

Wireless Receiver E20

Mounting and Operating Instructions

(Translation of the original Operating Instructions)



1 Data summary and functions

General information

- 1-channel AM wireless receiver in 433 MHz or 868 MHz
- For retrofitting existing garage door drives with alternative wireless system
- For expansion or retrofitting if other hand-held transmitters should be taught, because, for example, the original hand-held transmitters are no longer available.
- Simple connection on button/key switch input from garage door drives
- Integrated socket for the garage door drive (continuous operating voltage)
- Very simple installation and programming
- LED status display

Inputs

- Operating voltage

Outputs

- Operating voltage
- 2-strand wire (potential-free normally open contact)

Functions

- Pulse

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Information / Instruction

Please keep these instructions so that you have them available for later questions.

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3 Safety instructions

3.1. Symbols used



CAUTION!

Risk of personal injury!

In the following are important safety instructions, which must absolutely be observed to prevent personal injury!



ATTENTION!

Risk of property damage!

In the following are important safety instructions that must absolutely be observed to prevent damage to property!



Information / Notes

In the following is information and notes on the control unit and its operation.



ESD Hazard

Note on possibility of failure due to static electricity.

3.2. Basic safety instructions

- **Work on the control unit**
 - Switch off the supply voltage!
 - Only switch the voltage on again after you have checked all the connections again.
- **Mounting, installation, commissioning and maintenance**
 - Solely by specialists, e.g. by a qualified electrician who can judge the work-safety conditions.
 - Based on the directives and the accepted rules of engineering.
- **Mounting and operation**
 - The remote control of devices and systems which involve an increased risk of accidents (e.g. crane systems) is prohibited!
 - Observe locally applicable regulations.
 - Heed accident prevention regulations, VDE and EVU regulations.
 - Information can be obtained from power stations, VDE and employers' liability insurance companies.
 - No technical modifications may be carried out. Any change will result in a loss of liability and warranty.
- **Reliable operation is only possible with careful mounting and installation according to these instructions. No guarantee or liability is assumed for damages which arise from non-compliance with these instructions.**

3.3. Storage / Shipping / Packaging

- **Storage conditions: -25°C to + 70°C at 20 to 90% re relative humidity, non-condensing.**
- **The existing packaging is only used as a surface protection and is not permitted for direct further shipping. Shipping must only be done using sufficiently padded additional packages. Damages due to non-compliance are not covered in the manufacturer's liability.**

3.4. Use of wireless remote control units

- **These remote control units are only approved for use with devices and systems where radio interference in the transmitter or receiver does not result in a hazard for people, animals or property or this risk is covered by other safety equipment.**
- **The user must be informed that the wireless remote control of door systems with a risk of accidents is only permissible, if at all, with direct visual contact with the door system and that the motion range must be free of people, animals and objects.**
- **Store the transmitter so that unwanted activation, e.g. by children or animals, is impossible.**
- **The wireless remote control units in use work on generally-approved frequencies (ISM bands). The operator of such wireless remote control units is not protected from faults caused by other**

wireless systems or devices (e.g., wireless systems being operated in the same frequency range such as baby phones, intercoms, etc.).

4 Intended use

- The socket receiver is only approved for connection of the operating voltage listed under Technical Data, see Point 11.
- The **connecting in series** of several connector housings (e.g. in a timer) is **not allowed!**
- Only operate socket receivers on authorized grounded outlets.
- **Do not open the housing! When opening there is the risk of touching live parts! Therefore, repairs must only be done by a technician that is familiar with the applicable regulations!**

4.1. Fitter / installer

- These instructions require knowledge from electrical technicians, who can evaluate the work required from you, detect possible sources of danger and take the suitable safety measures.
- This manual is designed for the fitter/installer of the control system, as well as the processing industry, however it is not intended to be given to the operator of the door system.
- This manual is to be kept with the technical documentation of the system.

4.2. Legal Prerequisites

The receiver corresponds to the requirements according to:

- **ETSI EN 300220-2** V2.1.2 (2007-06)
- **ETSI EN 301489-3** V1.4.1 (2002-08)
- **VDE0620-1** (2010-02)
- **EN 61058-1** (2008-09) incl. Authorizations 2009-07 and 2011-10

5 Improper use

Any use other than the intended use shall be considered improper use for which the manufacturer is not liable. The fitter, electrician or operating organisation bears the risk and the liability here.

6 Installation / Connection

6.1. Installation location

- The environmental conditions are to be taken from the Technical Data, see point 11.
- Do not select a location for installation where there are electro-magnetic fields. That is, not directly next to contactors, power transformers, fluorescent lights, etc. or their connection wires.
- The installation location must be selected so that if necessary, the socket receiver can be quickly pulled out of the socket.
- Protect socket receivers from weather influences. Moisture, extreme temperatures, vibrations and impact loads must absolutely be avoided.
- Use is only allowed in closed rooms, use out of doors is not allowed!

