

USER'S GUIDE

TX110

Version 1.0

Digital Wireless Transmitter

ENGLISH





Safety Precautions

- Read this guide carefully and keep it for future reference.
- Follow all instructions for safe use of the product and handle with care.
- Use the system within given temperature, humidity, and voltage levels noted in the Technical Specifications.
- Do not disassemble the transmitter or receiver.
- The wireless receiver and transmitter are not weatherproof. Install in indoor locations only.
- 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.
- 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.
- Do not use attachments unless recommended in the instructions as they may cause a hazard.
- Never push objects of any kind into this video product through openings.
- Never spill liquid of any kind on the video product.
- It is recommended to use a surge protector with this video product.

Product Description

The Digital Wireless Converter allows an analog wired camera to transmit video and audio (optional) wirelessly*. Connect the transmitter to a wired camera to start wirelessly communicating with the receiver, which gets connected to your DVR.

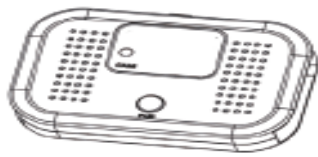
* Not compatible with HD-SDI cameras.

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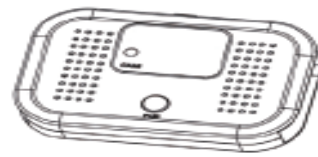
Product Includes

Check your package to confirm that you have received the complete system, including all components shown below.



x1

Wireless Transmitter



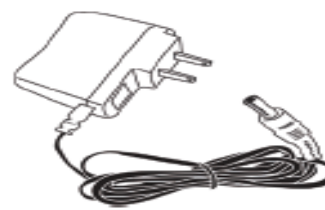
x1

Wireless Receiver



x2

Removable Wireless Antenna (SMA)



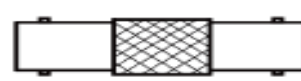
x2

Power Adapter



x1

RCA-to-RCA Coupler



x1

BNC-to-BNC Coupler



x1

BNC-to-RCA Adapter



x4

Double-Sided Tape

Wireless Receiver / Transmitter

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- 1 Removable Wireless Antenna (SMA):**
Connects to antenna jack.
- 2 Pairing Status LED:**
Glows green steadily when the transmitter and receiver are paired. Flashes on and off slowly when pairing mode is active and flashes rapidly if the units are out of range.
- 3 Pairing Button:**
For details, see "Pairing the Transmitter and Receiver" on page 13.



- 4 DC Power:**
Connect power adapter to power on the unit.
- 5 Termination Cable:**
Includes BNC video output and RCA audio output. An audio camera is required to use the audio function.



- 6 Antenna Jack**

Getting Started

Follow the steps below to prepare your digital wireless converter for installation:

- 1** Identify the transmitter and receiver. Termination cables are labelled **Connect to Camera** on the transmitter and **Connect to DVR** on the receiver.
- 2** Attach antennas to the antenna jacks on the receiver and transmitter.

Once you have completed the steps above, determine which of the following installation options is best suited to your needs.

Standard Setup:

Your camera is connected directly to the transmitter, and the receiver is connected directly to the DVR.

See "Standard Setup" on page 6 for the standard setup procedure.

Extension Cable Setup:

An extension cable (not included) is used to connect your camera to the transmitter, and the receiver is connected directly to the DVR.

Use this setup if you want to install the transmitter far away from the camera for better reception. For example, if your camera is installed at the back of a barn and the signal strength is better at the front of the barn.

See "Extension Cable Setup" on page 8 for the extension cable setup procedure.

Television Viewing Setup:

The camera is connected directly to the transmitter, and the receiver is connected directly to a television (not included).

See "Television Viewing Setup" on page 10 for the television viewing setup procedure.

NOTE: Video and audio recording are not available through television viewing setup.

