

Operating manual

# Funkfernbedienung



a Look Solutions product

## Set of Equipment supplied

- 1 receiver with mini-stereo-jack-plug or 3-pin-XLR-plug
- 1 radio transmitter

Please check whether all the products you ordered are supplied.

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# 1. Introduction

The UHF radio system 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.

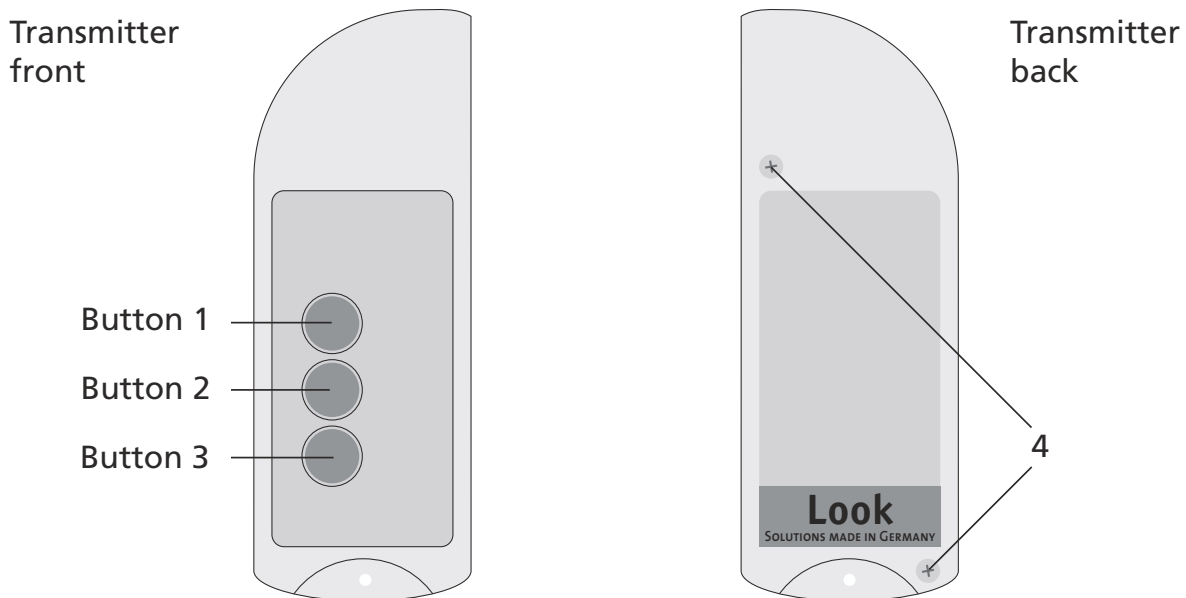
## 2. The transmitter

### 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 your 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 Dil switches.

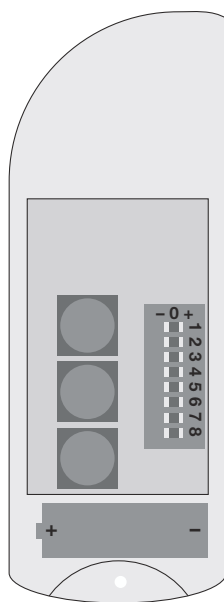
To change the coding set by the factory, open the apparatus by loosening the screws [4] with a suitable screwdriver and dismantle the two halves of the casing. Using a ball-point pen you can now set your individual code.

## 2. The Transmitter

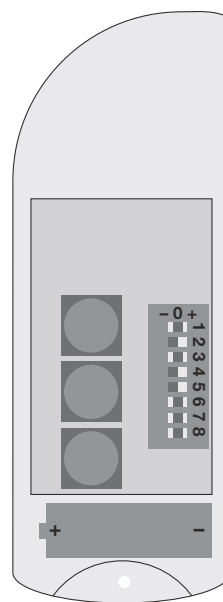
Each of the 8 slide switches has three operating positions: + 0 –.  
When delivered the switches are in position 0.

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] or a 3-pin-XLR-plug (it depends on which machine it will control) and a short wire antenna [2].

Plug the plug [1] into the corresponding socket of the machine to be controlled.

