



# LOREX<sup>®</sup>

## 2K QHD Video Doorbell

Quick Start Guide  
B451AJ Series



**EN**

[lorex.com](http://lorex.com)





# Welcome!

Thanks for your purchase of the  
2K Video Doorbell. Here's how to  
get started.





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# 1 Package contents



Video doorbell



Mounting bracket



Horizontal bracket 15°



Vertical bracket 5°



USB cable



Anchors (x2)



Screws (x2)



Wire caps (x3)



Pin



microSD card (pre-inserted)\*



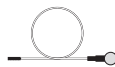
Chime Kit



Wire harness



Backup cable



Extra wires (x2)

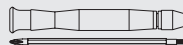


15/64" Drill bit

## User-supplied Tools



Drill



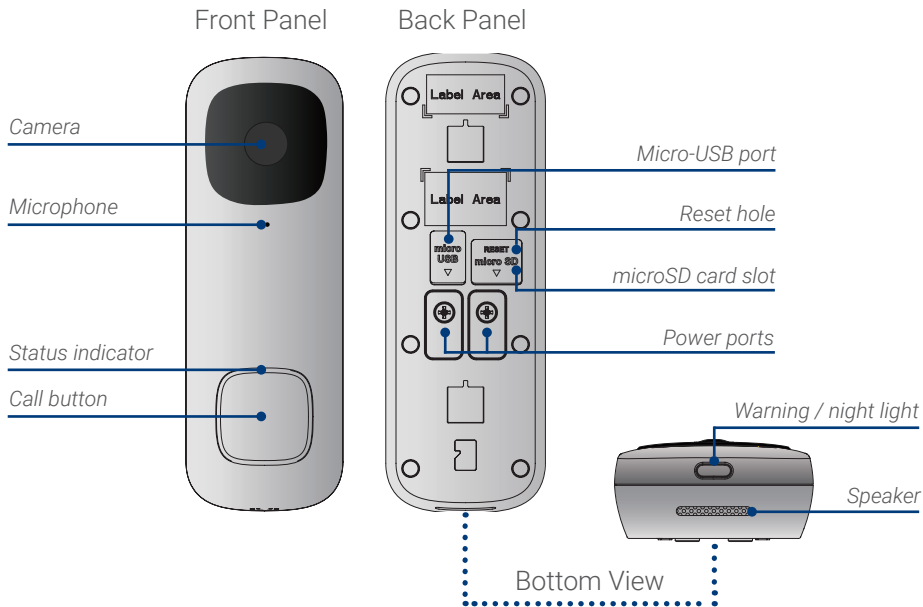
Screwdriver

\* See product packaging for configuration details.





## 2 Overview





### 3 Status indicator



#### **Solid blue**

The video doorbell is powering on or the video doorbell is restarting.



#### **Flashing blue slowly**

The video doorbell is ready to connect.



#### **Flashing blue, red, and green**

A firmware update is in progress.



#### **Solid red**

The video doorbell is resetting to factory default.



#### **Flashing blue rapidly**

The video doorbell has detected motion.



#### **Spinning red**

The video doorbell is connected to the network, but unable to access the internet.



#### **Solid green**

The video doorbell is operating correctly.



#### **Flashing red**

The video doorbell failed to connect to the network.



#### **Spinning green**

The calling function on the video doorbell is in use.



#### **Flashing green**

The talking function on the video doorbell is in use.



## 4 Connect to the app

### Connect to the Lorex Home app to access the doorbell's installation videos.

1. *If you already have the app, skip this step.* Scan the QR code on the right using your mobile device's camera. Install the free **Lorex Home** app from the App Store™ or Google Play Store™.
2. Tap the Lorex Home icon to launch the app.
3. *If you already have an account, skip this step.* Tap **Sign up**, then follow the on screen prompts to create an account. Record your account details below:

Email: \_\_\_\_\_

Account Password: \_\_\_\_\_



Scan QR code for  
Lorex Home app

4. Tap on the icon  on the top right of the screen to add a device.
5. Scan the device QR code found in the box or on the back of the doorbell.



**Note:** If your mobile device cannot scan the QR code, tap **Manually enter Device ID**.

6. Follow the in-app instructions to complete the installation **OR** refer to sections 5 through 9 in this Quick Start Guide for a written description of the installation steps.





