



Configure a Video Analytics Rule

ADC-V523/523X

grandalarms.com
416-657-2100

Configure a Video Analytics Rule

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Feature Notice: Business Activity Analytics (BAA) uses the monitoring capability of Video Analytics to help business owners understand traffic patterns and improve their business operations. For more information about BAA, see [Business Activity Analytics \(BAA\) Setup](#).

Overview

Grand Alarms Video Analytics continuously scans a property and sends a notification when a person, vehicle, or animal is identified. Advanced detection rules enhance perimeter security by sending alerts when someone is coming or going, or even loitering on the property.

With Video Analytics, enhanced notifications are sent with thumbnail images showing people, vehicles, and animals. Advanced detection rules can also be used to draw virtual tripwires across driveways and virtual fenced-in zones for a property. Email and text notifications can be sent whenever events when the following occurs:

- A vehicle pulls into the driveway/parking lot or a person walks up to an entrance
- Anyone loiters in a specific zone of a property
- A person or vehicle is identified outside a business after-hours
- A pet jumps up on the sofa or enters an off-limits flowerbed
- A child leaves the yard or someone drives off at night

Video Analytics can spot what is important, even if there is a lot going on.

Requirements

- A service package that supports Video Analytics.
- One of the following Grand Alarms video cameras:
 - 1080p Indoor Wi-Fi Camera (ADC-V515)
 - 1080p Indoor Wi-Fi Camera (ADC-V523/523X)
 - 1080p Outdoor Wi-Fi Camera (ADC-V723/723X)
 - 1080p Outdoor Wi-Fi Camera with Two-Way Audio (ADC-V724/724X)
 - Indoor Fixed w/IR (ADC-V522IR) with firmware version IP8168-ALAM-0100f5+
 - Outdoor Wireless (ADC-V722W) with firmware version IP8168-ALAM-0100f5+
 - 180° HD Camera (ADC-V622) with firmware version 0.5.3.113+
 - Indoor/Outdoor Mini Bullet (ADC-VC726) with firmware version V5.4.5.190317+
 - Indoor/Outdoor Bullet Camera (ADC-VC736) with firmware version V5.4.5.190317+
 - Indoor/Outdoor Dome (ADC-VC826) with firmware version V5.4.5.190317+
 - Indoor/Outdoor Turret Camera (ADC-VC836) with firmware version V5.4.5.190317+
 - Pro Series 1080p Dome PoE Camera (ADC-VC827P)
 - Pro Series 1080p Dome PoE Camera with Varifocal Lens (ADC-VC847PF)
 - Pro Series 4MP Bullet PoE Camera with Varifocal Lens (ADC-VC728PF)
 - Pro Series 4MP Varifocal Turret Camera (ADC-VC838PF)
 - Pro Series 1080p Mini-Bullet Camera (ADC-VC727P)
 - 4MP Outdoor Floodlight Camera (ADC-V729/V729AC/VC729P)

Note: Grand Alarms doorbells use another version of Video Analytics. For more information, see [Configure a Video Analytics rule for a doorbell camera](#).

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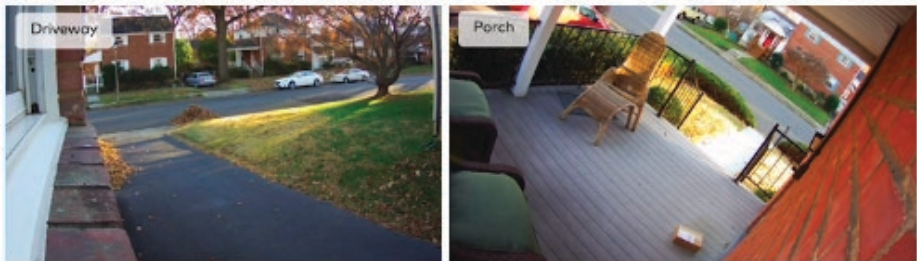


Camera setup

Video Analytics operates by tracking a target's feet or a vehicle's wheels. Verify that the camera is clearly facing the ground or floor of the area being monitored.

