

EC DECLARATION OF CONFORMANCE

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Declares that the product known hereinafter as:

734r Door Contact Transmitter

manufactured by Cooper Security Ltd, fully complies with the requirements of the following European Directive:

1995/5/EC

(Radio & Telecommunications Terminal Equipment Directive):

In accordance with the standards set out in:

EN 50131-1
EN 50131-5-3
ETS 300 220-1 & 3
Signed

EN 50131-2-6
EN 60950-1
ETS 301 489-1 & 3

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Part No. 496935 Issue 1

COOPER Menvier

734r Door Contact Transmitter



Installation Guide

Introduction

The 734rEUR-00 and -01 transmitters are designed to work with any Scantronic 868MHz narrow band receiver. Both variants are two zone multi-function transmitters designed for use in any of the following applications:

- On their own as door contacts, using the supplied magnet.
- With a suitable external sensor to signal the opening of roller shutters by a set amount (-00 version only).
- With an external shock sensor to signal the presence of vibrations above a programmed level (-00 version only).
- With any voltage free contacts.

When used with both internal reed switch and external sensors the transmitter takes up two zones (or channels) on the receiver.

The external connector on the -00 variant is designed for four wire closed circuit sensors. The -01 variant is designed for Fully Supervised Loop (FSL) sensors.

In both variants the case is protected by an internal back tamper switch and an internal lid tamper switch.

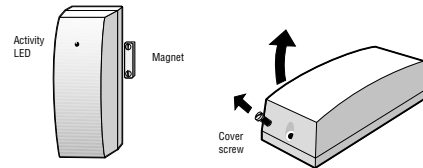


Figure 1. The 734rEUR

Opening the Case

Open the transmitter by undoing the cover screw and lifting the front away. Figure 2 shows the main internal features of the transmitter.

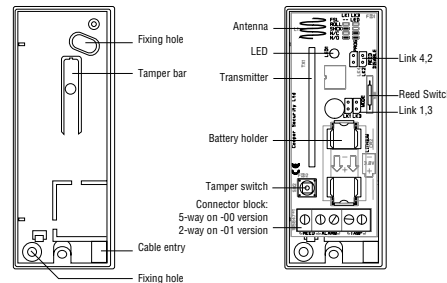


Figure 2. Inside the 734r EUR Transmitters

Controls and Indicators

The main printed circuit board (pcb) contains the following controls and indicators:

- LED Continuous flashing: Programming mode (-00 version only). Flashing in groups of four: transmission. Off: normal operation.
- LK1 Mode jumper (-00 version only). Link fitted: LK3 selects N/O or N/C for external switches connected to Alarm contacts. Link not fitted: LK3 selects either roller shutter or shock sensor.
- LK3 (-00 version) Selector, works in conjunction with LK1. (-01 version) LED enable.

Figure 3 shows how LK1 and LK3 work together for the -00 version.

	LK1	LK3
ROLLER SHUTTER	☐	☐
SHOCK SENSOR	☐	☒
NORMALLY CLOSED	☒	☐
NORMALLY OPEN	☒	☒
■ = LINK FITTED		
□ = LINK NOT FITTED		

Figure 3. LK1 and LK3 for -00 version.

- LK2 Link fitted: disable internal reed switch.
- LK4 Programming. Link fitted: program roller shutter extension or shock sensor vibration level. Link not fitted, normal operation.

Specification

Part No. 734rEUR-00, 734rEUR-01
Power Supply 3V CR2 Li/MnO2 battery
Battery Life Approximately 14 months
Temperature Range -10 to +55 °C
Low voltage alarm 2.4V nominal
Environmental Class I (Tested -10 to +55°C)
Security Grade II
INCERT No C0160194

Installation

Siting

Do NOT mount the unit:

Near the floor.
Close to or on large metal structures.
Closer than one meter to mains wiring and metal water or gas pipes.
Inside steel enclosures.
Next to electronic equipment, particularly computers, photocopiers or other radio equipment.
Upside down or on its side.

