

2.4 GHz Wireless Color Video System with Rechargeable Lithium Battery

Instruction Manual

English Version 1.0



MODEL:
SG8840





www.lorexcctv.com

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Turn your TV into a Wireless Security System with the Lorex 2.4 GHz Wireless Color Video System.

The SG8840 system has an Integrated Rechargeable Lithium battery allowing for increased portability with up to 5 hours of battery life. Instant protection of your home or office with easy installation and operation.

<http://www.lorexcctv.com>

| | | |
|--|---|---|
|  | CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN |  |
| CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO A QUALIFIED SERVICE PERSONNEL | | |



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING: TO PREVENT FIRE OR SHOCK HAZARD,
DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.**

**CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE
OF PLUG TO WIDE SLOT, FULLY INSERT.**

Wireless Disclaimer

This product broadcasts over public airways and its video and audio signals may be intercepted without your consent.

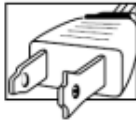
Important Safeguards

In addition to the careful attention devoted to quality standards in the manufacture process of your video product, safety is a major factor in the design of every instrument. However, safety is your responsibility too. This sheet lists important information that will help to assure your enjoyment and proper use of the video product and accessory equipment. Please read them carefully before operating and using your video product.

Installation

1. **Read and Follow Instructions** - All the safety and operating instructions should be read before the video product is operated. Follow all operating instructions.
2. **Retain Instructions** - The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** - Comply with all warnings on the video product and in the operating instructions.
4. **Polarization** - Do not defeat the safety purpose of the polarized or grounding-type plug.

A polarized plug has two blades with one wider than the other.



A grounding type plug has two blades and a third grounding prong.

The wide blade or the third prong are provided for your safety.



If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet

5. **Power Sources** - This video product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your location, consult your video dealer or local power company. For video products intended to operate from battery power, or other sources, refer to the operating instructions.
6. **Overloading** - Do not overload wall outlets of extension cords as this can result in the risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cords, damaged or cracked wire insulation, and broken plugs are dangerous. They may result in a shock or fire hazard. Periodically examine the cord, and if its appearance indicates damage or deteriorated insulation, have it replaced by your service technician.
7. **Power-Cord Protection** - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the video product.

8. **Ventilation** - Slots and openings in the case are provided for ventilation to ensure reliable operation of the video product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the video equipment on a bed, sofa, rug, or other similar surface. This video product should never be placed near or over a radiator or heat register. This video product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the video product manufacturer's instructions have been followed.

9. **Attachments** - Do not use attachments unless recommended by the video product manufacturer as they may cause a hazard.

10. **Water and Moisture** - Do not use this video product near water. For example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement, near a swimming pool and the like.

Caution: Maintain electrical safety. Powerline operated equipment or accessories connected to this unit should bear the UL listing mark of CSA certification mark on the accessory itself and should not be modified so as to defeat the safety features. This will help avoid any potential hazard from electrical shock or fire. If in doubt, contact qualified service personnel.

11. **Accessories** - Do not place this video equipment on an unstable cart, stand, tripod, or table. The video equipment may fall, causing serious damage to the video product. Use this video product only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the video product. Any mounting of the product should follow the manufacturer's instructions and use a mounting accessory recommended by the manufacturer.



Service

13. **Servicing** - Do not attempt to service this video equipment yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
14. **Conditions Requiring Service** - Unplug this video product from the wall outlet and refer servicing to qualified service personnel under the following conditions.
 - A. When the power supply cord or plug is damaged.
 - B. If liquid has been spilled or objects have fallen into the video product.
 - C. If the video product has been exposed to rain or water.
 - D. If the video product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.
 - E. If the video product has been dropped or the cabinet has been damaged.
 - F. When the video product exhibits a distinct change in performance. This indicates a need for service.
15. **Replacement Parts** - When replacement parts are required, have the service technician verify that the replacements used have the same safety characteristics as the original parts. Use of replacements specified by the video product manufacturer can prevent fire, electric shock or other hazards.
16. **Safety Check** - Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks recommended by the manufacturer to determine that the video product is in safe operating condition.
17. **Wall or Ceiling Mounting** - The cameras provided with this system should be mounted to a wall or ceiling only as instructed in this guide, using the provided mounting brackets.
18. **Heat** - The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

Use

19. **Cleaning** - Unplug the video product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
20. **Product and Cart Combination** - Video and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the video product and cart combination to overturn.
21. **Object and Liquid Entry** - Never push objects for any kind into this video product through openings as they may touch dangerous voltage points or "short-out" parts that could result in a fire or electric shock. Never spill liquid of any kind on the video product.
22. **Lightning** - For added protection for this video product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power line surges.