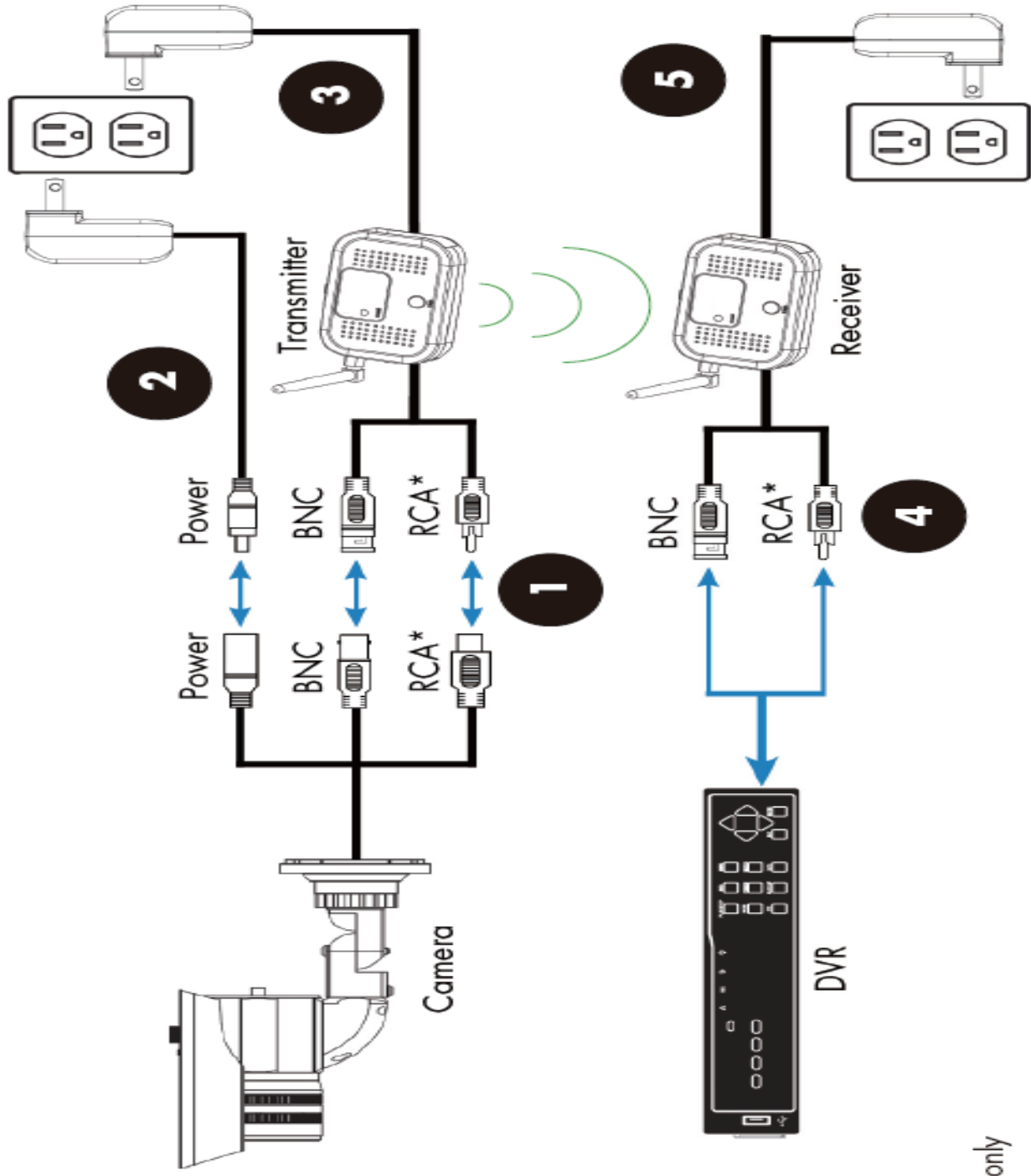
Standard Setup



The wireless receiver and transmitter are not weatherproof. Install in indoor locations only.

- 1 Connect the transmitter to your wired camera.
- 2 Use the power adapter provided with your wired camera to connect the camera to a local power outlet.
- 3 Connect one of the included power adapters from the transmitter to a local power outlet.
- 4 Connect the BNC and RCA (optional) cables from the receiver to your DVR.
- 5 Connect a power adapter from the receiver to a local power outlet.
Live video from your camera appears on the monitor connected to your DVR*.
- 6 **(OPTIONAL)** Use the included double-sided tape to attach the transmitter and/or receiver to a surface.

* The digital wireless converter only supports VGA resolution (640x480 pixels). Cameras that support larger resolutions will be compressed to VGA resolution.



