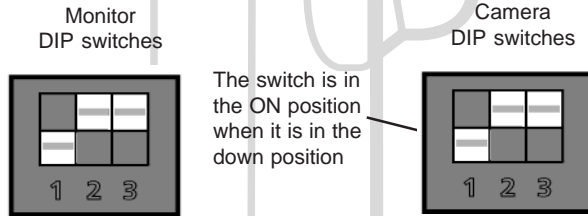


## SETTING THE DIP SWITCHES

When you receive the monitor the DIP switch on the rear will have one channel set in the down position. This represents Channel 1, enabling you to use the system with one camera supplied. Refer to page 3 of the instructions for location of the DIP switch. The white part in the diagram represents the switch.

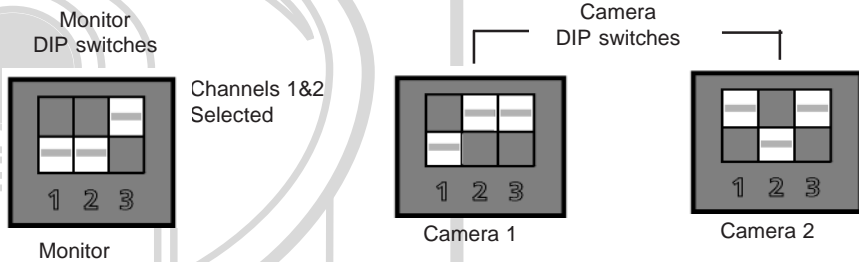
### USING ONE CAMERA



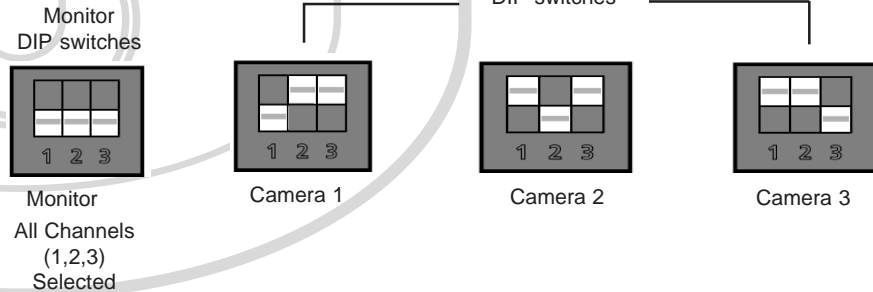
If adding additional cameras to your system you will need to change the DIP switch to reflect the number of cameras being used.

### USING TWO CAMERAS

To use two cameras, two channels need to be selected on the DIP switch. The first two channels switches should be in the down position.



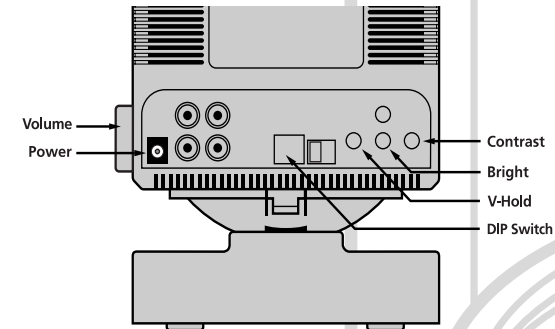
### USING THREE CAMERAS



## USING THE CMS244 VIDEO SYSTEM

The 2.4GHz video signals pass easily through your homes interior walls, but the signal maybe reflected by power wires or plumbing inside the wall. Usually a slight adjustment of the Monitor/ Receiver and / or Camera / Transmitter antenna will improve reception. Take care not to force the antennas past their lock positions.

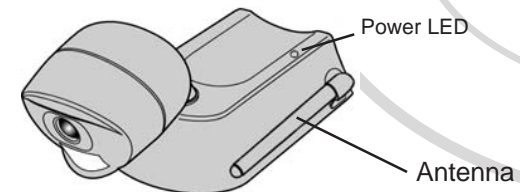
Sound level can be adjusted using the volume control knob on the side of the Monitor/ Receiver. Adjust the Brightness/Contrast as required using controls on the rear of the Monitor/Receiver. If needed the vertical hold can also be adjusted at the rear.