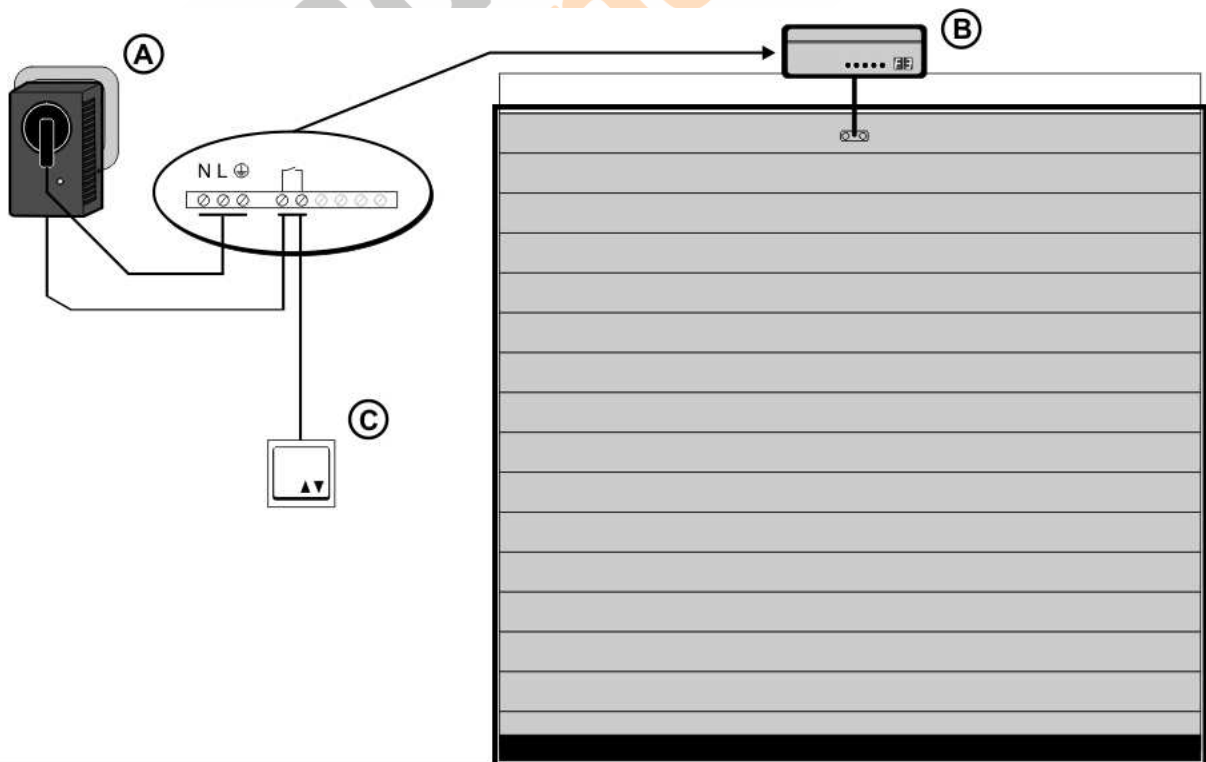


6.2. Connecting the socket receiver to the garage door drive.

1. Pull the power plug of the drive from the socket.
2. Plug the socket receiver into the free socket.
3. Only plug the garage door drive power plug back into the socket after successful wiring.
4. Find the two connection clamps for the wall button, interior button or key switch on the garage door drive. Depending on the model, these connection clamps are located either under a cover flap or under the drive cover. If necessary, look in the instructions for your garage door drive, or ask the manufacturer / supplier.
5. Connect the 2-wire cable of the socket receiver to the two connection clamps for the wall button, interior button or key switch. If the clamps are assigned, the socket receiver is connected in "parallel" (additionally).
6. Carefully close the cover flap / drive cover again!
7. Now plug the garage door drive power plug into the socket receiver.
8. Teach the hand-held transmitter in the socket receiver, see point 7.

The installation is now completed.