* For audio cameras only

Extension Cable Setup



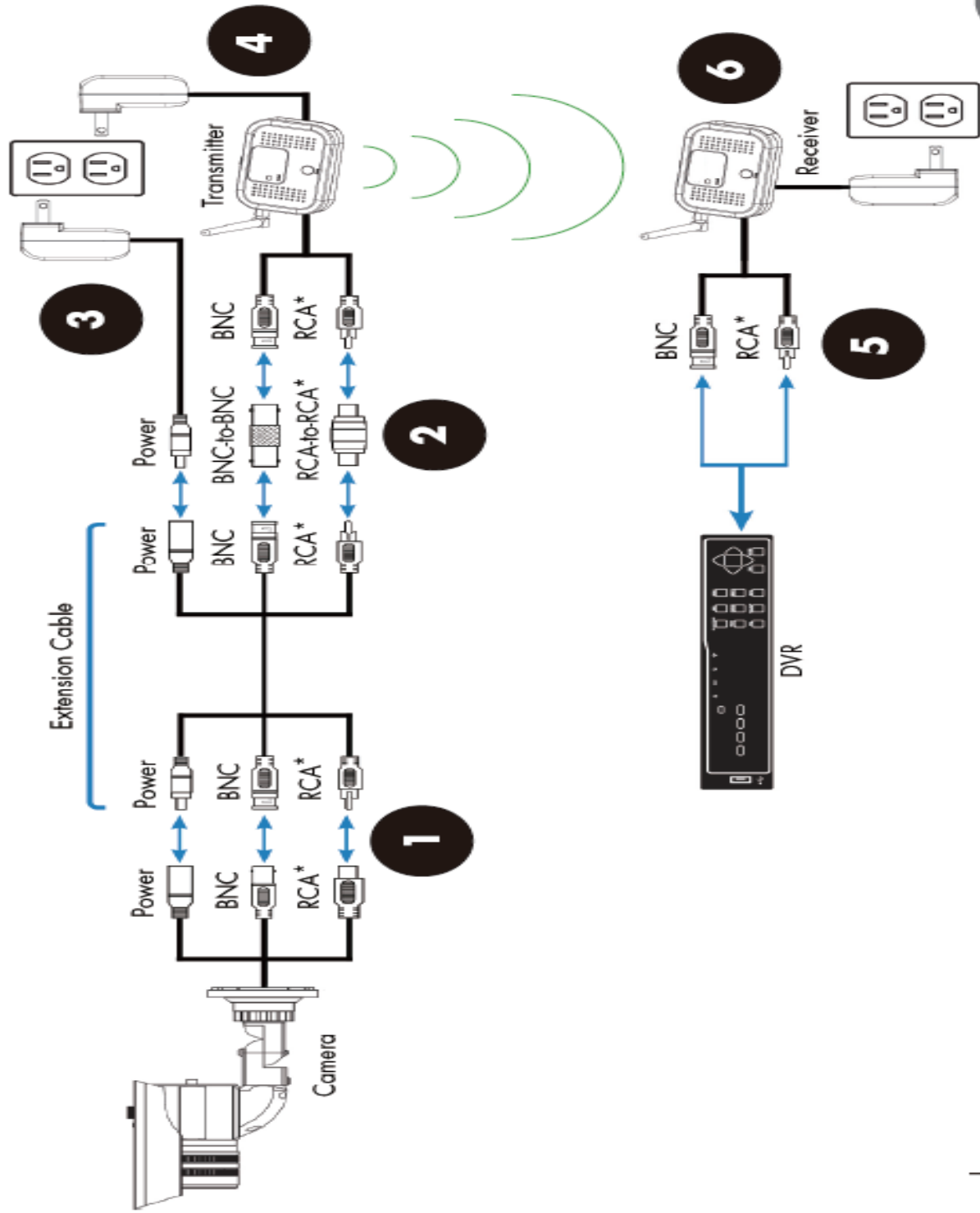
The wireless receiver and transmitter are not weatherproof. Install in indoor locations only.

- 1 Connect your wired camera to the extension cable (not included).
- 2 Use the included BNC-to-BNC and RCA-to-RCA couplers to connect the transmitter to the other end of the extension cable.
- 3 Use the power adapter provided with your wired camera to connect the camera to a local power outlet.
- 4 Connect one of the included power adapters from the transmitter to a local power outlet.
- 5 Connect the BNC and RCA (optional) cables from the receiver to your DVR.
- 6 Connect a power adapter from the receiver to a local power outlet.

Live video from your camera appears on the monitor connected to your DVR*.

- 7 **(OPTIONAL)** Use the included double-sided tape to attach the transmitter and/or receiver to a surface.

* The digital wireless converter only supports VGA resolution (640x480 pixels). Cameras that support larger resolutions will be compressed to VGA resolution.