The most common source of interference are microwave ovens. Try to avoid mounting the Monitor / Receiver near a microwave oven or other source of RF interference such as cordless phones.

### SWITCHING THE CAMERA ON / OFF

To preserve battery power the camera can be switched off while not in use. Simply turn the antenna to the position shown below. Please note this will not turn off the camera if powered by an AC power adaptor. With the antenna in any other position than the one shown below, the camera will be turned on.



Camera Antenna in Off position

### Motion detecting cameras

Each camera has a PIR motion sensor. When a camera detects motion an alarm beeper will sound on the monitor. The volume control for the beeper is on the rear of the monitor. Additionally a red light will flash on the camera.

### Monitor Scan Mode

The "Scan" mode button will turn the monitor to standby with the screen blanked. The monitor will now scan each camera checking to see if the camera is detecting any motion. If a camera detects motion, the monitor displays the camera picture and the monitor beeper will sound. 2minutes after the last detection, the monitor will return to standby with the screen blanked, until a camera detects another motion. While in scan mode a green light flashes on the front of the monitor, and the screen is blank. Pressing the manual or auto button will cancel this mode.

### Adding Additional Cameras

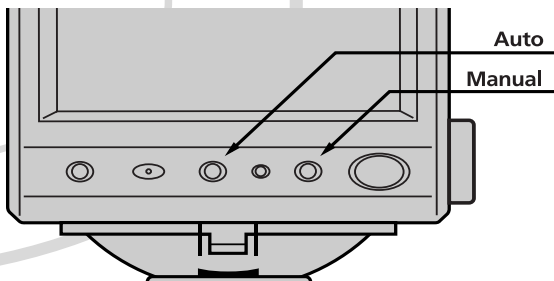
You can have up to 3 cameras on your system. To add an additional camera you will need to order a CA240- Wireless Camera Accessory (Includes Wireless Camera, Power Adapter and Fixing Kit)

### Manual Mode

In "Manual Mode" individual cameras may be selected. Pressing the button marked manual on the diagram below will select "Manual" and the LED indicator will turn red.

### Auto Mode

To select Auto mode press the "Auto" button marked on the diagram below and the LED indicator will turn to green. The receiver / monitor will then switch automatically between the available cameras. When a camera detects motion the monitor will display the picture from the camera for a few seconds, and the beeper will sound.



## MONITOR INSTALLATION

1. Unpack the Monitor/ Receiver.

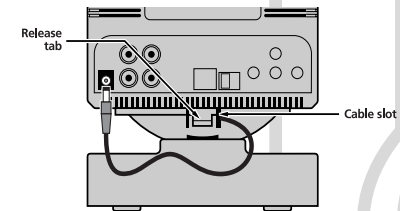
### 2. Mains Operation

Plug the monitor mains adaptor into the power socket on the rear of the monitor. Plug the power adaptor into a mains socket. Turn on the monitor by pressing the front push button.

3. If you choose to use batteries to power the monitor/receiver you will need to follow the next step, if you are using the mains adaptor then you can skip to section 5.

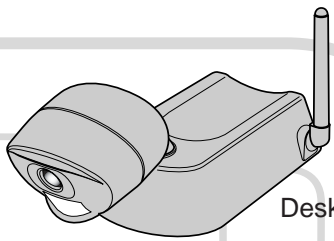
### 4. Battery Operation

Find the prewired cable located in the base. Push down the release tab under the rear of the unit, remove the base from the unit.

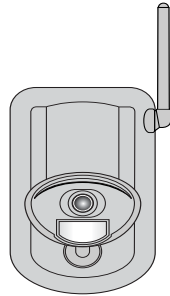


Unwrap the cable and feed it through the slot next to the release tab. Remove the battery compartment lid on the underside of the unit and install 10 x C type batteries (not included). Click the base back onto the monitor. Plug the battery power lead into the socket on the rear of the Monitor/Receiver.

