



Wireless 2K IP Camera

Product Manual  
IP2KCB1

# THANK YOU

**Congratulations on your Defender 2K Wireless IP Camera purchase!** You've made the best choice to protect what you value most. We take our product performance and quality very seriously and we want you to be completely satisfied with your purchase. If you have any questions, or to get the most out of your product, visit [www.defender-usa.com](http://www.defender-usa.com) first for additional product features information, specifications or assistance with setup.

## SUPPORT

**Web:** [Contact Us Link](#)

**Live Chat:** [Live Chat Link](#)

## PRODUCT MANUAL FEEDBACK

At Defender, we're always looking to improve our customer's experience! Please share any suggestions for this user manual to help us continue on this journey.

[FEEDBACK SURVEY LINK](#)

## HELP VIDEOS

Click to access our Support Center or visit our website at [www.Defender-USA.com](http://www.Defender-USA.com) and open the Resources on the product page. These provide a visual guide for setting up and using your system.

## WARRANTY TERMS

1. DEFENDER® products are guaranteed for a period of one year from the date of purchase against defects in workmanship and materials. This warranty is limited to the repair, replacement or refund of the purchase price at DEFENDER®'S option.
2. The warranty becomes void if the product shows evidence of having been misused, mishandled or tampered with contrary to the applicable instruction manual.
3. Routine cleaning, normal cosmetic, and mechanical wear and tear are not covered under the terms of this warranty.
4. The warranty expressly provided for herein is the sole warranty provided in connection with the product itself and no other warranty, expressed or implied is provided. DEFENDER® assumes no responsibilities for any other claims not specifically mentioned in this warranty.
5. The warranty does not cover shipping costs, insurance or any other incidental charges.
6. You MUST contact DEFENDER® before sending any product back for repair. You will be sent a Return Authorization Number with return instructions. When returning the product for warranty service, please pack it carefully in the original box with all supplied accessories, and enclose your original receipt or a copy, and a brief explanation of the problem (including the RA#).
7. This warranty is valid in Canada and the contiguous USA.
8. This warranty cannot be re-issued.

## DISCLAIMERS

1. Wireless cameras require a wired connection to a power outlet.
2. When viewing remotely: Video quality and connectivity is dependent on network performance. An upload speed of 5Mbps is recommended for optimal video performance.
3. DEFENDER® highly recommends the use of an Uninterruptible Power Supply (UPS) with surge protection for all products.
4. The product requires a broadband router and broadband internet connection – not included.
5. DEFENDER® does not endorse any DEFENDER® products for illegal activities.
6. DEFENDER® is not responsible or liable in any way for any damage, vandalism, theft or any other action that may occur while a DEFENDER® product is in use by the purchaser.
7. We reserve the right to change models, configuration or specifications without notice or liability. Product may not be exactly as shown.
8. ©2019 DEFENDER®. All rights reserved. DEFENDER®, the DEFENDER® logo, and other DEFENDER® marks may be registered. All other Trademarks are the property of their respective owners.
9. Night vision range is up to 30 M (100 ft) under ideal conditions in ambient lighting. Objects at or beyond this range may be partially or completely obscured, depending on the camera application.
10. This product contains small parts. Exercise care when unpacking and assembling the product around children.

## SAFETY WARNINGS

- **We recommend using an Uninterruptable Power Supply (UPS):** Connecting to a UPS allows for continuous use during a power outage. The remaining power duration will depend on the UPS used.
- **Use the Power Supply/Adapter provided:** Do not use these products with a power supply that exceed the specified voltage.



# COMPLIANCE STATEMENTS

## FCC STATEMENT

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.

### FCC Caution:

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.

### Non-modification Statement:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator.

## IC STATEMENT

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- 1) This device may not cause interference, and
- 2) This device must accept any interference, including interference that may cause undesired operation of the device.

### RF exposure statement:

IC Radiation Exposure Statement. This equipment complies with IC RSS-102 radiation exposure limit set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

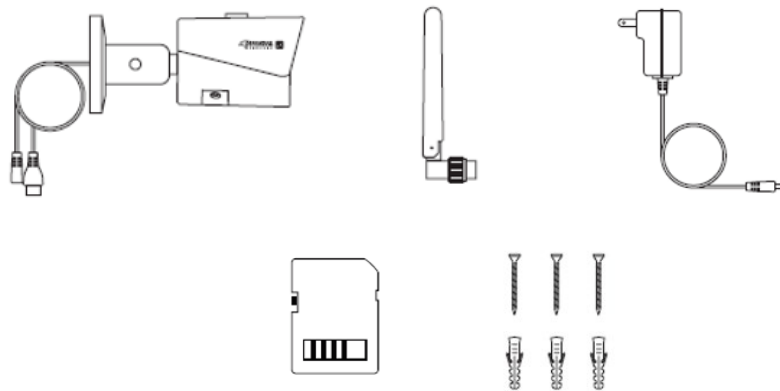
### ICES-003:

CAN ICES (B)/ NMB-3 (B)

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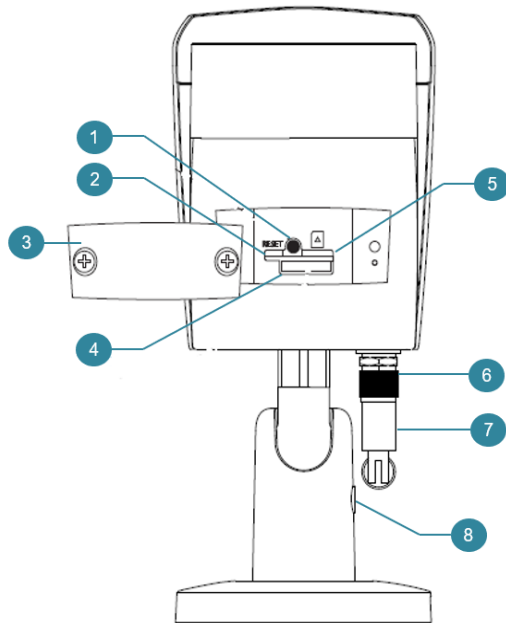
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## WHAT'S INCLUDED



- 1 X Defender Wireless 2K IP Camera
- 1 X Wireless Wi-Fi Camera Antenna
- 1 X Waterproof Connector
- 1 X Camera Power Supply / Adapter (3 meters / 10 ft)
- 1 X Camera Mounting Hardware
- 1 X SD Card (**need size**)
  
- 1 X Need More/Accessories Sheet
- 1 X Quick Start Guide
- 1 X Window Decal/Warning Sticker
  
- Free Lifetime Access to our Mobile App
- Free Lifetime Technical Support

# BUTTONS & FUNCTIONS

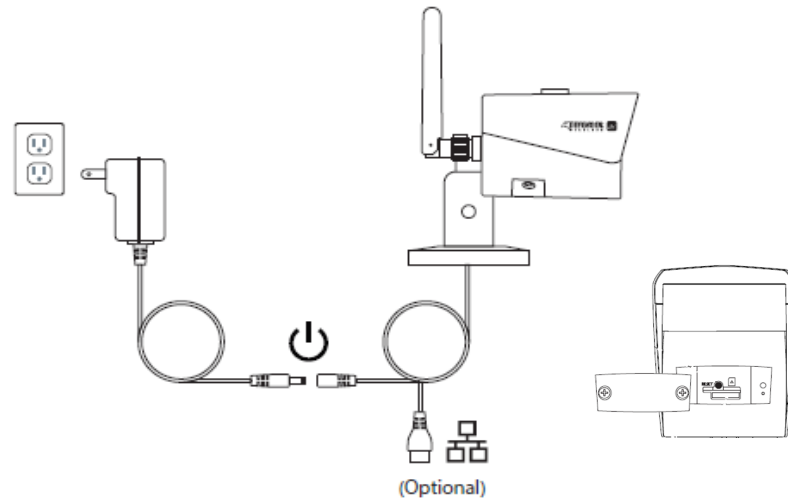


1. Reset Button
2. Indicator Light
3. Lower Cover
4. Micro SD Card Slot
5. Indicator Light
6. Waterproof Ring
7. Antenna
8. Locking Screw



## CONNECTION YOUR CAMERA

We recommend testing your camera indoors before installing.



