

Technical Data

4-Ch Receiver	4-Ch Transmitter
dimensions: 93x55x25 mm	features: 4-buttons
input power: 9-12V~(AC)	activity LED
12-15V= (DC)	dimensions: 30x58x12 mm
@ 200 mA max.	RF-frequency: 433,92MHz
contact rating: 250VAC / 5A	< 10mW ERP
allowed temp.: 0°C 40°C	(as req. CE / R&TTE)
RF frequency: 433 MHz	battery: Type 27A
	(12V Alkaline)

Disposal after end of using life for this product

Batteries and electronic devices of all kinds must not be disposed thru regular household waste disposal but should be turned in to a collection point for proper recycling. Please check with your local requirements.



Thank you for purchasing this product of TowiTek!
This user guide contains many important instructions on safe and proper use of this product. The purpose of this user guide is to make sure you always will get best performance and a reliable operation of your new product.

PLEASE FULLY READ THIS USER GUIDE!

The handling of products operating with electric current requires you to follow the rules from VDE such as VDE 0100, VDE0550/0551, VDE 0700, VDE 0711 and VDE 0860 or other local rules in your country.

- TowiTek modules are not designed and authorized for use in life support or life saving applications! Do not use the product for applications in which a temporary or permanent failure or malfunction could cause damage to persons or property.
- If the module is used to switch currents greater 24V it is necessary to have the installation done with no voltage applied and performed by a trained professional authorized for such work. The module may only be used in such application if it was installed in a safe to touch enclosure.
- The module must only be used in dry and clean environment. The use near water, heavy dirt and/or high humidity is dangerous and not permitted.
- The product must not be used in conjunction with any type of flammable liquid or gas or other environment with risk of spark triggered explosions.
- Never exceed the limits or ratings listed in the 'Technical Data' section at the end of this user guide.
- If the module is used in schools or educational facilities or similar institutions the operation must be supervised by trained and authorized staff.
- The product itself and all parts thereof (including packing material) are not suitable toys for children! (choking hazard, risk of electric shock, ...)

TowiTek 433MHz 4-channel radio receiver set

Nr. 19 14 01

User Guide

www.conrad.com

Intended use for this product

The TowiTek 4-Ch radio receiver set is intended for use in wide range of remote switching and controlling functions. Possible applications include garage door, gates, lighting and many others. The output switch contacts are suitable to handle mains voltage.

Features of the 4-Ch receiver

- 4-Ch receiver with four separate relay outputs
- one handheld transmitter included with the set
- up to 50 transmitter codes can be learned
- toggle or time mode can be individually configured for each of the four channels
- built in antenna – range up to 50m with direct line of sight and no interference with other RF-noise
- supply voltage 12-15V DC or 9-12V AC (@ 200 mA max.)
- simple programming and configuration with single button

Features of the handheld transmitter

- compact size dimensions of just 58 x 30 x 12 mm
- 4 buttons with tactile feedback
- blue LED for showing transmitting activity
- battery 12V Typ '27A' (included, already preinstalled)
- 48-bit security code
- compliant with CE and R&TTE requirements (433MHz, <10mW ERP) for use within EU countries

Operating Instructions

The handheld transmitters will send a unique digital code for each of the 4 buttons pressed. Each receiver could learn up to 50 such codes and associate them with one of the four relay channels. The assignment between buttons on the transmitter and channel on the receiver can be freely chosen. It is possible to use the same transmitter with several receivers.

Learning new transmitter codes

With short pressing of the programming key on the receiver the 'learning mode' is entered:

programming key	LED	function
press short	Ch 1 LED blinking	Learning codes for Ch1
press short again	Ch 2 LED blinking	Learning codes for Ch2
press short again	Ch 3 LED blinking	Learning codes for Ch3
press short again	Ch 4 LED blinking	Learning codes for Ch4
press short again	LEDs off	exit learning mode

In learning mode the receiver is waiting for codes received from transmitters. If no code is received for about 10 seconds, the receiver will exit learning mode and return to normal operation mode. If a code is received during learning mode, it is stored to memory and both LEDs will flash for confirmation.

Configuration of each channel for toggle or timer mode

By keeping the programming button pressed for longer duration the configuration mode can be selected according to this procedure:

first step: choose channel

press programming key and...	LED-Anzeige	Funktion
release, after...	Ch1 LED is lit	setup mode for Ch1
release, after...	Ch2 LED is lit	setup mode for Ch2
release, after...	Ch3 LED is lit	setup mode for Ch3
release, after...	Ch4 LED is lit	setup mode for Ch4

Functions in normal operation mode

After learning codes from transmitters, all channels of the receiver can be controlled independent of each other according to the configured operation modes.

The yellow LED for channels 1-4 indicate the current status of the associated relay.

If the LED is lit, the terminals 'NO' and 'C' of this channel are connected electrically.

If the LED is dark, the terminals 'NC' and 'C' of this channel are connected electrically

Note about maximum range to be obtained:

The functional range is up to 50 meters under best conditions but could be limited by objects blocking the line of sight between transmitter and receiver. Other RF-noise on the same frequency (e.g. from babyphone, wireless thermometer, or other 433MHz devices) could also limit the effective range of the remote set.

External Antenna Connector

The 3 pin header on the right side of the terminal block for power supply is for the connection of an optional external receiver unit available at Conrad with BN xxxx. If not using the external receiver, please leave this connector open.

Mounting Instructions

The 4-ch remote receiver could be mounted on almost any even surface, mounting on metal may have bad effect on functional range. Using the included mounting clips, the case can be snapped onto DIN-mounting rails with 30mm width

second step: choose desired mode

The mode of operation can be chosen individually for both channels. While the LED of Ch1 or Ch2 is still lit from first step the programming key is pressed again, and...

programming key	LED	function
pressed again, and ...	slow blink sequence	choosing mode
... release after 1 st blink		toggle mode
... release after 2 nd blink		0,5 sec. timer
... release after 3 rd blink		5 sec. timer
... release after 4 th blink		30 sec. timer
... release after 5 th blink		1 min. timer
... release after 6 th blink		5 min. timer
... release after 7 th blink		15 min. timer
... release after 8 ^h blink		30 min. timer
... release after 9 th blink		1 hour timer

Delete all transmitter codes from memory

For deleting all codes stored in the memory of the receiver the programming key is held down until all four LEDs are lit together (after 6-7 seconds). The key is released and pressed again to confirm the deletion of the complete memory.

The completion of the memory formatting is confirmed with alternate blinking of both LEDs

The setting of the toggle/timer mode for both channels is not affected by this procedure.

Declaration of conformity

Hereby, Conrad Electronic SE, Klaus-Conrad-Straße 1, 922 40 Hirschau, declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

The declaration of conformity to this product can be found at www.conrad.com.