

1-CHANNEL RECEIVER HT1E

Art.-Nr. 161 82 60



This receiver has been designed as a tamper-proof and tamper-free remote control. The connection between the transmitter (e.g. HT5S or HT8S) and the receiver is encrypted by AES128 and contains a "rolling code". This makes each data package sent to the receiver unique and non-repeatable. The learnable receiver allows the operation of up to 32 different transmitters that can be programmed into the receiver by pressing a key. The relay outputs have a changeover contact that may be freely connected. Due to the characteristics of the device, this remote control system is ideal for general installation purposes and alarm technology. It can be used as a wireless connection for almost all electronic systems at home, in the garden, in the office or in the workshop. This one channel receiver can, for example, open your garage door, your window blinds, switch sockets and internal lighting as well as alarm system. Wireless technology has a variety of applications as no cables are needed. This especially applies to outdoor lighting, controlling the pump in the pond or switching on the watering system of the garden.

SPECIFICATIONS

Operating voltage: 12 V DC
Power consumption: 80 mA max.
Operating frequency: 868.35 MHz
Mode: Tip or switch function
Follow up time relay: 200 ms
Outputs: 1 x relay (potential free)
Max. load: 230VAC/5A or 24VDC/5A

Dear customer,

to ensure a correct operation of this device, please read these instructions completely and carefully before use. Please take into consideration that this manual contains important information on the operation and use of this device. This instruction manual is part of the device. Please keep this manual in a safe place for future reference. If you pass the device on to a third person, please make sure that you also pass on the manual. Damages caused by failure of following the instructions in the manual will void the warranty. No liabilities will be taken for consequential damages. This product is certified according to the applicable EC directives for Electromagnetic Compatibility and complies with statutory requirements.

DESIGNATED USE

The designated use of this device is the remote switching of electrical loads without safety related applications in conjunction with a 5-channel transmitter, order number 161 81 60 or a 8-channel transmitter, order number 161 81 80. Any other use than the specified is not permitted.

NOTES ON OPERATION

The frequency range of 868 MHz is a frequency used for industrial, scientific, medical, domestic or similar radio devices (SRD band). When operating in this frequency range interference from other radio equipment may occur. A fully reliable function cannot be guaranteed. The user is responsible for installing the device according to the rules and regulations of the country in which the transmitter is operated and maintained. This also relates to the application for which the device is being used

FOR YOUR SAFETY: Be extremely cautious when you are switching 230 V devices! There is the danger of an electric shock! Inside the housing there are components with high-voltage. Touching these whilst the device is connected can be hazardous. All installation and maintenance on the power supply and the device must be performed by a qualified electrician only. If the relay switches devices higher than 35 V, the receiver should be installed in a separate housing with touch protection.

Qualifications for a reliable installation are also required in the field of wireless transmission, of control commands, relevant health and safety regulations, accident prevention regulations, directives and generally accepted engineering standards. (E.g. DIN standards and VDE regulations), technical rules and regulations to such an extent, that installation can guarantee a safe working condition of the equipment for the wireless transmission control commands.

DISCONNECT POWER

Make sure that the device cannot be switched on again during maintenance or installation.

Check the device for the absence electrical current before starting maintenance or installation.

Before switching on the device, make sure that the housing is securely closed and that no live wires can be touched.

WARNING / INSTALLATION SAFETY INSTRUCTIONS:

The installation of the device may only be performed by a qualified electrician.

During installation, the main supply (230 V) needs to be disconnected. The rules and regulations of the country in which the device is being installed need to be followed.

This device is not intended for the control of electrical equipment performing safety-related functions. In normal operation there is a risk of malfunction due to a general failure or a malfunction of the output stage or signal transmission. The user needs to ensure that there are no consequential damages possible due to malfunction or an undefined switching state.

– Due to incorrect tightening of the screws on the terminals or by use of inappropriate tools, the terminals may be damaged causing the insulation to fail or the contact to become loose. Badly connected cables can become loose during operation and become a hazard, has the increased contact resistance at the terminal connection will cause heat which could result in a fire. Incorrectly wired connections can destroy electrical components and cause other damage.

– This product is not approved for the use in connection with safety critical applications! If this device is used in conjunction with safety critical applications, additional security requirements are to be installed, if need be in conjunction with other licensed products.

– This device may not be used by children over the age of eight and people with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless under supervision or given instruction concerning the safe use of the equipment and the understanding of possible risks. Children should not play with the device. Cleaning and user maintenance should not be performed by children without supervision.