6.3. Installation example



(A) Socket receiver (B) Garage door control (C) Wall button

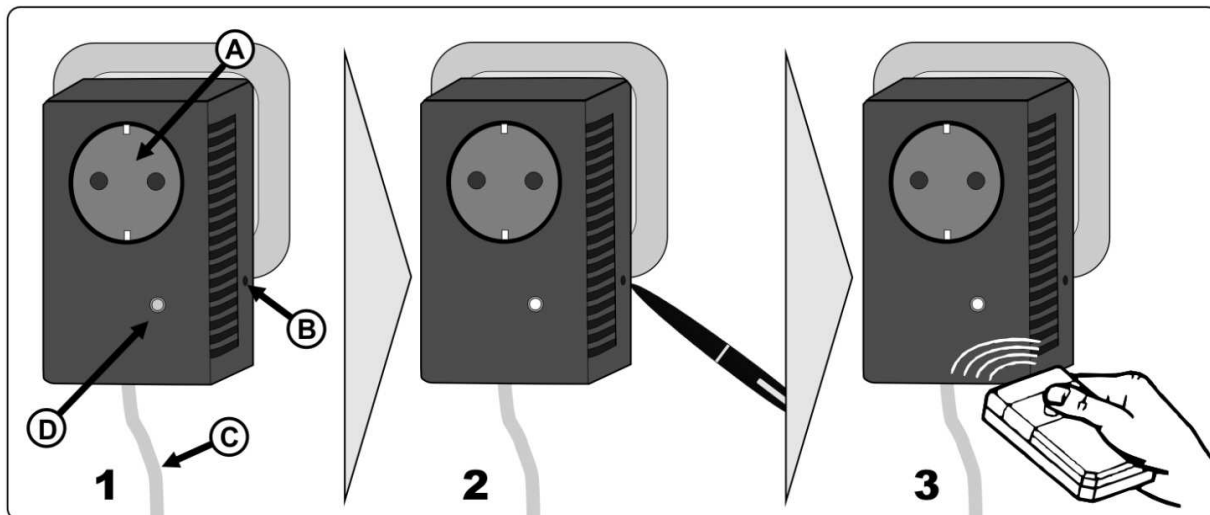
7 Commissioning / Programming / Reset



CAUTION!

- Read the safety instructions under point 3 again and follow them exactly!
- After successful commissioning, all further specifications of this manual must be checked and completely implemented!

7.1. General information



(A) Output -1 mains voltage (B) Programming key (C) Output -2 for door drive (D) LED

- A maximum of 13 codes (transmitter buttons) can be taught. If 13 codes have already been taught in the socket receiver, no additional codes will be taught in addition; the previously learned codes are not lost. The first transmitter of those taught determines which coding schematic all further transmitters must have.
- Only one coding schematic (12 bit or 18 bit or KeeLoq) can be taught. That means, if the first transmitter was a "KeeLoq" transmitter, the other transmitters that should be taught must work with the same "KeeLoq" coding. After deleting all transmitters, another coding can be learned.

7.2. Teaching the transmitter key

1. Plug the socket receiver into a suitable 230V/AC socket (**Fig 1**).
2. Activate the programming key (**B**) once briefly with a pointed object (e.g., ball-point pen) (**Fig 2**), LED (**D**) blinks / flickers.
3. Finally, activate the transmitter button that you want to teach so long until the LED (**D**) on the wireless socket (**Fig 3**) blinks / flickers very fast.

For a recognized wireless signal, the LED (D) flickers and "Output-2" (C) switches.



Information / Instruction

"Unsymmetrical" coding must be set in transmitters which have a coding switch! All coding switches set to "ON" or "OFF" leads to a loss of function or malfunctions.

7.3. Deleting transmitters

1. Activate programming key for approx. 5s (LED lights – flickers – goes out)
2. All taught transmitters are now deleted! Deleting individual transmitters is not possible.

8 Declaration of conformity

Dickert Electronic GmbH declares completely responsibly, that the product meets the regulations of Directive 1999/5/EC of the Council of the European Union. The complete text of the Declaration of Conformity can be found on the website www.Dickert.com under "Download".



9 Environmental protection / Disposal

The receiver does not contain any integrated batteries. Solely ROHS-conform components are used. Properly dispose of old and defective appliances and device parts at a collecting point! Do not put them in domestic waste!



10 Troubleshooting

Errors	Possible causes	Comments / Actions
LED remains off on the socket receiver during transmitter activation.	Battery in the transmitter is empty.	Check / replace battery.
	Transmitter not taught.	Teach transmitter.
	Transmitter has incorrect coding schematic.	Delete all transmitters and teach again.
	No power on the socket.	Check mains fuse (circuit breaker).
	Transmitter faulty.	Replace transmitter.
	Socket receiver faulty.	Replace receiver.
LED on the socket receiver goes on with transmitter activation, but the garage door drive does not react.	Faulty wiring.	Check whether the 2-wire cable of the socket receiver is connected correctly with the button / key switch input.
	Cable damaged.	Check cable for damage.
	Electronics in the garage door drive faulty.	Check whether the drive functions with a normal button. If not, replace the controls.
	Socket receiver faulty.	Replace receiver.

11 Technical data

The operation of the control system is only allowed according to these specifications / data!

Receiving frequency:	433.92 MHz/AM or 868.30 MHz/AM (see imprint)
Coding:	12 bit, 18 bit or Keeloq, self-teaching, max. 13 codes (transmitter keys) can be taught
Antenna:	integrated (no ext. antenna required)
Operating voltage:	230 V, ± 10% 50 Hz
Power consumption:	<0.5W (standby operation)
Output-1 (A):	Grounded outlet for the garage door drive (Continuous operating voltage, not switched on!) max. 500 VA , internal safety fuse (T3,15 A).
Output-2 (C):	Relay output, potential-free normally open circuit, max. 24 V / 1 A connection cable 2-wire, approx. 125 cm long
Operating temperature:	-20°C to +35°C at 20% to 90% rel. humidity, only indoor installation allowed.
Dimensions:	approx. 96 mm x 64 mm x 49 mm (L x W x H) housing ABS, IP 20, self-extinguishing
Weight:	approx. 155 g