NOTE

This equipment has been certified and found to comply with the limits regulated by FCC, EMC, and LVD. Therefore, it is designated to provide reasonable protection against interference and will not cause interference with other appliance usage.

However, it is imperative that the user follows this manual's guidelines to avoid improper usage which may result in damage to the unit, electrical shock and fire hazard injury.

In order to improve the feature functions and quality of this product, the specifications are subject to change without notice from time to time.

FCC CLASS B NOTICE

Note:

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 instruction, 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 on and off), 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 or television technician for assistance

Modifications not authorized by the manufacturer may void users authority to operate this device.

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.

General Precautions

1. All warnings and instructions of this manual should be followed
2. Remove the plug from the outlet before cleaning. Do not use liquid aerosol detergents. Use a water dampened cloth for cleaning
3. Do not use this unit in humid or wet places
4. Keep enough space around the unit for ventilation. Slots and openings in the storage cabinet should not be blocked
5. During lightning storms, or when the unit is not used for a long time, disconnect the power supply, antenna, and cables to protect the unit from electrical surge

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Camera Features

- Turns your TV into a Video Security System
- Install and Operate in less than 1 minute
- Flexible - move camera from room to room
- Integrated rechargeable Lithium battery powers the camera for up to 5 hours
- Audio monitoring
- 4 channels available for selecting optimum clear reception
- 300 ft. wireless transmission (open space)*
- Automatic IR illumination provides B&W video images in low light conditions**
- Record picture to any standard VCR/DVR

* Maximum open space transmission range. Actual range dependent upon building materials and other obstructions in path of wireless signal.

**IR illumination range of 12 ft. under ideal conditions. Objects at or beyond this range may be partially or completely obscured, depending on the camera application.

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SG8840 Getting Started - Package Contents

The SG8840 system comes with the following components:



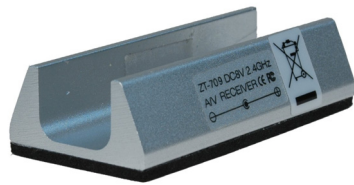
**2.4GHz Wireless Color Camera
with Adjustable Stand**



Wireless Receiver



**Wireless Receiver
Antenna**



**Wireless Receiver
Stand**



AV Cable



**Power Adapter for 2.4 GHz
Wireless Camera**



**Power Adapter for Wireless
Receiver**

CHECK YOUR PACKAGE TO CONFIRM THAT YOU HAVE RECEIVED THE COMPLETE SYSTEM, INCLUDING ALL COMPONENTS SHOWN ABOVE.

SG8840 - Camera Features

The SG8840 Camera is a wireless device which allows you to choose from 4 channels for optimum clear reception

LENS: CMOS imaging sensor with 510x492 total pixels.

INFRARED LED: Provides illumination in low light conditions up to a range of 12 ft..

MICROPHONE: Provides Listen-In Audio

MOUNTING BRACKET AND ADJUST: Bracket for mounting the camera and adjusting the view angle. The Mounting bracket can be permanently mounted to a surface if desired.

CAMERA - FRONT



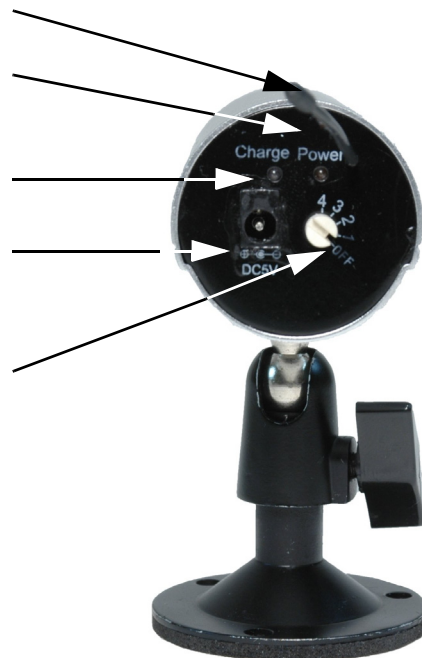
Antenna

Power Indicator LED

Charge Indicator LED

Power Input Jack

Power / Channel Select



CAMERA - BACK

ANTENNA: Sends signal to Receiver

POWER INDICATOR LED: LED indicator for Power **ON/OFF**. A Green LED is ON when the camera is receiving power.