Door Contact

Where possible mount the body of the transmitter close to the top of the non-moving frame of a door or window, and the magnet on the moving part. If the frame is not wide enough, mount the magnet on the frame and the body on the moving part.

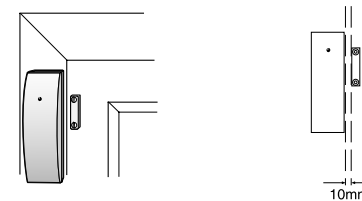


Figure 3. Siting Door Contact

DO:

Make sure there is less than 10mm between magnet and transmitter body with the door/window closed.
Make sure the magnet aligns with the reed switch with the door/window closed.

Do NOT mount the unit on the hinged edge of the door.

Preparing for Installation

Open the case by removing the cover screw and pivoting the cover up from the bottom.

Remove the pcb by undoing the screw (see Figure 2) and lifting the pcb clear from the top. Slide the pcb up out of the pcb bracket. Install one 3V CR2 Li/MnO2 battery in the battery holder on the pcb.

Learning

Each transmitter provides two separate zones. You can make the receiver learn each zone independently. Make sure the receiver is in learn mode (see the Installation and Programming Guide for the receiver) before starting.

Learning Zone 1

First make sure both back and lid tamper switches are closed, then trigger either the lid or back tamper.

Learning Zone 2 - 00 version

Fit a plain wire shorting link to the tamper terminals on the connector block. Open the link to cause a transmission.

Learning Zone 2 - 01 version

Fit a 2k2 resistor to the terminals on the connector block. Open the link to cause a transmission.

Alternatively, wire in an external sensor as shown on the next page and open the tamper switch.

For receivers that use infra-red learn hold the transmitter's activity LED no more than 50mm away from the infra-red learn sensor on the receiver.

Physical Installation

Mount the back

- Remove the PCB from the case back.
- Hold the back in the chosen location.
- Mark two holes through the fixing slots in the back.
- Secure the back to the surface using two Type 'C' 15mm Domehead screws.
- Make sure the back is flush against the surface and pushes the tamper bar in far enough to activate the tamper switch.
- Re-fit the PCB into the back of the case.
- If you are using the internal reed switch then mount the external magnet at a suitable point on the door or window being protected.

NOTE: If you plan to use the **internal reed switch** OR zone 1 then **YOU MUST REMOVE THE JUMPER FROM LK2.** (If you wish to retain the jumper link then fit it onto one pin only.)

Connecting External Door Contacts or N.C. Switches

You can wire external Normally Closed devices (for example the 20mm Quikfit) to the 734r transmitter. You may connect several contacts in series, but the alarm control unit will treat them all as one zone. Do not use more than 10m total cable length from the 734r to the last external contact

Both variants of the 734r provide two zones. However, connections to the zones differ between variants.

In the -00 variant the internal reed switch and the two left hand terminals on the connector block both provide alarm contacts for zone 1. The lid tamper provides the tamper contacts for zone 1. The four right hand terminals provide alarm and tamper connections for zone 2.

In the -01 variant the internal reed switch and lid tamper provides zone 1. The two FSL terminals on the connector block provide both alarm and tamper for zone 2.

Connections for -00 Variant

- 1. Remove any wire links from the Alarm and Tamper terminals.
- 2. Connect Normally Closed contacts wired as shown in Figure 3.

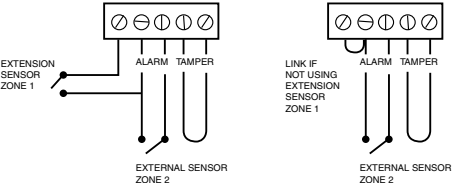


Figure 4. Connecting an external reed (-00 version).
If you wish to connect Normally Open switches then fit links to LK1 and LK3, as shown in Figure 3.

