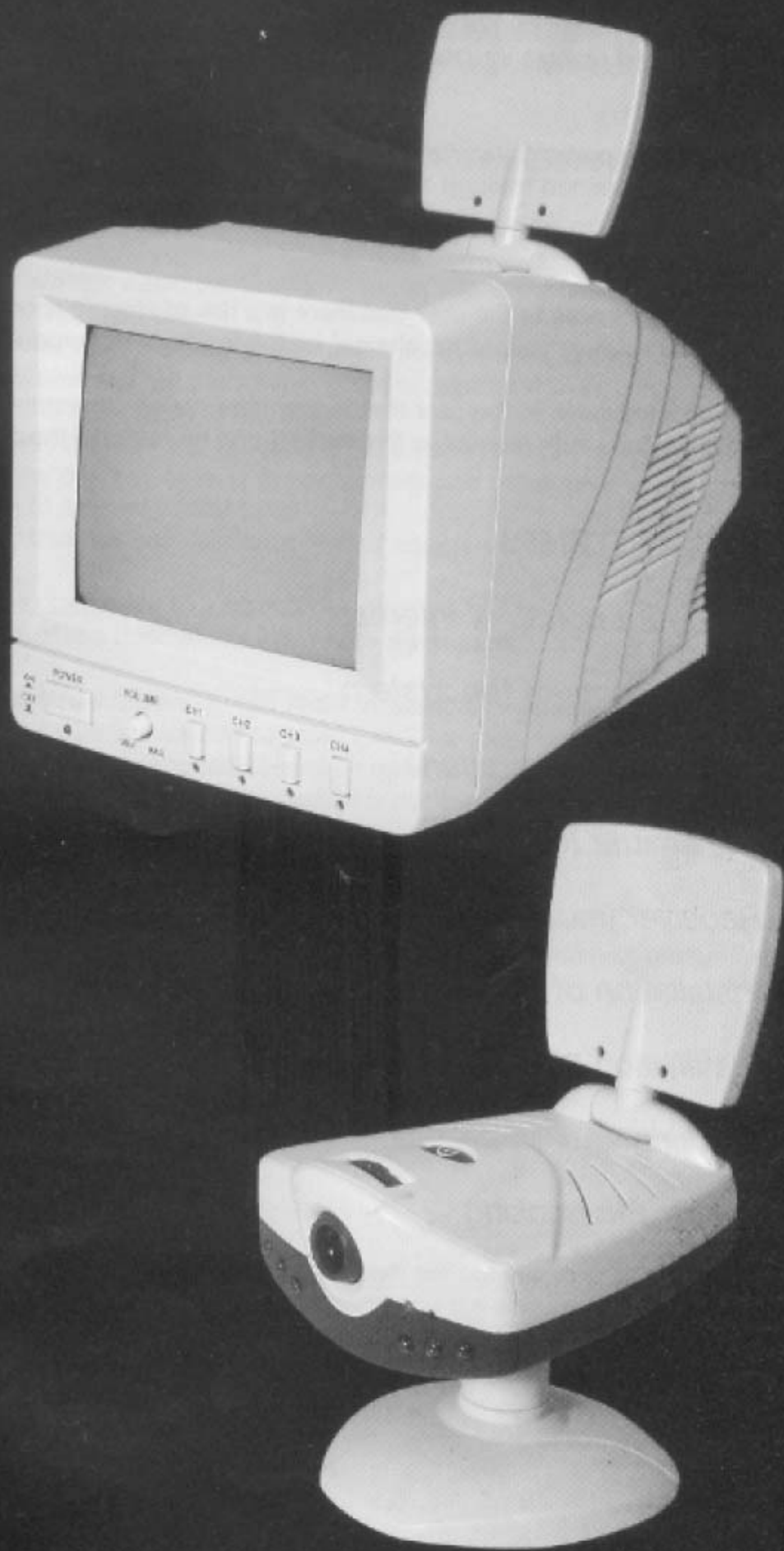


# WIRELESS SECURITCAMERA



## **WARNING**

Do not expose the device to rain or moisture so as to prevent the risk of fire or electric shock.  
Do not stick any metal objects into the ventilation opening.

