

## INSTRUCTION MANUAL



## Features

- Digital wireless technology provides excellent image quality and clarity
- Interference free, secure and private signal
- Up to 450ft wireless transmission range <sup>①</sup>
- Listen in with exceptional sound clarity
- Safety warning feature notifies you when out of range
- Micro SD card recording
- Music in 4 selections
- System expandable up to 4 cameras <sup>②</sup>

<sup>①</sup> Maximum open space transmission range. The actual range is dependent upon building materials and other obstructions in path of wireless signal.

<sup>②</sup> Additional cameras sold separately.

- Two-way audio communication
- Camera room temperature display on monitor

## Camera Features

- VGA resolution camera
- Night vision allows for low light viewing up to 15 feet / 4.5 meters <sup>③</sup>
- Built-in microphone
- Camera can be battery operated for true portable wireless operation

<sup>③</sup> IR illumination range of 15ft./4.5m under ideal conditions. Objects at or beyond this range may be partially or completely obscured, depending on the camera application.

## Receiver Features

- 3.5" color LCD monitor/receiver with superior image quality
- Auto recording, manual recording and schedule recording
- Video/Audio output for viewing on TV/Monitor or recording on VCR/DVD recorder
- Rechargeable lithium polymer battery for true portability
- Convenient receiver cradle included
- Audio level indicator and alarm
- Displaying stored pictures in scan mode (screen saver)
- Baby room temperature display

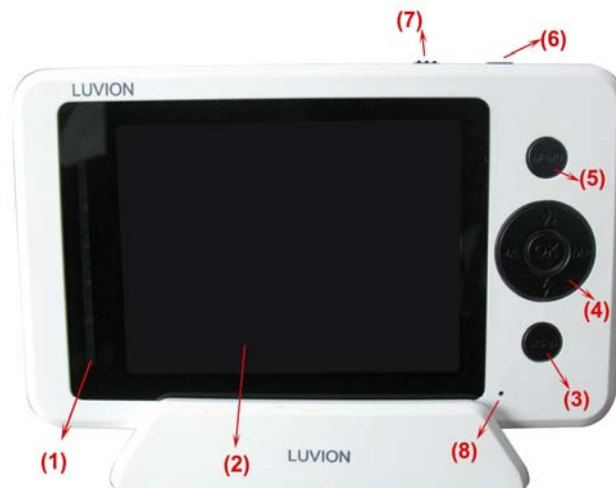
## Wireless Receiver

### Front/Back Controls

**1. Power/Audio Level LEDs** – The green LED indicates the receiver power is ON or OFF. The red LEDs indicate the audio levels (low to high).

**2. LCD Screen** – Displays video from the camera.

**3. SCAN Button** – When the **SCAN** button is pressed, the LCD screen is turned off and the system continuously scans all available cameras while the monitor is dark. The scan feature can be used for the following two reasons: (1) to prevent you from being disturbed (i.e. when sleeping) by the bright LCD screen, or (2) to conserve battery power. If audio is detected above the preset audio trigger level on the camera(s)\*, the receiver will beep and display the image from the triggered camera. The receiver will return to scan mode about 5 seconds after the alarm has completed. Press “A”, “M” or “SCAN” button on the front panel of monitor will exit scan mode.



**4. Navigation Controls/OK Button** – Use to controls in Viewing Mode and Menu Mode.

**Viewing Mode:** The following controls are used while watching live video from the camera:

- Press the UP/DOWN ▲ ▼ arrows to increase or decrease the volume.
- Press the LEFT ◀ arrow to view cameras\* in automatic switching mode.
- Press the RIGHT ▶ arrow to manually switch between cameras\*.

**Menu Mode:** Use the UP/DOWN/LEFT/RIGHT ▲ ▼ ◀ ▶ arrows to navigate in Menu Mode. Press the **OK** button to confirm the menu selection.

**5. MENU Button** – Press to go into main the receiver menu, press to back to view mode in main menu, press to back to previous menu in submenus.

**6. Record**—Press the button to start recording, press it again to stop recording. In this manual recording mode, the OSD LCD will mark “Recording”. .

