

Operating manual

# Radio Remote v 2.0



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 433.92 MHz.

The radio remote has two different Modes, which can be changed easily whenever necessary (see point 3.2.3):

In the Standard-Mode "Press and release" the machine will be triggered to run as long as the button is held down. If the button is released, the machine will stop working.

In the "On / Off"-Mode, the machine will be activated by pressing the programmed Start-button shortly and deactivated by pressing the programmed Stop-button.

The radio transmitter allows you to address four channels which can either be four individual receivers or four receiving groups. The number of the receivers per channel is not limited.

One receiver can save up to six configurations. The "On"- and "Off"-buttons can be also configured.

Thus, the permanent pressing of the button at the transmitter is no longer necessary. The machine can now be activated by pressing button 1 briefly and can be deactivated by pressing button 3, depending on which buttons have been configured.

The transmitter of the original Look radio remote is compatible with the new receivers.

The receiver of the original is incompatible with the new transmitter!

The transmitter is supplied with the first button pre-programmed, allowing the radio remote to be used immediately.

## 2. The Transmitter

### 2.1 Operation

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

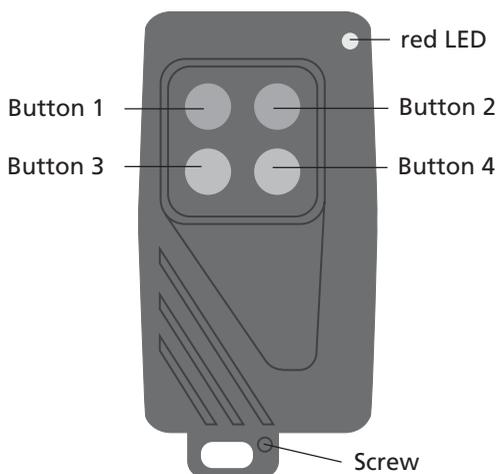
To transmit press one of the four buttons (1, 2, 3 or 4). If the key is pressed too briefly, the receiver ignores the command. For receiving several consecutive code cycles must be received and identical before a command is recognized as valid.

While sending the signal, the transmitter should be in your hand and pointed away from your body. If your hand cover the integrated antenna, or you approach a large metal surface/area, the range may be reduced. This should therefore be avoided.

The radio remote is supplied with the first button pre-programmed and the connected machine will be activated by pressing this button, running as long as the button is held down. Buttons two to four have no function yet.

The configuring and also the deleting of the configuring will be described in chapter 3.1 to 3.3.

Transmitter front



## 2. The Transmitter

### 2.2 Coding

The transmitter can be coded individually. This can be helpful if several transmitters with the same frequency (433.92 MHz) are being used in the same area. The receiver will only react to the signal of the coded transmitter and cannot be activated from a second transmitter.

**Please note:** The receiver will save the code of the transmitter and need not to be coded itself.

All previous configurings of the buttons should be deleted, in advance, to enable all buttons to work with the new code from the transmitter (see chapter 3.3).

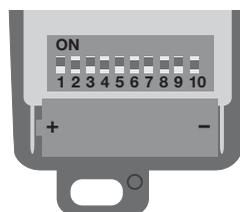
The system offers 1024 coding options. The setting is made by means of DIP switches. Each of the 10 switches has two operating positions: on and off.

When delivered the switches with even numbers are in position "on".

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

**Please note:** The coding of the smaller, 4-position DIP switch must never be changed!

Code when delivered  
(all switches with even figures in position "on")



### 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 the screw 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

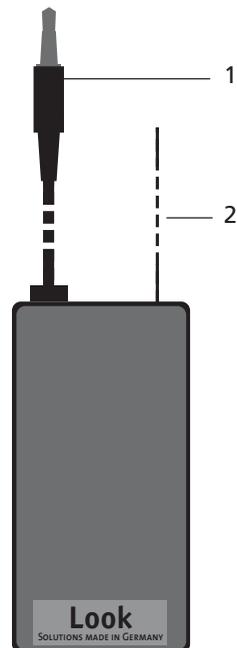
The receiver is equipped with a stereo jack plug [1] or a 3-pin-XLR-plug (it depends on which machine it controls) and a short wire antenna [2].

Insert the plug [1] into the corresponding socket of the machine to gain control.

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

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

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



# 3. The Receiver

## 3.2 Configuring the buttons

### 3.2.1 In general

Due to the option to also configure "Off"-buttons, the radio remote has two different modes:

In the Standard-Mode "Press and release" the triggered machine runs as long as the button is held down. If the button is released, the machine stops working.

In the "On / Off"-Mode, the triggered machine will be activated by pressing the programmed Start-button briefly and deactivated by pressing the programmed Stop-button.

Thus, the permanent pressing of the button at the transmitter is no longer necessary. The machine can now be activated by pressing button one and can be deactivated by pressing button 3, depending on which buttons have been programmed.

The receiver can save up to six configurations.

Should several units be required to be addressed on the same or different buttons (1,2, 3 or 4), the receiver has to be configured again.

The transmitter is supplied with the first button pre-programmed. Thus, the radio remote can be used immediately.

