

CheckPoints™ Standalone Application

Quick Reference Guide



CheckPoints™ Overview



CheckPoints™ provides persistent video surveillance at the tactical edge. Networked to allow for local Wi-Fi connections or Wi-Fi disabled to provide video through a closed network or encrypted tactical radio connection.

CheckPoints™ will give users a “live” view of their position from a fixed location.

CheckPoints™ allows users to stream up to (2) video feeds through Mobile, Tactical & Command Post systems.

CheckPoints™ is a low-voltage capability designed for extended operations. The system provides automatic network routing for rapid deployment and ease of use. There is no configuration required and the tool has successfully integrated with APASS & KILSWITCH

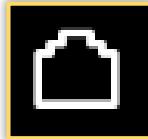


Before We Begin...



This document assumes the following:

1. The Reader has followed the steps found in the CheckPoints™ Start Guide
2. The Reader has the system set up and the EUD is receiving an IP Address from the CheckPoints™ System.



This icon indicates the tablet/EUD detects a network connection



This icon indicates the tablet/EUD is receiving an IP address from the CheckPoints™ System

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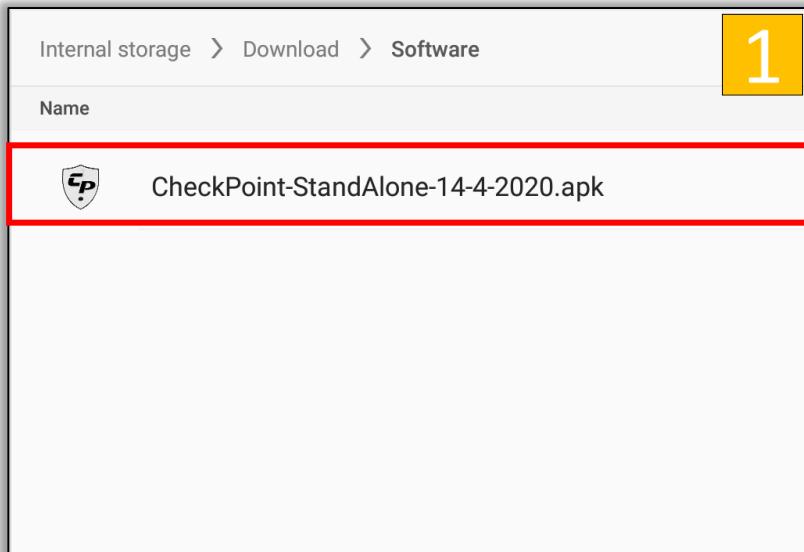
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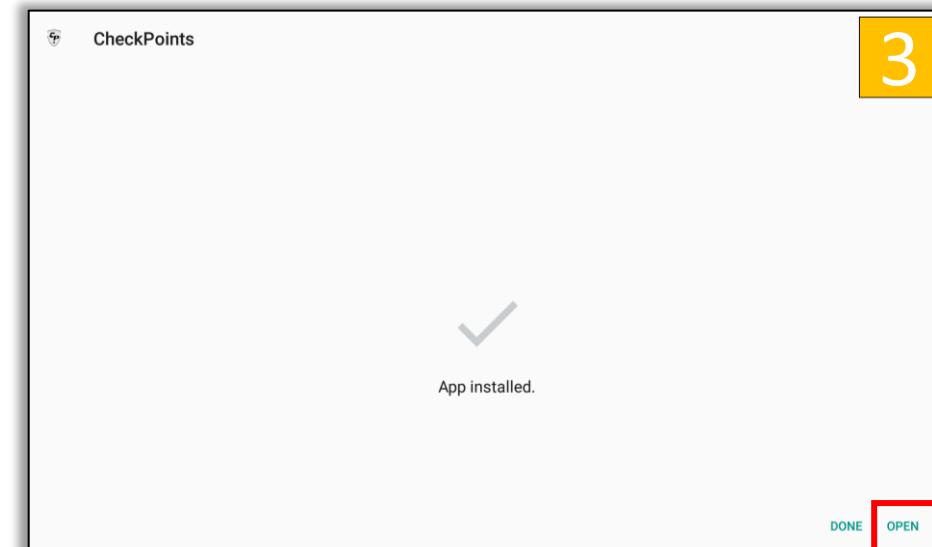


