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**RadioShack®**  
www.radioshack.com

## 2.4GHz Wireless Baby Monitor



**Owner's Manual**

Please read before using this equipment.

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Cat. No. 49-2530

## 2.4 GHz Wireless Baby Monitor

® RadioShack ®

### FEATURES

Your RadioShack 2.4 GHz Wireless Baby Monitor adds safety and security to your home or business. Use it as a component of an audio/video observation system. In your home, you can observe your baby's room or backyard or patio area, even at night with minimal lighting. In your business to monitor low-light store-rooms, warehouses, entry/exit-ways, or a reception area from one central location. The camera can also check activity in your driveway or interior areas with equal clarity.

The system's features include:

**Portable and Easy To Install** – let you move to any location with easy installation.

**Camera:**

**Built-in 6 LED Lighting** — enhances low light viewing at a light level of 0.5 Lux at 2 meters distance.

**Expandable** — add up to 3 additional wireless cameras as your needs grow.

**Long Distance Monitoring Camera** — transmits up to 300 feet clear-line-of-sight.

## **Monitor:**

**Audio/Video In and Out Jacks** — lets you see and hear activity in the protected area through your TV or monitor, and record the action on a standard VCR.

**Built-In One-Way Speaker and Microphone** — lets you hear your baby or individuals near the camera.

## **PACKAGE CONTENTS**

Please check that you have these parts before installation.

- A camera with built-in transmitter
- A monitor with built-in receiver
- A 12V AC adapter for camera only
- A larger 13.5V AC adapter for monitor only

**Warning:** Two AC adapters are included with the Wireless Baby Monitor. The AC adapters can not be interchanged. Use the adapter labeled **OUTPUT: 12V DC** for the camera. Use the larger adapter labeled **OUTPUT: 13.5V DC** for the monitor.

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## **Important Safety Precautions**

## **Before Setting Up**

Before operating your Wireless Baby Monitor, please read all these safety and operating instructions completely and then retain for future reference.

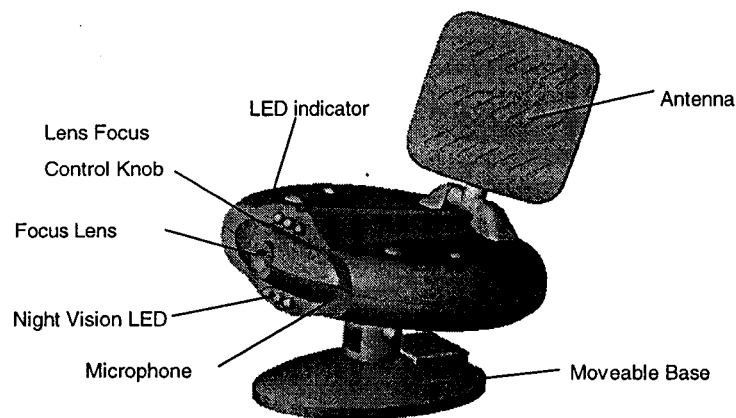
- To prevent entanglement, never place the camera in a crib or playpen.
- Do not place the camera on any surface or mount it on any wall where the camera and its AC adapter cord are within the reach of baby.
- Keep the camera and monitor out of the reach of children.
- Never use the camera or monitor near water. For example, do not use near a bathtub, washbowl, laundry tub, kitchen sink, or in a wet basement. etc.
- Disconnect the AC adapters from wall outlets during long periods of non-use.
- Position the camera, monitor and AC adapters to allow adequate ventilation.
- Keep the camera out of direct sunlight.
- To prevent overheating, keep the camera, monitor and AC adapters away from heat sources such as radiators, heat registers, stoves or other appliances (including amplifiers) which produce heat.
- Use only the AC adapters provided. Use of any others may damage the camera and/or monitor.
- Plug into an electrical outlet with standard household power (120 volt AC outlet).

- Changes or modifications not approved by RadioShack could void user's authority to operate the equipment.
- Do remember that you are using public airwaves when you use the Wireless Baby Monitor and that sound and video may be broadcast to other 2.4 GHz receiving devices. Conversations, even from rooms near the camera, may be broadcast. To protect the privacy of your home, always turn the camera off when not in use.

