

1. INTRODUCTION

This RF receiver is part of the Niko RF (Radio Frequency) system, an installation technique that does not use any wiring between the control points (push-buttons) and the consumers to be operated. This technique is known as "remote control" or "wireless control". Transmission occurs by means of radio waves at the 868,3MHz frequency. This frequency is reserved for products that do not transmit continuously (max.1% per hour = 36s.), so that there is only a minimal risk of interference. The system is therefore ideally suited for use in specific applications such as renovation of interiors, extensions in existing electrical installations where drilling or channeling work is excluded, offices with movable walls... or to avoid the use of complex cabling configurations. It is a modular system built around transmitters and receivers. The wall-mounted transmitters take the form of an ordinary switch suited for wall mounting. The hand held transmitters take the form of a conventional remote control unit. Each transmitter can control an unlimited number of receivers simultaneously. Each receiver can be controlled by up to 32 transmitters.

1.1. Regulations

These products conform to the EU regulations and comply with the essential requirements of the R&TTE directive: 1999/5/EC.

1.2. Legal provisions

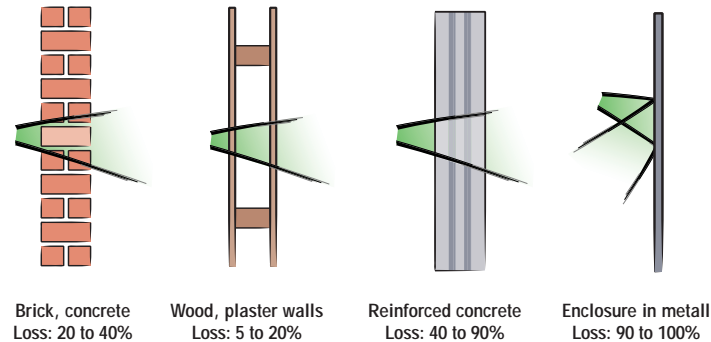
- Prior to installation and putting into service carefully read the complete operating instructions as well as the operating instructions of the Easywave RF transmitter(s).
- The installation must be carried out by a qualified person and in accordance with the applicable specifications.
- These operating instructions must be handed over to the user. They must be added to the electrical installation records and transferred to any new owners. Extra copies are available via our website or support service.
- Points to be taken into account during installation include, but are not limited to, the following:
 - Local laws, standards and regulations
 - The state of the art at the time of installation
 - Operating instructions contain only general provisions and must be consulted for any specific installation
 - The workmanship standards
- In case of doubt you can consult Niko's support service or contact a recognised inspection organisation.
 - Support Belgium: (+32) 03 760 14 82 — web-site : <http://www.niko.be> — e-mail: support@niko.be
 - Support Slovakia: +421 263 825 155 – E-mail: niko@niko.sk

In case repairs are needed, you can return your appliance to the authorised Niko wholesaler, together with an extensive description of your complaint (type of use, observed deviation...).

1.3. Range between Easywave transmitters and receivers

Equipment using a remote control, such as tv, video and audio, does not suffer interference from the Easywave transmitters. The Easywave transmitters need not to be pointed at the receiver. The range in buildings amounts to approx. 30m. In open fields ranges of up to 100m are possible. The transmitter range depends upon the materials used in the building.

You may also use diagnostic unit 05-370 to determine the RF signal strength in a given environment. The device detects all 868,3MHz signals. The reception quality of the transmitter signal or the strength of the interfering signals present is indicated by 9 LEDs, allowing you to determine whether the RF transmitter's range is sufficient.

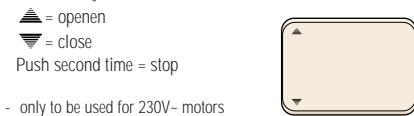


1.4. Guarantee provisions

Two-year guarantee from date of manufacture. The guarantee covers the repair or replacement of the defective equipment insofar as the defect results from normal use and the device has not been damaged. Niko cannot be held liable for any other costs resulting from the defect. For details reference will be made to Niko's general terms and conditions of sale.