* For audio cameras only

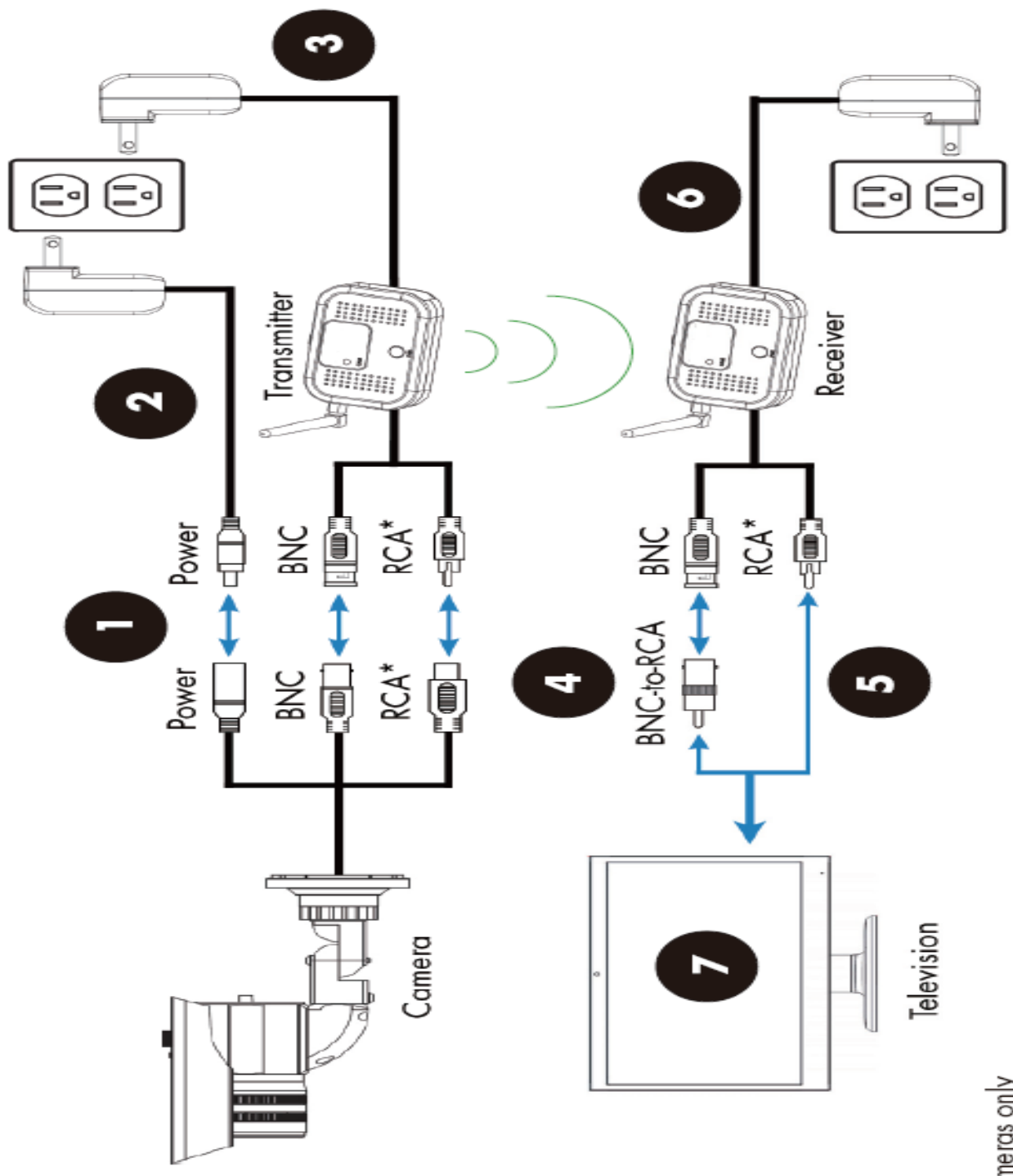
Television Viewing Setup



The wireless receiver and transmitter are not weatherproof. Install in indoor locations only.

