Thank you for purchasing the 2.4 GHz Wireless Camera Converter. Lorex is committed to providing our customers with a high quality, reliable security product.

With the Camera Converter, you can turn any Wired CCTV Camera into a Wireless Camera, and avoid the hassle of running wires. Simply connect the Converter to a BNC terminated Camera, connect the Wireless Receiver to any Monitor/TV, and enjoy the convenience of a Wireless Security System.

To learn more about this 2.4 GHz Wireless Camera Converter, or to learn about our complete range of accessory products, please visit our website at:

http://www.lorexcctv.com

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.
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.

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 manuals 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

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

LOREX TECHNOLOGY INC.

http://www.lorexctv.com
Converter Features

- Turns any Wired CCTV camera into a 2.4 GHz Wireless Camera
- Avoids the hassle of running cables
- Wireless video transmission through walls and ceilings
- Standard BNC Video connection to transmitter converter
- Crystal clear 300 ft. wireless transmission (open space)†
- 4 channels available for selecting clearest reception
- Can be connected to LOREX 6 Pin DIN cameras in conjunction with the ACC1510 coupler

† Maximum open space transmission range. Actual range dependent upon building materials and other obstructions in path of wireless signal.
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Getting Started - WL401BNC Package Contents

The WL401BNC system comes with the following components:

- 4 Channel 2.4 GHz Wireless Receiver
- BNC to 2.4GHz Wireless Converter
- 12 V DC Power Adapter (for Receiver)
- A/V RCA Cable
- Mini Power Cable

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

The WL401BNC Converter is a wireless device that converts a wired camera to a wired video signal.

**TRANSMITTER - FRONT**

- **Antenna**: Sends the Wireless Signal to the Receiver
- **BNC Connector**: Connects to the Wired Camera

**TRANSMITTER - BACK**

- **4 Channel Switch**: 4 Channels are available for selecting the clearest reception

  **NOTE**: The switches are very small - use a pin (or similar tool) to change the positions.

- **Power Jack**: Connect the Wired Cameras' power adapter directly to one jack, and connect the second jack to the Mini Power Cable (which connects to the Cameras Power Input).
**Receiver Features**

The WL401BNC Wireless Receiver is a device which allows you to receive data from a selection of 4 channels for optimum clear reception.

**RECEIVER - BACK**
- Antenna
- Antenna Socket
- Current Channel LED
- Channel Select
- Power Input Jack
- ON/OFF Power Switch
- Audio / Video Outputs

**RECEIVER - FRONT**
- **Antenna**: Receiving antenna for Wireless Transmission.
- **Antenna Socket**: Connection socket for the Receiver Antenna.
- **Current Channel LED**: indicates the current receiving channel.
- **Channel Select**: Channel selection button. Press to change between CH1-Ch4

**NOTE**: The Channel selection must be set to correspond between the Transmitter and Receiver.

**RECEIVER - BACK**
- **Power Input Jack**: Connection for the Power Adapter.
- **ON/OFF Power Switch**: Turns the power ON / OFF.
- **Audio / Video Output**: Use the supplied RCA A/V Cable to connect to any Monitor or TV.
**Transmitter Setup**

1. Connect the Converter to a BNC Camera using the BNC Socket.

   ![Diagram of Box Camera and Transmitter]

   ![Diagram of Bullet Camera and Transmitter]

   **NOTE:** Two different types of cameras are shown connected to the Wireless Transmitter. The Transmitter is compatible with many different types of BNC Cameras. Visit us on the web at www.lorexcctv.com for a full list of products.

   The Wireless Converter utilizes a BNC Male type of connector. Additional accessories need to be purchased if your camera does not have a BNC Female lead.

2. Use the Mini Power Cable (included with the system) to connect one of the Converters' Power Jack (left or right) to the Cameras Power input.

   ![Diagram of Bullet Camera and Transmitter with Mini Power Cable]
Transmitter Setup

3. Connect the camera's power supply (should be at least 300 mA, but varies by camera) to the other available power jack on the Converter.

Once both Power Jacks have been connected per the above steps, your wired CCTV camera is now transmitting Wireless Video!

NOTE: Some Lorex Cameras have a 6ft Cable attached before terminating in a BNC (female-end) and Power Cable. When connecting the Converter, you'll notice that it will ‘dangle’ from the camera cable. It is suggested that you tie/secure the cable and converter to a surface such as a Wall or Ledge.
Receiver Setup

1. Ensure that the Antenna is connected to the Receiver Unit.

2. Confirm that the Receiver is set to OFF, then plug in the 12V Power Supply to the Receiver and connect to a wall outlet.

3. Connect the supplied AV RCA Cable to the Audio and Video Outputs of the Receiver, and connect the other end of the cable to the Audio and Video inputs of your TV or Monitor. Use the Yellow cable for Video, and the Red Cable for Audio

NOTE: The WL401BNC Converter transmits Video only.
Viewing the Camera

The Transmitter and Receiver have now been successfully configured. Proceed with the following steps to view Video from the Camera:

1. Set the Receiver power to ON. By default, the Receiver will go to CHANNEL 1 (CH1)

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

2. Set the Transmitter to CH1 using the small switches on the back. The switches are very small - use a pin (or similar tool) to change the positions.

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 Transmitter and Receiver to a different channel (between CH1-CH4). BOTH the Transmitter and Receiver must be set to a matching channel. If Static persists on your image, try adjusting the Antenna on the Wireless Receiver and Transmitter.
Troubleshooting

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

Solution:

• Check for proper Power connection from the Converter’s Power Jack to the Camera Power Supply.
• Try unplugging and reconnecting the power cable to the Wireless Receiver. One of the Channel LEDs should appear ON.
• 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 repositioning the Receiver and Transmitter.
• 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: There is No Audio

Solution:

• Audio is not available via the WL401BNC Camera Converter - only video signal is available.

Problem: I can’t connect the Converter to my 6-PIN DIN Camera.

Solution:

• Use the ACC1510 accessory from Lorex to change the connection type from DIN to BNC.
## Technical Specifications - Appendix #1

<table>
<thead>
<tr>
<th>Category</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency</strong></td>
<td>SM 2400 - 2483 MHz 4CH</td>
</tr>
<tr>
<td><strong>Channels</strong></td>
<td>CH1=2414 MHz</td>
</tr>
<tr>
<td></td>
<td>CH2=2432 MHz</td>
</tr>
<tr>
<td></td>
<td>CH3=2450 MHz</td>
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<tr>
<td></td>
<td>CH4=2468 MHz</td>
</tr>
<tr>
<td><strong>Transmission Power</strong></td>
<td>10mW CE, 2mW FCC</td>
</tr>
<tr>
<td><strong>Modulation Mode</strong></td>
<td>FM</td>
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<tr>
<td><strong>Bandwidth</strong></td>
<td>18MHz</td>
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<tr>
<td><strong>Current Consumption</strong></td>
<td>50mA (MAX)</td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>14°F - 122°F</td>
</tr>
<tr>
<td></td>
<td>-10°C - 50°C</td>
</tr>
<tr>
<td><strong>Storage Temperature</strong></td>
<td>-22°F - 140°F</td>
</tr>
<tr>
<td></td>
<td>-40°C - 85°C</td>
</tr>
<tr>
<td><strong>Wireless Range</strong></td>
<td>Up to 330 ft. (100 m)</td>
</tr>
</tbody>
</table>
It’s all on the web

- Product Information
- Specification Sheets
- User Manuals
- Software Upgrades
- Quick Start Guides
- Firmware Upgrades

VISIT

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