CHARGE INDICATOR LED: LED flashes when the camera is charging, and goes dark once the camera is at Full Charge.

POWER INPUT JACK: Connect the Camera Power Adapter to this port to charge the wireless camera.

POWER / CHANNEL SELECT: 4 available channels on the 2,400 MHz ~ 2,483 MHz range

SG8840 - Receiver Features

The SG8840 Wireless Receiver is a device which allows you to receive data from a selection of 4 channels for optimum clear reception

RECEIVER - FRONT

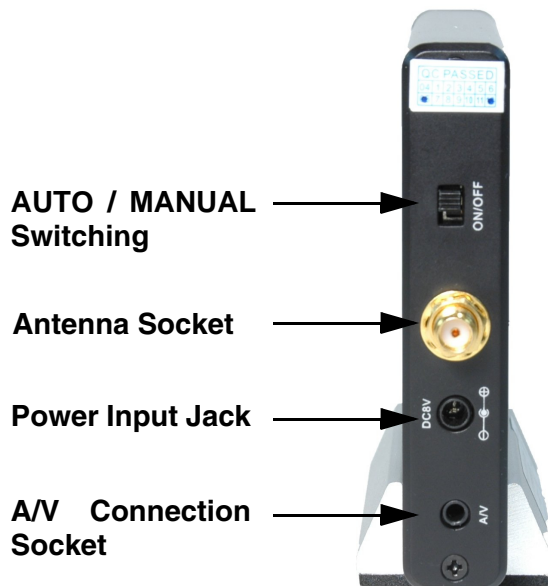
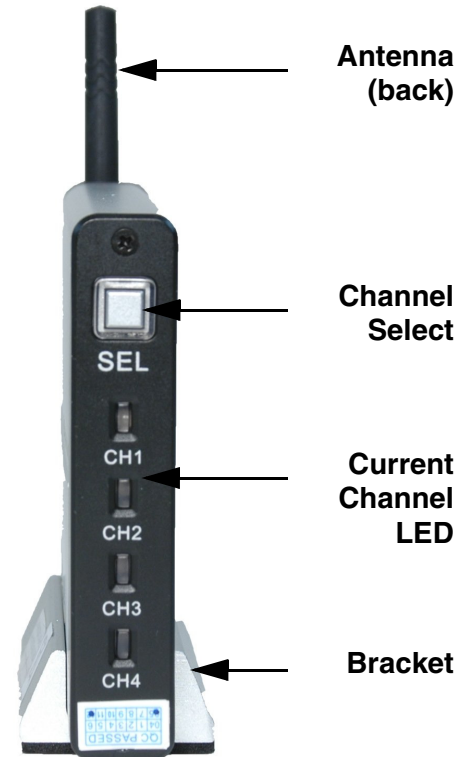
ANTENNA: Receiving antenna for wireless transmission

CHANNEL SELECT: Channel selection button. Press to change between CH1 - CH4

Note: The Channel selection must be set to correspond between the camera and receiver.

CURRENT CHANNEL LED: Indicates the current receiving channel

BRACKET: Holds the wireless receiver



RECEIVER - BACK

AUTO / MANUAL Switching: Manually sequence through available Channels using the CHANNEL SELECT button / AUTO sequence through all channels.

ANTENNA SOCKET: Connection socket for the Receiver Antenna.

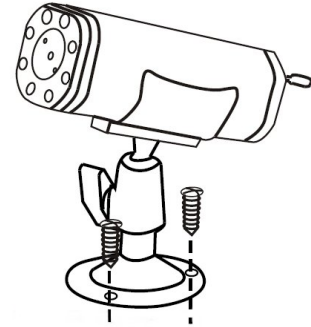
POWER INPUT JACK: Connection for the Receiver Power Adapter.

A/V CONNECTION SOCKET: Connection socket for the A/V Cable. Connect the black end of the cable to this socket.

