

Operating manual

Radio remote



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Set of Equipment Supplied

- 1 receiver with stereo jack plug
- 1 radio transmitter

Please check whether all products you ordered are supplied.

1. Introduction

The UHF radio system for the TINY-FOGGER consists of a radio transmitter and one or several receivers.

The operating frequency of the system is 433 MHz.

By means of the radio transmitter you have the ability to address three channels which can either be three individual receivers or three receiving groups. The number of the receivers per channel is not limited.

The system has 256 coding options.

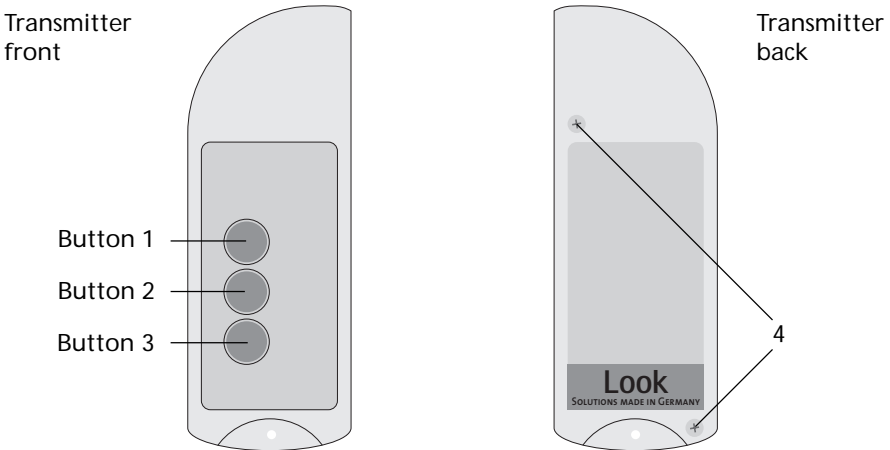
2. The Transmitter

2.1 Operation

The radio transmitter is in a usable state with the supplied battery inserted.

To transmit press one of the three buttons (1,2 or 3). If the key is pressed too briefly, the receiver ignores the command. For receiving several consecutive code cycles must be identical before a command is recognized as valid.

While sending the transmitter should be in your hand and held away from the body. If your hands clasp the antenna integrated in the round part of the casing or when you approach too big a metal surface/area, the range may be reduced and should therefore be avoided.



2.2 Coding

The system offers 256 coding options. The setting is made by means of DIP switches.

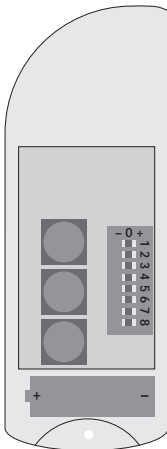
To change the coding set by the factory, open the apparatus by loosening the screws (4) with a suitable screwdriver and dismantle the two halves of the casing. Using a ball-point pen you can now set your individual code.

2. The Transmitter

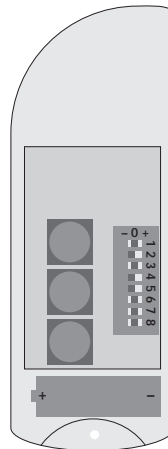
Each of the 8 slide switches has three operating positions: + 0 –.
When delivered the switches are in position 0.

For coding only switch positions 0 and – may be used.
The + switch positions are not recognized by the receiver.

Reference: The relevant receiver(s) as well as the transmitter must be encoded identically (same switch position).



When delivered
all switches are
in position 0



Example for
individual
adjusting
(only position
0 and –)

2.3 Replacing the Battery

The life of the battery depends on the use of the radio transmitter. If the range is strongly reduced or transmission is not possible, the battery must be replaced. Only use standard 12 V-alkaline batteries.

Loosen both the screws (4) with a suitable screwdriver and dismantle the two halves of the casing. Remove the used-up battery and insert the new one. Pay attention to polarity and test contact of the battery by trying to transmit.

3. The Receiver

3.1 Operation

The receiver is equipped with a stereo jack plug (1) and a short wire antenna (2).

Plug the jack plug (1) into the corresponding socket of the apparatus to be controlled.