## A Quick Look at Your Wireless Baby Monitor

### Camera

#### Front View



**Antenna:** Transmits audio and video signals the camera captured to the monitor's antenna. See page X (Orienting Antennas for Optimal Performance)

**Moveable Base:** The camera can be mounted on a wall, or it can be easily placed on a flat surface, such as a table top, dresser or shelf.

**Note:** The bracket does not rotate freely 360 degrees.

**Microphone:** For clear audio pick-up.

**Night Vision LEDs:** The automatic night vision LEDs allow the camera to see your baby or other object even in a completely darkened room!

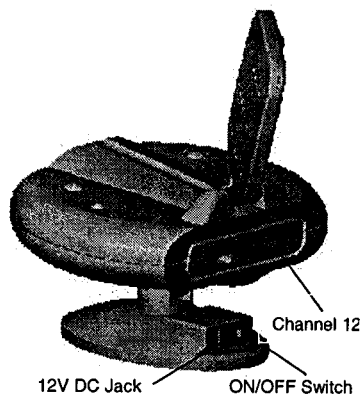
**Note:** The video image displayed on the monitor may appear "snowy" when the camera is operating in darkness or very low levels of light.

**Focus Lens:** Shooting picture.

**Lens Focus Control Knob:** For focus adjustment.

**LED Indicator:** Lights up when the camera is "ON".

**Rear View**



**CHANNEL 1 2 3 4:** Channel selection. It is possible for the

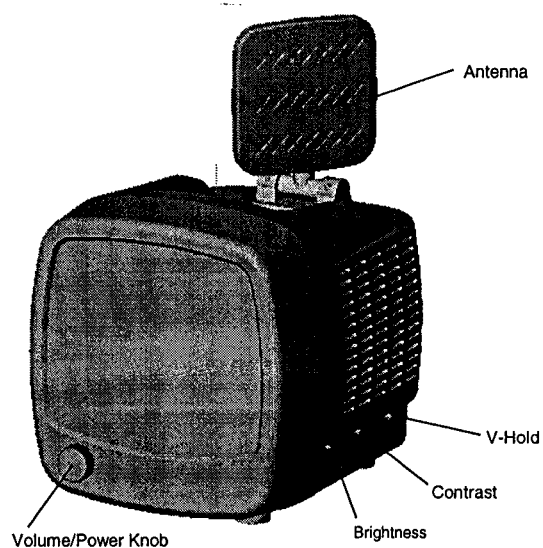
monitor to pick up sounds or display interference from other signal producing devices. To minimize the potential for this problem, four channels are available for use. Make sure that the camera and monitor are set to the same channel.

**ON/OFF switch:** lets you turn the camera on or off.

**12V DC Jack:** connect the smaller camera AC adapter here.

## Monitor

### Front view



**Antenna:** receives audio and video signal from the camera antenna. See page 8 (Orienting Antennas for Optimal Performance)



**VOLUME/Power control:** lets you turn on or off the monitor and adjust the monitor's sound.

#### **Right Side View**

**V-HOLD:** stops vertical roll in the monitor picture.

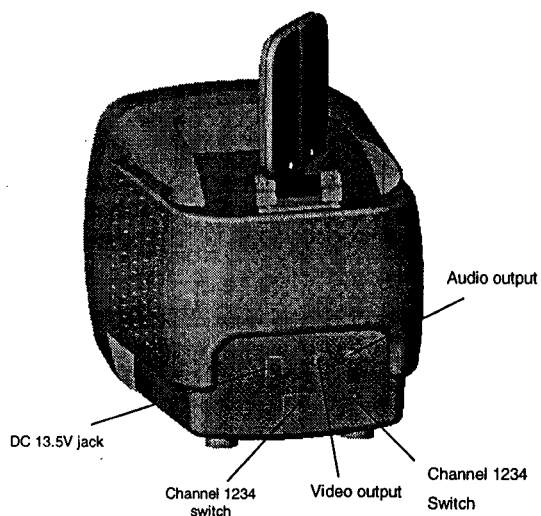
**CONTRAST:** adjusts the monitor picture's contrast.