**Take care:** in order to prevent electric shock, do not remove the lid or the protective housing.  
Spare parts can be obtained through an expert serviceman.

### **Explanation of the symbols**



The symbol indicates to the user that there is a risk of electric shock due to the non-insulated 'hazardous charge' on the inside of the product.



The symbol indicates to the user that further information concerning the operation and maintenance with respect to this subject can be found in the directions for use.

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## IMPORTANT POINTS OF INTEREST

Congratulations with the purchase of this wireless 2.4 G-Hz closed circuit security system. Carefully read the safety instructions and the instructions for use before putting the system into operation. Save the instructions for further reference.

- *Do not position the transmitter near a feed tray or in a loose house so as to prevent it from becoming entangled.*
- *Do not place the transmitter in a position where children or babies may be able to reach the AC-cable.*
- *Do not place the transmitter within the vicinity of water, such as a bath, washbasin, and kitchen-sink unit or in a damp cellar.*
- *Remove the AC-adapter from the plug-socket when the system is not in use.*
- *Ensure adequate ventilation of the transmitter, receiver and the AC-adapter.*
- *Do not expose the transmitter to direct sunlight.*
- *Position the transmitter, receiver and AC-adapter at a considerable distance from any source of heat, such as central heating, heating devices, ovens and other types of equipment that give off heat in order to prevent overheating.*
- *Only use the adapter that has been enclosed. Other adapters may damage the transmitter or the receiver.*
- *The plug is only to be connected to a standard voltage.*
- *You will lose the right of use concerning this device if you incorporate any changes that have not been approved*
- *Take into account that you are using public radio frequencies when the system is switched on. Audio and video may be transmitted to other 2.4 G-Hz-receivers. Conversations in a room near the transmitter may be transmitted as well. In order to protect your privacy, you should always switch off the transmitter when the system is not in use.*

## COMPONENTS OF THE SYSTEM

The system consists of the following components. Check that all components are present before installing the system.

- *Transmitter (camera)*
- *Receiver (5" B/W monitor)*
- *230VAC/7.5VDC adaptor (for transmitter)*
- *13.5V AC-adapter (for the receiver)*
- *Wall support (for the transmitter)*

### **Warning:**

the two adapters that have been supplied with this system are not interchangeable. The adapter "Output: 7.5V AC" is intended for the transmitter (camera) and the adapter "Output: 13.5V AC" is intended for the receiver (monitor).

## CONTROL AND OPERATION

### Transmitter - front side

1. Aerial

The aerial may be turned up to a maximum of 270°.

2. Adjustable objective

Pre-adjusted focus.

3. Night viewing-LED's

The automatic night viewing-LED's ensure that the viewing distance of the transmitter (camera) is no more than 3 feet in the dark. Note: if the transmitter is used in the dark or with very little light, then it may 'snow' on the video image of the receiver.

4. Main switch

Press ON/OFF

5. Microphone

For clear sound recording

6. LED-indicator

Lights up when the transmitter is switched on

7. Movable support

The transmitter can be fitted onto the wall support. It can easily be removed from the support and then placed on a level surface, such as a table, a cupboard or rack.

Note: the support cannot be turned 360°.

