Installation and user guide for the EEN-REC2 receiver

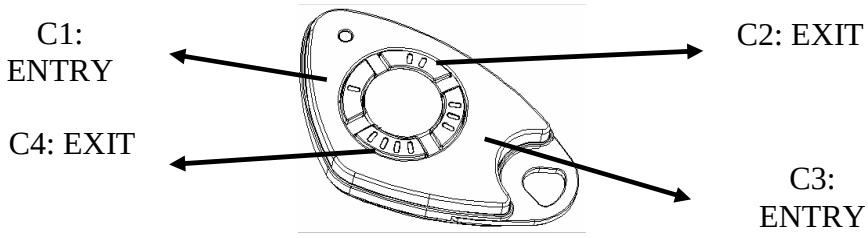
Operating principle

Overview:

- The EEN-REC2 receiver and its aerial controls two car park accesses, "ENTRY" and "EXIT", and works with Intratone RF 868MHz 2 and 4-channel remote controls.
- Management of the remote controls is carried out on the www.intratone.comwebsite.
- When controlling the 2 accesses, the anti-passback function is available using the switch settings.
- The receiver can be installed on a DIN rail or wall-mounted.

The RF 868 opens 2 doors, "ENTRY" and "EXIT":

These two doors are controlled via two "CRT" relays fitted in the receiver card.
Pressing a button on the remote control will activate one of these two "ENTRY" or "EXIT" relays:
- Channels I and III of the remote control trigger the receiver's ENTRY relay
- Channels I and III of the remote control trigger the receiver's EXIT relay



Unlock time of the doors:

The unlock time is set by the central unit, **switch No. 7** can force it to 0.2 seconds (pulse).

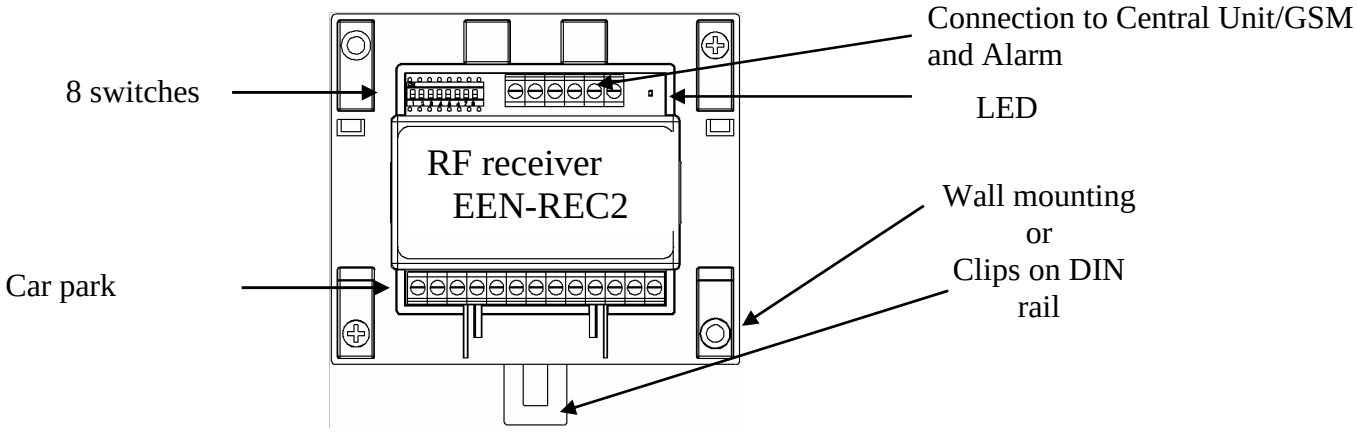
Vehicle Detection:

Activating each "ENTRY" / "EXIT" relay may depend on the use of vehicle detection loops. These loops can be set independently to "Normally Closed (NC)" or "Normally Open (NO)" using switches nos. 4 and 5 of the receiver (see *switches and LED* section below).

Anti-Passback (<u>only if activated on the www.intratone.com website and on the EEN-REC2 receiver</u>):

The EEN-REC2 receiver can also handle anti-passback conditions (obligation to leave before re-entering) for remote controls programmed for anti-passback on the site. This handling is set using switches 1, 2 and 3 (see *switches and LED* section below).