**7. Antenna Locking Switch** – Slide the switch to unlocking position, the receiver antenna will pop up. Then you can adjust the antenna to vertical position for better signal reception.

**8. Microphone** – Receives sounds from the area near the receiver and transmits sound from the receiver to the camera (only when **TALK** Button is pressed down and held).

**9. A/V Out Port (Optional Use)** – Connect the included A/V cable to view video from the receiver on a TV or monitor, or record on a DVD recorder/VCR.



NOTE: Using this feature will turn off the LCD screen. The LCD screen will turn back on when the A/V cable is disconnected.

**10. DC 5V Power Input** – Connect the included DC 5V power adaptor to power the receiver and/or charge the receiver battery (when the receiver is not in the cradle).

**11. Charging Indication LED** – Indicates the built-in battery is in charge when the LED is in yellow, and in green when it is full charged.

**12. Night Light Button** – Press to remotely turn on/off the night light on the camera (for the camera currently being displayed on the LCD screen). When the night light is on, an indication icon will be displayed on the LCD screen.

**13. Alarm +/-Button** – Press to increase or decrease the volume of the audio alarm.

**14. ▶/■ Button** – Press the button to start or stop the lullaby.

**15. ▶▶ Button** – Press the button to play next lullaby.

**16. TALK Button** – Press and hold the button to talk to the camera currently being displayed on the LCD screen.

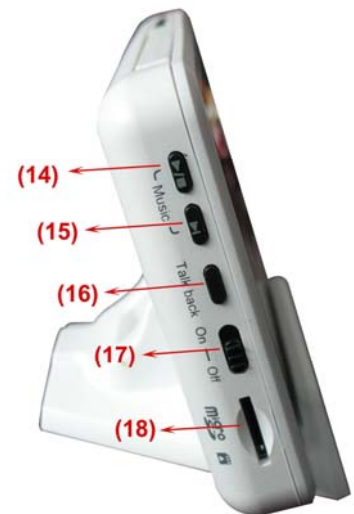
**17. Power Slide Switch** – Slide the switch to ON or OFF position to switch on/off the receiver.

**18. SD Card Slot** – Insert Micro SD card to this SD card slot for both video and audio recording.

\* You must have more than one camera configured on the system when using the functions that requires more than one camera.

**19. Receiver Antenna** – receives & sends signals from or to the cameras\*.

**20. Speaker** – Produces the sound transmitted from the camera(s) \*.



## Receiver Cradle Inputs

**21. DC 5V Power Input** – Connect the DC 5V power adaptor (included) to the receiver cradle to power the receiver and/or charge the receiver (when docked).

NOTE: When the receiver is docked, and the A/V cable is connected (power cable as needs to be connected), the LCD screen on the receiver will be blacked out. The LCD screen will turn back on when the A/V cable is disconnected.



## Wireless Receiver Installation

Determine if you will be using the receiver cradle, or connecting the cables directly to the receiver before installation:

1. Place the receiver cradle or receiver in a place that will have clear reception with your camera(s).
2. Plug the AC adaptor power output cable into the 5V POWER input of the cradle or receiver. Plug the power plug into a wall outlet or surge protector.
3. Leave the receiver to charge for several hours prior to first time use so the built-in rechargeable receiver battery is fully charged. DO NOT remove the power cable from the receiver / from the cradle during initial charge process. After initial charge, charge the receiver as required.
4. If you wish to view the receiver images on a larger screen, connect the included AV cable to the cradle or receiver, and connect the other end of the cable to the Video IN (Yellow) and Audio IN (White) ports on the TV, VCR or other viewing/recording device.

NOTE: the purpose of the AV output is for convenience only. When using with large screen TV/Monitor, the picture might be grainy as the camera limits video resolution to VGA (640x480 pixels). This is not a product defect. For best performance use with TV/Monitor PIP (Picture in Picture) function.

Check your TV/Monitor product manual to see if this feature is available on your TV/Monitor. This allows you to view TV or other video source and see video from the camera in a small window on the same screen.

## Wireless Camera

### Front & Back Controls

**1. Camera Antenna** – Sends & receives signals to or from the receiver.

**2. Night Light Switch** – Press to turn the night light ON or OFF. Alternatively, press the light button on the receiver to remotely turn the camera light ON or OFF.

