



RAC80 Radio Alarm Contact with Magnet

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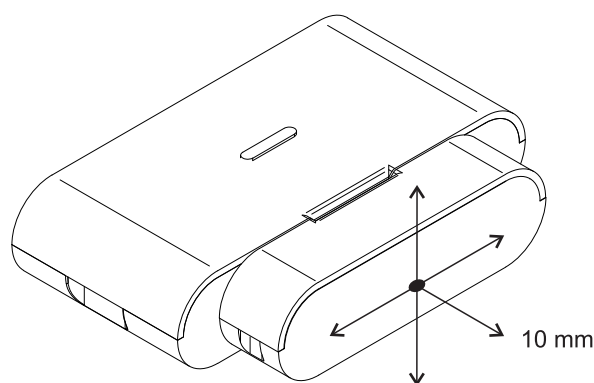
Setup Information

The RAC80 Radio Alarm Contact with magnet (called RAC80 hereafter) is used as wireless door- or window contact. To use the RAC80 as a transmitter for certain events, the alarm can be activated by approaching and/or moving away a magnet, or by the opening and/or closing of an electrical contact. In this case, the alarm is immediately transmitted to the NurseCall NC8 system

Installation recommendations.

- Allow a minimum height of 20 cm from the ground.
- Do not use on metallic surfaces
- The RAC80 is not waterproof

Placing the magnet



The RAC80 features one REED contact, which allow to detect a door or window opening or closing using a magnet. The REED contact position is indicated by a notch on the long side of the housing, see the drawing above. The RAC80 must be placed on the frame of the door or the window, and the magnet on the moving part of the door or the window. The provided double-sided adhesive tapes must be used. The magnet must be aligned with the RAC80 and both notches must be front to front. The spacing between the radio transmitter and the magnet should not exceed 10 mm in any direction when the door or window is closed.

RAC80 power supply

The RAC80 could be powered by an replaceable 3V lithium battery type CR2430 (use a Renata brand battery) or by an optional external power supply. The battery level is monitored during each alarm transmission or daily code. A low battery technical alarm is sent once three consecutive low battery level are detected. Low battery status is cancelled by exchanging the battery (see below). The battery could be used as a backup battery if the external power supply is used simultaneously, but the battery level is not monitored in this case.

Opening the housing and exchanging the battery

The RAC80 housing could be opened, for connecting optional wiring or replacing the battery.



Warning !

Do not ingest battery, Chemical Burn Hazard.

This product contains a coin / button cell battery. If the coin button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.

Keep new and used batteries away from children.

if the product housing does not close securely, stop using

the product and keep it away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

