zaMel RWS-211D/N

zaMel Etero RWS-211D/N Wireless Switch Kit User Manual

Model: RWS-211D/N

1. Introduction

The zaMel Etero RWS-211D/N is a versatile wireless switch kit designed for remote control of electrical appliances. This kit includes a 2-channel receiver and a 2-channel radio transmitter (P-258/2). The receiver features two electromagnetic relays, each capable of handling up to 16 A, allowing independent control of two separate circuits. This system is suitable for controlling various devices such as lighting, heating, ventilation, air conditioning, pumps, and gates.
Its hermetically sealed IP56-rated enclosure ensures reliable operation in harsh weather conditions, making it ideal for both indoor and outdoor installations. The system operates on 230 V AC and offers a wide range of applications.

An overview of the RWS-211D/N wireless switch kit, showing the receiver unit with an antenna, a two-button remote control, and various applications such as controlling gates, garage doors, outdoor lighting, and air conditioning systems.

2. Safety Information

- Always disconnect power to the circuit before installing, servicing, or removing the device. Failure to do so may result in serious injury or death.
- Installation should be performed by a qualified electrician in accordance with all national and local electrical codes.
- Ensure proper grounding of the device.
- Do not exceed the maximum load capacity of 16 A per channel (4000 VA AC1). Overloading can cause damage to the device and create a fire hazard.
- Do not attempt to modify or repair the device. Refer all servicing to qualified personnel.
- Keep the device away from children and pets.