Note: Night Light is available only when the camera is paired to the receiver.

**3. Lens/IR LED Cover** – Infrared LEDs provide viewing in no/low light conditions

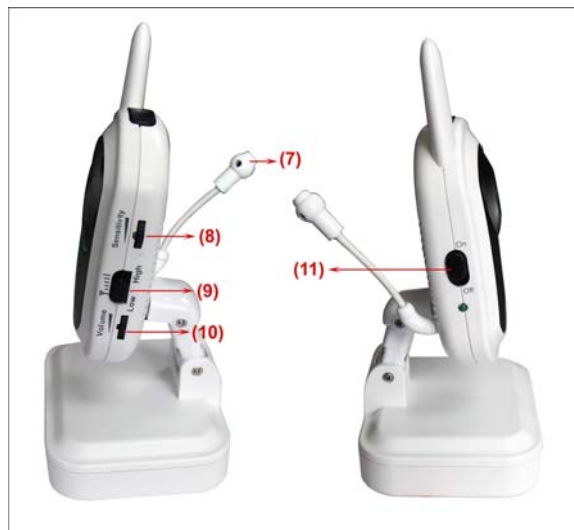
**4. Microphone** – Receives sounds for the area near the camera, and transmits sound from the camera to the receiver.

**5. DC 9V Power** – Connect the DC 9V power adaptor to the camera

NOTE: The camera can also be powered using 4 AA batteries (not included) installed in the base. If the camera is plugged in with the AC adaptor, the batteries will not be used. The batteries are intended for short term, portable camera use.

**6. Pair Button** – The pair button is located on the back of the camera behind the stand mount.





## Side Controls

**7. Temperature Sensor**--- Use to make a temperature induction at the camera side

**8. Sensitivity** – Adjust the sensitivity knob to set the sound alarm sensitivity. The receiver will beep to alert you when the sound is above a preset sound level. Adjust the sensitivity knob to increase or decrease the level.

**9. Signal switch**—Slip switch from low to high to enhance transmitting signal.

**10. Volume**--Press to increase or decrease the volume of the audio alarm.

**11. Camera ON/OFF Switch** – Turns the camera ON or OFF.

## Night Vision

This camera has built-in IR LEDs, which provides the camera with the ability to view images in no/low light conditions. It is important to use the provided power adaptor (and not the batteries) when using the camera for prolonged periods in low light conditions, as the built-in IR LEDs will drain the battery more quickly than regular daytime use.

## Camera Installation

Before you install the camera, carefully plan where and how it will be positioned, and where you will route the cable that connects the camera to the power adaptor.

Before starting permanent installation, verify its performance by observing the image on the receiver when camera is positioned in the same location/position where it will be permanently installed and the receiver is placed in the location where it will be used most of the time.

1. Carefully unpack the camera.

NOTE: If you are installing cameras that did not come with the system, please see the pairing camera section of this manual for details on installation.

2. Mount the camera to the wall.

Mark the position of the screw holes on the wall, and drill holes and insert 2 screws, then firmly attach the camera to the wall by placing the stand over the installed screws and pushing the base downwards.

NOTE: The camera can also be placed on a flat surface, such as a Table or Shelf, and no mounting hardware is required.

3. Adjust the viewing angle of the camera

NOTE: You can install additional cameras (maximum of 4 cameras). When adding cameras that were not included in the original box, you will need to pair up the cameras with the receiver. Refer to the camera pairing section of this manual.

## Installation Warnings

Aim the camera(s) to best optimize the viewing area: Select a location for the camera that provides a clear view of the area you want to monitor, which is free from dust, and is not in line-of-sight to a strong light source or direct sunlight.

Avoid installing the cameras where there are thick walls, or obstructions between the Cameras and the Receiver.