5. The Monitor/Receiver installation is now complete.

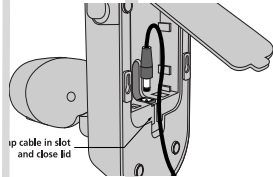


Desk/ Tabletop



Wall Mount

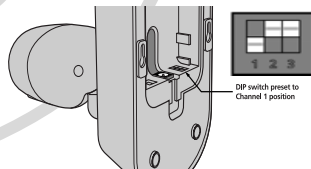
3. Decide whether to connect using the camera power supply or batteries (not included). If using batteries remove the battery compartment lid on rear of camera and install 5 x AA batteries. If using the power supply, remove lid and connect power jack. Snap the lid closed, trapping the cable in the slot behind the tab. Make sure the camera is positioned no more than 2.5 metres from the mains socket.



To get the best performance from the system it is necessary to follow a few simple guidelines.

- Installation Height, for best performance mount the camera between 2.5 and 4 metres above the detection area
- To avoid problems with false detection ensure no plants, or obstructions which could trigger the PIR are within the detection range.
- The Camera has a 78° viewing angle, ensure the camera is set at the optimum angle to cover the desired area.
- For best transmission range try to ensure that there are no thick walls or major obstructions
- If night time operation is required a good light source is required to illuminate the area.

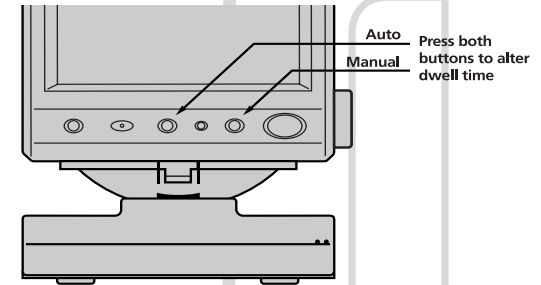
4. Select the transmission channel on the DIP switch in the battery compartment by switching any one of the three switches. The camera is preset to Channel 1, with the switch in the down position, Please refer to page 5 for more details.



The Camera/Transmitter installation is now complete.

### Dwell Time Setting (Time taken to switch between cameras)

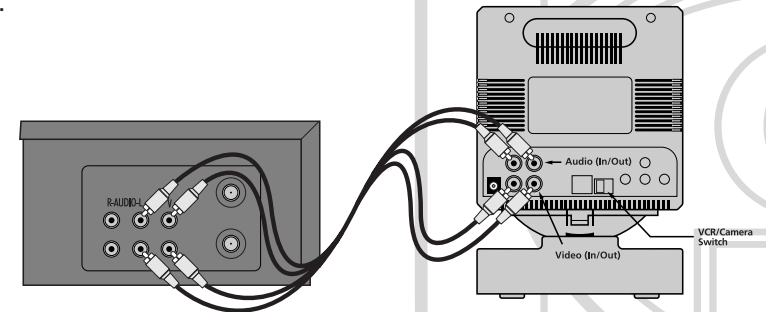
To alter the dwell time press both of the buttons on the front of the unit simultaneously. Each flash of the LED increases the dwell time by one second. The dwell time is preset to 4 seconds, but can be adjusted between 2 to 30 seconds.



### CONNECTING A VCR

You can connect a VCR to the CMS244 system allowing you to record and playback the camera picture

Connect the AV cables (not supplied) from VCR to Monitor / receiver as shown below .



When recording move the VCR/Cam slide switch, on the rear of the monitor, to the "CAM" position. When playing back the recorded tape slide the switch to the "VCR" position.

### WARRANTY

This product has a twelve month manufacturers parts and labour warranty. In the unlikely event that you encounter a problem with this product, please telephone the Voltek helpline on 09066 191 133\*. Should the problem not be able to be resolved over the telephone it should be returned to the place of purchase or direct to Voltek

\*Helpline calls cost 60p/minute. Open 9am to 5pm, Mon to Fri.