Install CheckPoints™ Standalone



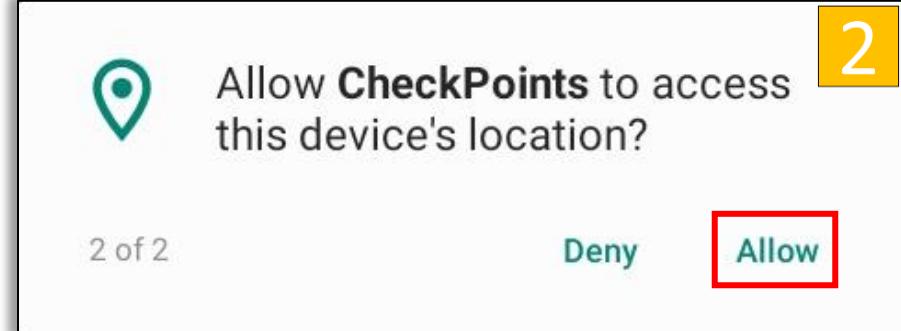
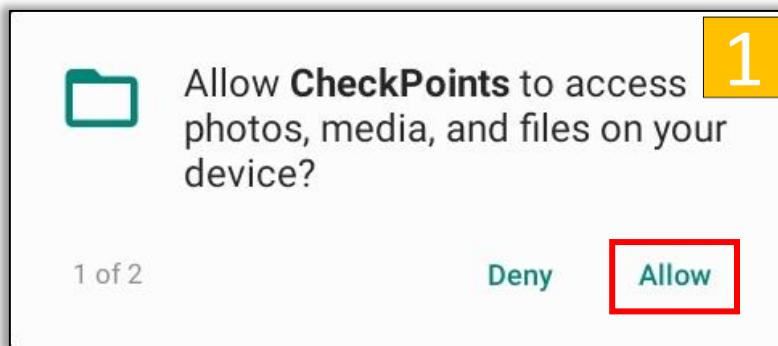
1. Tap the CheckPoints™ Standalone APK file to begin installation.
2. Review the Permissions Statement then tap Install.
3. Tap Open once the installation is complete.

Note: The actual APK name may change. Also you may have to adjust the security settings on your device to install this application.





Allow App Permissions



1. **Tap Allow** when prompted to set “Allow CheckPoints™ to access photos, media, and files on your Device?”.
2. **Tap Allow** when prompted to set “Allow CheckPoints™ to access this device’s location?”

Failing to allow these permissions will limit / prevent proper functionality of the CheckPoints™ System.



Initial Camera Setup

1

Camera Setup

Camera 1 Name: Camera 1 Name

Camera 2 Name: Camera 2 Name

http:// url port1
port2

Confirm Cancel

This screenshot shows the initial camera setup interface. It includes fields for Camera 1 Name (set to Camera 1 Name), Camera 2 Name (set to Camera 2 Name, highlighted with an orange border), URL (http:// url) with two ports (port1 and port2), and two buttons at the bottom: 'Confirm' and 'Cancel'.

