handset



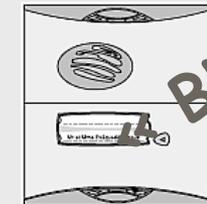
5) The handset display shows:



6) The controller LED lights up green and the handset display shows:



7) The street caller unit beeps for 2 sec.



8) The handset displays the time, outdoor and indoor temperature, gate and side gate status.





*Installation
benefits*

- **Simple and flexible installation:**
 - Completely wireless, radio link between controller and handset
 - Standalone battery powered or on external power supply
 - High-quality removable terminal blocks
- **Housing (controller, street caller units) identical to the former doorphone**
- **Expandable with other receivers** to control other applications: home automation and lighting
- **Simple and user-friendly**
 - Ergonomic handset design (call answering buttons on the front)
 - Advanced features under a hatch,
 - LCD display
- **Neat design**



- **Interoperability between Doorphone and Home automation**
A sole control can command as well a lighting and a home automation appliance
- **Increased safety**
 - Two-direction radio exchanges ensure that the information has been received
 - Increased number of channels (2 band x 2 frequencies) prevents jamming attempts
- **Neat design**
- **Tag reader on all street caller units**
- **Better user comfort:**
 - High quality audio independently of the range
 - Information feedback of the controlled appliances (gate, lighting status,...)
 - Adjustment of the caller unit backlight