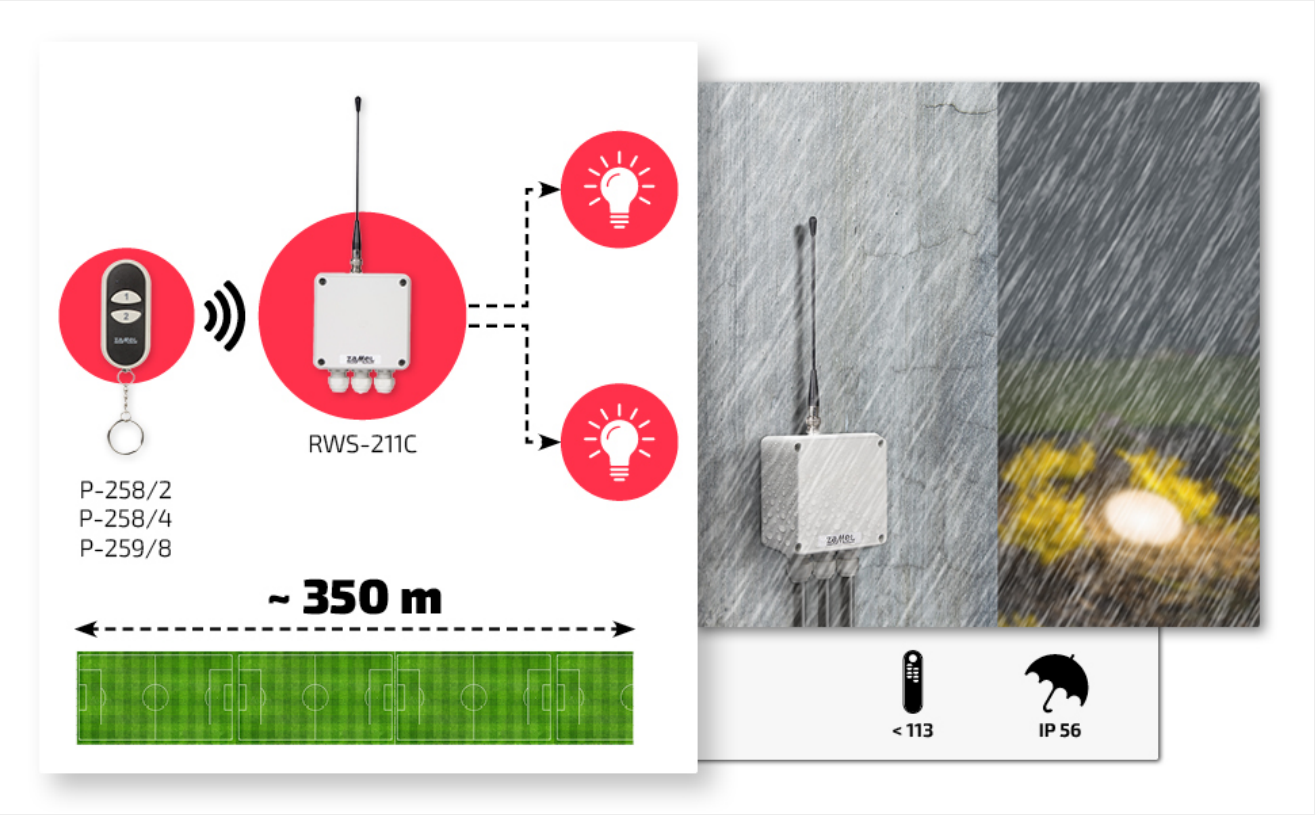
3. Package Contents

The zaMel Etero RWS-211D/N Wireless Switch Kit includes:

- 1x RWS-211D/N 2-Channel Receiver
- 1x P-258/2 2-Channel Radio Transmitter (Remote Control)

4. Product Features

- Independent control of up to two electrical circuits.
- Compatible with EXTA FREE system transmitters.
- Suitable for both indoor and outdoor use with an IP56 protection rating.
- Designed for reliable operation in challenging weather conditions.
- Radio transmission frequency: 868.32 MHz.
- Operating range: Up to 350 meters in open air. Range can be extended using an RTN-01 repeater.
- Supports programming of up to 32 transmitters (some documentation indicates up to 113).
- Relay contact parameters: 2 x 16 A / 250 V AC, 4000 VA AC1.
- Contact type: 2 x NO (Normally Open) potential-free contacts.
- Selectable operating modes: Bistable (toggle ON/OFF) or Timed (automatic OFF after set duration).
- Adjustable timed operation: 1 to 120 seconds, independently configurable for each channel.
- Surface mounting design.



This image depicts the RWS-211D/N receiver and its remote control, positioned in front of a residential house, visually representing the wireless signal transmission and the system's suitability for home automation.

5. Setup and Installation

5.1 Mounting the Receiver

The RWS-211D/N receiver is designed for surface mounting. Choose a suitable location, ensuring it is within range of the desired transmitter and has access to a 230 V AC power supply. The IP56 rating allows for outdoor installation.

5.2 Wiring the Receiver

Refer to the wiring diagram below for correct electrical connections. Ensure all power is disconnected before proceeding with wiring.

- Connect the 230 V AC power supply to the designated L (Live) and N (Neutral) terminals.
- Connect your electrical loads (e.g., lights, pumps) to the K1 and K2 output terminals. Each channel provides a Normally Open (NO) potential-free contact.
- Ensure all connections are secure and properly insulated.

This diagram provides a clear guide for wiring the RWS-211D/N receiver. It shows connections for the 230V AC power supply (L and N) and two separate output circuits, each controlled by a relay, suitable for connecting lights or other electrical loads.