**Do not install camera in those area which is easy for baby to touch; Make sure the camera is installed stable and not fall down.**

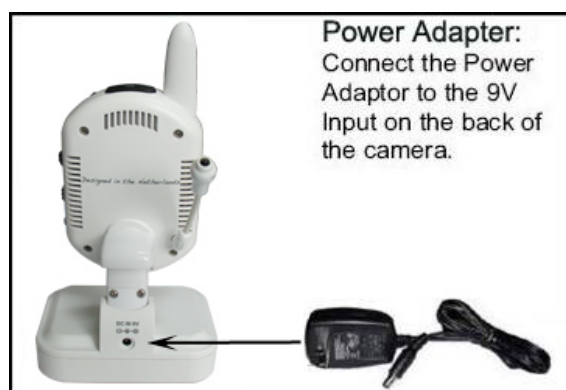
## Connecting Camera Power

The camera can be powered either by using the provided power adaptor, or using batteries (requires 4 AA type batteries, not included).

NOTE: Wireless cameras require a power source (either an electrical outlet or battery power) to operate. If you plan to permanently mount the camera in a location, it is recommended to use the included camera power adaptor to prevent interruptions in the image, as using battery power is intended as a temporary power solution.

### Power Adaptor

Connect the power adaptor to the camera. Make sure the power adaptor is placed into a grounded outlet or surge bar to protect the camera from power fluctuations.



### Battery Pack

1. Remove the battery cover off the base of the camera.
2. Insert 4 AA batteries (not included) into the Battery Pack. Make sure to correctly line up the Positive (+) and negative (-) terminals of the batteries.
3. Place the battery pack cover back on.






NOTE: If the camera is plugged in with the AC adaptor, the batteries will not be used. The batteries are intended for short term, portable camera use only.



## Viewing Mode

**1. Signal Indicator** – The signal indicator shows the strength of the signal being received from the camera. The number of bars in the signal indicator shows the strength of the signal – One or No Bars indicates the signal is poor, and 4 bars indicate a very strong signal.

**Signal Indicators:**

SignalStrength	Indicator	Warning
Perfect		None
Good		None
Fair		Low Signal
Low		Low Signal
No Signal		No Signal



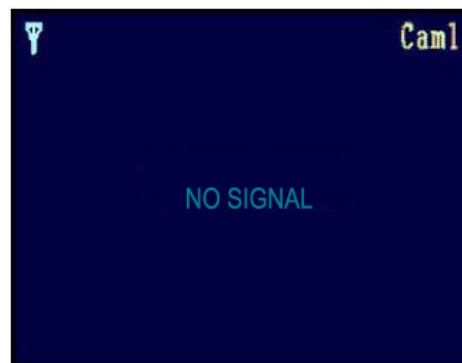
**2. Channel Indicator** – Displays the current channel number. Press the RIGHT ► arrow on the receiver to switch between available cameras. Note: To automatically switch between channels, press the LEFT ◀ arrow (AUTO).

## Low Signal / No Signal Warnings

When the camera is positioned too far from the receiver, warning messages will be displayed, and there will be one 2 beeps sound alert to remind you the no signal



**LOW SIGNAL:** The "LOW SIGNAL" appears when the receiver has one or two bars. You will still get an image, however updating may be less frequent.



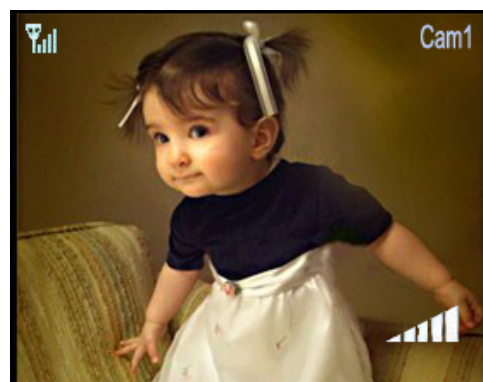
**NO SIGNAL:** The "NO SIGNAL" message means the receiver cannot access the camera. Please reposition the camera, or check the camera power.

## Adjusting the Receiver Volume

The receiver volume can be adjusted by using the UP/DOWN▲▼ arrows when viewing a camera.

Press the DOWN▼ arrow to decrease the volume, and press the UP▲ arrow to increase the volume. When the volume is set to one bar (lowest setting), the volume is muted.

The volume adjustment icon will be displayed during volume



changes, and will disappear after 10 seconds of inactivity.