Note: To ensure the greatest accuracy, keep the camera lens clear of debris, smokey environments, spiderwebs, etc.

Camera placement

Position	Position the camera 8-16 feet above the ground. When the camera is repositioned, recreate all of the rules and recalibrate the camera if the camera supports calibration. For more information about which cameras must be calibrated, see Calibrate a device for Video Analytics.
Angle	Angle the camera downward 30-60 degrees and keep the horizon line level. This angle provides an ideal field of view while avoiding clouds and trees. Video Analytics is designed to work with an angled-down perspective; not horizontal, and not top-down. Video Analytics scans the frames where the bottom of the screen is the ground and the top of the screen is the area above the ground (e.g., ceiling, sky). Video Analytics performs best when the camera's sideways tilt is no more than approximately 10 degrees.  • Left image: The camera is angled properly. • Right image: The camera is tilted sideways too much and accuracy may be reduced.
Distance	Targets should be closer than 25 feet from the camera (15 feet at night). The entire target should be visible inside the camera's field of view.

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Camera location

Video Analytics detects objects and classifies them as people, animals, and vehicles. Position the camera with a view that can see important activity from people, animals, and/or vehicles.

Recommended	• Overlooking a driveway/parking lot • Overlooking a front porch or wherever packages are dropped off • An area of interest around a yard or lot • Indoor entryways, exit ways, or hallways of interest
Not Recommended	• Areas with constant or uninteresting motion (e.g., roads with regular vehicle movement, trees constantly swaying in the wind, etc.) • Pointing cameras out a window because screen reflections interfere with Video Analytics performance

Lighting

Be aware of any bright lights (i.e., motion-triggered floodlights) near the camera that may attract insects or affect exposure and IR settings. Mount the camera in such a way that a vehicle's headlights do not shine directly into the camera.

Avoid reflective surfaces (i.e. overhangs/eaves, walls, etc) that will reflect IR lights at night and make it difficult to see objects further away as reflective surfaces become overexposed.

Create a rule with Video Analytics

Video Analytics rules can be configured using the Customer website or app. The MobileTech app can also access these configuration settings, but the user must first send a communication test from the customer's panel.

Users can create up to three Video Analytics rules on the same camera. Additionally, ground zones and tripwires can overlap.

Add the Video Analytics rule

A Video Analytics rule can be created using the Customer website, Customer app, and MobileTech app.

To create a rule with Video Analytics using the Customer website:

1. Log in to the Customer website.
2. Click  **Video**.
3. Click **Recording Rules**.
4. Click **Add New Rule**.
5. Click to select **Video Analytics**

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To create a rule with Video Analytics using the Customer app:

1. Log in to the Customer app.
2. Tap **Video**.
3. Tap .
4. Tap **Recording Rules**.
5. Tap **Add**.
6. Tap **Video Analytics**.

To create a rule with Video Analytics using the MobileTech app:

1. Log in to the MobileTech app.
2. Find the customer account.
3. Tap **Equipment**.
4. Tap **Video Devices**.
5. Tap the desired Video Analytics-compatible video camera.
6. Tap **Configure Video Device**.
7. Tap **Set up Analytics rule**.
8. Use one of the following methods to request temporary access to the feature:
 - Log in with access.
 - a. Tap **Log In as User With Access**.
 - b. Tap **Log In as User to Mobile App**.
 - c. Tap **Log in with Access**.
 - Perform a panel communication test.
 - a. Tap **Run Panel Communications Test**.
 - b. Send a communication test from the customer's panel.

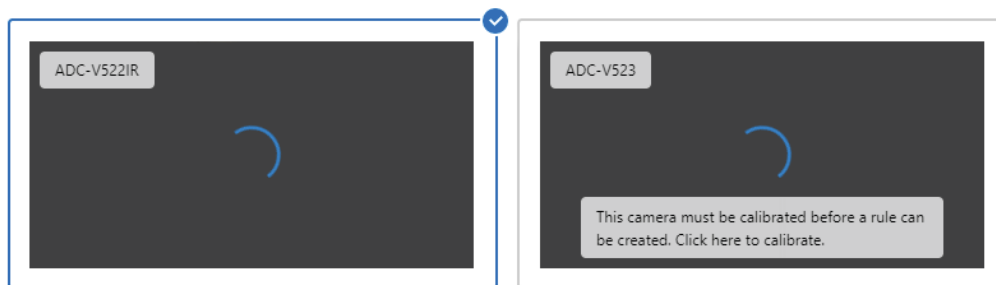
Access to the panel is granted for 60 minutes if the customer has not yet logged into their customer account —20 minutes if they have already logged in. For panel-specific steps to send a communication test, see Panels.
 - c. Tap **Next**.
9. Tap **Set up Analytics rule**.