2

Camera Setup

Camera 1 Name: Camera 1

Camera 2 Name: Camera 2

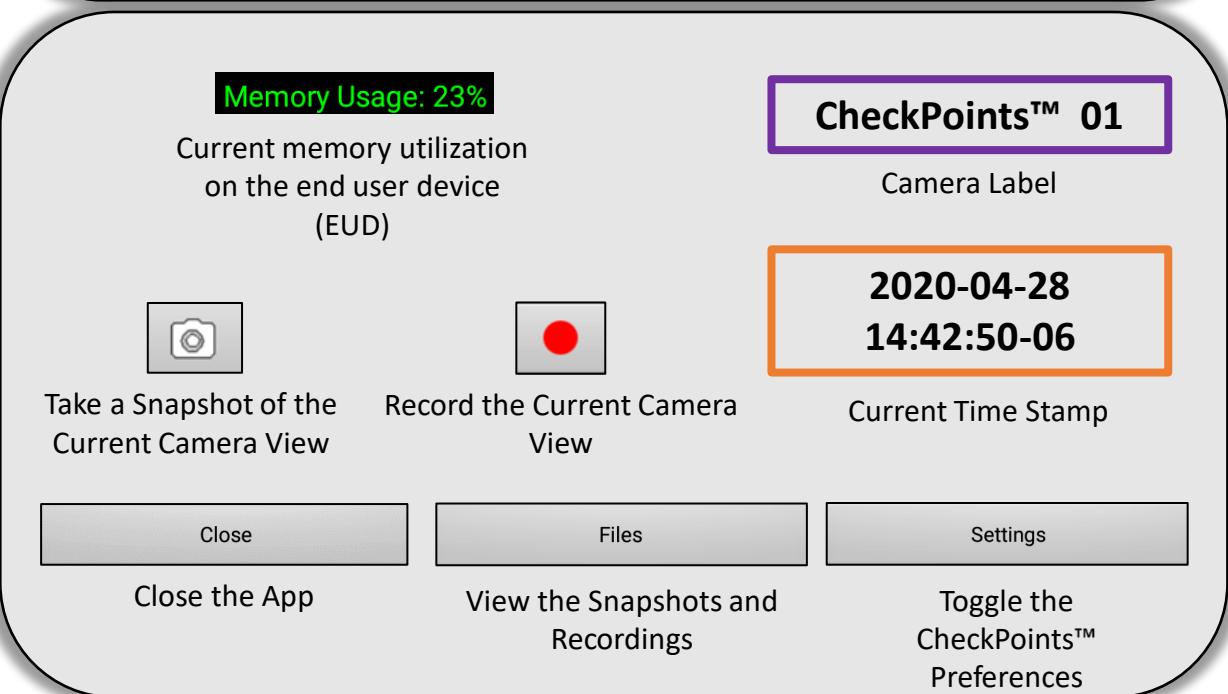
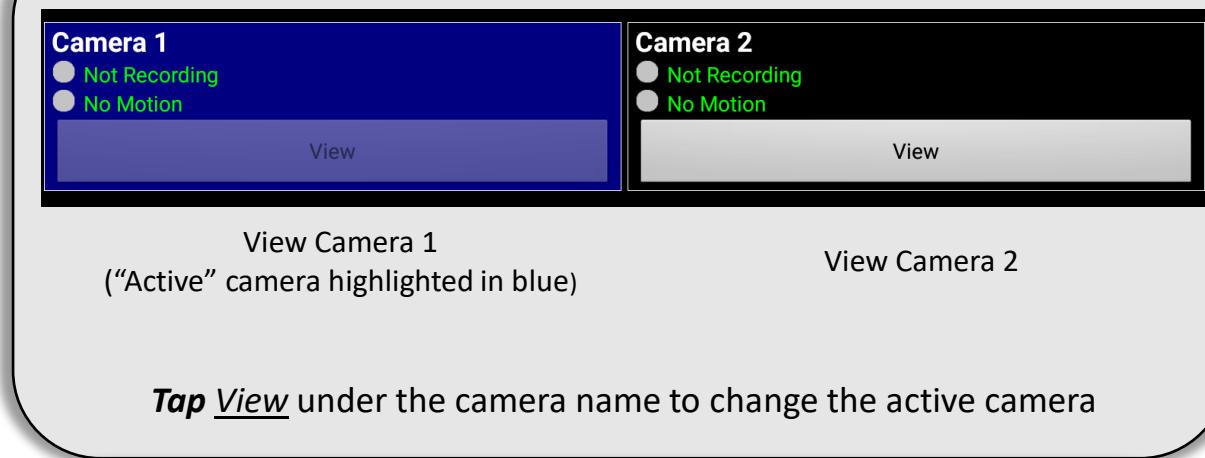
http:// 10.151.50.10 8011
8012

Confirm Cancel

This screenshot shows the camera setup interface after entering values. The Camera 1 Name is set to Camera 1, Camera 2 Name is set to Camera 2, the URL is 10.151.50.10, and the ports are 8011 and 8012. The 'Confirm' button is highlighted with a red border.

1. **Enter** the Camera Names, URL, and Camera Ports:
 - Camera Names are user defined.
 - The Default Camera URL is: 10.151.50.10.
 - The Default Ports are 8011 and 8012.
2. **Tap** Confirm to continue.

CheckPoints™ Standalone User Interface



CheckPoints™ Motion Detection



Camera 1

- Recording
- Motion Detected

View

Camera 1 detects motion and begins to record if that feature has been turned on. Enabling this feature is discussed in the Preferences/Settings Section of the manual.



The CheckPoints™ System will draw a box around the area where motion is detected. The box will follow the “object” until it is out of view from the camera or until the system no longer detects motion.