## SD Card Recording

The system is designed for SD card recording. You can manually record the video at your desire. Before recording, you need to insert a SD card to the SD card slot. The system can support the size of up to 16GB SD card.

### Recording Mode

#### Manual Recording

Press **(Record)** ● button on the receiver, the receiver starts recording. Press the button again to cancel manual recording.

#### Schedule Recording

Go to Menu-Record-Schedule Record, set the recording start time and end time, then switch on schedule recording to enable schedule recording. In this mode the receiver records at a certain time each day.

## Accessing Menu System

Press the **MENU** button on the receiver to enter menu system. Use the navigating buttons to navigate up/down/left/right in the menu, and press the **OK** button to confirm a setting.

### Main Menu

The Main Menu contains 4 submenus:

- 1. SETTING** – In this submenu you can set date & time, brightness, temperature alert parameters, camera volume, image zoom times, choose the TV system for A/V output, select screen saver pictures , and reset the receiver to factory defaults (erases all configurations).
- 2. Record** – Adjusts the quality of the image
- 3. Auto Mute** – Auto mute function is to automatically cut off the audio when there is only slight environmental noise on camera side. In the submenu you can switch on/off this function.
- 4. Pairing** – Use the pairing menu to add camera(s) to the receiver.



### Settings

The Setting Menu contains 10 submenus:

- 1) Date& Time-sets the time value to show in the monitor screen
- 2) Brightness- used to adjust the brightness of the image
- 3)Temperature Unit—Choose the °C or °F for temperature unit
- 4). Temperature Alert – Sets the temperature alert range. Once the temperature on camera side is out of the range, the monitor will beep to alert you.



5) Camera volume- Increase or decrease the volume of audio from monitor side

6) Zoom –Achieve large image on this function.

7) A/V Out – Chooses the TV system for A/V output.

8). Screen Saver – 5 pictures are stored in the system. You can select one picture to make it be shown on the LCD screen in scan mode. Or you can select Blank screen to make the LCD screen display nothing in scan mode.

9) Format—Deleted all the data from SD card

10).Default– Choose **Yes** to reset the receiver to factory defaults. All menu settings will be reset.

NOTE: Resetting the receiver will not reset all camera pairing.

### Date & Time

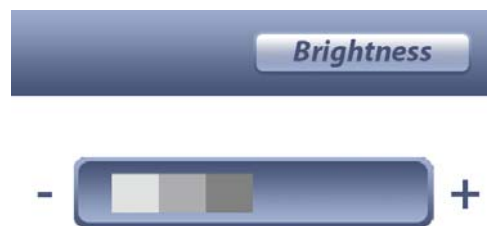
You can set the time value with YY MM DD HH MM to show in the monitor screen.



### Brightness

The Brightness is used to adjust the brightness of the image.

Use the LEFT◀ and RIGHT ▶ arrows to change the bar from DARKEST (left) to LIGHTEST (right). Press the OK button to confirm the change.



### Temperature Unit

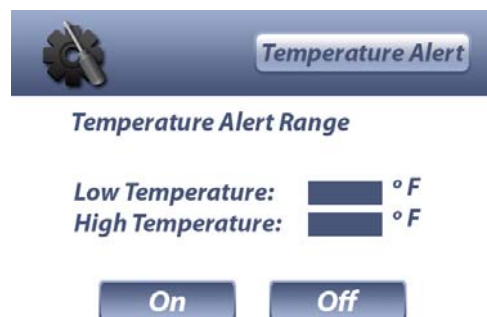
The °C or °F unit has exist to been selected to show the temperature in the monitor screen



### Temperature Alert

The menu is to set the temperature range of audio alert. When the temperature on the camera side is out of the range, the monitor will beep to alert you.

Use LEFT◀ and RIGHT ▶ arrows to select low temperature or high temperature, then use the UP and DOWN ▼▲ arrows to set the temperature value. After successfully setting the temperature range, choose **ON** and then press the **OK** button to confirm the setting.



Choose **OFF** to disable temperature alert function.

### Camera Volume

You can speak to the camera when pressing down the **TALK** button on the monitor. The menu is to adjust the volume of audio from the monitor side.