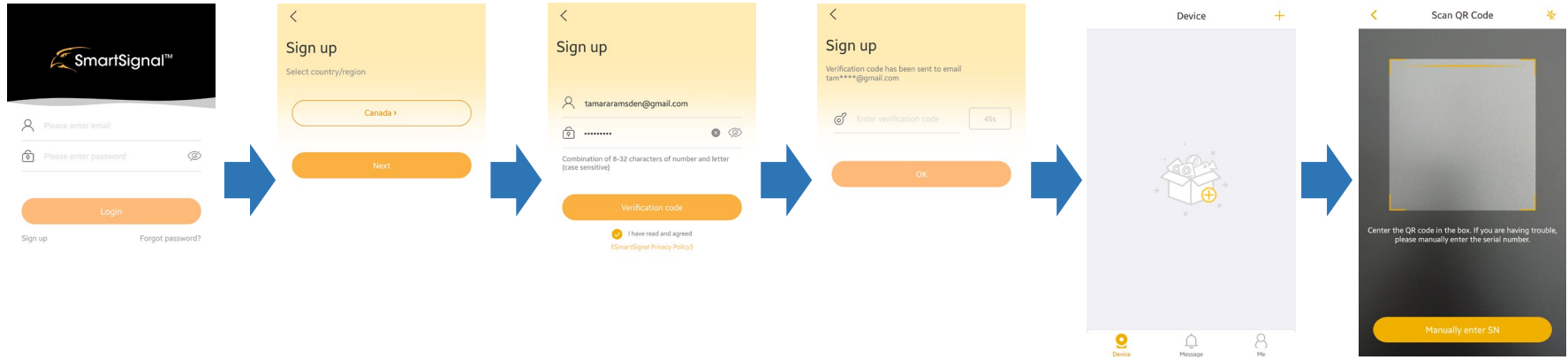
1. Attach the waterproof ring and antenna.
2. Remove the lower cover. This requires a small Philips head screw driver.
3. Insert the SD Card into the Micro SD Card Slot until it clicks into place
4. Replace the lower cover.
5. Connect the power adapter to the camera and plug into a power outlet. The solid green light on the camera indicates the camera is connected to your Wi-Fi network.

The camera has an Ethernet cable attachment that is optional and not required for wireless setup. The camera can be connected using a LAN (RJ45) cable (not included) to connect the camera to your modem/router. This changes the connection to wired. The camera should also be plugged into a power source using the power adapter (included).

# GETTING STARTED (MOBILE APP SETUP)

## Before you start:

- You will need access to your email – the time sensitive Verification Code will be emailed
- You will be asked to create a password for the App – think of a password that is easy for you to remember but hard for others to guess
- You will need your Wi-Fi password (if applicable) during setup
- Download the Defender SmartSignal App from your app store



- Tap **Sign-up** to setup the App

- Tap the **Country** to make another selection **OR**
- Tap **Next**

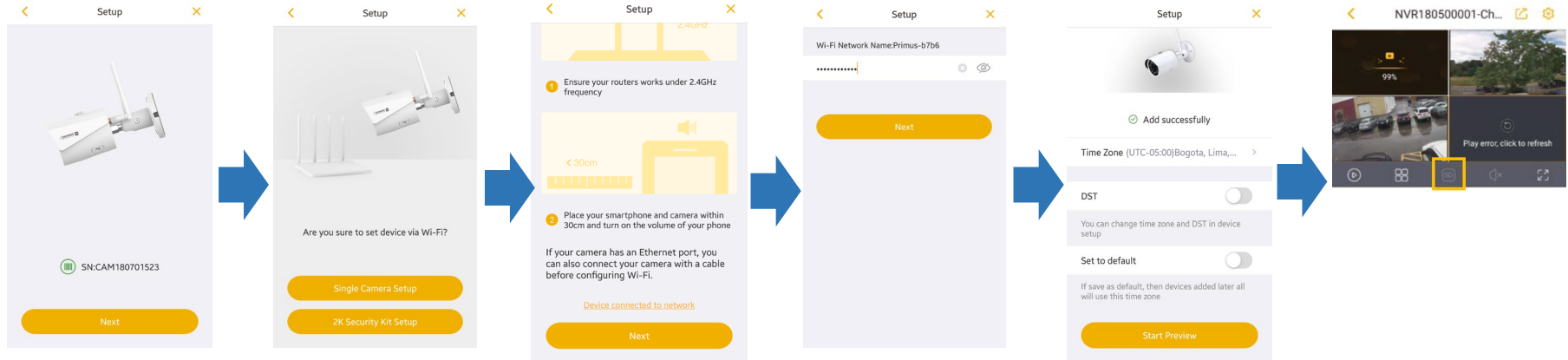
- Tap to enter your **email address**
- Tap to enter your **password** using the on-screen criteria
- Tap to confirm that you have read and agree to the **SmartSignal Privacy Policy**
- Tap **Verification Code** – a code will be sent to the email address entered

- Open the **Verification Code** email
- Tap to enter your **Code** – this must be entered within **60 seconds**
- Tap **OK** to continue

- Tap the **+** icon in the middle of the screen on top right corner to add the camera

- Place the **QR Code** (on the side of the camera) within the **scan box** to add the camera **OR**
- Tap **Manual Add** to enter the SN from the side of the camera