## 5 Preparation

Before beginning setup, there are some essential preparations to make.

### To prepare for installation:



#### Step 1

**TURN OFF THE POWER RUNNING TO YOUR EXISTING DOORBELL AND CHIME BOX AT THE BREAKER** (See *Figure 1*).

Test that power has been disconnected for both the doorbell and chime box power by pressing the doorbell. There should be no chime sound.

Always be careful when handling electrical wiring. If you're not comfortable doing it yourself, then consult a licensed electrician.

#### Step 2

Remove your existing doorbell and disconnect wiring (see *Figure 2*). Make sure to bend the power cables so they do not fall through the hole in the wall.

**IMPORTANT:** 16-24 VAC is required. If your house does not have this voltage, you will need a 16-24 VAC doorbell transformer or you can consult with a licensed electrician.

Figure 1

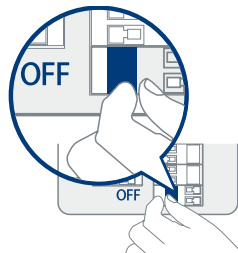
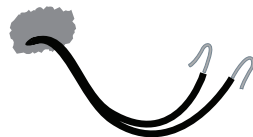


Figure 2





## 6 Wiring the chime

You must determine the type of doorbell chime you have in your home: **electronic** or **mechanical**.

**Not sure?** If your doorbell chime is a classic *\*ding-dong\** sound, chances are your chime is mechanical.

If your doorbell sounds more like a melody, then your chime is electronic. If you are still not sure, remove the cover panel of your chime box - if you find springloaded levers and a physical metal chime, you have a mechanical chime.

For users with a mechanical chime, follow the extra step below to complete the installation.

### For mechanical chime owners:

1. Remove the cover panel of your doorbell chime box.
2. Loosen the screws labeled **FRONT** and **TRANS** using a Philips head screwdriver. Do not remove the screws, and be sure to detach any connected wiring (see *Figure 1*).
3. Connect the included chime kit to the green terminal on the end of the included wire harness (see *Figure 2*).

Figure 2

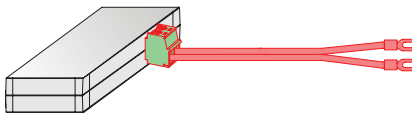
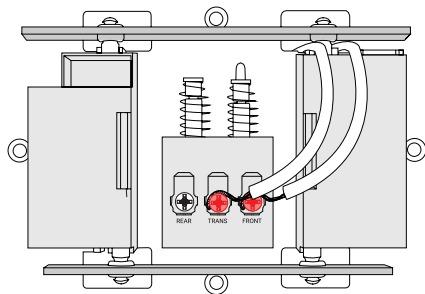


Figure 1





4. Connect the wiring from the chime kit to the **FRONT** and **TRANS** connectors in the chime box. Ensure that the existing wiring stays connected as well (see *Figure 3*).

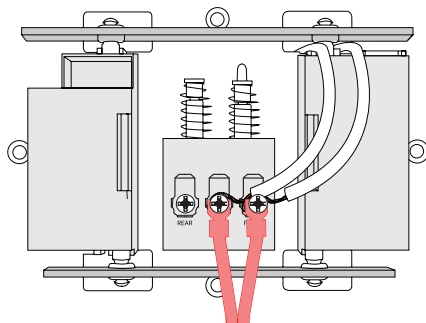


**Note:** You may connect either wire to either connector.

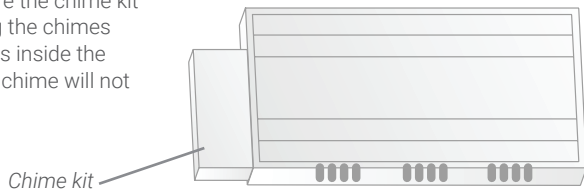
5. Mount the chime kit to the inside of your chime box, or along the cover plate of the chime box, using the included double-sided tape (see *Figure 4*).

**IMPORTANT:** Use the included double-sided tape to ensure the chime kit and wires are not touching the chimes or any moving components inside the chime box, or the doorbell chime will not sound correctly.