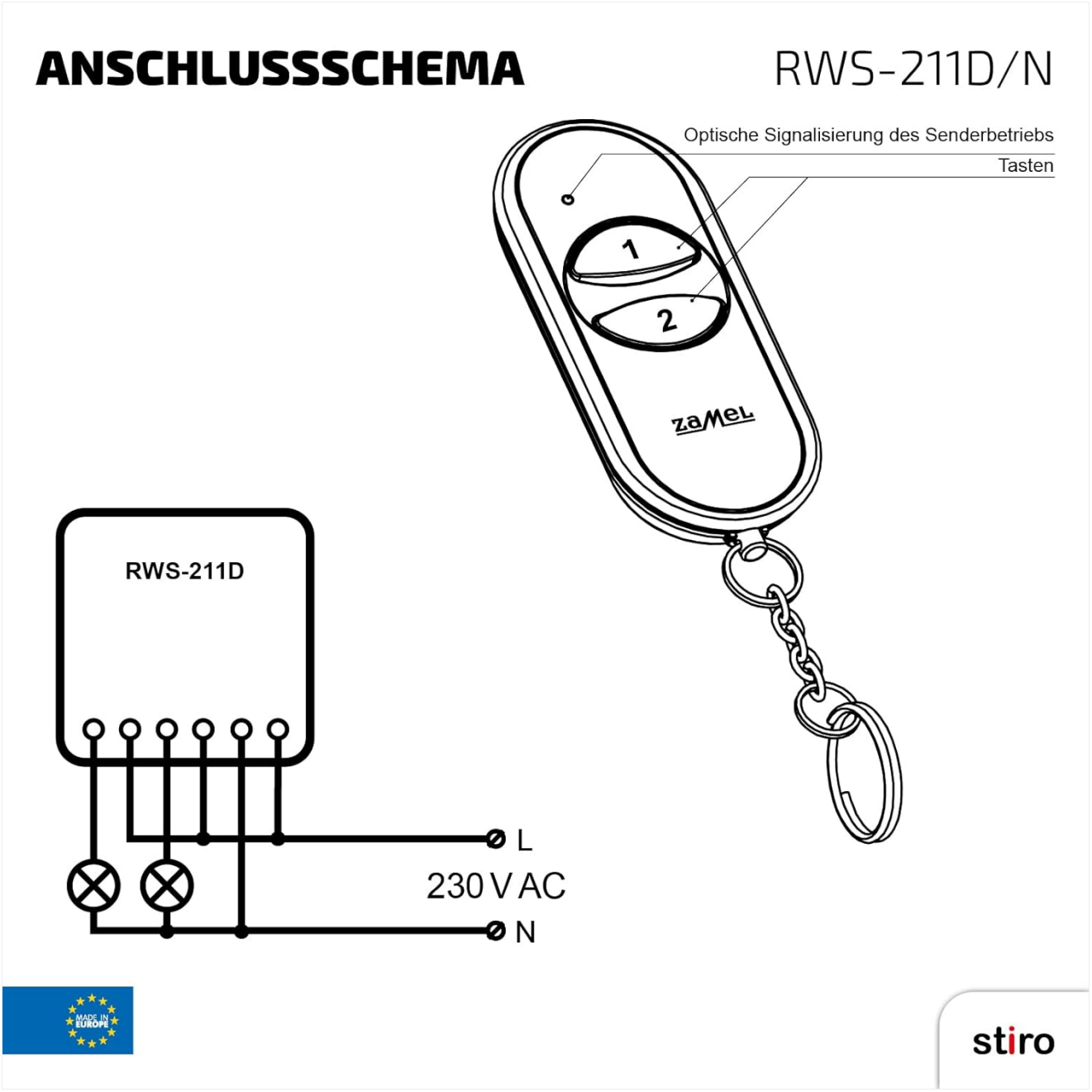
5.3 Programming Transmitters

The receiver can be programmed to respond to multiple transmitters. To program a transmitter:

1. Open the receiver enclosure.
2. Press and hold the 'PROGRAMMING' button on the receiver until the LED indicator starts flashing.
3. Within 5 seconds, press any button on the desired transmitter (remote control).
4. The LED on the receiver will flash rapidly to confirm successful programming.
5. Repeat for additional transmitters, up to a maximum of 32 (or 113, depending on the specific firmware version).

5.4 Setting Operating Mode and Time

The RWS-211D/N receiver allows you to select between bistable (toggle) and monostable (timed) operating modes for each channel independently. It also allows adjustment of the timed duration.



An internal view of the RWS-211D/N receiver, highlighting the DIP switches for selecting monostable or bistable operating modes for each channel (K1 and K2). It also shows the potentiometers used to adjust the timed operation duration for each channel, along with the programming button and LED indicator.