# GETTING STARTED (MOBILE APP SETUP)



- The camera SN will appear on the screen
- Tap **Next**

- Tap **Single Camera Setup** to add the camera

- Place your mobile device **within 30 cm** of the camera
- Tap **Next**

- Tap to enter you Wi-Fi password (if required)
- Tap **Next**

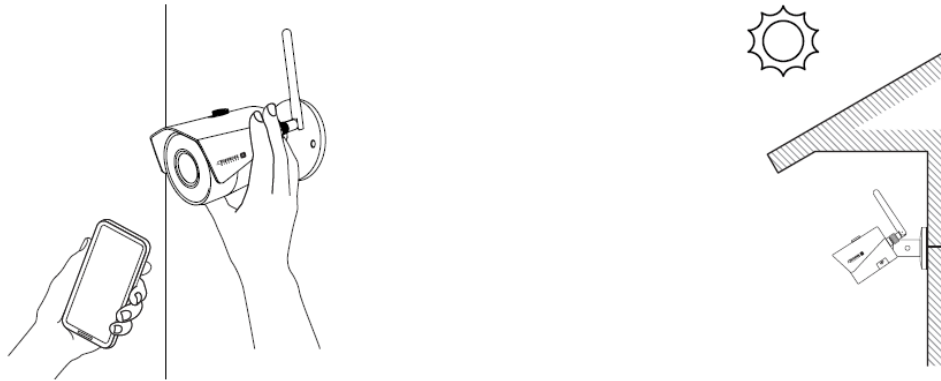
- The **Add successfully** message will appear when the camera has been added to your Account
- Tap **Start Preview** to open the app in Live View

- Check the **Live View** to make sure your camera is connected
- Change the camera definition to **SD** (Standard) – this helps to use less data

If a connection error occurs during loading, Tap the Refresh icon to try loading the camera again. If the camera still does not load try Resetting the camera (see page 10 Camera Reset for details).

See the Defender SmartSignal App Manual for additional instructions on how the app works. Visit our website at [www.defender-usa.com](http://www.defender-usa.com) and open **Resources on the Product Page > Manual**

# CAMERA INSTALLATION



1. Determine the area you want to cover and plan out where the camera should be installed. Make sure there is **access to a power outlet** in this area.
2. Place the camera in the desired area and check your Defender SmartSignal app to make sure the camera is live streaming. If it is not streaming, you may need to move it closer to your Wi-Fi router.
3. Use the hardware provided to install your camera and ensure that it is secure against the wall or ceiling (not hanging down).
4. Attach the power adapter provided. Secure the power cable and protect it – install in a place where the wire can be hidden.

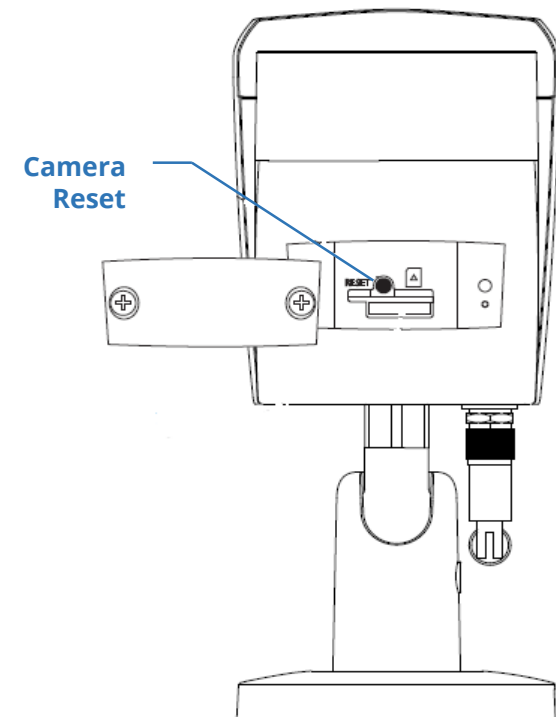
## INSTALLATION TIPS:

- Place the camera up high to ensure the camera view covers the maximum area.
- Make sure there are no obstructions in the camera view.
- Do not place the camera where light will shine in the view – this will obstruct your view and recorded footage.
- Place the camera under shelter to reduce the amount of rain or snow on the lens.
- Place the camera so that it is seen – this may deter potential intruders.
- It is not required to connect the LAN (RJ45) cable if Wi-Fi connection is available.

## CAMERA RESET

If the camera will not connect or has lost connection and will not pair, you will need to reset it. The camera reset is on the bottom of the camera behind the lower cover. To remove the cover, you will need a small Phillips head screw driver.