**Figure 3**



**Figure 4**





## 7 Secure the mounting bracket(s)

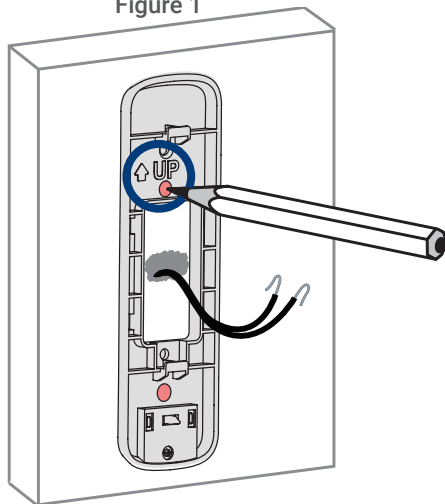
Use the mounting accessories specified below depending on the mounting location.

### Step 1: Mark mounting holes

Place the mounting bracket to fit your existing doorbell wiring. Then mark the screw holes according to the mounting bracket.

**IMPORTANT:** Ensure that the **↑UP** arrow on the mounting bracket is always pointing up.

Figure 1





## Step 2 (Optional): Attach an angled bracket to the mounting bracket

If you want to change the angle of the doorbell for a better view, attach one of the optional angled brackets to the mounting bracket.

1. Select either the horizontal or vertical bracket according to the direction you want your doorbell to face (see *Figures 2&3*).
2. To change the direction of the angle, simply flip the horizontal or vertical bracket upside down. Whichever direction you choose, make sure the attached mounting bracket is always facing **UP**.

### Option 1: Horizontal bracket Figure 2 (bottom view)

15° right



15° left



OR

### Option 2: Vertical bracket Figure 3

5° down



5° up





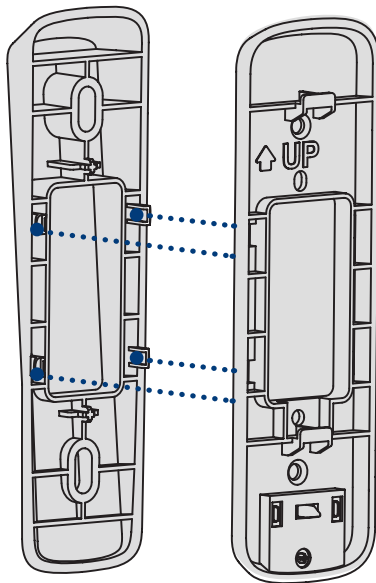
3. Insert the four tabs from the horizontal or vertical bracket into the the mounting bracket as shown in *Figure 4*. Make sure to insert in the desired direction.
4. Press the mounting bracket down. A *\*click\** sound will indicate that the brackets are locked in.



**Notes:**

- You can only attach one angled bracket to the mounting bracket.
- If you would like to change the direction of the angled bracket after attaching it to the mounting bracket, gently but firmly pull them apart.

**Figure 4**





### Step 3: Secure the mounting bracket

When installing only the mounting bracket, refer to *Figure 5-a*. When installing the angled bracket attached to the mounting bracket, refer to *Figure 5-b*.

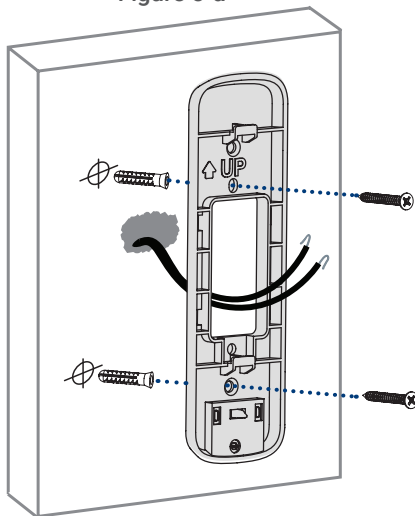
#### 1. For wood, drywall or soft surfaces:

Secure the mounting bracket(s) to the mounting surface using a Philips-head screwdriver and the supplied mounting screws.

#### 2. For concrete, stucco or brick:

Use the supplied 15/64" drillbit to drill holes where marked. Use the supplied anchors and screws to secure the mounting bracket(s) to the wall.