- **Mode Selection:** Use the internal DIP switches (labeled M/B for each channel) to select the desired operating mode. 'M' typically stands for Monostable (timed), and 'B' for Bistable (toggle).
- **Time Adjustment:** For monostable mode, use the small potentiometers (rotary adjusters) for each channel (K1 and K2) to set the desired operating time from 1 to 120 seconds. Note that these potentiometers may not have precise markings, requiring trial and error for exact timing.

6. Operating Instructions

Once installed and programmed, operating the RWS-211D/N kit is straightforward using the P-258/2 remote control.

- **Channel 1 Control:** Press button '1' on the remote control to activate or deactivate the device connected to Channel 1.
- **Channel 2 Control:** Press button '2' on the remote control to activate or deactivate the device connected to Channel 2.

- **Bistable Mode:** In bistable mode, each press of the button will toggle the connected device ON or OFF.
- **Monostable (Timed) Mode:** In monostable mode, pressing the button will turn the connected device ON for the pre-set duration (1-120 seconds), after which it will automatically turn OFF.

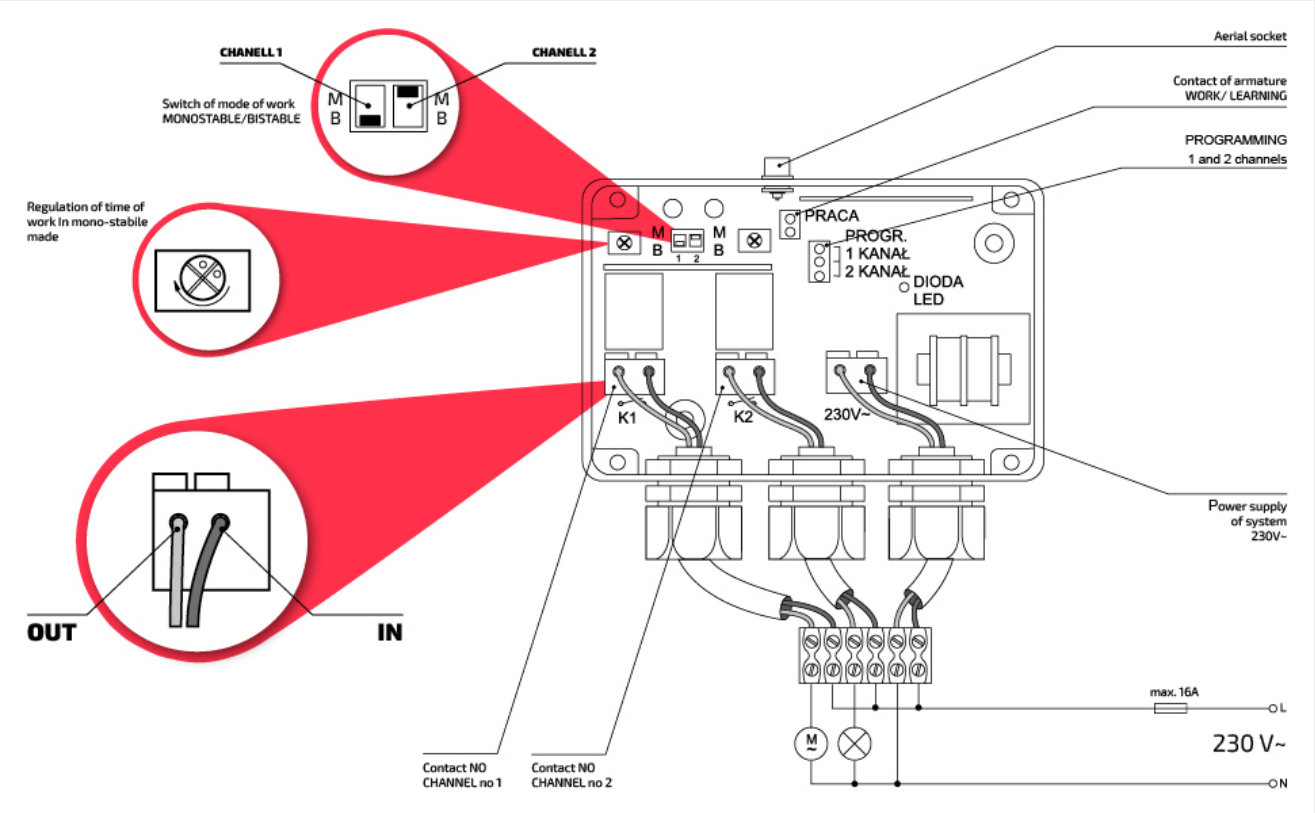
7. Maintenance

- **Cleaning:** Periodically clean the exterior of the receiver and remote control with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Battery Replacement (Remote Control):** The remote control is powered by a CR2016 battery. If the remote's range decreases or it stops responding, replace the battery. Refer to the remote control's specific instructions for battery replacement.
- **Connection Check:** Annually inspect all electrical connections to the receiver to ensure they remain secure and free from corrosion. Disconnect power before inspection.

8. Troubleshooting

- **Device not responding to remote:**
  - Check the remote control battery and replace if necessary.
  - Ensure the remote is within the operating range of the receiver.
  - Re-program the transmitter to the receiver (refer to Section 5.3).
  - Verify the receiver has power (check 230V AC connection).
- **Intermittent operation or reduced range:**
  - Check for physical obstacles (e.g., thick walls, metal structures) between the transmitter and receiver. Refer to the range reduction chart in Section 9.