**BRIGHTNESS:** adjusts the monitor picture's brightness.

#### **Left Side**

**(Headphone icon) Jack:** Insert a ? ohm headphone with 1/8-inch (3.5 mm) plug for private listening.

#### **Rear View**



**AUDIO OUTPUT:** connect the monitor's **AUIDO OUTPUT** to TV's or VCR's audio input transfers the monitor's sound to a TV or to a VCR to record transmissions for later viewing!

**VIDEO OUTPUT:** connect **VIDEO OUTPUTS** to the TV's or VCR's video input for a large screen display, or to a VCR to record transmissions for later viewing!

**CH. 1 2 3 4 Switch:** Channel selection. It is possible for the monitor to pick-up sounds or picture interference from other signal producing devices. To minimize this potential problem, experiment setting this switch in different position and use the setting which produces best sound and picture. Make sure that the camera and monitor are set to the same channel.

**Auto-sequence function switch:** lets you setup up to four cameras and four monitors on four different channels to monitor a series of rooms for maximum supervision of the house (or office).

**Important Note:** Your Wireless Baby Monitor is factory preset for one monitor use only. If you install just one monitor only, this switch is covered with a caution label asking you not to change this switch's position.

**DC 13.5V Jack:** Connects the larger monitor AC adapter here.

## **INSTALLATION**

Select a location for the camera that provides a clear view of the area you want to monitor, is free from dust, and is not in line-of-sight with a strong light source or in direct sunlight.

### **Desk Mounting the Camera**

You can place the camera on a desk or any level surface. Select a location that is near AC outlet within the reach of the AC adapter cord.

## Wall Mounting the Camera

To wall mount the camera, test the reception of the video monitor before installing to the wall. Then drive a screw (not supplied) on the wall letting the head extends 5 mm (3/16 inch) from the wall. Hang the camera and make sure it is securely mounted. Adjust the camera to a best viewing angle.

## Setting Up Your Wireless Baby Monitor

Have a person hold the camera against the wall at the selected mounting area while another person moves the monitor to various locations throughout the house to check reception. If interference or other problems develop, refer to "Troubleshooting" in page x. You may need to select a different location in the room for mounting the camera.

The following steps show you how to set up the Wireless Baby Monitor:

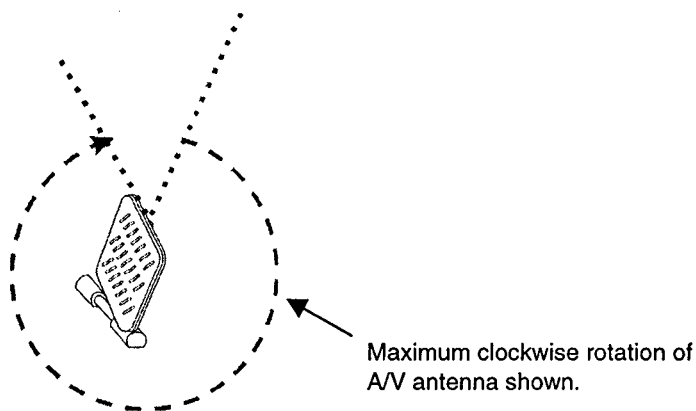
1. Set the camera and monitor to the same channel (1, 2, 3 or 4) using **CHANNEL 1 2 3 4** on the back of the camera and **CH. 1 2 3 4** on the back of the monitor.
2. Plug the small AC adapter cord into the **12V DC** socket on the back of the camera.
3. Plug the AC adapter into a standard wall outlet
4. Slide the **OFF/ON** switch on the right side of the camera to **ON**. The power indicator lights.
5. Adjust the angle and focus of the camera lens for the best view.
6. Position the camera antenna so it points to the monitor antenna.

7. Plug the large AC adapter cord into the **DC 13.5V** jack on the back of the monitor.
8. Plug the AC adapter into a standard wall outlet.
9. Rotate the monitor's **VOLUME/OFF/MAX** clockwise to turn on the monitor.
10. Adjust **VOLUME/OFF/MAX** to a comfortable listening level.
11. Adjust the video image using **V-HOLD**(vertical hold), **CONTRAST** and **BRIGHTNESS** on the right side of the monitor.
12. Locate and orient the antennas on both the camera and monitor according to "Orienting Antennas for Optimal Performance" In page X.