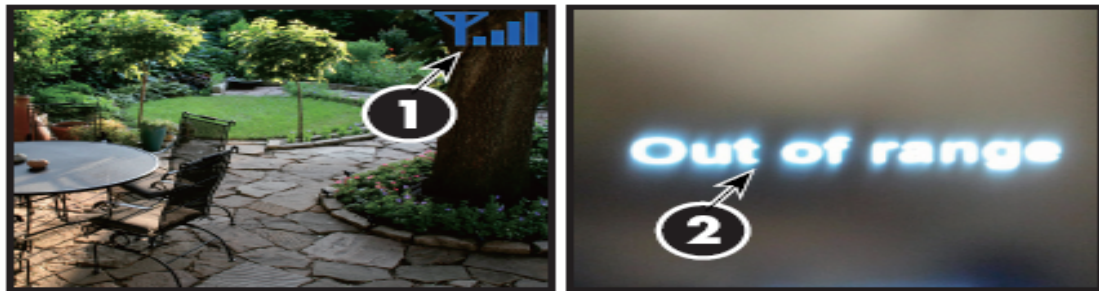
- 1 Connect the transmitter to your wired camera.
- 2 Use the power adapter provided with your wired camera to connect the camera to a local power outlet.
- 3 Connect one of the included power adapters from the transmitter to a local power outlet.
- 4 Connect the included BNC-to-RCA adapter to the receiver's BNC cable.
- 5 Connect the BNC and RCA (optional) cables from the receiver to your television. The audio input number or name should match the video input (e.g., Video Input 1 and Audio Input 1).
- 6 Connect a power adapter from the receiver to a local power outlet.
- 7 Power on your television and select the input that the receiver is connected to.
Live video from your camera appears on your television*.
- 8 **(OPTIONAL)** Use the included double-sided tape to attach the transmitter and/or receiver to a surface.

* The digital wireless converter only supports VGA resolution (640x480 pixels). Cameras that support larger resolutions will be compressed to VGA resolution.



* For audio cameras only

On-Screen Display



1

Signal indicator:

The signal indicator shows the strength of the signal being received from the transmitter. The number of bars in the signal indicator shows the strength of the signal. One or no bars indicates the signal is poor. Four bars indicate a very strong signal.

2

Status indicator:

The message "Out of Range" appears if the receiver cannot communicate with the transmitter.

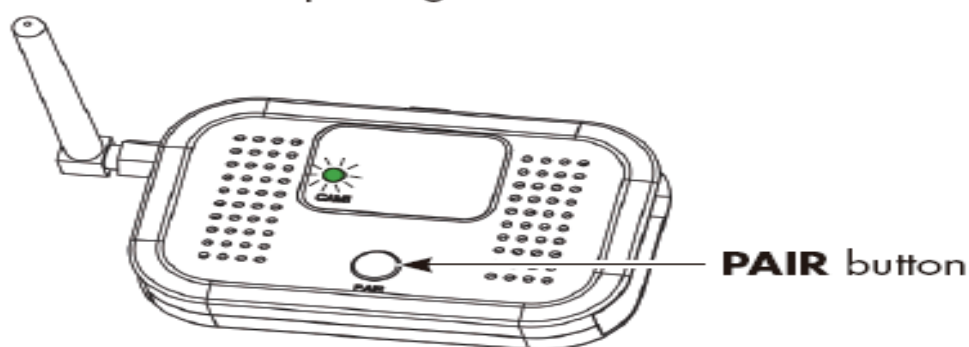
ATTENTION: If the signal is low (e.g. 1 or 2 bars) adjust the antennas or reposition the transmitter and / or receiver to improve signal strength.

Pairing the Transmitter and Receiver

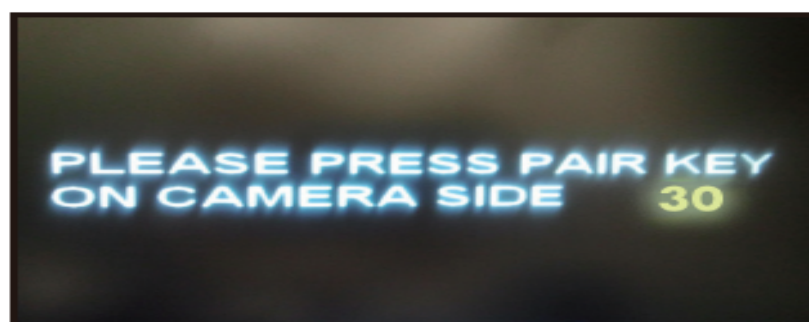
The transmitter and receiver have already been paired. If you have received a replacement unit, **OR** if your transmitter and receiver are not paired up, follow the steps below.