Switch no. 6: For correct operation, it must always be set to OFF.



Anti-passback operation

Anti-passback controls the 2 ENTRY and EXIT doors to prevent unauthorised entries. The resident must therefore have left via the EXIT door before again being allowed access to the car park via the ENTRY door. The anti-passback function works by setting an anti-passback time during which any new attempt to gain access via the ENTRY door is systematically denied. Access via the ENTRY door will be authorised again, either after this time has expired, or once the resident has left via the EXIT door.

The anti-passback function is only activated with the combined use of:

- An **EEN-REC2** receiver
- An **INTRATONE RESIDENTIAL** central unit **(or GSM** Edge module)
- Vehicle detection **loops** on ENTRY and EXIT.

And it only works with remote controls to which anti-passback apply (see www.intratone.com).
This function does not concern any remote controls not programmed to work with the anti-passback function.

Note: The anti-passbacks are reset on each power up.

Switches and LEDs

- **Switches 1, 2 and 3 define the time of the anti-passback function (+ or - 2 minutes):**

S1	S2	S3	Meaning
OFF	**OFF**	**OFF**	**No anti-passback handling.**
ON	OFF	OFF	Anti-passback set to 05 minutes.
OFF	ON	OFF	Anti-passback set to 10 minutes.
ON	ON	OFF	Anti-passback set to 15 minutes.
OFF	OFF	ON	Anti-passback set to 30 minutes.
ON	OFF	ON	Anti-passback set to 45 minutes.
OFF	ON	ON	Anti-passback set to 60 minutes.
ON	**ON**	**ON**	**Permanent anti-passback.**

- **Switches 4 and 5 define the operation of the vehicle detection loops** :

S4	S5	Meaning
OFF	OFF	Normally Closed loop (NC) or no loop installed.
ON	ON	Normally Open loop (NO)

- **Switch no. 6: It must always be set to OFF.**

Any action on this switch resets the rolling and anti-passback codes.

- **Switch No. 7 sets the receiver's relay times**:

S7	Meaning
OFF	Central unit's time.
ON	Time of 0.2 sec.