Camera Setup

1. Adjust the camera height and position using the angle adjustment thumbscrew on the base.

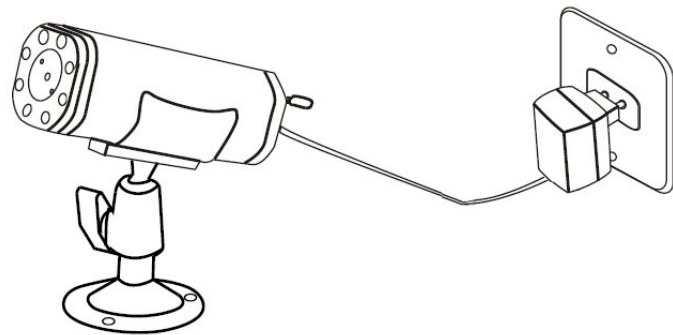
The camera can be permanently attached to a surface using the provided screws (3 attachment screws), or it can simply be placed to stand on any flat surface.



2. Confirm that the camera power is in the **OFF** position. Connect the Power Adapter to the camera and to a wall outlet.

- Connect the 5V camera power supply adapter to the camera, and connect to a wall outlet.

Note: Confirm that the Power adapter used is labelled 'Camera'

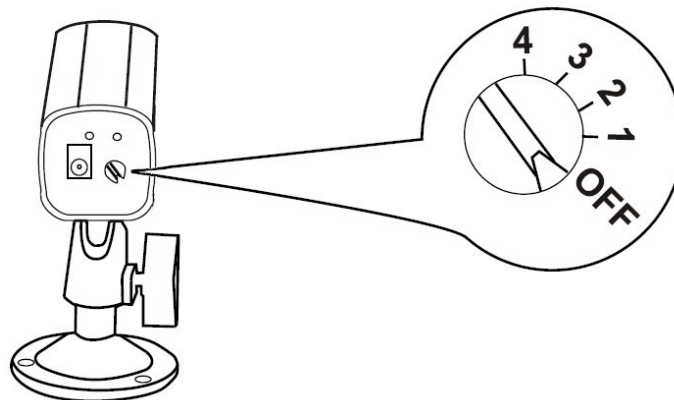


- The camera should be charged for approximately 2 hours prior to use (the Camera Charge LED will light up indicating a charge is in progress), however the camera can be used immediately when connected to a wall outlet. The 2 hour charge time is for the Lithium Battery to reach full charge.

- Once the camera has reached Full Charge, the LED indicator will turn off.

3. Turn ON the camera by changing the power switch from **OFF** to Channel 1.

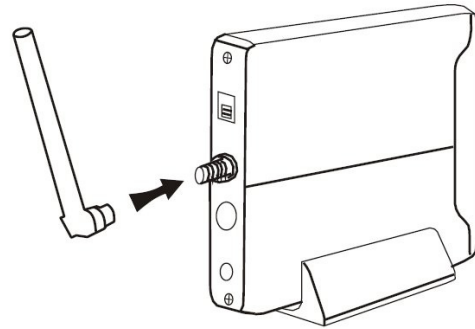
- A green Power LED will light up indicating the camera is **ON**.



Wireless Receiver Setup

1. Mount the **WIRELESS RECEIVER** on the **STAND**.

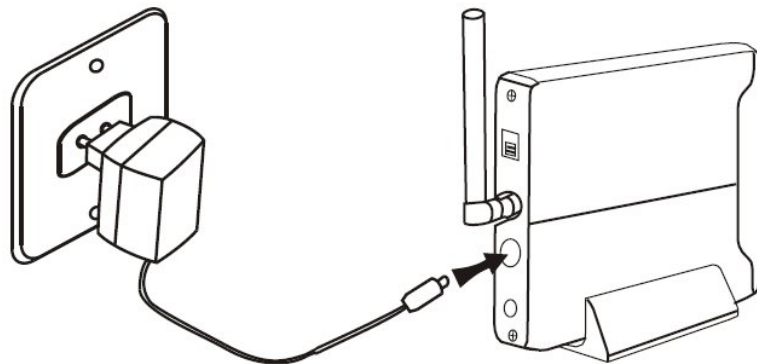
2. Connect the **ANTENNA** to the **WIRELESS RECEIVER**.



3. Confirm that the Wireless Receiver is in the **OFF** position.

- Connect the 8V power supply adapter to the Receiver, and connect to a wall outlet.