To pair the transmitter to the receiver:

- 1 Make sure that the receiver and transmitter are both powered up and all antennas are properly attached.
- 2 Place the transmitter and the receiver within 1 ft of each other. Press and hold the **PAIR** button on the receiver for 3 seconds to activate pairing mode.
 - The indicator LED will flash on and off to indicate that pairing mode is active.



- The on-screen displays informs you that you have 30 seconds to press the pair button on the transmitter.



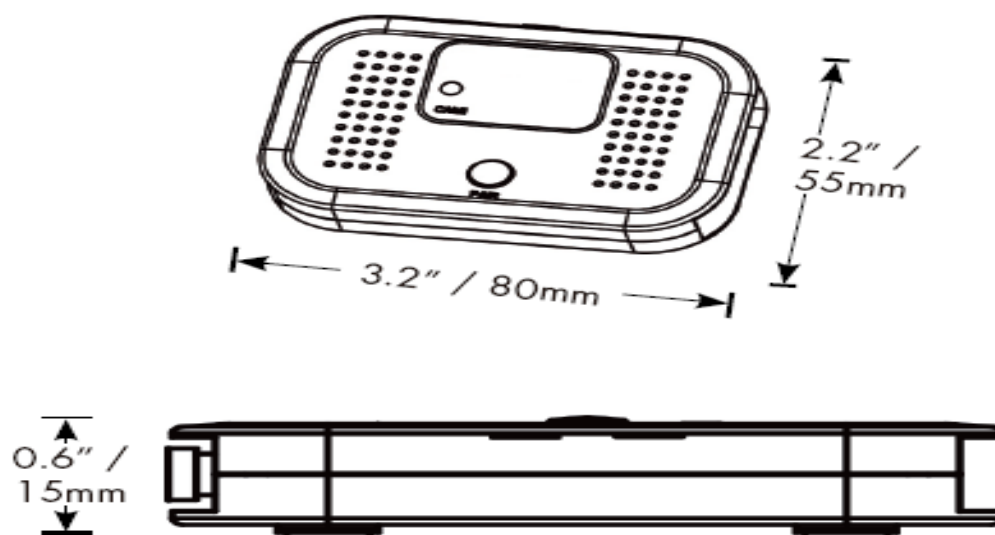
- 3 Press the **PAIR** button on the transmitter within 30 seconds of activating pairing mode. The indicator LEDs on the receiver and transmitter will glow steadily if pairing is successful.

Appendix A: Technical Specifications

Frequency	2.400~2.480GHz
TX Power	16dBm
RX Sensitivity	-81dBm
Maximum Wireless Range	492ft (150m)*
Resolution	VGA (640x480)
Frame Rate	Up to 25fps
Data Rate	4 Mbps
Spread Spectrum	FHSS
Demodulation	GFSK
Power Requirement	9V DC \pm 5%
Power Consumption	240mA
Operating Humidity	< 85% RH
Operating Temperature	14°F ~ 104°F / -10°C ~ 50°C
Environmental Rating	Indoor Only
Termination	1x BNC video, 1x RCA audio
Weight	0.13lb / 0.06kg

*Based on unobstructed line of sight. Actual range will vary based on surroundings.

Dimensions



CLEANING

Clean the product with a slightly damp cloth or an anti-static cloth. Never use cleaning agents or abrasive solvents.

- Do not clean any part of the product with cleaners with thinners or other solvents and chemicals. This may cause permanent damage to the product, which is not covered by the Warranty. When necessary, clean it with a damp cloth.
- Keep the product away from hot, humid areas or strong sunlight, and do not get it wet.
- Every effort has been made to ensure high standards of reliability for your product. However, if something does go wrong, please do not try to repair it yourself. Contact Customer Service for assistance.

DISPOSAL OF THE DEVICE

At the end of the product lifecycle, you should not dispose of this product with normal household waste, but take the product to a collection point for the recycling of electrical and electronic equipment. The symbol on the product, user's guide, and/or box indicates this.

Some of the product materials can be re-used if you take them to a recycling point. By reusing some parts or raw materials from used products you make an important contribution to the protection of the environment.

Please contact your local authorities in case you need more information on the collection points in your area.

NOTICES

WARNING: Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the device.

FCC NOTE :

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.

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV

INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS OR CHANGE

TO THIS EQUIPMENT. SUCH MODIFICATIONS OR CHANGE COULD VOID AND

CHANGE ANNTENA WHICH THE MANUFACTURER PROVIDES.

IT IS THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.



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 instructions, 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 off and on, 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/TV technician for help.

To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.