Select the rule type

1. Click to select the desired camera. If the camera needs to be calibrated, the user is directed to the Calibrate page. For more information about camera calibration, see Calibrate a device for Video Analytics.

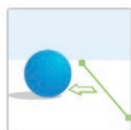
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2. In Select Type, click to select the rule type.

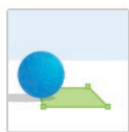
- Click **Tripwire** when a target is likely to cross through the camera's field of view or when objects enter or exit an area (e.g., a car pulling into or backing out of a driveway).



Tripwire

Create an invisible line for your camera to focus on. When your camera detects an object crossing that line, we can notify you and record a clip.

- Click **Ground Zone** when a target is likely to linger in the camera's field of view (e.g., a person delivering a package on the front porch).



Ground Zone

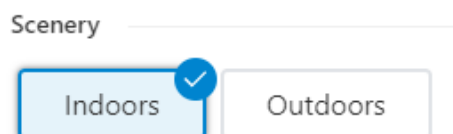
Create an area of interest for your camera to focus on. When an object enters and remains within that area, we can notify you and record a clip.

- If the camera has Video Motion Detection (VMD) recording rules set up, they must be deleted before setting up a Video Analytics rule. When prompted to automatically delete them, click **OK** to continue. The VMD windows can be added back later when necessary.
- Click **Next**.

Select the camera scene

- In Scenery, click to select **Indoors** or **Outdoors** based on where the camera is installed. The camera should be marked outdoors if it will be exposed to rain, snow, spider webs, or moving trees and set to indoors if in a controlled outdoor environment (e.g., a screened-in porch).

Note: This selection must be the same across all recording rules associated with a specific camera.



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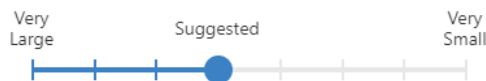
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2. Use the Minimum Object Detection Size slider to adjust how small an object can be and still trigger a recording. It is recommended to keep this at its suggested value upon initial rule creation. Very Large captures the fewest recordings only of the largest objects, and Very Small captures the most recordings including large and small objects.

Note: Certain video devices have a calibration process that replaces the Minimum Object Detection Size setting. Minimum Object Detection Size will not appear on this page for those cameras. For more information about the calibration process, see Calibrate a device for Video Analytics.

Minimum Object Detection Size



Move the slider to the left for the camera to only detect larger objects and ignore smaller objects, which will result in fewer triggers. Move to the right to detect additional smaller objects.

3. Click **Next**.

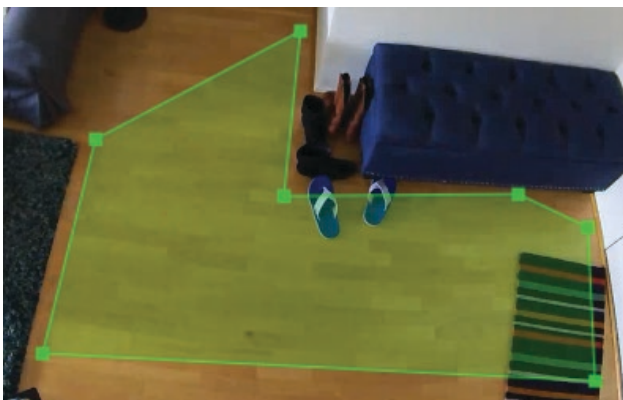
Configure the Video Analytics rule

Once the rule type and scene are selected, the Video Analytics rule can be configured to fit the customer's individual needs.