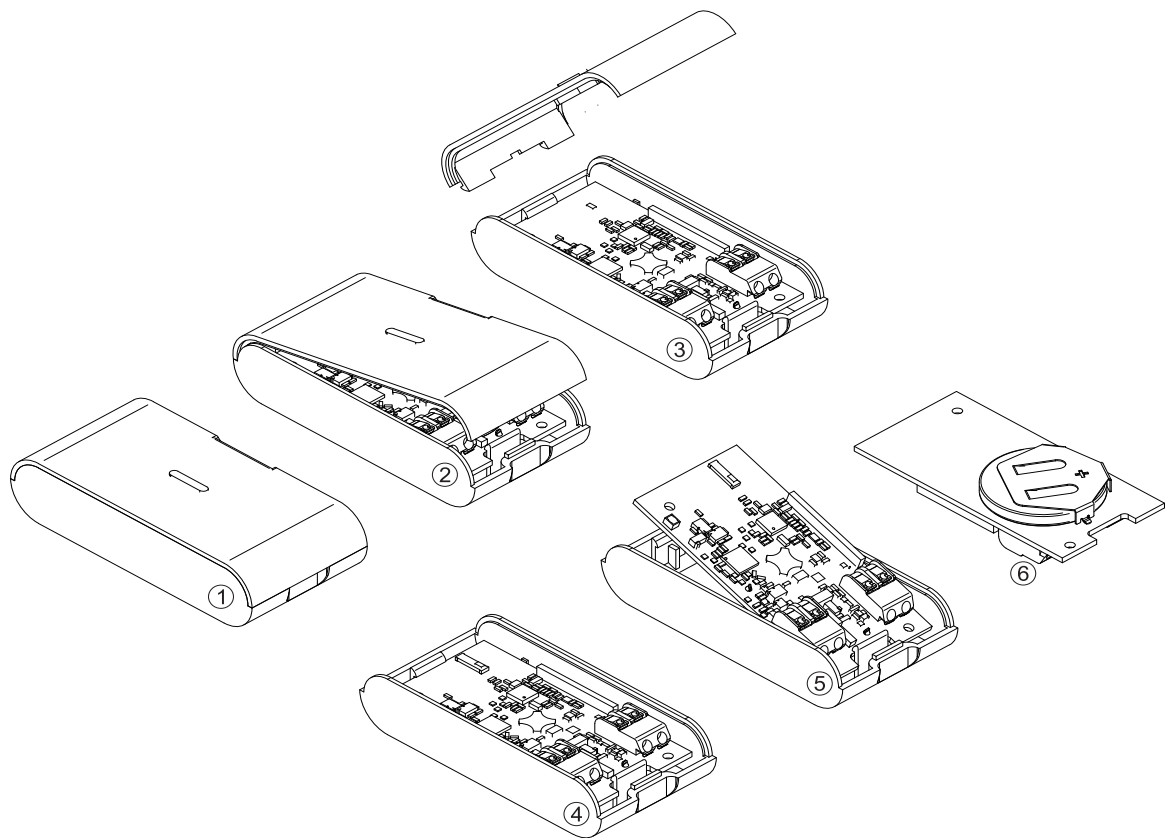
Battery replacement must be carried out by trained service personnel only.



Warning !

The RAC80 should be opened in an ESD-protected environment.

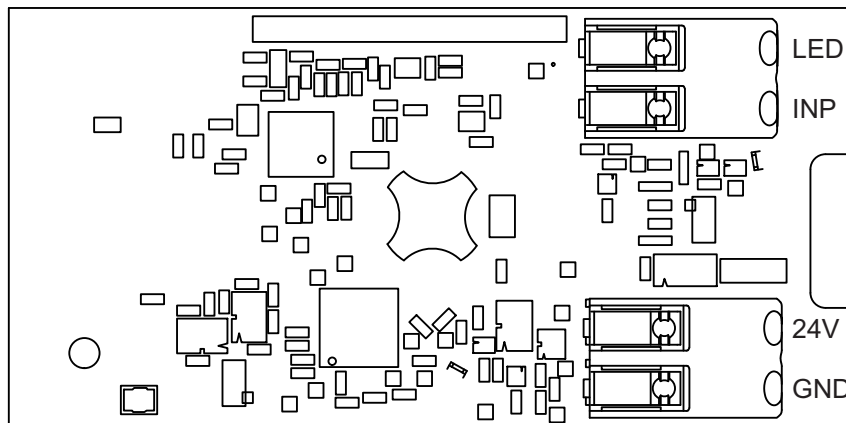
Discharge yourself from electrostatic loads by touching a grounded conductive surface before opening the unit.



Operation

1. Put the closed device with the opening notch (small side, right bottom in view 1) on a flat surface (a table for instance)
 2. Maintain the bottom part of the housing on both side and, using a small tool or your finger, open the upper part in tiring it above the notch
 3. Remove the upper part in doing a curved movement
 4. The electronic is then available, for instance to connect external wiring
Warning : do not touch the electronic components !
 5. Still using a small tool or your finger, push the clip on the other small side to release the electronic printed board and remove it from the housing
 6. The board could then be turned upside down to exchange the battery. remove the old one and push firmly the new one in the battery holder.
- The housing could then be closed again in doing the same operations

Optional wiring



Wiring has to be done before placing the battery.