1. Remove the lower cover.
2. Press and hold the reset button until the light flashes RED.
3. The light will stay RED while the camera resets (this can take a few seconds).
4. When the light turns GREEN the camera is reset.
5. Check the Live View screen on the mobile app to see if the camera can be viewed.



# SPECIFICATIONS

<b>Model Number</b>	IP2KCB1	<b>IR LED Quantity</b>	18
<b>Image Sensor</b>	4.0MP, 1/3" CMOS	<b>Field of View (FOV)</b>	127° Diagonal
<b>Housing</b>	Metal	<b>Night Vision Range</b>	Up to 30M (100ft)
<b>Effective Pixels</b>	2688 * 1520	<b>Power Supply</b>	DC 12V, 2.0A
<b>Electronic Shutter</b>		<b>Microphone</b>	No
<b>Video Frame Rate</b>	Up to 2K (4MP) @ 30fps	<b>Speaker</b>	No
<b>Lens</b>	2.8mm	<b>Power Consumption</b>	Max 5.5W (IR on)
<b>Synchronization</b>	Internal	<b>Working Temperature</b>	-30°C~+60°C
<b>Min. Illumination</b>	0 LUX	<b>Working Humidity</b>	90%
<b>SD Card</b>	Up to 128 GB (16 GB Included)	<b>Ingress Protection</b>	IP67
<b>IR Cut Filter</b>	Yes (Auto)	<b>Dimensions (L x W x H)</b>	

<p><b>Is this camera completely wireless?</b></p>	<p>The Wireless 2K IP Camera is wireless in terms of how it connects to your modem/router. This means that it connects in a similar way a smartphone or laptop computer connects to your internet using Wi-Fi. This camera does require a power connection using the power adapter provided.</p>
<p><b>Which NVR systems is this camera compatible with?</b></p>	<p>The Wireless 2K IP Camera is compatible with the Defender 2K Wireless Surveillance System only.</p>
<p><b>What is the coverage of this camera?</b></p>	<p>The Wireless 2K IP Camera has a 127-degree wide angle lens.</p>
<p><b>Where should I install my camera?</b></p>	<p>Consider the following when choosing a location for your camera:</p> <ul style="list-style-type: none"> <li>• Position your camera to cover easy access entry points like door and windows.</li> <li>• Do not install your camera in areas where it will catch a glare from another light at night.</li> <li>• Ensure the connection between the camera and your modem/router is strong.</li> <li>• Move the camera closer to the modem/router if the connection is lost.</li> <li>• If possible, the camera should be installed between 10 to 12 feet above the ground. This keeps the camera out of reach for most people but is still close enough to the ground to record a good image.</li> <li>• Camera cannot face out a closed window, the Infrared lights will reflect back on the camera and will wash out the image.</li> <li>• Select a location that is close enough to a power outlet and will allow you to protect the power cable.</li> </ul>
<p><b>Is this camera waterproof?</b></p>	<p>The Wireless 2K IP Camera is IP66 certified True Weather Resistance which means it can stand up to outside weather conditions.</p>
<p><b>Why can't I record sound from my camera?</b></p>	<p>DEFENDER® sells products in Canada and the United States, some of these areas have legislation against or limiting audio recording through surveillance. Due to this restriction our cameras do not feature microphones for recording audio.</p>
<p><b>Why does the camera image appear in black and white all the time, even during the day?</b></p>	<p>If the camera image only appears in black and white it most likely means that night vision is enabled. To resolve this:</p> <ul style="list-style-type: none"> <li>• Check to see if the camera is receiving ample light to allow the night vision to turn off.</li> <li>• Unplug the power to the camera and reconnect. You should hear an audible click from the camera. This is the IR cut filter inside the camera resetting. This is normal when the connecting power to the camera or at dusk/dawn when the camera switches between day/night modes.</li> </ul>
<p><b>What is the temperature range for operating the camera?</b></p>	<p>Operating temperature for this camera is between -10 degrees Celsius (14 degrees Fahrenheit) and 60 degrees Celsius (140 degrees Fahrenheit). The lowest temperature our cameras have been tested in is -10 degrees Celsius. DEFENDER® does not recommend the use of our camera outside these temperature ranges as it may damage the camera.</p>
<p><b>Why does the storage on my SD Card keep getting used up so quickly?</b></p>	<p>The SD Card storage space can be used up quickly if have set up scheduled recording. To help with this:</p> <ul style="list-style-type: none"> <li>• Upgrade the SD Card to a larger capacity (128 GB) to allow for more storage space.</li> <li>• Change the recording schedule to allow for motion detect recording only. This will decrease the required storage space.</li> </ul>



Protect what you value most™