Figure 5-a

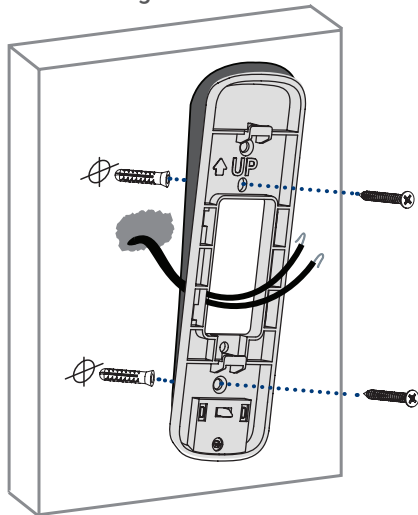




#### Notes:

- Ensure that the **UP** arrow on the mounting bracket is always pointing up.
- The (optional) angled bracket must be attached to the mounting bracket before installation.
- Ensure the power cables from the wall fit comfortably through the hole in the mounting bracket. Installation height should be less than 2m.

Figure 5-b





## 8 Wiring the doorbell

### To wire the doorbell:

1. Loosen the power port screws of the doorbell with a Philips-head screwdriver.



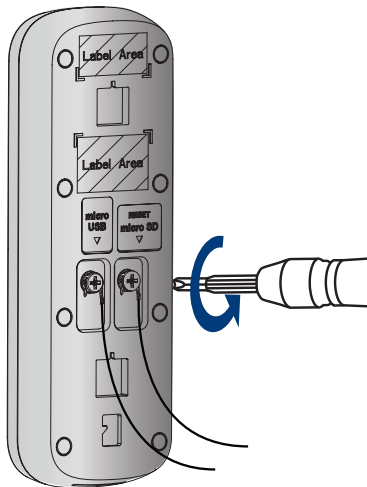
**Note:** Do not fully remove the power port screws.

2. Loop the power wires underneath the power port screws (see *Figure 1*).
3. Tighten the power port screws to secure the power wires (see *Figure 2*).

Figure 1



Figure 2



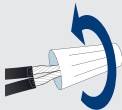


## To extend short wires (optional):

Figure 3



Figure 4



1. If your existing doorbell wiring is too short, remove the power port screws completely, then thread the screws through the supplied extra wires. Use the supplied wire caps to extend your wiring (see *Figure 3*).
2. To attach the wire cap, align the ends of your existing wiring and extra wires, place the wire cap over the exposed wiring and twist the wire nut clockwise to tighten (see *Figure 4*). Pull on the wires slightly to make sure that they are properly fastened inside the wire cap.
3. Ensure there is enough space to fit the cable connectors and wire caps into the hole in your wall.



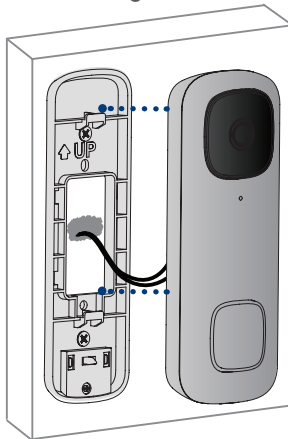


## 9 Connect the doorbell

### To attach the doorbell to the bracket:

1. Push the wiring back into the wall.
2. Insert the two tabs from the mounting bracket into the doorbell (see *Figure 1*).
3. Press the doorbell downwards. A *\*click\** sound will indicate that it is locked in.

Figure 1



### Note - If you need to remove the doorbell from the bracket:

1. Insert the supplied pin into the hole at the bottom of the mounting bracket until the inner buckle is reached (see *Figure 2*).
2. Then slide the doorbell up and remove it.

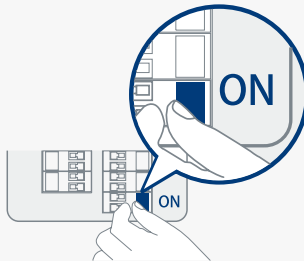
Figure 2





You may now reconnect power to the doorbell and chime at the breaker (see *Figure 3*).

**Figure 3**



Wait 5 minutes for the doorbell to fully power on and press the doorbell's button to ensure that the chime is operating correctly. Check section 11 for troubleshooting if needed.





## 10 Lorex Home app overview

To customize the video doorbell, go to your Lorex Home app and select the doorbell. Tap on the icon **...** on the top right of the screen to access the doorbell's settings.

### Person Detection

Tap on **Motion Detection Settings** to customize person detection. Draw designated areas to alert for person detection and adjust how sensitive the detection level will be.