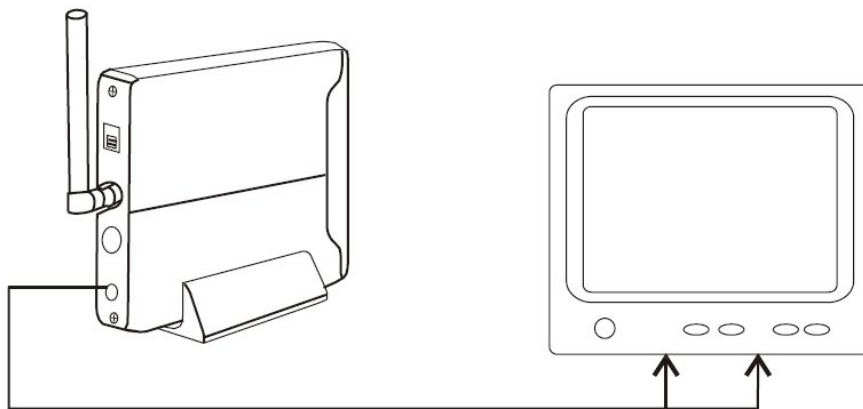
NOTE: Confirm that the power supply is labelled as the 'Receiver Power Adapter'



- Power ON the receiver by setting the power switch to **ON**.

4. Connect the **WIRELESS RECEIVER** to a **MONITOR / TV** using the provided AV Cable

- Connect the **BLACK** end of the cable to the **WIRELESS RECEIVER**
- Connect the **YELLOW** plug to the **VIDEO** port on the **MONITOR / TV**
- Connect the **RED** plug to the **AUDIO** port on the **MONITOR / TV**



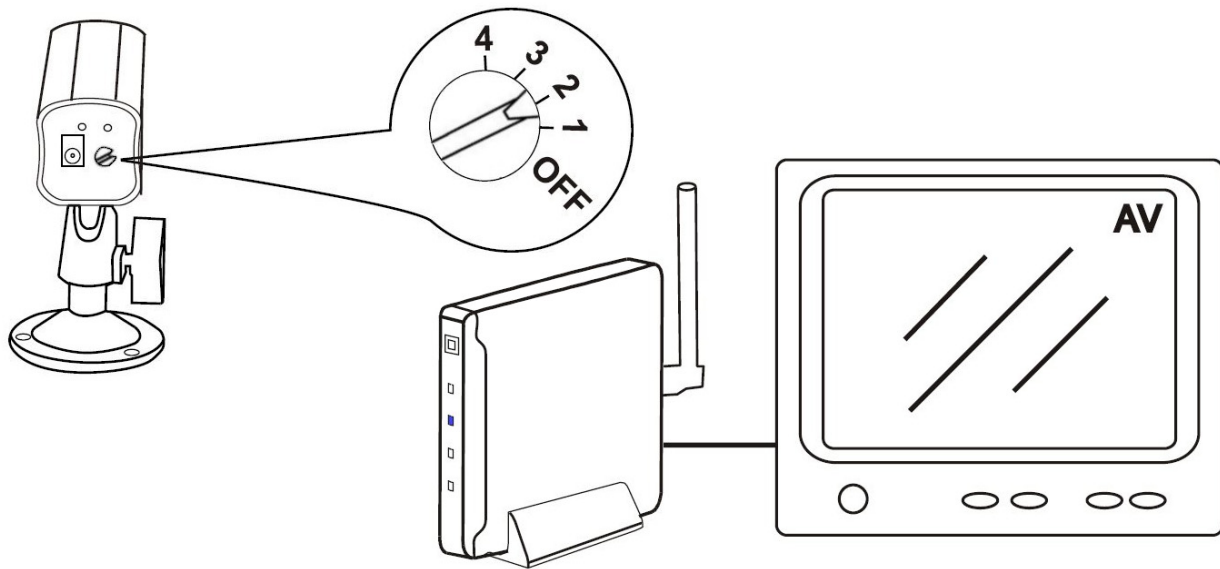
Viewing the Camera

Video can be viewed immediately (with the AC Adapter connected to the Wireless Camera), however if portable use is desired, the camera Lithium Battery must be charged for 2 hours.

1. Power up the Receiver and the Camera.
2. Set the Camera to **CH1** (the Wireless Receiver is set to CH1 by default).

Please ensure that the **CAMERA** and **RECEIVER** are set to the same channel!