CheckPoints™ Camera Status Matrix



	No Motion Detected	Motion Detected
Inactive Camera	Camera 1 ● Not Recording ● No Motion View	Camera 1 ● Recording ● Motion Detected View
Active Camera	Camera 1 ● Not Recording ● No Motion View	Camera 1 ● Recording ● Motion Detected View

Camera 1 Status Example

Inactive Camera – The camera not currently displaying its video stream

Active Camera – The camera (highlighted in blue) currently displaying its video stream

No Motion Detected – Motion has not been detected by the CheckPoints™ system

Motion Detected – Motion has been detected by the CheckPoints™ System



CheckPoints™ Standalone: Files

CheckPoints™ Standalone: Files Overview



Close

Files

Settings

The CheckPoints Files allows users to view snapshots and recordings. These files are either manually created using the snapshot or record buttons   from the main interface or by toggling the CheckPoints™ settings to automatically record when motion is detected. Files tagged with A_ were automatically captured and files with M_ were manually captured.



Camera 1 Recordings	Camera 1 Snapshots
Camera 2 Recordings	Camera 2 Snapshots
 A-Camera 1-2020-04-29 10_00_06_739.mp4	00h:00m:15s
 A-Camera 1-2020-04-29 10_04_36_572.mp4	597.1 KB 00h:00m:07s
 A-Camera 1-2020-04-29 10_05_49_457.mp4	4.6 MB 00h:00m:43s
 A-Camera 1-2020-04-29 10_06_13_638.mp4	831.0 KB 00h:00m:09s
 A-Camera 1-2020-04-29 10_08_21_890.mp4	1.2 MB 00h:00m:14s
 A-Camera 1-2020-04-29 10_08_55_332.mp4	842.8 KB 00h:00m:09s
 A-Camera 1-2020-04-29 10_09_20_727.mp4	800.6 KB 00h:00m:09s
 A-Camera 1-2020-04-29 10_11_41_797.mp4	3.0 MB 00h:00m:29s
 A-Camera 1-2020-04-29 10_14_25_253.mp4	2.7 MB 00h:00m:24s
 A-Camera 1-2020-04-29 10_14_50_861.mp4	887.6 KB 00h:00m:09s
 A-Camera 1-2020-04-29 10_16_51_270.mp4	3.5 MB 00h:00m:35s
<input type="button" value="Delete"/>	<input type="button" value="Rename"/>
<input type="button" value="Play"/>	<input type="button" value="Back"/>

CheckPoints™ Standalone: Files - Recordings



Camera 1 Recordings	Camera 1 Snapshots
Camera 2 Recordings	Camera 2 Snapshots
A-Camera 1-2020-04-29 10_00_06_739.mp4	00h:00m:15s 597.1 KB 00h:00m:07s
A-Camera 1-2020-04-29 10_04_36_572.mp4	4.6 MB 00h:00m:43s
A-Camera 1-2020-04-29 10_05_49_457.mp4	831.0 KB 00h:00m:09s
A-Camera 1-2020-04-29 10_06_13_638.mp4	1.2 MB 00h:00m:14s
A-Camera 1-2020-04-29 10_08_21_890.mp4	842.8 KB 00h:00m:09s
A-Camera 1-2020-04-29 10_08_55_332.mp4	800.6 KB 00h:00m:09s
A-Camera 1-2020-04-29 10_09_20_727.mp4	3.0 MB 00h:00m:29s
A-Camera 1-2020-04-29 10_11_41_797.mp4	2.7 MB 00h:00m:24s
A-Camera 1-2020-04-29 10_14_25_253.mp4	887.6 KB 00h:00m:09s
A-Camera 1-2020-04-29 10_14_50_861.mp4	3.5 MB 00h:00m:35s
A-Camera 1-2020-04-29 10_16_51_270.mp4	1.6 MB
Delete	Rename
Play	
Back	

Selected Camera

Camera 1 Recordings

Camera 2 Recordings

Selected Video File

A-Camera 1-2020-04-29 10_08_21_890.mp4

A-Camera 1-2020-04-29 10_08_55_332.mp4

Delete

Rename

Delete Selected Video

Rename Selected Video

Play

Back

Play Selected Video

Go Back to Files

CheckPoints™ Standalone: Files – Recordings (Cont...)