To configure a Ground Zone rule:

Skip this section if Tripwire was chosen during rule type selection.

1. In the Rule Name field, enter a name for the recording rule.
2. Click and drag the corners of the shape to cover only the ground where the target's feet will be. To clear the current area of interest and restart, click **Clear ground zone** to create a new area of interest with up to 28 points.
 - Click and hold inside the shape to move the shape itself.



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- Using the Duration Inside Area of Interest dropdown menu, select the desired time an object needs to stay inside the Ground Zone to trigger a recording.

Duration Inside Area of Interest

0.5 seconds

Select Duration

0.5 seconds

1 second

2 seconds

3 seconds

4 seconds

5 seconds

6 seconds

7 seconds

8 seconds

9 seconds

10 seconds

15 seconds

20 seconds

30 seconds

45 seconds

60 seconds

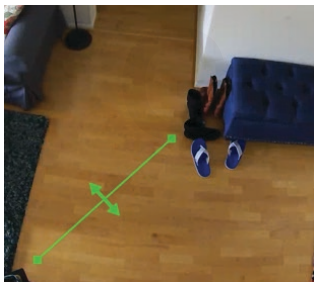
90 seconds

120 seconds

To configure a Tripwire rule:

Skip this section if Ground Zone was chosen during rule type selection.

- In the *Rule Name* field, enter a name for the recording rule.
- Click and drag the Tripwire to cover only the ground where the target's feet cross. The arrow determines which direction the object must be moving to trigger a recording. To clear the current Tripwire and restart, click **Clear Tripwire**.



- Customize the direction of movement to be recorded:

Direction

SWITCH DIRECTIONS

☒ Both Directions

- In *Direction*, click **Switch directions** to switch the direction of the movement to capture.
- Click to select **Both Directions** to record when an object crosses the Tripwire regardless of which direction it is moving.

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Rule scheduling and notifications

1. Using the *Set Minimum Delay Between Clips* dropdown menu, select the desired timeframe. This setting determines how long the camera must wait after beginning a clip to trigger another recording.

Action



RECORD CLIP

Set Minimum Delay Between Clips

3 minutes

2. In The Rule will run..., click to select **At all times**, **Only during the following times**, or **While on vacation**.

- If **Only during the following times** is selected:

- a. Click to select the days of the week to record on.
- b. Using the *Begin* dropdown menu, select the time for the recording rule to start.
- c. Using the *End* dropdown menu, select the time for the recording rule to stop.

The Rule will run...

☐ At all times

☒ Only during the following times

MON TUE WED THU FRI
SAT SUN

Begin: 9:00 AM

End: 5:00 PM

- If **While on vacation** is selected:

- a. Select the Starting at date and time.
- b. Select the Ending at date and time.

The Rule will run...

☐ At all times

☐ Only during the following times

☒ While on vacation

Starting at: 12/19/2023 04:58 PM

Ending at: 12/26/2023 04:58 PM

Note: Running video object detection rules during times of heavy activity can lead to an excessive number of video clip uploads. These rules work best when used outside of regular business hours.

Note: Vacation Watch schedules have a maximum of 60 days.

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3. In *Except when...*, click to select any available exceptions that turn the rule off regardless of the schedule.
Options depending on the equipment include:

- **The Panel is Disarmed** and **The Panel is Armed Stay**.
 - Use the Video Rule Exit Delay dropdown menu to select the desired delay before the camera resumes recording.

Except when...

PANEL

☒ The Panel is Disarmed

☒ The Panel is Armed Stay

Video Rule Exit Delay ⓘ

None

None

1 minute

2 minutes

3 minutes

4 minutes

5 minutes

6 minutes

7 minutes

8 minutes

9 minutes

10 minutes

15 minutes

30 minutes

- The following Geo-Devices selected are inside a specified Geo-Fence.

Except when...

☒ The following Geo-Devices

☒ HTC 2PS64 (2)

are inside the following Geo-fence:

Work

Important: If the location has a security system with multiple partitions, Video Analytics rules will follow the arming settings of the first partition only.