## **Orienting Antennas for Optimal Performance**

The Wireless Baby Monitor broadcasts its high-quality audio and video using directional antennas which must be oriented in a certain configurations for best results. The 2.4 GHz antennas have been designed to pivot and have limited rotation in either clockwise or counterclockwise directions.

**Warning:** See instructions shown below for rotating antennas. Rotating antennas beyond the specified range will result in permanent damage to both antennas and the mechanical stop. Antenna does not rotate freely 360 degrees.



In most situations, the antennas' flat pitted face on both the camera and monitor should face toward one another. Since all rooms are different, for optimal reception, additional slight pivots or rotations might be necessary. If the camera and monitor are less than 10 feet apart, keep the antennas flat in their casings.

## Special Auto-Sequence Function and Setting

There is an auto-sequence switch on the back of the monitor for setting up multiple cameras. Your Wireless Baby Monitor is factory preset for one camera/monitor set use. If you install just one camera/monitor set only, do not take off the caution label covered over the switch. If you stalled more than one camera, then you need to take off the label to setup auto-sequence function.

You can install up to four cameras on four different channels to monitor a series of rooms for maximum supervision of the house (or office). To activate the auto-sequence monitor function, set up the dip-switches as follows:

Dip Switch	1	2	3	4	4/8	4/B
<b>OFF</b>	Disables channel 1 display	Disables channel 2 display	Disables channel 3 display	Disables channel 4 display	Displays at four second intervals	Enable the auto-sequence function (but disables the CH 1 2 3 4 switch)
<b>ON</b>	Enables channel 1 display	Enables channel 2 display	Enables channel 3 display	Enables channel 4 display	Displays at eight second intervals	Enables the CH 1 2 3 4 switch (but disables the auto-sequence function)

**Note:** When you set the 4/B dip switch to **ON** to disable the auto sequence function, you also need to slide all **1, 2, 3, 4** dip switches to **OFF**. If one or more of the **1, 2, 3, 4** dip-switches remains **ON**, the auto-sequence function will continue on these channels, even though the 4/B dip-switch is in the **OFF** position.

For example, If you have installed two cameras and their channels are set on **CH 1** and **CH 3**, and you wish to monitor these two channels in sequence, you must first slide the **4/B** dip-switch to **OFF** to enable the auto-sequence function, then slide the **1** and **3** dip-switches to **ON** to activate channel 1 and 3 auto-sequence function. (See the following diagram.) If you wish to monitor these two channels at eight-second intervals, slide the **4/8** dip-switch to **ON**; to monitor these two channels at four-second intervals leave **4/8** dip-switch to **OFF**.

Dip-Switch	1	2	3	4	4/8	4/B
<b>OFF</b>		✓		✓	✓	✓
<b>ON</b>	✓		✓			

## To Cancel the Auto-Sequence Function

1. Slide the 4/B dip-switch to **ON** to cancel auto-sequence function and activate the **CH 1 2 3 4** switch.
2. Slide dip-switches **1, 2, 3, 4** to **OFF**.
3. Slide the **CH 1 2 3 4** switch to the same channel as that of camera.

## Monitor to A/V function

The Wireless Baby Monitor system's monitor unit has audio/video outputs to transfer the picture and sound from the monitor screen to a TV for a large screen display. Connect the monitor's **AUDIO, VIDEO OUTPUTS** to the TV's A/V input, or to a VCR to record transmissions for later viewing! You can find useable A/V cable at your local RadioShack store.

## Using Headphones' Jack

For Private listening, connect a ? ohm headphone with 1/8 inch (3.5 mm) plug to the (headphones icon) jack. You can find suitable headphones at your local RadioShack store.