### Activate Status LED on Detection

Tap on **Motion Detection Settings > Light Settings** to enable **Activate Status LED on Detection**. The LED color on the doorbell's status indicator can be customized for person detection alert.

### Night Light Mode

Tap on **Motion Detection Settings > Light Settings** to enable **Night Light Mode**. The LED light below the doorbell will illuminate the front door when it gets dark.

### Shared Users

Tap on **Shared Users** to let family or friends answer live events and view recordings. Any additional users must sign up for a Lorex Home account to be added.

### Doorbell Quick Responses

Tap on **Doorbell Quick Responses** to record or select a pre-recorded voice message. The Lorex video doorbell can speak to a visitor if you're not able to come to the door.

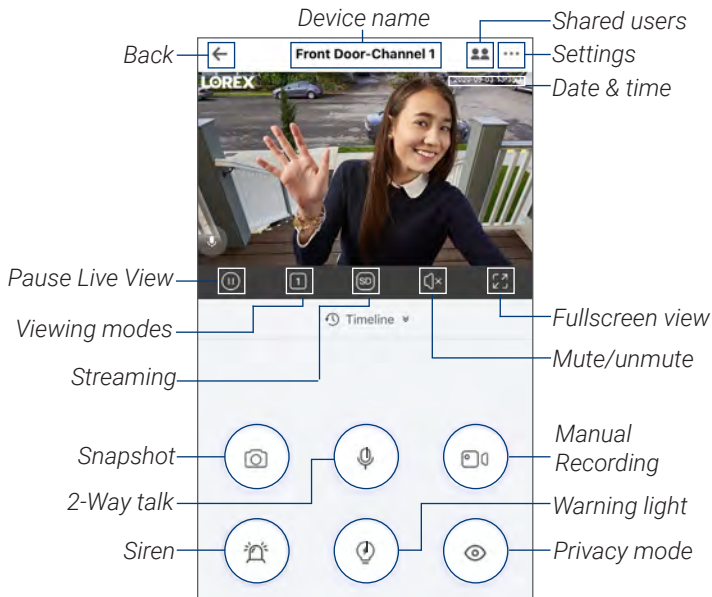
### Video Settings

Tap on **Video Settings** to change HDR (High Dynamic Range) settings and set the video quality. For optimal streaming the video quality is set to 1080p by default.





## Camera Live View





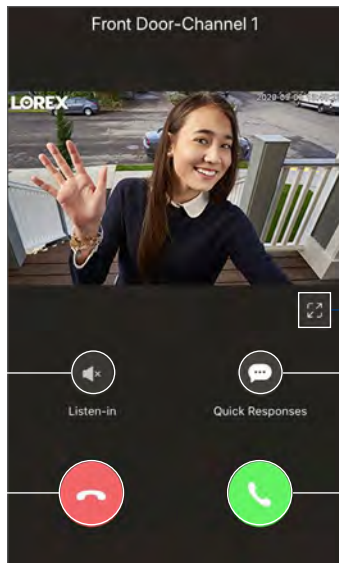
## Calling screen

For a complete overview of controls available on the Lorex Home app, scan the QR code below using your mobile device's camera.



*Listen-in:  
Tap to listen-in on a visitor  
while your audio is muted.*

*Ignore / end call*



*Fullscreen*

*Quick  
responses*

*Answer call*





## 11 Troubleshooting

### 1. The video doorbell is not turning on.

- Make sure the breaker is turned back on.
- Make sure the power source that supplies the video doorbell is 16-24 VAC. Check if the voltage is printed on your doorbell transformer or use a millimeter to test the voltage.
- Check to see if the video doorbell can be powered on using the supplied USB power cable. This will require a 2A (amp) USB power adapter (not included). If the video doorbell does power on with the USB cable, then carefully go over the installation setup again.

### 2. The video doorbell's chime is not working.

- Make sure to select the correct chime box in the app. You can modify these settings at any time in **Device Settings > Doorbell Chime**.
- Check to make sure that the chime kit is wired correctly.
- Allow for the video doorbell to power on for 5 minutes before testing the chime.

### 3. How to reset the video doorbell to factory settings.

- Pull back the reset/microSD card slot cover located on the back of the video doorbell.
- Use the supplied pin and insert it into the tiny hole labelled **RESET** for 10 seconds. Wait for an audible sound to confirm that the video doorbell is restarting.