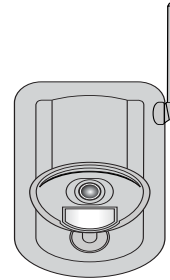
## TROUBLESHOOTING

If you are having trouble operating this product, please consult the guide below. If you still encounter problems then please contact the Voltek helpline on 09066 191 133\*

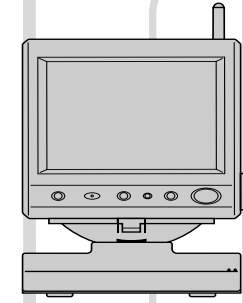
SYMPTOM	REMEDY
No camera picture	<ol style="list-style-type: none"> <li>1. Check all connectors and check that the power is switched on to your monitor and to the camera/transmitter.</li> <li>2. Ensure the camera and monitor are set to the correct channel refer to page 5 for more details.</li> <li>3. Check the transmitter/camera is within range of the monitor/receiver.</li> <li>4. Check camera is switched on and the red power on LED is lit on the camera.</li> </ol>
Blank Monitor	<ol style="list-style-type: none"> <li>1. Check the Monitor is switched on,</li> <li>2. Check the power adaptor is plugged in and turned on at the Mains outlet.</li> <li>3. If running on batteries try replacing the batteries.</li> <li>4. Ensure the batteries are installed correctly.</li> </ol>
Interference on the camera picture	<ol style="list-style-type: none"> <li>1. Check that each transmitter and receiver is within range and that no large obstructions are blocking the signal,</li> <li>2. Try repositioning the camera/transmitter or the monitor/receiver to improve the reception quality.</li> <li>3. If a transmitter is positioned close to the receiver, point the antenna away from the receiver.</li> <li>4. Check the lead has been unbundled</li> <li>5. Check that the lead is not running along side any other cables.</li> <li>6. Check if there is any other equipment transmitting on the 2.4GHz frequency nearby.</li> </ol>
Poor picture at night.	<ol style="list-style-type: none"> <li>1. Check that you have a light illuminating the area. (Street lights may not be adequate)</li> <li>2. Check the camera is not pointing at a light.</li> </ol>
Audio problems	<ol style="list-style-type: none"> <li>1. Ensure the volume is turned up sufficiently on the monitor.</li> <li>2. Make sure the sound is within the microphone range.</li> <li>3. If the unit emits a loud wailing sound try moving the camera away from the monitor / or angling the monitor differently.</li> </ol>

## PACKAGE CONTENTS

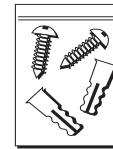
Please check and identify all the parts before proceeding with the installation.



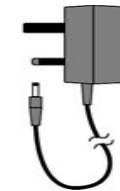
Wireless Camera / PIR



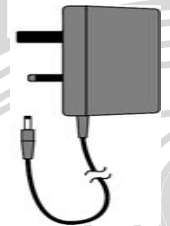
Receiver / Monitor



Camera Fixing kit



1 x 6V Camera power adaptor



1 x 13.5V Monitor power adaptor

## INSTALLATION

### CAMERA INSTALLATION

1. Unpack the camera / transmitter
2. Decide on wall or desk mounting the camera. If wall mounting there is a useful drilling guide on the back cover of the instructions. The camera can be adjusted for both by rotating the camera head to the required position.

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## SAFETY FIRST

Please read these instructions before attempting to operate the product.

**WARNING:** To prevent fire or shock hazard, do not expose this equipment to rain or moisture.

**CAUTION: RISK OF ELECTRIC SHOCK:** Do not remove the cover from the power supply. There are no user serviceable parts inside. Refer servicing to qualified service personnel.

## PRODUCT FEATURES

The CMS244 System is a combined wireless camera and video monitor/receiver. The CMS244 surveillance system is an ideal combination for monitoring the porch, watching the garden, pool, pets or the baby. It is also suited to many small business applications.