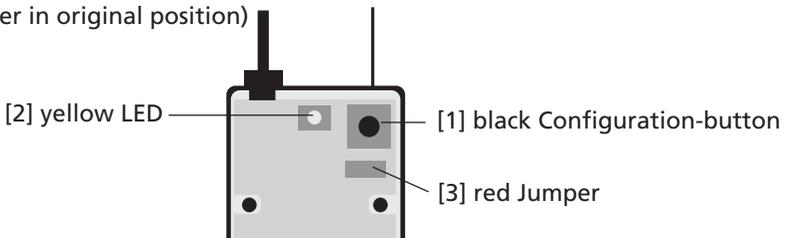
## 3. The Receiver

### 3.2.2 Configure the buttons in the Standard-Mode “Press and release”

The transmitter will be delivered with the first button pre-programmed as the Start-button. The machine will run as long as this button is held down.

**Please note:** All pre-programmed configurations (button 1 = Start-button) should be deleted (see point 3.3) before you start to configure the other buttons, unless you want to use the first button as a Start-button.

Receiver as it looks in the Standard-Mode  
(red Jumper in original position)



a) Open the receiver by removing the cover plate. This is only snapped together and can usually be taken off without any tool. A slim slot screwdriver also enables you to remove the cover.

b) Connect the receiver to the machine.

c) To start the configuration, press the black Configuration-button [1] briefly. The yellow LED [2] flashes.

Press the button on the transmitter that shall be configured. If the configuration is successful, the yellow LED [2] lights up permanently.

The connected machine will now run as long as the configured button at the transmitter is held down.

The procedure can now be repeated if the configuration of further buttons is required for the same receiver. Up to six buttons can be saved for one receiver. If more than six buttons are configured, the previous configurations will be overwritten.

You can configure several receivers on the same button. All receivers will then be activated at the same time and for the same running period.

If the receivers should react on different buttons, repeat the above mentioned procedure for each receiver, always configuring a different button at the transmitter as the Start-button.

## 3. The Receiver

### 3.2.3 Configure the buttons in the "On/Off"-Mode

The receiver changes into the On/Off-Mode by changing the position of the red Jumper [3].

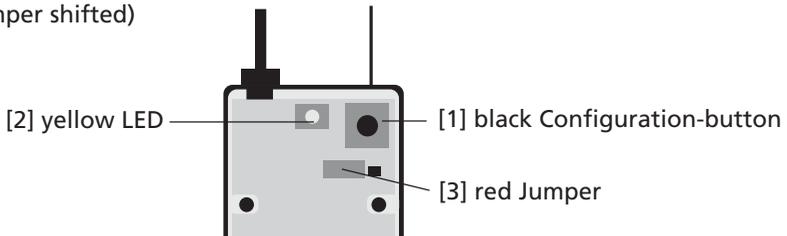
Those buttons already configured in the Standard-Mode will automatically be recognized as Start-buttons. Buttons configured in the On/Off-Mode will be Stop-buttons.

Therefore, the machine can be activated by pressing the configured Start-button briefly. It is not necessary to hold the button constantly. The configured Stop-button can be pressed briefly to deactivate the machine.

**Please note:** The red Jumper [3] must be placed shifted for the On/Off-Mode to remain activated. As soon as the red Jumper is replaced to its original position, the Standard-Mode (Press and release) will automatically be re-activated!

This deactivates the configuration of the Stop-buttons but does not delete their function. As soon as the Jumper is placed shifted again, the configured Stop-buttons are reactivated.

Receiver as it looks in the „On / Off“-Mode  
(Red Jumper shifted)



- a) Open the receiver by removing the cover plate. This is only snapped together and can usually be taken off without any tool. A slim slot screwdriver also enables you to remove the cover.
- b) Remove the red Jumper [3]. To avoid the loss of the Jumper, replace it shifted in a way, that one of the legs will stay uncovered as shown above.
- c) Connect the receiver to the machine.
- d) To start the configuration, press the black Configuration-button [1] briefly. The yellow LED [2] flashes. Press the button at the transmitter that shall be configured. If the configuration is successful, the yellow LED [2] lights up permanently. The connected machine can now be deactivated with the configured button.

## 3. The Receiver

The procedure can now be repeated if the configuration of further buttons is requested for the same receiver. Up to six buttons can be saved for one receiver. If more than six buttons will be configured, the previous configurations will be overwritten.

You can configure several receivers on the same button. All receivers will then be activated at the same time and for the same running period.

If the receivers should react on different buttons, repeat the above mentioned procedure for each receiver, always configuring a different button at the transmitter as the Stop-button.

### 3.3 Deleting the configuration of the buttons

To delete all configurations press and hold the black Configuration-button [1] for more than three seconds, until the yellow LED [2] lights up permanently. All configurations have now been deleted.

**Please note:** All configurations will be deleted, both Start and Stop, no matter which Mode is currently activated.

### 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.

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 reduces the range.
- An antenna extension lead always causes an insertion loss and consequently reduces the received power.
- Radio noise in metropolitan 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, significant range reductions can also occur or even result in the total 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>	4
	<b>Coding options</b>	1024
	<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>	7.5 x 4.35 x 1.85 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>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!