### 4. How to insert or remove the microSD card from the video doorbell.

- Pull back the reset/microSD card slot cover located on the back of the video doorbell.
- If inserting, slide the microSD card into the slot (with the label side down) until it \*clicks\* into place.
- If removing, push down gently on the microSD card. It will pop out and can then be removed.





## 12 Frequently asked questions

### 1. How come I am receiving so many notifications?

- The amount of notifications you receive can be adjusted in the Lorex Home app for each setting or mode. For example, you can draw **Motion Zones** for certain areas that you want your doorbell to ignore while effectively monitoring the area you want and reducing false alert notifications. Adjusting **Motion Sensitivity** will also help.
- You can even manage notifications in **Device Settings > Notifications** and set a schedule to receive alerts at specific periods in the day.

### 2. How do I get the video doorbell's light to stay on at night?

In **Device Settings > Motion Detection Settings > Light Settings**, enable **Night Light Mode**. Then select **Edit Schedule** to set a start time and end time for each given day of the week. Make sure to save your settings.

### 3. Can the video doorbell be powered through USB permanently?

Yes, the video doorbell can operate permanently using the included USB but it will not be able to connect to a chime box. Use it with a 2A (amp) USB power adapter (not included).

### 4. How do I record a custom quick response for the video doorbell?

In **Device Settings > Doorbell Quick Responses**, tap the **+** on the top right and record your custom quick response. Tap **Next** to name and save the recorded message.

### 5. What's the wireless range of the video doorbell?

It depends on the strength of your Wi-Fi network. If the location where the video doorbell is installed has a weak signal, consider adding a Wi-Fi extender between your router and doorbell.



Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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,
- (2) This device must accept any interference received, including interference that may cause undesired operation.

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,
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radioexempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage,
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage susceptible d'en compromettre le fonctionnement.

This equipment complies with FCC/IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

ce matériel est conforme aux limites de dose d'exposition aux rayonnements, FCC / CNR-102 énoncée dans un autre environnement. cette equipment devrait être installé et exploité avec distance minimale de 20 entre le radiateur et votre corps.

The user manual for local area network devices shall contain instructions related to the restrictions mentioned in the above sections, namely that:

- (i) the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall comply with the e.i.r.p. limit; and
- (ii) the maximum antenna gain permitted for devices in the band 5725-5825 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.

(i) le gain d'antenne maximal autorisé pour les appareils dans les bandes 5250-5350 MHz et 5470-5725 MHz doivent respecter le pire limiter; et

(ii) le gain d'antenne maximal autorisé pour les appareils dans la bande 5725-5825 MHz doivent respecter le pire limites spécifiées pour le point-à-point et l'exploitation non point à point, le cas échéant.



### Safety precautions:

- ☒ Read this guide carefully and keep it for future reference.
- ☒ Follow all instructions for safe use and handling of the product.
- ☒ Risk of electrical shock. Disconnect the power at the fuse box before installation.
- ☒ Use the product within given temperature, humidity and voltage levels noted in the camera's specifications.
- ☒ Do not disassemble the doorbell.
- ☒ Try to avoid installing the doorbell pointed directly at the sun or a source of intense light.
- ☒ Periodic cleaning may be required. Use a damp cloth only. Do not use any harsh, chemical-based cleaners.

### Disclaimers:

- ☒ The Lorex video doorbell requires a constant power supply with a voltage between 16V-24V. If your residence does not have this voltage, you will need a 16-24 VAC doorbell transformer or you can consult with a licensed electrician. The supply with a current 0.7A min. Tma will be 55°C. The supply must fulfill the requirement for Safety Low Voltage and Limited Power Source.
- ☒ Not intended for submersion in water. Installation in a sheltered location recommended.
- ☒ This camera includes an Auto Mechanical IR Cut Filter. When the camera changes between Day/Night viewing modes, an audible clicking noise may be heard from the camera. This clicking is normal, and indicates that the camera filter is working.
- ☒ Audio recording without consent is illegal in certain jurisdictions. Lorex Corporation assumes no liability for use of its products that does not conform with local laws.





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

For up-to-date information and  
support please visit:

**[help.lorex.com/doorbell2](https://help.lorex.com/doorbell2)**

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