- 2.4GHz wireless technology
- Plug 'n' Play
- High resolution black and white video camera with PIR motion detection
- Built in microphone transmits sound from camera to TV
- High quality audio and video components for long life
- Supports up to 3 cameras
- Durable weatherproof camera construction
- Auto switching between cameras
- Mains or battery operation

## SPECIFICATIONS

### Camera / PIR Transmitter

Operating voltage	6V dc
Current consumption	120mA
Camera type	1/4" B&W CMOS CCIR
Lens	3.6mm F2.0
Viewing angle	78°
Picture resolution	300HTVL
Minimum illumination	2 lux
PIR detection	5 Metres (max) over 90°
Transmission frequency	2.41GHz - 2.47GHz (3 channels)
Transmission distance	100m (line of sight) 20-30m (in typical building)
Weatherproofing	IP54 (suitable for outdoor or indoor use)
Operating temperature	-10°C to +40°C
Dimensions	83 x 140 x 120mm
Batteries	5 x AA type

### Monitor / Receiver

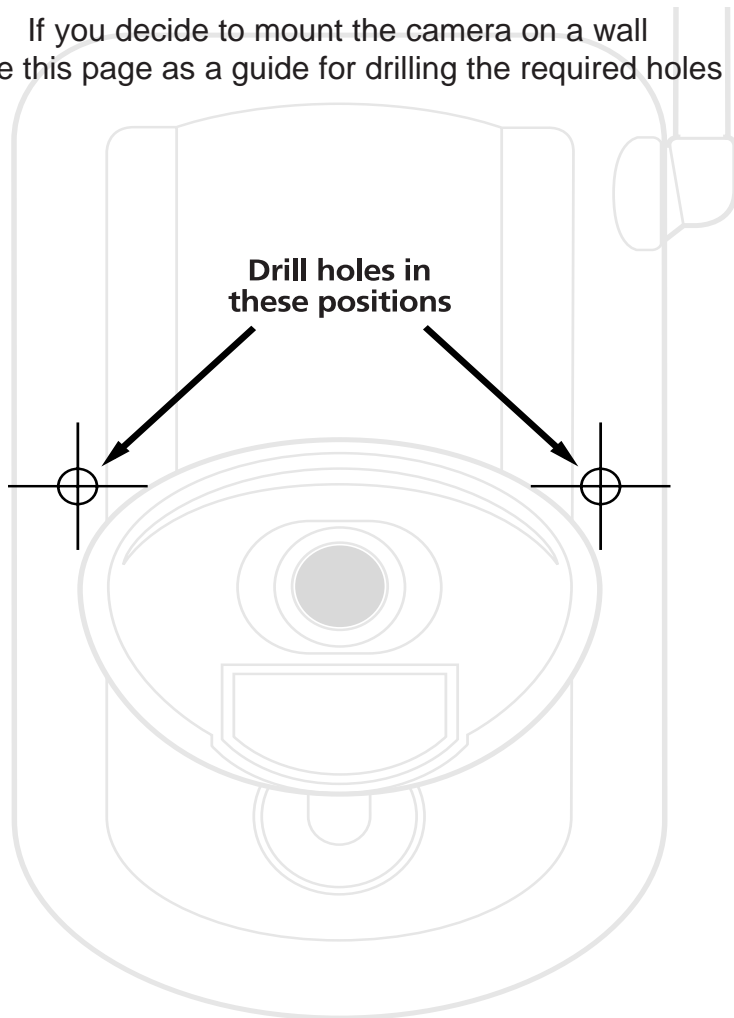
Operating voltage	13.5V dc
Current consumption	800mA
Screen size	5" / 13 cm
Reception frequency	2.41GHz - 2.47GHz (3 channels)
Weatherproofing	IP30 (indoor use only)
Operating temperature	+2° to 35°C
Dimensions	140 x 200 x 210mm
Batteries	10 x C type

### General

Approvals	CE directive 93/68/EEC EMC directive 98/336/EEC Low voltage directive 73/23/EEC
Package size	325 x 260 x 177mm
Package weight	3.4Kg

# DRILLING TEMPLATE

If you decide to mount the camera on a wall use this page as a guide for drilling the required holes



39C, Churchill Way, Lomeshaye Industrial Estate, Nelson, Lancashire, BB9 6RT  
Tel 01282 695 500 Fax 01282 695 511 Helpline 09066 191 133\*  
E-mail sales@voltek.co.uk Website www.voltek.co.uk

\*Helpline calls cost 60p/minute. Open 9am to 5pm, Mon to Fri.  
Voltek reserves the right to change any product or specification without notice (c) 2001

# INSTALLATION & USER INSTRUCTIONS

## CMS244

Wireless Observation System with monitor