3. Set the **MONITOR / TV** to **VIDEO MODE** (or **AUX MODE / TV/VIDEO / GAME MODE** etc.). See your specific MONITOR or TV Manual for further instructions)



IMPORTANT: You may find some static on the picture at a selected channel setting. For optimum viewing reception, you may need to change the channels on **BOTH** the Camera and Receiver to a different channel (between CH1-CH4). **BOTH** the Camera and Receiver must be set to a matching channel. If Static persists on your image, try adjusting the Antenna on the Wireless Receiver and Camera.

Troubleshooting

Problem: There is no displayed image or sound on the **MONITOR/TV**.

Solution:

- Does the camera have a full charge? Try connecting the Power Adaptor to the camera
- Check the LED Power indicators on both the Camera and the Receiver. Try unplugging and reconnecting the power cable to the Wireless Receiver.
- Check the A/V Cable connection at the Wireless Receiver and the **MONITOR/TV**

Problem: I only see TV programs and not video from my camera

Solution:

- Ensure that the TV is set to AV/Video Mode

Problem: The displayed image is fuzzy and the sound is not clear.

Solution:

- Confirm that the camera and receiver are using the same channel (Ch1-4)
- Try changing the distance between receiver and camera. Move the camera
- Check for possible interference (thick walls, devices, etc.)
- Adjust the receiver antenna
- Try setting both the receiver and camera to a different channel (between CH1-CH4)

Problem: The image is 'ghosting' but the sound is fine

Solution:

- Possible interference with other wireless devices - try a different channel

Problem: Image is in black and white, but the sound is normal

Solution:

- The Hardware is incompatible with your existing Monitor / TV. Try the SG8840 on a different TV/Monitor

Camera Specifications - Appendix #1

| | |
|---|--|
| Imaging Sensor | 1/3" CMOS |
| CMOS Total Pixels | 510 x 492 (NTSC) |
| View Angle | 62° |
| Minimum Illumination | 1.5 Lux / F1.5 |
| Transmission Frequency | ISM 2,4000 MHz - 2,483 MHz (4CH) |
| Transmission Power | <2 mW (milliwatt) |
| Modulation Type | FM |
| Bandwidth | 18 MHz |
| Power Supply | + 5V (DC) , 700 mA |
| Battery Type / Capacity | Lithium Battery / 500 mAh |
| Charge Time | 2 hr. |
| Working Time | Up to 5 hours (less time in IR Mode) |
| Unobstructed Effective Range | 328 ft. / 100 meters |
| Night Vision Range | Up to 12 ft. / 3.7 meters |
| Camera Dimensions (W x D x H) | 3.5" x 1.25" x 1.25" 10cm x 3cm x 3cm |
| Stand Dimensions (W x D x H) | 1.5" x 1.5" x 2" 4cm x 4cm x 5cm |
| Weight | 4.3 oz / 120 g (not including stand) |
| Operating Temperature Range | 14° F ~ 122° F -10° C ~ 50° C |

Wireless Receiver Specifications - Appendix #2

| | |
|--|---|
| Receiving Frequency | CH1: 2414MHz,CH2: 2432MHz,CH3: 2450MHz,CH4: 2468MHz |
| Intermediate Frequency | 480 MHz |
| Demodulation Type | FM |
| Antenna | 50 OHM SMA |
| Receiving Sensitivity | -85 dBm |
| Video Output Level | 1 Vp-p @ 75 OHM, S/N > 38DB |
| Audio Output Level | 1 Vp-p @ 600 OHM |
| Power Supply | 8V (DC) |
| Consumption Current | 180 mA |
| Unobstructed Effective Range | Up to 328 ft. / 100 meters** |
| Receiver Dimensions (W x D x H) | 4" x 0.75" x 3.25" 10 cm x 2 cm x 8.5 cm |
| Weight | 4.3 oz / 120 g |
| Storage Temperature | -22 F to 185 F / -30 C - 85 C |
| Operating Temperature | 14 F to 122 F / - 10 C to 50 C |
| Operating Humidity | 85% RH |

* 4 available channels for optimal signal

** Maximum open space transmission range. Actual range dependent upon building materials and other obstructions in path of wireless signal.

As our products are subject to continuous improvement, LOREX Technology Inc. and its subsidiaries reserve the right to modify product design, specifications and prices, without notice and without incurring any obligation.

E&OE

It's all on the web

 **Product Information**

 **Specification Sheets**

 **User Manuals**

 **Software Upgrades**

 **Quick Start Guides**

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