Press the UP/DOWN ▲▼ arrows to increase or decrease the volume



### Zoom

The image can be set at original size or double size by selecting zoom x1 and zoom x2. In double size mode, press the navigation buttons to view the parts out of the LCD screen.



### A/V Out

The menu is to choose the TV system when outputting the video/audio to TV, DVR/VCR or other viewing/recording devices.



### Screen Saver

5 pictures are stored in the system. You can select one picture to make it be shown on the LCD screen in scan mode. Or you can select **Blank screen** to make the LCD screen display nothing in scan mode.



*Panel display in scan mode*



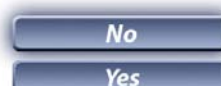
### Format

Select **Yes** to format the SD card. After formatting, all the data stored in the SD card will be deleted.

Note: Be cautious to use this function.



*All the data will be deleted*



## Default

Choose **Yes** to reset the receiver to factory defaults – all menu settings will be reset.

NOTE: Camera pairing settings will NOT be affected by a reset. Cameras will remain paired with the receiver.



## Record Menu

You can set up the recording parameters in record menu.

Note: To use the recording function, make sure a SD card is inserted into the SD card slot. When there is new video recorded, the indication LED **NEW** below the LCD screen will be on, and when the SD card is full of memory, the indication LED **FULL** will be on.



- **Quality:** The resolution of recorded videos. There are two options: 320 x 240 pixels and 640 x 480 pixels.

Record videos are much clearer in 640 x 480 pixels mode but more fluent in 320 x 240 pixels mode.



- **Schedule Record:** Set the schedule recording time for each day. Time can be set from 00:00 to 23:59. Then select the menu **ON** to enable schedule recording.



*Everyday Record Settings*

Start Time:  :   
End Time:  :



- **Overwrite:** Decide whether to cover the initial recorded files when SD card is full of memory.



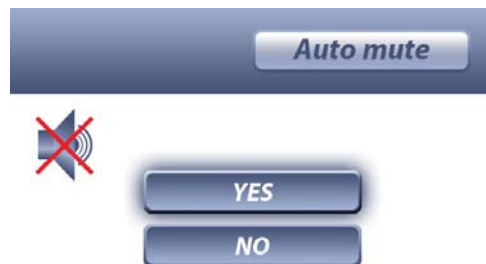
## Auto Mute Menu

Auto mute function is to automatically cut off the audio when there is only slight environmental noise on camera side.

Choose Yes to enable this function.

When auto mute function is enabled, the monitor audio will be cut off after 5 minutes when there is only slight environmental noise on camera side.

In auto mute mode, the audio can be activated by real noise or higher sound detected on camera side. After last activation, the monitor audio will go back to off status when there is no sound trigger within 5 minutes.



## Pairing Menu

The system comes with camera(s) that have already been paired. The pairing function assigns each camera to a different channel on the wireless receiver (up to 4 Cameras), and it is necessary for configuring additional cameras.

Use the UP ▼ and DOWN ▲ arrows to select the desired pairing channel, and press the OK button to begin the pairing process with a camera.

NOTE: It is highly recommended to pair the cameras to the receiver before permanently mounting the cameras. See the pairing section on this manual for details.



## Camera Pairing

The system comes with camera(s) that have already been paired. These cameras will communicate with the receiver once powered on.

The pairing function assigns each camera to a different channel on the wireless receiver (up to 4 cameras), and is necessary for configuring additional cameras.

NOTE: It is highly recommended to pair the cameras to the receiver before permanently mounting the cameras.

1. Power on the camera by connecting the power adaptor or battery pack, and turning the switch to ON. The power LED for the camera should be ON.

2. Power on the receiver by connecting the power adaptor to the 5V Input on the side.



3. Press the MENU button on the receiver. Navigate to the Pairing menu option by pressing the ▼▲ keys to navigate. Press the OK button to open the Pairing menu.



4. Select a channel by pressing the UP and DOWN ▼▲ arrows. Press the OK button on the receiver to accept.

5. A message will be displayed on the receiver screen. The receiver will count down from 30~0 – you must press the Pair button on the camera during this time to successfully pair the camera.

If the button on the camera is not pressed, the receiver will return to the view screen, and no pairing will take place.