Video Recording File Syntax

A Camera 2 2020-04-29-11_07_55_292 MP4
M Camera 2 2020-04-29-10_56_41_556 MP4

1

2

3

4

1. A - Automatic Recording / M – Manual Recording
2. Camera Name
3. Date Time Stamp
4. File Extension

103 of 104

Current file of total files



Video Progress Bar

Previous

Next

Go to Previous Video

Go to Next Video



Play / Stop Video

Back

Go Back to Files

CheckPoints™ Standalone: Files - Snapshots



Camera 1 Recordings	Camera 1 Snapshots
Camera 2 Recordings	Camera 2 Snapshots
	A-Camera 1-2020-04-28 15_49_57_631.jpg 9.3 KB
	A-Camera 1-2020-04-28 15_51_46_915.jpg 9.1 KB
	A-Camera 1-2020-04-28 15_54_19_609.jpg 9.9 KB
	A-Camera 1-2020-04-28 15_55_48_360.jpg 10.0 KB
	A-Camera 1-2020-04-28 15_57_54_012.jpg 9.1 KB
	A-Camera 1-2020-04-29 09_47_23_864.jpg 11.2 KB
	A-Camera 1-2020-04-29 09_53_12_809.jpg 11.2 KB
	A-Camera 1-2020-04-29 09_56_03_496.jpg 11.6 KB
	A-Camera 1-2020-04-29 10_00_06_740.jpg 11.0 KB
	A-Camera 1-2020-04-29 10_04_36_572.jpg 12.2 KB
	A-Camera 1-2020-04-29 10_05_49_458.jpg 11.0 KB
Delete	Rename
View	
Back	

Selected Camera

Camera 1 Snapshots

Camera 2 Snapshots

Selected File

A-Camera 1-2020-04-28 15_51_46_915.jpg

A-Camera 1-2020-04-28 15_54_19_609.jpg

Delete

Rename

Delete Selected Snapshot

Rename Selected Snapshot

View

Back

Play Selected Snapshot

Go Back to Files

CheckPoints™ Standalone: Files – Snapshots (Cont...)



Video Recording File Syntax

A	Camera 1	2020-04-28-15_49_57_631	JPG
M	Camera 1	2020-04-19-10_56_46_354	JPG

1

2

3

4

1. A - Automatic Snapshot / M – Manual Snapshot
2. Camera Name
3. Date Time Stamp
4. File Extension

97 of 120

Current file of total files

[Previous](#)[Next](#)[Go to Previous Snapshot](#)[Go to Next Snapshot](#)[Back](#)[Go Back to Files](#)