2. TECHNICAL DATA

- transmitter range: 100m in open air; on average 30m
- no wiring between control points and receivers (RF controlled), only one connection between the switch-receiver and the device to be operated.
- receiver and transmitter form one integrated whole
- operating temperature: -5°C to +45°C
- receiver: max. load 4A / 230V- 50Hz
- functionality of wall-mounted and hand held transmitters: button with 2 positions



- only to be used for 230V- motors
- 2 modes: m1: open/close
m2: positioning of slats and open/close

3. MOUNTING INSTRUCTIONS AND RECOMMENDATIONS

- Never mount the transmitters and/or receivers in a metal distribution box, housing or metal netting.
- Where possible, avoid mounting the transmitters and/or receivers in the immediate vicinity of large metal objects.
- Never mount transmitters and/or receivers on (or near) the ground.
- Best results are obtained when mounting the receivers as closely to the transmitters as possible.
- The presence of metal or moisture in the walls may adversely affect the transmitter range.

4. PUTTING INTO SERVICE

After installing the transmitters and receivers, the transmitters must be programmed with the receivers. A receiver will only work if the address of a transmitter has been programmed in the receiver. Test the transmitter before mounting it!

4.1. Programming

- Briefly press the countersunk programming button (Prog.) (< 1,6s.).
- The Mode 1 LED will light up (see setting modes).
- One by one, operate the transmitters that must operate together with the receiver in Mode 1. The receipt of a good reply is confirmed by a long lighting up period (4s.).
- If desired, select Mode 2 by briefly pressing the programming button. Mode 2 is indicated by the blinking of the light signal (see: Setting modes).
- One by one, operate the transmitters that must operate together with the receiver in Mode 2. The receipt of the reply is confirmed by a long lighting up period (4s.).

Setting modes

Mode	Models	Where to operate?	Operate for how long?	Function	Duration of operation	Light signal during programming
m1	2 button	Top Bottom		Open Close	Max. 90s.	
m2	2 button	Top Bottom	Until the desired position is reached	Open (slats) Close (slats)	Time the button is pressed	

- Mode 2 has priority over Mode 1. If an open or close output is active in Mode 1 and an open or close command is then given from Mode 2, the Mode 1 activity will immediately be stopped and the Mode 2 activity will start.
- A maximum of 32 transmitters can be programmed per receiver. The LED will blink continually when this maximum has been reached.
- The programming can be terminated by briefly and repeatedly pressing the countersunk button (< 1,6s.) until you have exited the programming mode. (Mode1 - Mode2 - OFF)

The programming will not be lost after a long-term power cut.

4.2. Adding transmitters

Additional transmitters (max. 32) can at all times be programmed on a receiver. Repeat "PROGRAMMING".

4.3. Reset

- Press the flush key on the receiver (see section "Programming") for more than 1,6s. (flashing LED).
- Press again for more than 1,6s.
- The receiver's memory is now completely erased. This is acknowledged by a long light signal (4s.).
- End RESET by briefly pressing the flush key (< 1,6s.).

The programming is not lost in the event of a prolonged power failure

4.4. Selective erase

- Press the flush key on the receiver for more than 1,6s.
- A light signal starts flashing (flashing LED).
- Press 1 of the control buttons of the transmitter you want to erase.
- The transmitter is erased from the memory, which is acknowledged by a long light signal (4s.).
- End RESET by briefly (< 1,6s.) pressing the flush key again.

5. IN CASE OF MALFUNCTION

5.1 New installation

- Check whether the protection between the battery and the contacts has been removed in the transmitter.
- Check whether the battery and the contacts make good permanent contact.
- Reset and (re-)program the receiver.
- Press the programming key. The receiver is now in programming mode: there is a flashing light signal and the load is activated; if not, the receiver is defective. Program the transmitters with the receiver and end the programming.
- In case of transmitter malfunction: pick up the transmitter and walk towards the receiver.
- If the system works when holding the transmitter in your hand but not when it is placed on the wall, this may indicate the presence of moist or metal in the wall. You should then mount the transmitter in another place.
- The system still works at reduced distance: the transmitter has been placed outside the transmitter range or there is an interference problem. You should then place the transmitter closer to the receiver or outside the reach of the interference.
- The system no longer works even when holding the transmitter close to the receiver: check the programming and/or the battery of the transmitter (see above).

5.2. Existing installation

- Check the batteries of the transmitter(s).
- Check the operation of the connected receivers.
- Check for possible interference caused by changes in the system environment (moving of metal cabinets, walls or furniture...).
- Restore the original condition.

5.3. The system automatically switches on and off

- a The system automatically switches on: This is only possible if a foreign transmitter was programmed in the receiver within the receiver range. Reset the receiver and reprogram the relevant addresses (see operating instructions receivers; programming).
- b The system automatically switches off: This situation may be similar to point a) or be the result of transient power cuts.

6. WIRING DIAGRAM