## TROUBLESHOOTING

Symptoms	Check Points
No power is supplied to the camera or monitor	<ul style="list-style-type: none"><li>• Is the power cord disconnected? Connect it.</li><li>• Camera/Monitor is not turned on Slide the ON/OFF switch to the "ON" position.</li><li>• Wrong AC adapter used. Use the AC adapter labelled OUTPUT: 12V with the camera, 13.5V with the monitor</li></ul>
No sound or	<ul style="list-style-type: none"><li>• Channel switches are not on the same setting.</li></ul>

<p>picture. Noisy sound or picture.</p>	<p>Set the camera and the monitor to same channel.</p> <ul style="list-style-type: none"> <li>• Signal interference due to microwave oven. Turn off the oven or remove it from path between camera and monitor.</li> <li>• Signal interference due to other signal producing devices. <ul style="list-style-type: none"> <li>Change the channel setting on both the camera and the monitor.</li> <li>Identify and eliminate the source of interference. Relocate the camera and/or monitor.</li> </ul> </li> <li>• Out of range. Relocate the camera and/or monitor.</li> <li>• Improper antenna position. Adjust camera/monitor antenna orientation.</li> </ul>
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## THE FCC WANTS YOU TO KNOW

Your monitor might cause interference on other radio/TV devices even when it is operating properly. To determine whether your monitor is causing the interference, turn off your monitor. If the interference goes away, your monitor is causing it. Try to eliminate the interference by:

- Moving your monitor away from the other device.
- Connecting your monitor to an outlet that is on a different electrical circuit from the other device.
- Contacting your local RadioShack store for help.

If you cannot eliminate the interference, the FCC requires that you stop using your monitor.



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.

## CARE AND MAINTENANCE

Your RadioShack 2.4 GHz Wireless Baby Monitor is an example of superior design and craftsmanship. The following suggestions will help you care for your monitor so you can enjoy it for years.

Keep the monitor dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.

Handle the monitor gently and carefully. Dropping it can damage circuit boards and cases and can cause the monitor to work improperly.

Use and store the monitor only in normal temperature environments. Temperature extremes can shorten the life of electronic devices and distort or melt plastic parts.

Keep the monitor away from dust and dirt, which can cause premature wear of parts.

Wipe the monitor with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the monitor .

Modifying or tampering with the monitor internal components can cause a malfunction and might invalidate your warranty and voids your FCC authorization to operate it. If your monitor is not performing as it should, take it to your local RadioShack store for assistance.

# SPECIFICATIONS

## Monitor

Video System: NTSC  
Receiver Frequency: 2.4 GHz ~ 2.4835 GHz  
Max. Range (clear line of sight): 300 feet  
Receiver Antenna: Directional  
Receiver Sensitivity: -25 ~ -90 dBm

## Sound

Max. Output: 800 mW  
THD output 10%: 500 mW

## Picture

Hor. Pull-In +200 Hz, -200 Hz  
Hor. Hold +400 Hz, -400 Hz  
Vert. Range: 6 Hz  
Linearity: V 15 %  
          H 15 %  
Pincushion V/H: 3 %  
Barrel Dist V/H: 3 %  
Keystone Dist: 3 %  
Scan Redisplay Rate: V 90 %  
                          H 90 %  
Resolution at Center: V 250 Lines  
                          H: 300 Lines  
Luminance Max: 100 cd/m<sup>2</sup>  
Current Consumption: 1200 mA  
Power Supply: DC 13.5V

## Camera (CMOS)

Video System: NTSC

Transmitter Frequency: 2.4 GHz ~ 2.4835 GHz  
Max. Range (clear line of sight):300 feet  
Transmitter Antenna: Directional  
Transmitter Sensitivity: 0 dBm FCC  
Picture of Color: B/W  
Optical Size: 1/3"  
Number of Effective Pixels: 320 x 240  
Scanning System: 2 : 1 interlace  
Resolution (TV line): 240 (horizontal)  
Auto Exposure:1/60 - 1/6000 sec.  
Gamma correction: Auto  
Backlight Compensation: Auto  
Indoor/Outdoor: indoor only  
Night-time:1 to 2 meters  
Microphone Sensitivity: 2-3 meters  
Aux. Input: 1 x video, 2 x audio  
White Balance: Auto  
Number of Channels:4  
Current Consumption:300 mA  
Power Supply:DC 12 V

(90 days warranty)

(Company Address)

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