Battery power

The RAC80 could be powered by an replaceable 3V lithium battery type CR2430 (use a Renata brand battery). The battery is able to generate up to 5'000 radio transmissions in a period of up to 3 years. The battery level is monitored during each alarm transmission or daily code. A low battery technical alarm is sent once three consecutive low battery level are detected. Low battery status is cancelled by exchanging the battery (see below).

External power

The RAC80 could also be powered by an external supply, in using the two terminal blocks 24V and GND.

Block	Description
24V	Analog PS2 or LPS external power supply: 6V - 30V, 40 mA min to source
GND	GND (external power supply and input / output reference)

The internal battery is then not necessary, but could be used as a backup in case of loss of external power. Warning : in this case, the battery level is not monitored, it is advised to exchange it every 5 years.

External alarm input

The RAC80 features a terminal block to connect an external electrical floating contact. The cable length should not exceed 2 m. The external input cannot be used in conjunction with a magnet and REED contact.

The power GND must be used as voltage reference to close the circuit.

Block	Description
INP	Alarm digital input. NO=Trig 7, NC=Trig 8 By default: NO = Door/Window Terminal. NC = Disabled

Output

The RAC80 features a terminal block to connect an external alarm device, as a buzzer or a LED. The output generates from 0 (OFF) to 3 pulses triggered by the "Door" and the "Door/Window Reed Relay" criteria., see the document "Programming Reference Manual".

The power GND must be used as voltage reference to close the circuit.

Block	Description
LED	Output analog open collector, 30V max., 100mA max. drawn by external supply (ex=LED, BUZZER)

Configuration

The LE80 must be configured in using the PR80 device and the NurseCall Configuration Manager (NCCM) software. The list of parameter is given in the document "Programming Reference Manual".

LED indication

Once any kind of alarm is sent (door / window or external input event detection) the LED will be lit red during 0.7 seconds. A successful alarm sending will be confirm by the LED briefly flashing in green. In case the alarm could not be sent the LED will flash three times in red, approximately after 1.5 seconds.

Button

The button could be used to cancel the alarm functionality of the device, in pressing it for at least 2 seconds and in confirming by a second press within the next 2.5 seconds (the LED shall be lit red during this time) The LED confirms the changes and the technical message "trigger disabled" is sent.

The button could also be used to put the device completely OFF (and back to ON) in pressing the button for at least 10 seconds and in confirming by a second press within the next 2.5 seconds (the LED shall be lit pink during this time). The LED confirms the changes and the technical message "Power OFF device" shall be sent.

This device shall be put back in normal mode only in pressing the button during more than 0.5 seconds. The LED confirms the changes and the technical message "Power ON device" shall be sent.

If the button is pressed shortly (less than 0.5sec.), the LED shall indicate the RAC80 status in this way :three red LED flashes indicate the device is OFF (alarm functionalities), three pink LED flashes indicate the device is completely switched OFF, three green LED flashes indicate the device is ON.

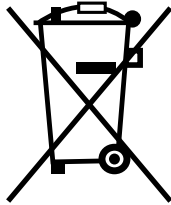
Programming

The RAC80 needs to be registered in the alarm receiver unit. Please refer to the user manual of the NurseCall Main Unit or the LE80 Radio Receiver.

Operation check

It is strongly recommended to perform an operation check of the installation on a regular basis.

Environmental note



This product has been made from high-quality parts and materials which can be re-used and recycled. Therefore, do not throw the product away with normal household waste at the end of its life. Take it to a collection point for recycling electrical and electronic devices. This is indicated by this symbol on the product and on the packaging as well. Please find out about collection points operated by your local authority. Help protect the environment by recycling used products.

Note : the product label is on the lid inside.

The CE Declaration can be found at the following address:

<http://www.telealarm.com/>

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