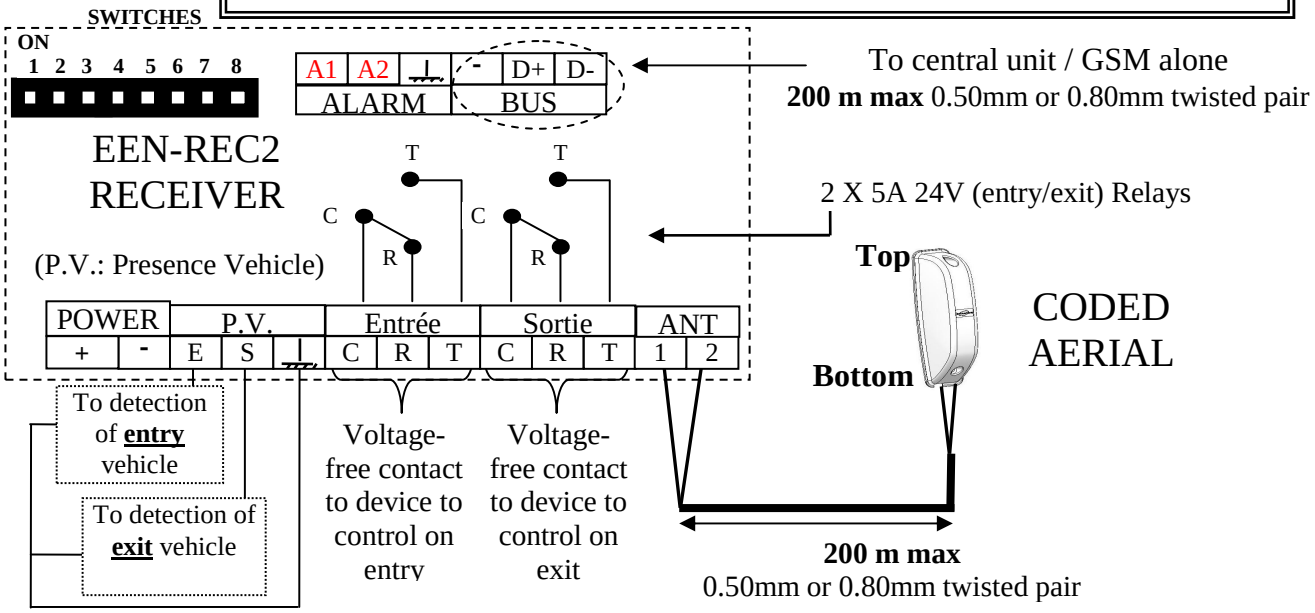
- **Switch no. 8: Do not use.**

- **LED: The LED indicates the operating states as follows:**

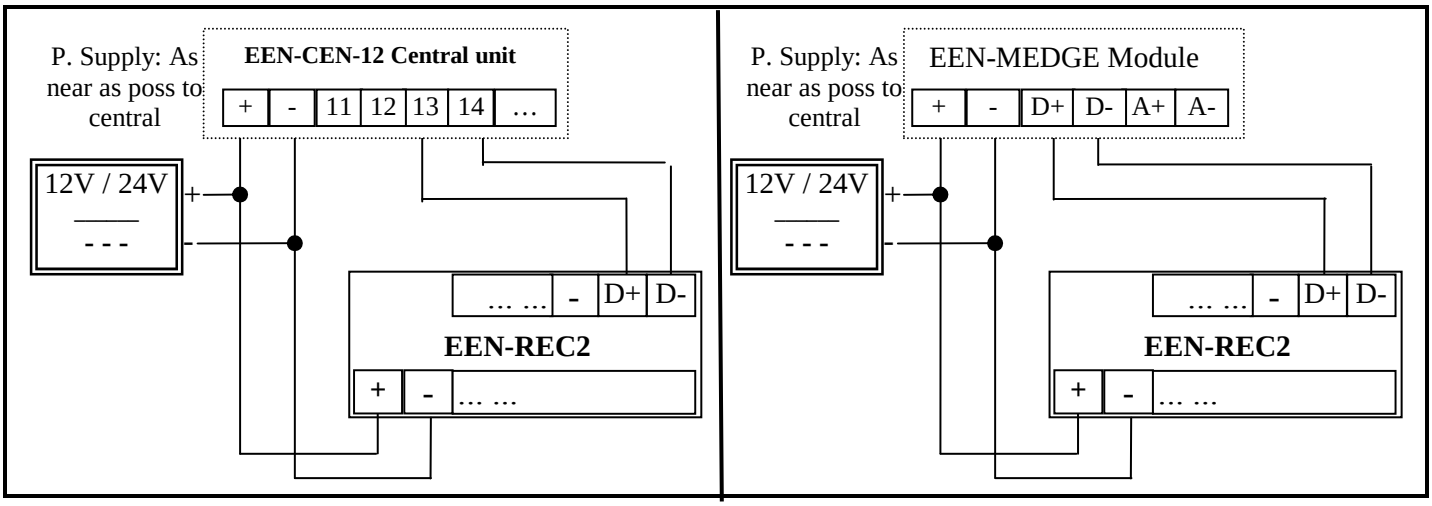
State	Meaning
Flashing for 1 to 2 sec	Power up or after switching of switch 6: Erasure of anti-passback and rolling code.
Permanently OFF	The receiver has no power supply: Check the connection to the receiver's + and - terminals.
Flickering	The central unit is not connected correctly to the receiver's D + and D- terminals.
Permanently ON	Correct communication with the central unit: Diagnosis displays "RF".
Goes off for 1 second	Correct reception of the RF emission by an INTRATONE 868 MHz remote control.