  - Consider installing an RTN-01 repeater to extend the range.
  - Ensure the receiver's antenna is unobstructed.
- **Incorrect timed operation:**
  - Re-adjust the time setting potentiometers for the respective channel (refer to Section 5.4). Note that precise adjustment may require some trial and error.
  - Ensure the correct operating mode (monostable) is selected via the DIP switches.
- **Receiver LED not illuminating:**
  - Check the 230 V AC power supply connection to the receiver.
  - Verify the circuit breaker or fuse for the power supply.

9. Specifications



A detailed view showing the physical dimensions of the RWS-211D/N receiver (127x120x60mm) and the remote control (74x33x11.5mm). It also includes a diagram illustrating how different building materials like wood, glass, brick, concrete, and metal can reduce the wireless signal range.

Parameter	Value
Model	RWS-211D/N (80008772)
Dimensions (L x W x H)	127 x 120 x 60 mm
Weight	0.41 kg
Nominal Connection Voltage	230 V AC
Voltage Variation	-15% to +10%
Power Consumption (Standby)	1.15 W
Power Consumption (Operation)	2.4 W
Number of Channels	2
Maximum Transmitters	32 (up to 113 in some configurations)
Radio Frequency	868.32 MHz
Radio Transmission	One-way
Encryption	Transmission with addressing
Range (Open Air)	Up to 350 m
Range Extension	Yes, with RTN-01 repeater
Relay Contact Parameters	2 x 16 A / 250 V AC, 4000 VA AC1
Contact Type	2 x NO (Normally Open) potential-free contact

Parameter	Value
Operating Modes	Bistable, Timed
Time Adjustment	1 to 120 seconds (independent per channel)
Mounting	Surface
Enclosure Protection Class	IP56
Temperature Range	-20 to +50 °C
Protection Class	III
Material	Plastic, Metal
Connectivity Protocol	EXTA FREE system protocol
Reference Standards	PN-EN 60669, PN-EN 60950, PN-EN 61000

10. Warranty and Support

For warranty information regarding your zaMel Etero RWS-211D/N Wireless Switch Kit, please refer to the documentation provided at the time of purchase or contact your retailer. Warranty terms may vary by region and seller.
For technical assistance, troubleshooting, or any further inquiries, please contact zaMel customer support through their official website or the contact information provided with your product. When contacting support, please have your product model (RWS-211D/N) and purchase details readily available.