Wiring a Roller Shutter or Shock Sensor

When connecting the transmitter to roller shutter or shock sensors, connect the alarm contacts of the sensor to the terminals marked "Alarm". If present, connect the tamper contacts of the sensor to the terminals marked "Tamper". If the sensor does not have tamper contacts:
EITHER a) Connect a spare pair of wires in the cable to the Tamper terminals and short circuit the far end of the pair.
OR b) Fit a wire link to short circuit the Tamper terminals in the transmitter.

Connections for -01 Variant

The 734rEUR-01 provides two terminals for FSL circuits. Fit a 2k2 resistor at the end of the detector loop in series with the tamper contacts of the sensor, and a 4k7 resistor in parallel with the alarm contacts of the sensor, see Figure 5.

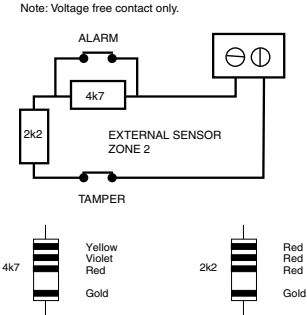


Figure 5. Connecting an external reed (-01 version)

Commissioning

Selecting Operating Mode

To use the 734r with a shock- or roller shutter sensor make sure that link LK1 is open circuit (jumper NOT fitted).

Programming

When using the 734r as a roller shutter detector or as a shock sensor then you may program the detector's sensitivity to events. To enter programming mode short circuit LK4 by fitting a jumper over both pins. The activity LED flashes continuously while the transmitter is in programming mode. To leave programming mode remove the short circuit from LK4 by fitting the jumper to one pin only. Note that you do not need to program the 734r when using it as a door contact.

Note: If the 734r refuses to enter programming mode (LED does not flash continuously) then the battery may be low. Change the battery and try again.

Roller Shutter

When using the 734r with a roller shutter sensor you can program the transmitter to transmit an alarm after a set number of open/close events on the roller shutter sensor. By default the 734r will send an alarm after detecting six closures on the sensor. To change this number:

- 1. Place the transmitter in programming mode.
 - 2. Operate the roller shutter sensor for the required number of open/close events. (Make sure that all the open/close events occur within 20 seconds.)
 - 3. Leave programming mode.
- The transmitter will now signal an alarm condition after the programmed number of open/close events.

Shock Sensor

When using the 734r with a shock sensor you can program the minimum level of shocks that the transmitter will respond to.

- 1. Place the transmitter in programming mode.
- 2. Vibrate the shock sensor with smallest level of force that you wish the transmitter to respond to (strike the wall or door on which the sensor is mounted). Activate the sensor repeatedly four or five times.
- 3. Leave programming mode.

The transmitter will now ignore any shocks smaller than the average of those you used during programming.

Enabling/Disabling the LED (-00 version)

You can select whether the Activity LED operates or not during radio transmissions. To enable the LED:

- 1. Make sure transmitter is not in programming mode (no jumper on LK4).
- 2. Fit one jumper to the LK1 pins, and fit another to the LK3 pins.
- 3. Momentarily fit a jumper to the LK4 pins and then remove it.

The LED will now flash for all types of transmission except supervision, unless the battery is low.

To disable the LED:

- 1. Make sure transmitter is not in programming mode (no jumper on LK4).
- 2. Fit one jumper to the LK1 pins only.
- 3. Momentarily fit a jumper to the LK4 pins and then remove it.

The Activity LED will not flash for any transmission. Note that the LED will also not flash to indicate low battery.

Enabling/Disabling the LED (-01 version)

To enable the Activity LED fit LK3.

To disable the Activity LED remove LK3.

Testing.

- 1. Put the control unit into engineer walk test.
- 2. Trigger the transmitter.
- 3. Make sure the panel receives the alarm.
- 4. Chose another site for the transmitter if the panel does not receive the signal.
- 6. Press X on the control panel when you have finished testing, to stop the walk test.