Cabling of the EEN-REC2 receiver

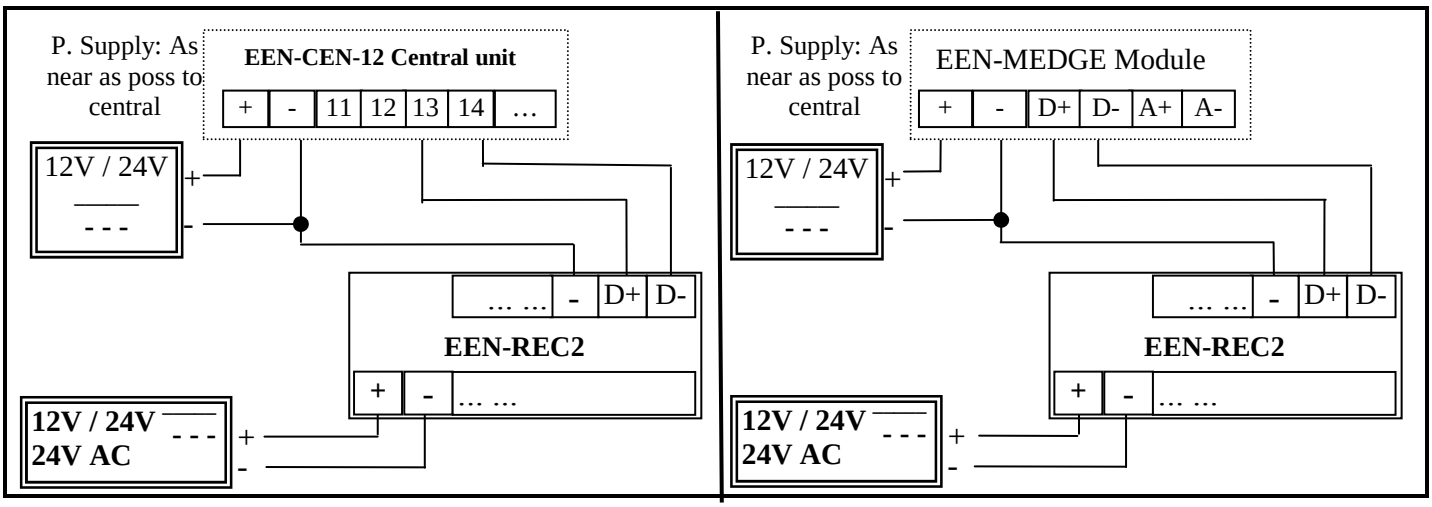
1) **No pushbutton can activate the receiver's Entry/Exit relays.**
2) **Alarms (A1, A2) are available only with a GSM unit. With a central unit, the unit's alarms are activated.**



Connection using a common power supply



Connection using a separate power supply



☞ The EEN-REC2 receiver's protection index does not provide full watertightness. It must be installed either in a technical area or inside a watertight box.

☞ Connecting the coded aerial (supplied in the kit) is required. **Without a coded aerial, the EEN-REC2 receiver does not work.**

☞ **The coded aerial must not be enclosed in a metal case** or placed behind a protective area that uses wire netting. It must be installed as shown in the diagram ensuring that the TOP-BOTTOM position is respected so that the cable is connected through the bottom of the aerial.

☞ To achieve satisfactory operation, there must be no metal obstacles between the active aerial and the normal position used for operating the remote controls. It is therefore preferable to **install the coded aerial in a high location** to avoid obstacles (e.g. wire netting).

☞ If you are unable to position the coded aerial where it will ensure normal operation on entry and exit of the car park, **a second aerial may be added (ref: HACODE)** thus providing one aerial for entry to and another for exit from the car park. This will be the case for solid metal doors on the car park or where the "ENTRY" access is at some distance from the "EXIT" access.

Notes:

- If the **range** of the remote controls is too **short** (no signal detected by the EEN-REC2 receiver): place the aerial in several locations to find the best position (if possible in an open area away from metal parts in order not to interfere with the reception).
- The above examples are provided for connection to terminal No.1 of the EEN-CEN-12-G central unit (or an EEN-MEDGE GSM unit). The receiver can be connected to any other of the central unit's terminals (only the terminal numbers change).
- Once the receiver is correctly connected to the INTRATONE RESIDENTIAL central unit the unit's LED must be permanently **on** (correct communication with the central unit) and the central unit must indicate on the diagnostics screen that it has detected the receiver by displaying: '**1=RF**' (example for terminal No.1) in the '**Terminals**' section of the diagnostics screen. If the receiver's LED is not on or '**1=Free**' or '**1= DEFAULT**' appears on the central unit's screen, check the connections, the voltage between the receiver's + and - terminals as shown on the diagram and continuity of the wires.
- Never connect the V.P. (vehicle presence) terminals directly to a power supply. These terminals detect a change of state (voltage-free contact) from vehicle presence detection systems.
- Never connect the relays' CRT terminals directly to a power supply. These relays supply a voltage-free contact relay designed to be connected to an pushbutton-type input to the devices that need controlling. If these devices do not have an input of this kind, use an intermediate power relay of the correct capacity.