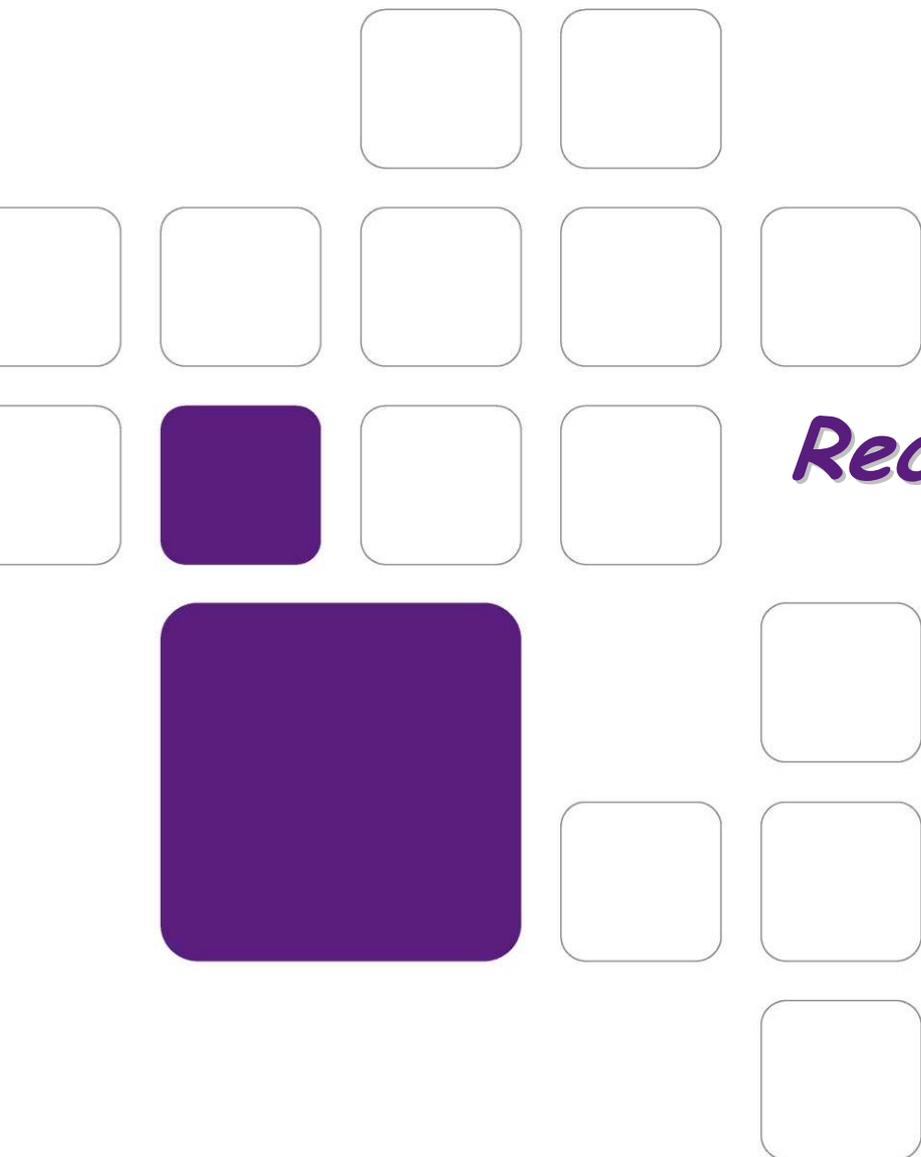


Advantages of the new range

Advantages of the new range

1. **New handset design:** neat, clean design
2. **No antennas visible** on the handset and controller
3. **Information feedback** on the LCD display and scrolling text
4. **« Handset-to-handset communication »** feature
5. The call is not terminated after the access has been granted
6. External powering of the controller without need for an extension board
7. Street caller unit adjusts to light conditions
8. Tag detection on all caller units
9. System has a bigger capacity: 4 handsets for each call button, 32 possible controls (receivers / gate / garage door)





Receivers

The outdoor receiver is used for remote control of an electrical appliance, inside or outside the house.

It is available in 2 versions:

LDG01X



230 V/dry contact

LDG02X

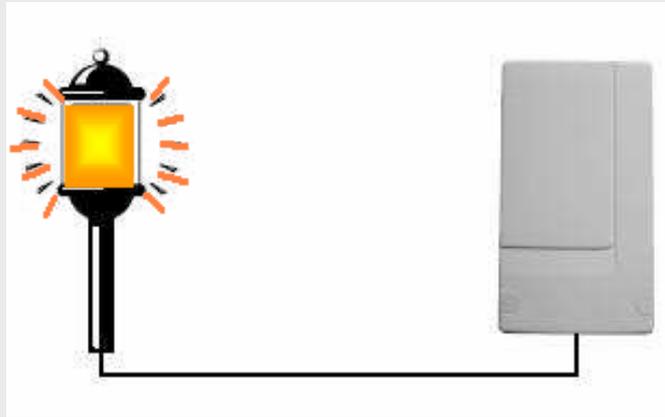


12-24 V/dry contact

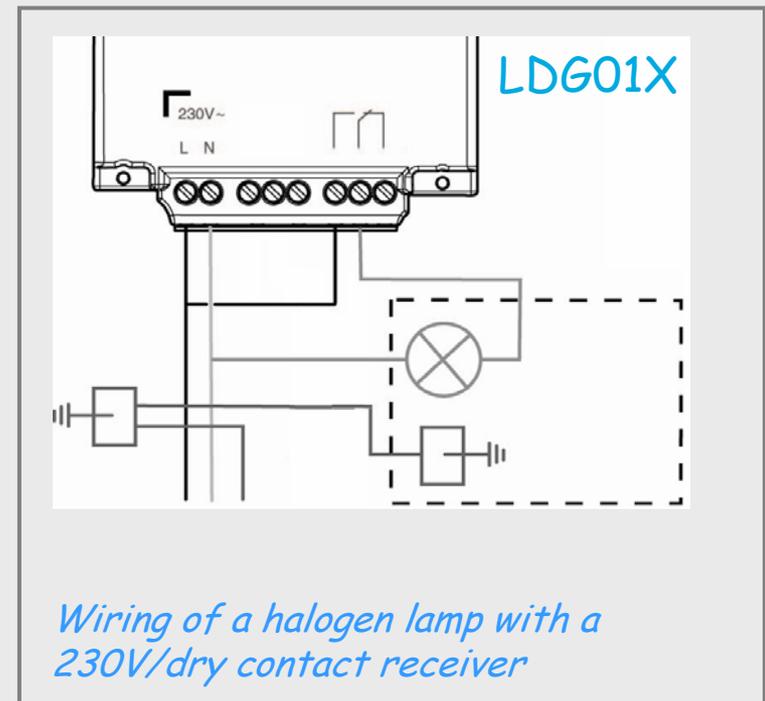
Receivers

Applications

- Control of a 230 V lighting using the handset



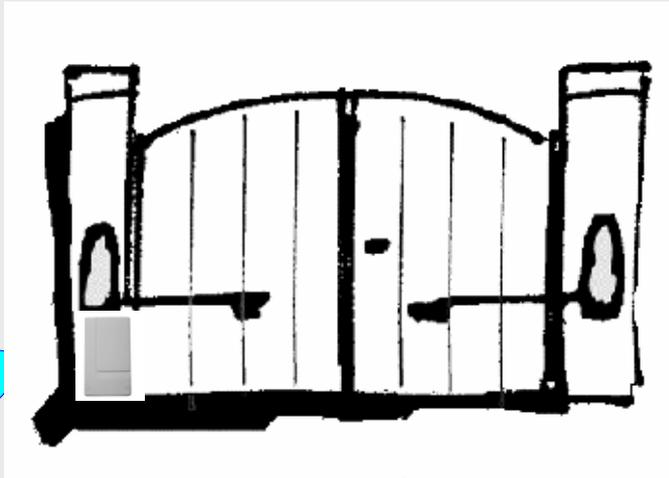
Wiring



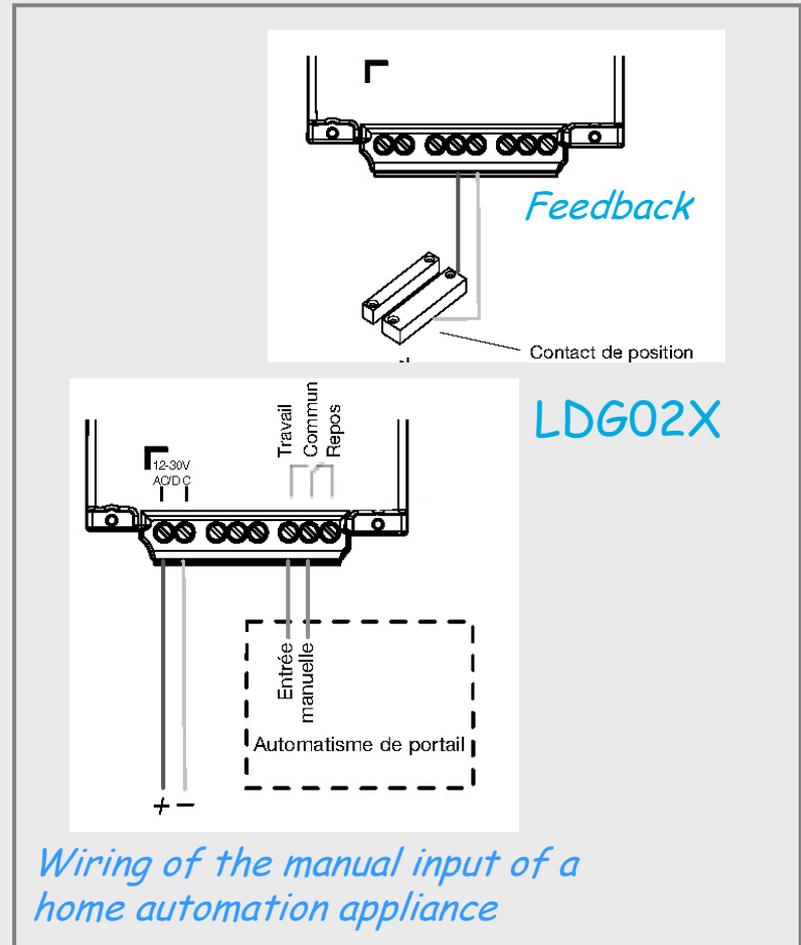
Lighting control button

Applications

- Home automation control with status feedback

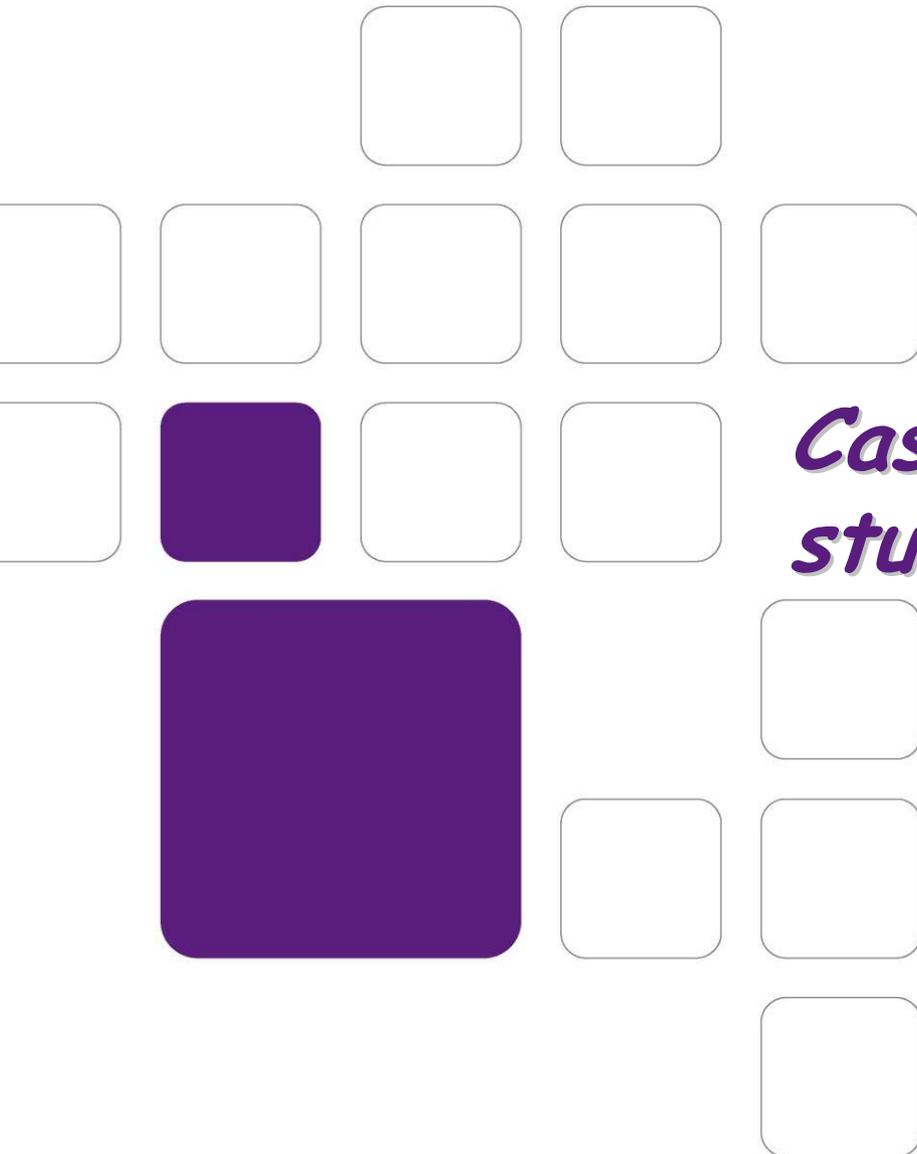


Gate control button



Modes of operation

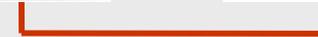
- **ON/OFF**: for controlling an electrical device with activation and deactivation of the device every time the button is pressed (no activation/deactivation time limit)
- **Toggle**: for controlling an electrical device with activation and deactivation of the device every time the button is pressed (no activation/deactivation time limit)
- **Timer**: for controlling an electrical appliance with automatic stopping at the end of the programmed time limit of **30, 90 s, 3, 5, 15, 30 or 60 min.**
- **Pulse**: for activating an electrical appliance for a time limit of **1 to 7 seconds**
- **Status feedback** of the receiver relay (open /closed)



*Case
study*

Completing a typical installation

- Unpack the products:
 - Street caller unit with tag
 - Controller
 - Handset
- Perform the wiring between the street caller unit and the main controller
- Power the devices
- Set up the radio links necessary to the operation
- Make a call test





*Thank you for
your attention*