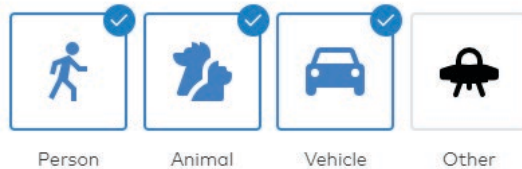
4. In *Send notification for clips containing...*, click to select the types of clips that the user wants to be notified about.
The camera records and uploads all motion it detects but only sends a notification to the user based on the selected notification options.

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Send notification for clips containing...



Note: Clips included in the Other category are when the camera detects an object but is unable to determine which type of object it is. For more information about how a clip is classified as Other, see How does a Video Analytics clip get classified as Other?.

5. Click to select the desired notification recipients. It is recommended to use push notifications to a phone using the dropdown option to attach a thumbnail. For more information about why this is and how Video Analytics notifications work, see How do Video Analytics notifications work?.

Push Notifications

☐ HTC 2PS64

SMS Notifications

☐ John Smith (888-888-8888)

Email Notifications

☒ John Smith (johnsmith@email.com)

Create a light automation rule

Camera-driven light automation rules require Lights to be enabled on the customer's service package along with at least one light device enrolled on the account. If these requirements are met, the Light Automation section appears toward the bottom of the Video Analytics rule.

Note: Lights cannot be enabled during a time when the Video Analytics rule is not set to record (e.g., if a tripwire rule is drawn on a driveway and set to record only at night, lights cannot be set to turn on during the daytime because no clip would have been recorded).

1. Using the Turn on selected lights for dropdown menu, select how long the lights should turn on for.

Light Automation

Turn on selected lights for

☒ Front Porch

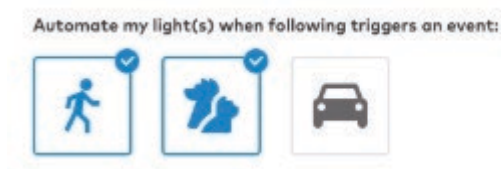
☒ Driveway

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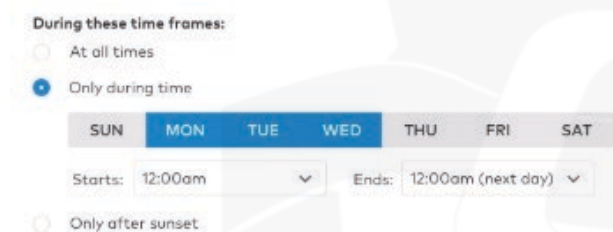
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2. Click to select which lights are to be automated by the rule.
3. In *Automate my light(s) when following triggers an event*, click to select which events should turn on the lights when triggered.



4. In *During these time frames*, click to select **At all times**, **Only during the following times**, or **Only after sunset**.
 - If **Only during the following times** is selected:
 - a. Click to select which days of the week on which to record.
 - b. Using the Begin dropdown menu, select the time for the recording rule to start.
 - c. Using the End dropdown menu, select the time for the recording rule to stop.



Perimeter Guard™

Perimeter Guard™ sounds an alert and flashes the camera's status LED when unwanted visitors are detected. For more information about Perimeter Guard™ and compatible video devices, see Perimeter Guard™ for video devices.

Enable the alerts

- To enable the LED response:
 1. In Perimeter Guard™ - Light & Sound, click the Camera Status LED toggle to enable the LED response.
 2. Using the Duration dropdown menu, select how long the LED response lasts.
 3. Using the Set Minimum Delay Between Alerts dropdown menu, select the desired amount of time the camera should not start a new alert after a previous alert has completed.
- To enable the Camera Audio Alert (only available on cameras using the Two-Way Audio feature):
 1. In Perimeter Guard™ - Light & Sound, click the Camera Audio Alert toggle to enable the Audio Alert.
 2. Using the Audio Sound dropdown menu, select type of sound the camera makes.
 3. Adjust the volume using the Volume slider.

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Set the alert delay

- Using the Set Minimum Delay Between Alerts dropdown menu, select the desired amount of time the camera should not start a new alert after a previous alert has completed.