Important:

- **The central unit's pushbutton input terminal** is only used to trigger the central unit's CRT relay manually. It cannot trigger the relays on the receiver.
- To **use the anti-passback function**: Set an anti-passback value using switches No. 1 to 3 and correctly connect the two entry and exit relays. Remember in particular that the use of the permanent anti-passback requires that the user must have left via the exit door to be able to again gain access via the entry door.
- To **use the entry and exit relays without a vehicle detection device**:
  - Leave switches 4 and 5 in the OFF position.
  - Or, position switches 4 and 5 to ON and by-pass the V.P. terminals.

Rolling code operation

The receiver manages the **rolling codes** emitted by the remote controls. They are intended to counter attempts at making fraudulent copies of remote controls (through reproducing the signal emitted by the remote control). Every time a key on one of the remote controls is pressed, a code is emitted which must meet criteria known only to the EEN-REC2 receiver. The security of your site is thus optimal.

It may be necessary **to erase the rolling codes stored on the receiver.** (The installation of the receiver on another site for example). This erasure occurs at each **power up** or when switching **switch no.6 to the ON position (**Then switch **no.6** back to the **OFF position)**.

Compliance with standards/ Limitations

EC standards:

The RF 868Mh **EEN-REC2** receiver complies with the **R&TTE Directive 1999/5/EC**: electrical safety **standard** EN 60950**(2000)** applied, **EMC** standard **EN 301 489-3** (2000) applied, **radio standard EN 300 220-3** (2000) applied.

Cabling:

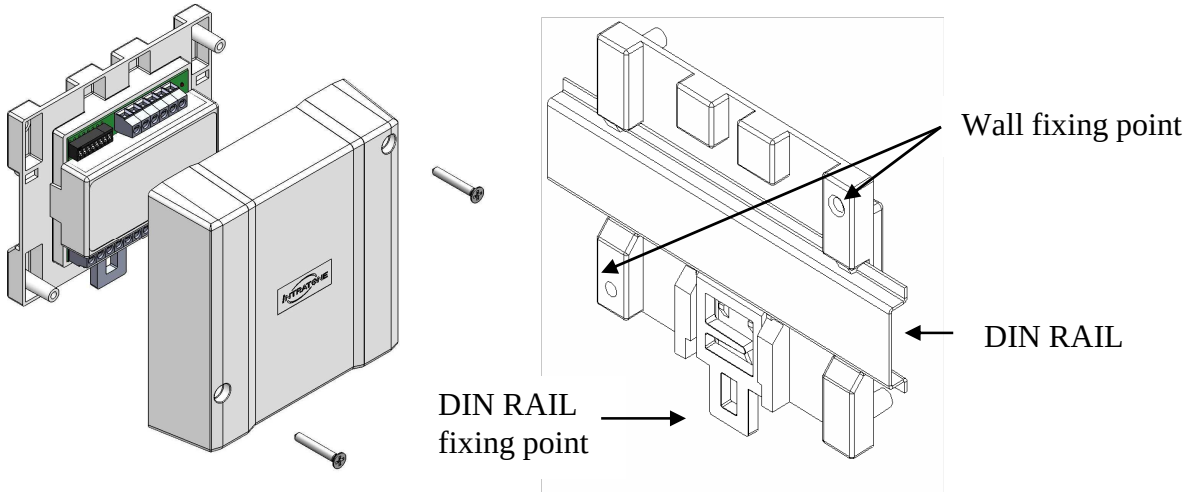
The cables used to connect the receiver to an INTRATONE RESIDENTIAL central unit must be installed in accordance with the instructions describing the level 2, protected environment, of the NF EN 61000-4-4 standard.

Please follow the recommendations given in the cabling and connection diagrams, in particular with respect to the distance and the gauge of the cables between the RF receiver and the central unit or GSM unit. If this is not the case, no warranty will be given.

End of life product recycling:

The receiver and its accessories must not be disposed of with unsorted municipal waste, but must follow the WEEE (Waste Electrical and Electronic Equipment) collection and recycling channel.

Mounting



1) Place the EEN-REC2 on the DIN RAIL or wall-mount it.
2) Set the switches.
3) Connect the coded aerial (with the optional aerial of required).
4) Connect the receiver to the central unit or GSM unit.

Sizes