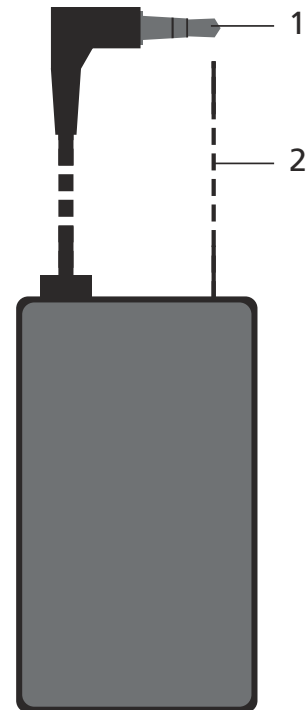
#### In case of the Tiny-Fogger/Tiny Compact:

Plug the radio remote into the socket **before** you connect the **Tiny-Fogger** or **Tiny Compact** to the battery! Otherwise it could happen that the machine starts to fog automatically.

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

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

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



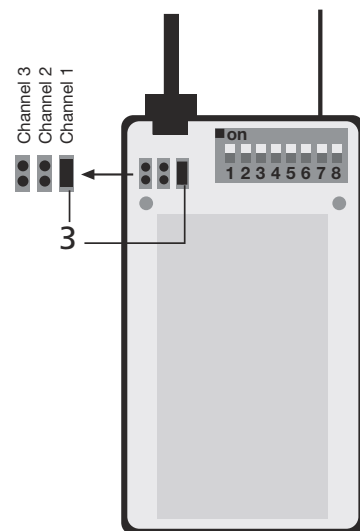
### 3.2 Channel Access/Selecting the Channel

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 other than set by the factory, the receiver as well as the manual transmitter need to be adjusted.

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.).

### 3.4 Wiring of the connectors

#### 3-pin XLR male

Pin 1 = Ground

Pin 2 = 0 - 10 V DC (+)

Pin 3 = 12 V DC (+) input

#### Mini-Stereo jack (for TINY-FOGGER)

Sleeve = Ground

Ring = switch o/p

Tip = 12 V DC (+) input



## 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.
- 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

<b>Transmitter</b>	<b>Transmitting frequency</b>	433, 920 MHz +/- 150 KHz
	<b>Radiated power (ERP)</b>	< 25 mW (< 14 dBm)
	<b>Modulation</b>	100% AM
	<b>Number of channels</b>	3
	<b>Coding options</b>	256
	<b>Voltage supply</b>	12 V DC (battery)
	<b>Range of working temperature</b>	0° C to +65° C
	<b>Dimensions (L x W x H)</b>	10 x 3.7 x 1.9 cm
<b>Receiver</b>	<b>Receiving frequency</b>	433, 920 MHz +/- 150 KHz
	<b>Responsivity</b>	1 $\mu$ V
	<b>Demodulation</b>	log. AM-demodulator
	<b>Voltage supply</b>	12 V DC via stereo jack plug
	<b>Coding options</b>	256
	<b>Channel access/selection (Jumper)</b>	3
	<b>Dimensions (L x W x H)</b>	7.7 x 3.8 x 2.0 cm

## 6. Warranty Conditions

For the **Radio remote Look'** guarantee is:

1. Free of charge, subject to the following conditions (No. 2 - 6) we will repair any defect or fault in the unit if it is caused by a proven factory fault and has been advised immediately after appearance and within 24 month of delivery to the end user. Insignificant deviations of the regular production quality does not guarantee replacement rights, nor do faults or defects caused by water, by generally abnormal environment conditions or Force Majeure.
2. Guarantee Service will be done in the following way: Faulty parts will be repaired or replaced (our choice) with correct parts. Faulty units have to be brought to us or our service centres or to be sent to us or our service centres at customer's expenses. The invoice and/or receipt showing the purchase date and the serial number has to come with the faulty unit, otherwise this will not be guarantee service. Replaced parts become our property.
3. The customer loses all rights for guarantee services, if any repairs or adjustments are done to the units by unauthorized persons and/or if spare parts are used which are not approved by us. Also non compliance with the instructions in this manual or mistakes by incorrect handling/treating of the machine will lead to a loss of guarantee and also any faults and damages caused by undue force.
4. Any freight costs arising in connection with the guarantee services have to be born by the customer.
5. Guarantee services do not cause an extension of the guarantee time or the start of a new guarantee time. The warranty for replaced parts ends with the guarantee time of the whole unit.
6. If a defect/fault can not be repaired by us in a satisfactory time, we will, within 6 months after sale of the unit, on choice of the customer, either:
  - replace the whole unit for free or
  - refund the lesser value or
  - take back the whole unit and refund the purchase price, but not more than the usual market price at the time of the refund.
7. Further claims, especially for damages, losses etc. outside the unit are excluded.

Other guarantee regulations may be valid outside Germany. Please check with your dealer!