In case of the TINY-FOGGER:

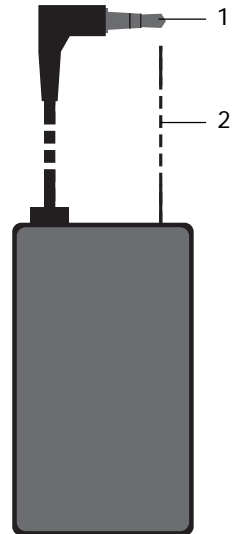
The socket is situated on the side of the cable remote.

The receiver now receives the necessary power from the the apparatus and is ready for operation.

Pressing of button 1 of the radio transmitter now starts the fogging process.

Note: Plug the radio remote into the socket **before** you connect the TINY-FOGGER to the battery!

Note: The antenna should be in upright position and should not be concealed by conductive objects.



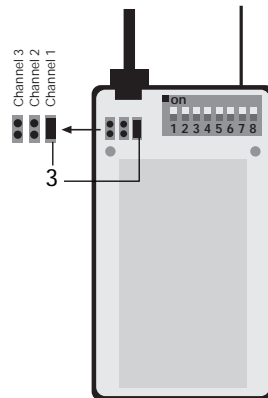
3.2 Channel Access/Selecting the Channel

Should several units be required to be addressed on different channels (1,2 or 3), the jumper (3) within the receiver must be replugged.

For this purpose open the receiver by removing the cover plate. This is only embedded and can usually be taken off without any tool. A slim slot screwdriver, for example, enables you to remove the cover.

The jumper (3) is red and when supplied it is in position channel 1, i.e. the receiver reacts when button 1 of the radio transmitter is pressed.

By moving the jumper to one of the two alternative positions, the receiver reacts to the according position (press button 2 or 3 of the radio transmitter).



3. The Receiver

3.3 Coding

Should the radio system be readjusted to a different coding than set by recording the factory, this must be carried out with the receiver as well as with the manual transmitter.

To do so, open the receiver as described in point 3.2. You can now set your individual code with a ball-point pen on the eight slide switches.

The slide switches of the receiver have 2 positions: ON and OFF.

When supplied all switches are in the OFF position.

Reference: The coding must be the same on the receiver (same switch position) as with the transmitter that goes with it. If only switch 2 is changed to ON, only switch 2 must also be modified in the transmitter (see section 2.2.).

4. System Range

The radio remote control is designed for a long range of 100 meters if conditions are ideal. The manual transmitter even passes through walls or reinforced concrete constructions. The maximum range is achieved only in case of visual contact with the receiver and with no radio-frequency interference's.

Possible causes for reduced range:

- Building/Construction of any kind or vegetation affect the range.
- The distance of the transmitter to the body as well as the distance of the receiver to other conducting areas or objects (the soil included) affects strongly the radiation characteristic and thus influences the range.
- The antenna of the receiver should be placed upright and be vertical from the control unit. Winding the antenna affects reduces the range.
- An antenna extension lead always causes an insertion loss and consequently reduces the received power.

4. System Range

- Radio noise in non-rural areas can be relatively high, through which the signal-to-noise becomes reduced and thus the range is limited. If another unit using the same frequency is in operation near by, the radio receiver will not work or it will not receive the correct code.
- When the receiver is operated near poorly-shielded personal computers (and with most personal computers this is the case) or similar units which produce radio interference, strong range forfeits can also occur or even result in the apparent disturbance of the receiver.
- No adjustments should be carried out to the transmitter or the receiver.

5. Technical Data

Transmitter	Transmitting frequency	433, 920 MHz +/- 150 KHz
	Radiated power (ERP)	< 25 mW (< 14 dBm)
	Modulation	100% AM
	Number of channels	3
	Coding options	256
	Voltage supply	12 V DC (battery)
	Range of working temperature	0° C to +65° C
	Dimensions (L x W x H)	100 x 37 x 19 mm

Receiver	Receiving frequency	433, 920 MHz +/- 150 KHz
	Responsivity	1 μ V
	Demodulation	log. AM-demodulator
	Voltage supply	12 V DC via stereo jack plug
	Coding options	256
	Channel access/selection (Jumper)	3
	Dimensions (L x W x H)	77 x 38 x 20 mm

Wiring of connectors

3-pin XLR male

Pin 1 = Ground Pin 2 = 0 - 10 V DC (+) Pin 3 = 12 V DC (+) input

Stereo jack

Sleeve = Ground Ring = 12V DC (+) input Tip = 0 - 10 V DC (+)

Mini-Stereo jack (for TINY-FOGGER)

Sleeve = Ground Ring = switch o/p Tip = 12 V DC (+) input