WARNINGS AND SAFETY

Please follow the additional safety instructions in order to avoid malfunction, damage and health problems.

– The operation of the device in adverse environmental conditions must be avoided under all circumstances. Functional temperatures range from -10°C – +40°C. Keep the device away from flammable gases, solvents, vapors, dust or humidity above 80% as well as spray water.

– The receiver may be operated in a dry room only.

– Connecting devices with an operating voltage ≥ 35 V DC or ≥ 25 V A/C must be performed by a qualified electrician who is familiar with the relevant safety regulations.

This device may not be used in connection with safety relevant systems or machines.

– Before opening the receiver, make sure that it is disconnected from all power sources.

– If it can be assumed that safe operation is no longer possible, that device must immediately be deactivated and secured against inadvertent operation. Safe operation is given if the device is not functioning, is visibly damaged, has become wet or stored under damp conditions.

– If you are at any time in doubt about the application or the wiring or the installation, immediately seek the advice of a professional or the manufacturer.

– Service and repair should only be performed by authorized persons.

– When installing the device, adequate cables with sufficient cross section are to be used.

– The protection of the relay circuits is not preassembled within the device. The protection of the relays must be assembled externally in the connecting cables. (12 A)

– The relay contacts do not separate the electrical circuit in their open state completely. Therefore the only functional switching of the operator devices is possible. The relay contacts are electrically isolated from the control electronics. If it is not clear which characteristics apply for a component or a module, how to components install an external circuit or what external components or additional devices may be connected, or which values of the external components are allowed, please consult an expert and specialist. Make sure that all connected devices and modules are suitable for the device and application. Please note that operating and connection errors are beyond our control. No liability will be taken from damages resulting from connection and operating errors.

– The accident prevention regulations of the professional associations for electrical systems and equipment should be strictly followed when installing this device in commercial buildings.

– In schools, training centers, clubs and workshops, the operation of modules and devices must be monitored by trained personnel.

– If the device should be serviced repaired, only original spare parts may be used. The use of incorrect spare parts can cause serious damage and personal injury!

Dispose of the packaging material carefully and keep it out of reach of children. There is a danger of suffocation.

SECURITY NOTES ACCORDING TO R&TTE:

These wireless remote controls are only permitted for equipment and installations where radio interference to the transmitter or receiver does not result in danger to persons, animals or property other than if the risk of malfunction is covered by other safety devices. The control of mobile radio controlled devices with a risk of accident may only be performed with the direct visual contact of the controlled device and if the area is clear of people, animals and objects. To secure the device from unintended use, make sure that the remote control is kept in a safe place inaccessible to children or animals.

WARNING

The use of this remote control is only permitted in combination with equipment in which radio interference to the transmitter or receiver does not result in danger to persons or property. Furthermore manual overriding emergency stop should be integrated in the setup. The remote control of devices and systems with an increased risk of accidents is not allowed. Crane and lifting equipment of any kind may not be used in connection with this remote control. The directives ZH 1/547 are not met.

This remote control may only be operated if the operated device is clearly visible. For damages of any kind caused by external influences, for faulty connections or negligent operation, no liability will be taken.

3. LED DISPLAY

The function display consists of 3 LEDs which have the following meaning:

1. LED "Power": the device is connected and under power.
2. LED "Learn": the device is in learning mode.
3. LED "Error": the LED is displayed in the following cases:
 - the station list is full
 - an error has occurred whilst reading/writing the EEPROM memory

4. LEARNING PROCESS

The receiver is capable of learning up to 32 keys (e.g. of receivers HT-8S or HT-5S). First remove the cover of the housing. Here you will find three LEDs and a button. The learning process consists of the following steps:

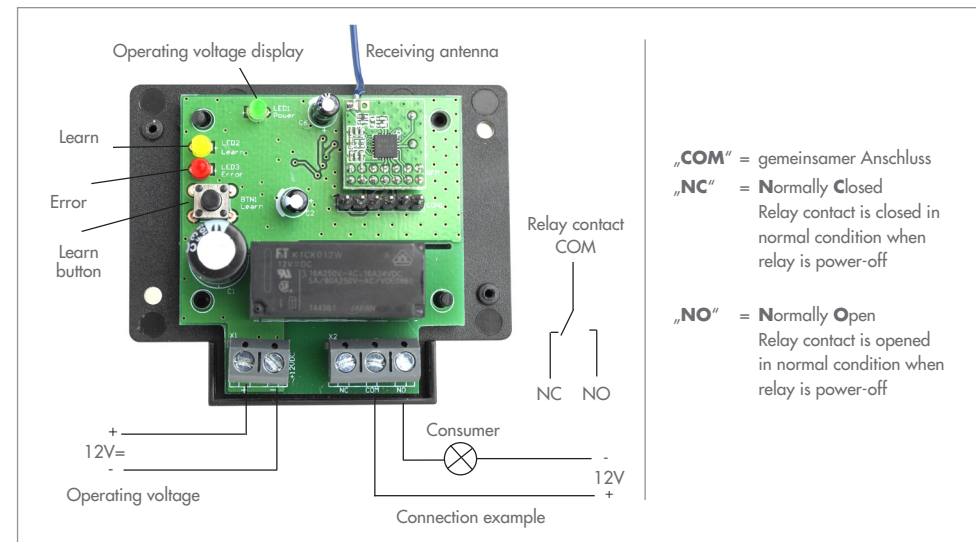
1. Press the button BTN1 "Learn" briefly. The LED "Learn" will light up. This means the programming mode is active.
2. Press the desired station key on the transmitter within 10 seconds. The LED "Learn" will start blinking.
3. Press the button BTN1 "Learn" again. The LED "Learn" will go out. The learning progress is now ended.
4. If you want the relay to only switch when two buttons are pressed at the same time (safety circuit) and both buttons need to be pressed during the learning sequence.

5. SETTING THE OPERATION MODE

Setting the operation mode consists of the following steps:

1. Press the button BTN1 "Learn" briefly. The LED "Learn" will light up. This means the programming mode is active.

CONNECTION PLAN



2. Press the "taught" key on the transmitter (*) within 10 seconds.
3. The LED "Learn" will blink. The operation mode will now be switched from "T" = touch function to "R" = latch function or from "R" to "T". The settings are saved to the memory and the device is automatically restarted.

*The transmitter must previously have gone through the programming sequence and the receiver must have learnt its code.

6. DELETING THE STATION MEMORY LIST

A maximum of 32 transmitters can be programmed. If 32 stations have already been programmed into the receiver, no additional transmitters can be programmed. Previously learnt codes are not lost. After deleting all transmitters, new transmitters can be programmed again.

If the transmitter list needs to be cleared and reset, the deletion can be made with the following steps:

1. Separate the receiver from the power supply.
2. Press and hold the button 1 "Learn".
3. Reconnect the device to the power supply.
4. The LED "Learn" will light up.
5. Wait till the LED starts blinking rapidly.
6. Release the button "Learn". All programmed transmitters are now deleted.

The receiver can now be programmed with new transmitters.

THIS INSTALLATION AND CONNECTION

Connect the device to a suitable power supply (12 V DC/200 mA). Make sure that the correct polarity of the +12 V DC is connected to the relay output. The maximum load per relay is 230 VAC/5 A or 24 V DC/5 A.

External consumers should be directly connected to the relay terminals according to the printed circuit symbols.

The housing is labeled with the pin assignment of the relay (O= open contact, S= closed contact, C= common connection for O or S).

As electrical loads, DC or AC can be connected, make sure that you establish a secure connection of the cables to the terminals, particularly when connecting mains voltage. All consumers should be protected by their individual fuse (max. 5A).

Although the relay may be positioned in the open state, it is still be connected to the mains. Therefore only a functional On/Off switching of the mains powered units is possible. The relay contacts are electrically isolated from the control electronics.

GUARANTEE/WARRANTY

This device has a guarantee of two years. The warranty includes the repair of faults that can be detected due to the use of faulty materials or bad workmanship. The installer of the device must ensure that all legal and regulatory requirements for the installation are met.

Ignoring the details of this instruction manual will void the warranty.

For consequential or incidental damages in connection with this product, no liabilities will be taken.

We reserve our right to repair, replace or refund the purchase price in the case of warranty.

The following cases will void the warranty:

- Changing, reworking or repairing the device.
- Changing the functionality or layout of the device.
- Using other components than original parts or components approved by the manufacturer.
- Damages caused by not following the instructions and wiring diagram.
- Damages caused by overloading the device.
- Damages caused by third parties.
- If the device is connected to an incorrect voltage current.
- Damages caused by incorrect or negligent operation.
- Damages caused by incorrect installation. E.g. missing/bridged fuses.
- If warranty is not given, all costs and the returning of the device is at the user's expense.

ENVIRONMENT

Consumers are legally obligated and responsible for the proper disposal of electronic and electrical devices by returning them to collecting sites designated for the recycling of electrical and electronic equipment waste. This device and/or components within the device can be recycled. For more information concerning disposal sites, please contact your local authority or waste management company.

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