### Transmitter - back side

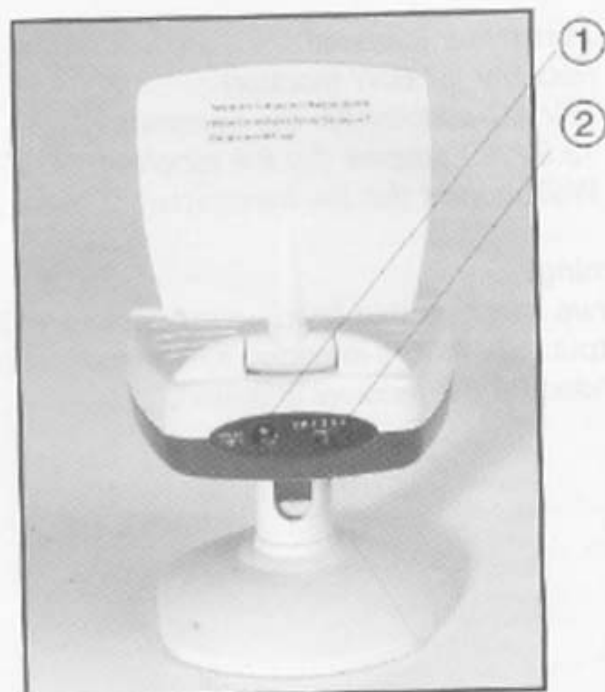
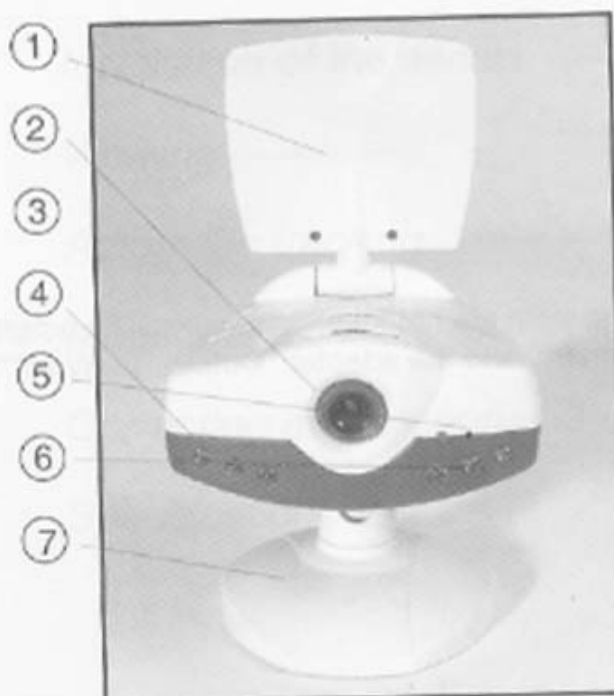
1. DC in connector port for the power supply of the adapter

2. Channel 1 2 3 4

#### Channel selection:

There may be interference in the receiver due to noise and images from some other device. You have four channels at your disposal in order to prevent this type of interference. The transmitter and receiver must be adjusted to the same channel.

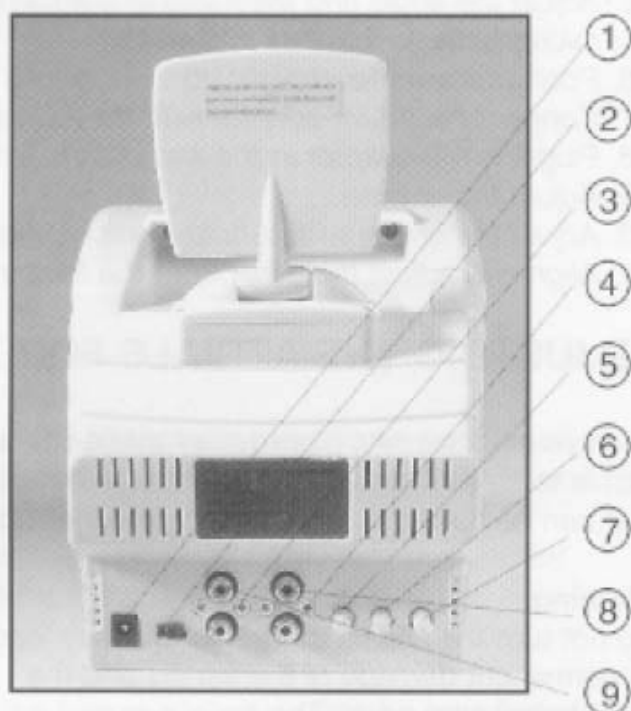
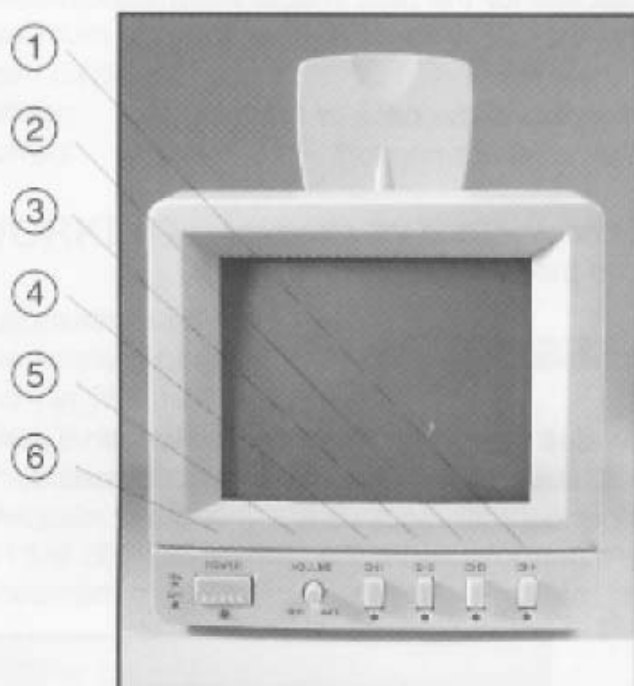
### Receiver - front side