Package Alerts for the ADC-VDB770

Customers can be the first to know when a package is delivered to their home or business with Package Alerts for the Grand Alarms Video Doorbell (ADC-VDB770). Using Video Analytics, the ADC-VDB770 can identify when a visitor leaves a parcel on their doorstep—notifying them immediately.

Package Alerts can be configured to notify a customer right when a delivery is made, remind them if the box is not picked up, or alert them if it goes missing.

For more information about Package Alerts, see Package Alerts for the Grand Alarms Video Doorbell (ADC-VDB770).

Video Analytics rule best practices

Video Analytics can be configured to detect when an object lingers in a specific area or when an object passes through a specific point.

When to use a Ground Zone rule

Use a Ground Zone rule when the object to be recorded lingers in a specific place for too long.

Verify that the Ground Zone is fitted to the ground or floor where the object's feet will be. For more information about configuring a Ground Zone rule, see Configure rule - Ground Zone.

When to use a Tripwire rule

Use a Tripwire rule when the object to be recorded passes through a specific place.

Verify that the Tripwire is placed where the object's feet or wheels will cross the threshold. For more information about configuring a Tripwire rule, see Configure rule - Tripwire.

To ensure rule accuracy

- Avoid drawing Tripwires or Ground Zones over objects that might move by themselves (e.g., trees, bushes, or other objects that move in the wind).
- Only draw the rule where the feet or wheels of an object should cross.
 - Do not increase the size of the loiter zone or tripwire to cover the whole of the target.
 - Do not include furniture, walls, trees, or other structures in the rule/selection.

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Bad ground zone example



Including the bush and garage door in the ground zone can make it difficult for the Video Analytics to positively classify subjects. In this case, reduce the size of the ground zone to only cover the driveway.

Good ground zone example



This is a properly drawn ground zone that only covers the driveway, and excludes the bush and garage door.

- Create up to three Video Analytics rules to capture separate areas of interest (e.g., a camera that monitors two entrances might need two tripwire rules, each one covering one of the entrances).
- After observing what the rule detects over a few days, consider adjusting either the Minimum Object Detection Size slider or recalibrating the camera.

Note: Certain video devices have a calibration process that replaces the Minimum Object Detection Size setting. Minimum Object Detection Size will not appear on this page for those cameras. For more information about the calibration process, see [Calibrate a device for Video Analytics](#).

- When adjusting the Minimum Object Detection Size slider:
- Increasing the minimum object size can reduce false detection.
- Decreasing the minimum object size can detect smaller targets.

View uploaded video clips

Uploaded video clips can be viewed using the Customer website and Customer app.

To view video clips using the Customer website:

1. Log in to the Customer website.
2. Click Video.
3. Click Saved Video Clips.
4. Only clips with a valid person, vehicle, or animal classification appear here by default.
 - To view clips classified as Other :
 - a. Click Filter.

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- b. In Object Detection, click to select Other. To only show video clips classified as Other, deselect all other items in Object Detection.

Object Detection

- ☒ Person
- ☒ Animal
- ☒ Vehicle
- ☒ Other

- c. Click **Apply**

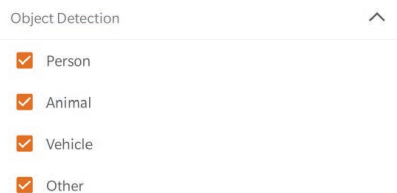
5. To play a clip:

- In *Gallery View*, mouse over the desired clip, then click ►.
- In *List View*, mouse over the desired clip, then click **Play**.

Note: Clips that include pre-trigger recording start playing at the moment the motion is detected instead of the beginning of the clip.

To view video clips using the Customer app:

1. Log in to the Customer app.
2. Tap .
3. Tap **Saved**.
4. Only clips with a valid person, vehicle, or animal classification appear here by default.
 - To view clips classified as *Other*:
 - a. Tap .
 - b. In *Object Detection*, tap **Other**. To only show clips classified as *Other*, deselect all other items in *Clip Trigger*.



- c. Tap **Apply**.

5. Tap .

Note: Clips that include pre-trigger recording start playing at the moment the motion is detected instead of the beginning of the clip.