6. Press the Pair button on the back of the camera.

Once the camera has been paired, it will be immediately viewable on the receiver monitor.



## Troubleshooting

If you have problems with the system, there is often a quick and simple solution. Please try the following:

Problem	Solution
No picture from a camera	<ol style="list-style-type: none"> <li>1. Check all connections to the camera. Make sure the adaptor is plugged in.</li> <li>2. Make sure that the cameras and receiver are both ON.</li> <li>3. Make sure that the camera is in range of the receiver.</li> <li>4. If using the battery adaptor, try replacing the batteries</li> </ol>
The picture is dropping	<ol style="list-style-type: none"> <li>1. Move the camera closer to the receiver.</li> <li>2. Try repositioning the camera, receiver or both to improve the reception.</li> <li>3. Adjust the monitor antenna to vertical position.</li> </ol>

Audio problems	<ol style="list-style-type: none"> <li>1. Ensure that the volume on the TV is on.</li> <li>2. Make sure that there is sound within range of the camera microphone</li> <li>3. If the unit emits a loud screeching noise (feedback), move the camera or receiver farther apart.</li> </ol>
The picture is or has become choppy	<p>The picture may become choppy when experiencing a lower frame rate (i.e. 10 frames per second vs. a higher 20 frames per second).</p> <ol style="list-style-type: none"> <li>1. Try moving the camera closer to the receiver.</li> <li>2. Remove obstructions between the receiver and camera.</li> <li>3. Adjust the monitor antenna to vertical position.</li> </ol>
The Picture appears to be grainy when using AV out function to view on a large screen TV/Monitor	<p>The purpose of the AV output is for convenience only. When using with large screen TV/Monitor, the picture might be grainy as the camera limits video resolution to VGA (640x480 pixels). This is not a product defect.</p> <ol style="list-style-type: none"> <li>1. For best performance use with TV/Monitor PIP (Picture in Picture) function. Check your TV/Monitor product manual to see if this feature is available on your TV/Monitor</li> <li>2. View video on a smaller screen TV/Monitor</li> </ol>

## Appendix #1 - Receiver Specifications

Receiver	
Receiving Frequency Range	2402MHz~2480MHz
Data Rate	1.5 Mbps
Receiving Sensitivity	-81dBm
Demodulation Type	GFSK with FHSS
Resolution	H: 480 V: 240
Viewing Angle	H: 50° V: 50°
A/V Output / Resolution	VGA 640x320 / 15FPS, QVGA 320x240 / 30FPS
Alarm Sensitivity	80dB ±10% (1M)
Power Requirement	5V DC ±5%
Power Consumption	380mA Max without charging 800mA with charging
Operating Temp Range	14°F ~ 140°F (-10° ~ 60° C)
Operating Humidity	0 ~ 85% RH

## Appendix #2 - Camera Specifications

Camera(s)	
Transmit Frequency Range	2402MHz~2480MHz

Data Rate	1.5 Mbps
Transmitting Power	14dBm (TYP)
Modulation Type	GFSK with FHSS
Transmitting Distance	150m (Line of Sight)
Image Sensor Type	1/4" Color CMOS Image Sensor
Effective Pixels	H: 640 V: 480
Image Processing	Motion JPEG
Image Resolution / Frame Rate	H: 640 V: 480 / 30FPS Max
AES	On 1/2000 ~ 1/20 sec
White Balance	Yes
AGC / Range	On / 0dB~24dB
Lens	4.9mm / F2.8
Viewing Angle (Diagonal)	60°
Minimum Illumination	2.5 LUX (IR Off), 0 LUX (IR On)
IR LED / Night Vision Range	8 LEDs / 850nm, 5m (with IR LED)
Power Requirement	9V DC $\pm$ 5%
Power Consumption	330mA MAX (with Night Light) 250mA (without Night Light)
Operating Temperature	14°F ~ 104°F (-10°C ~ 40°C)
Operating Humidity	0% ~ 85%
Environmental Rating	14°F ~ 140°F (-10° ~ 60° C)

**Note:**

The antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operated in conjunction with any other antenna or transmitter.

**FCC NOTICE:**

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.

**FCC NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.**