### Channel selection:

There may be interference in the receiver due to noise and images from some other device. You have four channels at your disposal in order to prevent this type of interference. The transmitter and receiver must be adjusted to the same channel.

1. CH 4
2. CH 3
3. CH 2
4. CH 1
5. Volume
6. LED-indicator
7. Main switch



### Receiver – back side

1. connector port DC 13.5V adapter
2. wireless (or with cable) selection switch
3. connector port audio-input
4. connector port audio-output
5. indication V-hold
6. indication contrast
7. indication clearness
8. connector port video-output
9. connector port video-input

Note: set the selection switch on 'cable' and connect the audio/video-input of the camera to the back of the monitor (receiver) for the cable connection.



## INSTALLATION OF THE SYSTEM

You are to test the system before mounting the transmitter on the wall. One person should hold the transmitter (camera) against the wall, while another person can move the receiver (monitor) in order to find the best reception. Turn the camera or the monitor in order to improve the reception. If any other failures occur, then read the instructions in the chapter "correcting malfunctions" on page 7. The instructions below concern the installation of the system:

1. Check that the transmitter and the receiver are tuned to the same channel (CH 1, 2, 3 or 4).
2. Plug the 7.5V AD-adapter into the connector port of the AC-adapter at the back of the transmitter (camera).
3. Plug the AC-adapter into the wall outlet.
4. Turn the switch on the transmitter (camera) to the position "ON".  
The power-LED is lit up.
5. Adjust the angle and the focus of the camera objective for the best image. Point the microphone to the area in question.
6. Position the aerial straight up.
7. Connect the 13.5V-adapter with the AC-connector port to the back of the receiver.
8. Plug the AC-adapter in the wall outlet. Turn on the receiver (monitor).
9. Adjust the volume.
10. Adjust the image with V-hold (vertical). Adjust the contrast and the clearness.
11. Align and adjust the aerial from the transmitter and the receiver accordingly.

## ADJUSTING THE AERIALS FOR THE BEST RESULT

The system transmits high-quality audio signals and video signals by means of a directional aerial that is to be adjusted to achieve the best result. These concern 2.4 G-Hz audio-/video aerials that can be turned at a limited angle either clockwise or counter-clockwise.

### Warning:

Do not turn the aerials too far as this may lead to permanent damage of the aerials and the mechanical stop point. The aerial can be turned to a maximum angle of 270°.

### Front side

Maximum rotation of the audio-/video aerial

### Back side

It is recommended in most cases to position the illustrated surfaces of the AV-aerial of the transmitter and the receiver directly across from one another.



## SPECIFICATIONS

### Receiver (monitor)

Screen	5° CRT black/white diagonal screen
Video system	PAL
Frequency receiver	2.4 G-Hz
Maximum range (visibility line)	300 feet
Receiver aerial	directional aerial
Receiver sensitivity	-25 - -90 dBm
Maximum audio-output	600 mW
Output with 10% THD	500 mW
Horizontal synchronous	+/- 200 Hz
Horizontal hold	+/- 400 Hz
Vertical range	50 Hz
Resolution on centre	vertical 250 lines horizontal 300 lines
Maximum luminance	100 cd/m <sup>2</sup>
Scan display ration	80% vertical/horizontal
Voltage	DC 13.5V
Current	1200 mA

## WORKING

### Automatic tracking

The wireless closed circuit security system is suitable for the maximum security of more than one room in your home or office.

Note: if more than one camera is used, there may be disturbances in the signals, as a result of which reception is no longer possible. It is therefore recommended to use one camera to ensure adequate reception.

CH 1-4 channel switch: adjustment for automatic tracking. Switch in downward position for movement of the camera and in the upward position for fixing the camera.

### Monitor on A/V

The receiver has an audio-/video-output with which the image and sound can be transferred to a TV or recorder. A larger image can be achieved if the monitor is connected to the TV. What's more, the images and sounds can be recorded using the recorder.

Note: before connecting the receiver to the TV or video recorder, you must first program it for the TV-adjustment or the recordings with the video recorder with line in, line 1 (L1), AUX (auxiliary) or video 1, et cetera. Read the instructions for use concerning your TV or video recorder first, if you are not sure how to operate these.

### Connecting a camera using a cable

The receiver (monitor) can receive images and sounds from a camera with a cable with the standard RCA A/V-connector port. It is possible to reproduce image and sound if the RCA A/V-connector port is connected to the A/V-input of the monitor and the "with cable/wireless" switch is set at "with cable".



## CORRECTING MALFUNCTIONS

Check the following before calling upon the services department.

### Problems & Solution

#### "The transmitter or the receiver has no power"

- is the plug in the socket? – *Connect the equipment.*
- The transmitter or the receiver is not switched on. – *Switch these on.*
- Incorrect AC-adaptor. – *Use the special adapters.*  
*Output 7.5V for the transmitter and 13.5V for the receiver.*

#### "No image or sound"

- The receiver and transmitter do not have the same channel. –  
*Adjust both the receiver and the transmitter to the same channel.*

#### "Noise and background noise on the image and sound"

- Interference due to signals from the microwave oven. – *Turn the oven off or position it outside the frequency range of the transmitter and the receiver.*
- Interference due to signals from another piece of equipment. –  
*Select a different channel for the transmitter and the receiver;*  
*Remove the source of the interference;*  
*Place the transmitter and/or receiver in some other spot*
- Outside of the range. – *Select a new position for the transmitter and/or receiver that is nearer.*
- Inadequate positioning of the aerial. – *Adjust the aerial of the transmitter/receiver once again.*

## SPECIFICATIONS

### Transmitter (Camera)

TV system	black/white EIA
Image sensor	1/4 "CMOS
Video system	PAL
Frequency transmitter	2414MHz-2468MHz
Maximum range (visibility line)	300 feet
Transmitter aerial	directional aerial
Transmitter sensitivity	0 dBm FCC
Number of effective image	320 x 240
Scan system	stack alternately 2:1
Resolution	240 TV lines (horizontal)
Auto-shutter time	1/60 – 1/6000 seconds
Camera application	camera for indoor spaces
Night viewing effective distance	1 m (3 feet)
Minimum illumination	2 lux
Microphone sensitivity	1 – 2 metres
Support inputs	1 video & 1 audio
Number of channels	4
Voltage	7.5V DC
Current	500 mA



Warning:

Changes or modifications to this unit not expressly approved by the party responsible for compliance will void the user's authority to operate the equipment. Any change to the equipment will void FCC grant.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The equipment compliance with FCC radiation exposure limit set forth for uncontrolled environment