CheckPoints™ Standalone: Settings

CheckPoints™ Standalone: Settings Overview

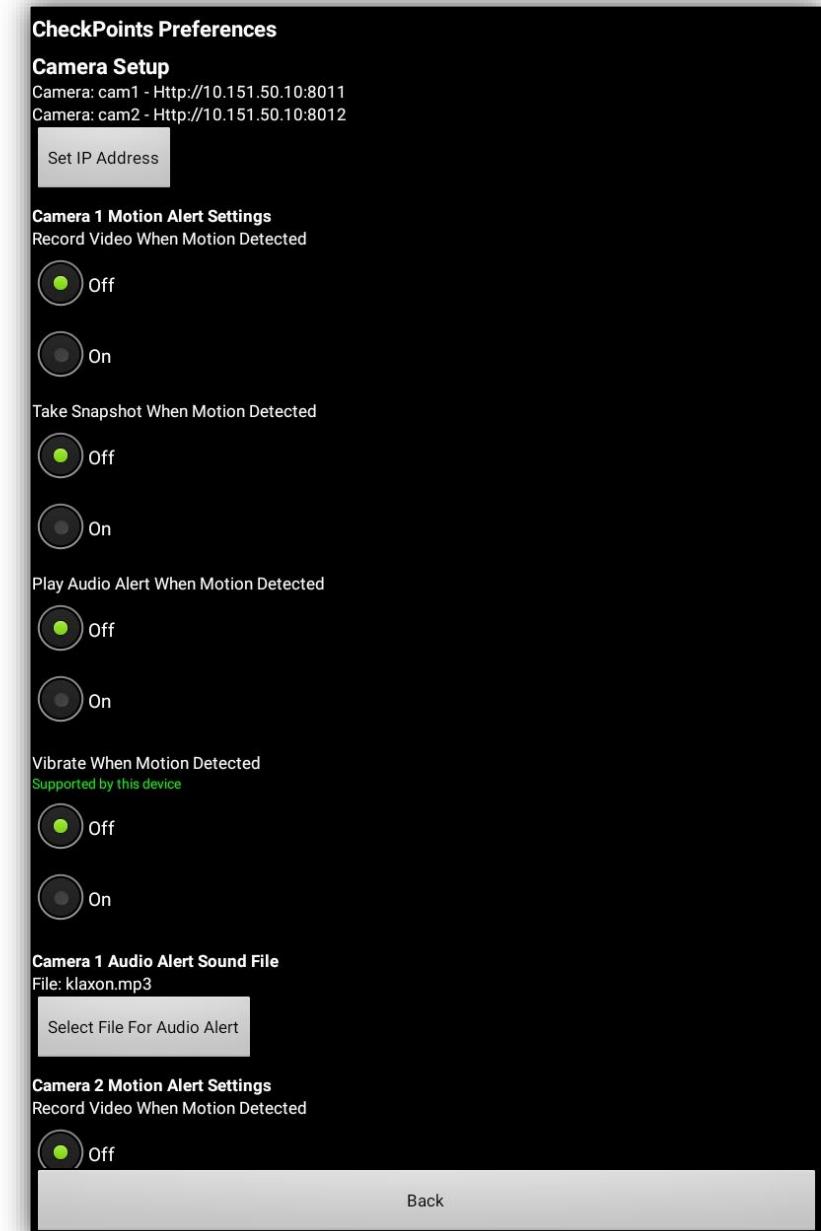


Tap Settings on the Main Interface to open the CheckPoints™ Preferences Window. Configuring the preferences options in this section assumes the user has done this step.

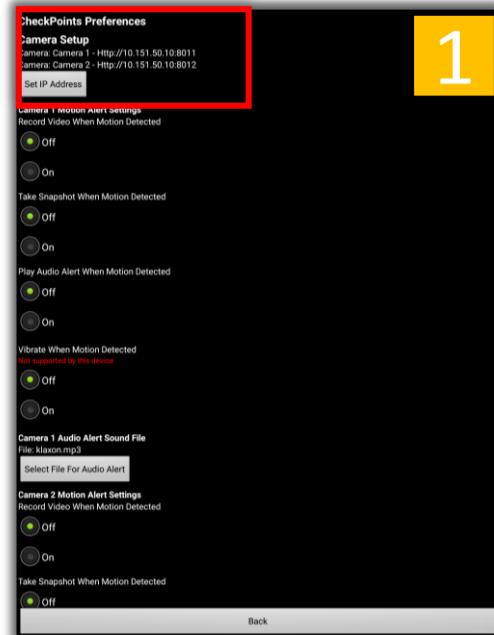
The CheckPoints™ Settings (aka Preferences) allows the user to:

- Modify Camera Names
- Change IP Addresses and Ports
- Toggle Motion Alert Settings
- Modify Snapshot Settings
- Adjust the Orientation of the CheckPoints™ App
- Configure the Settings on the CheckPoints™ board (ADVANCED)*

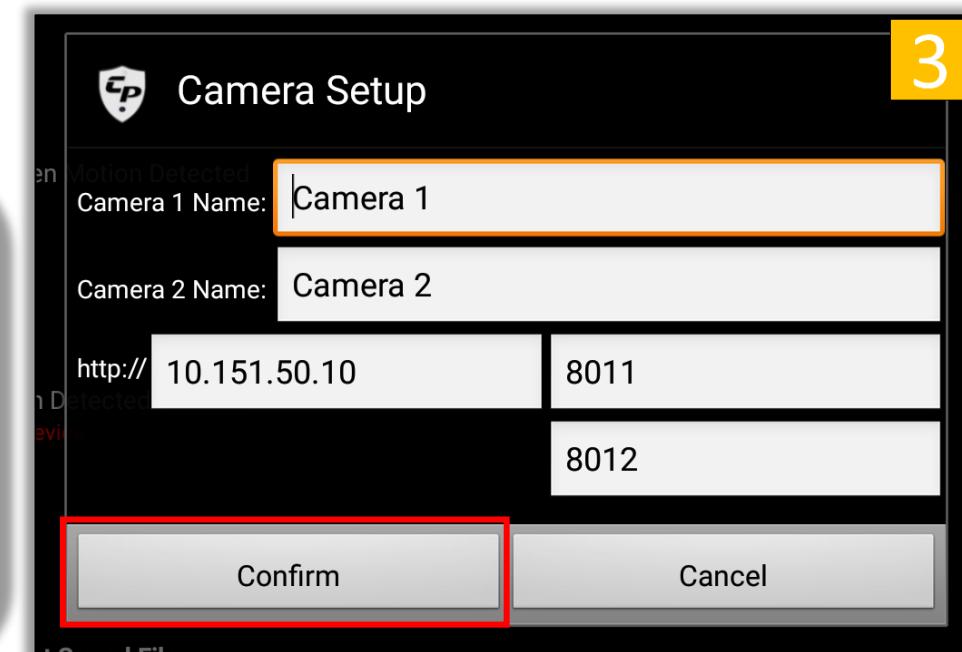
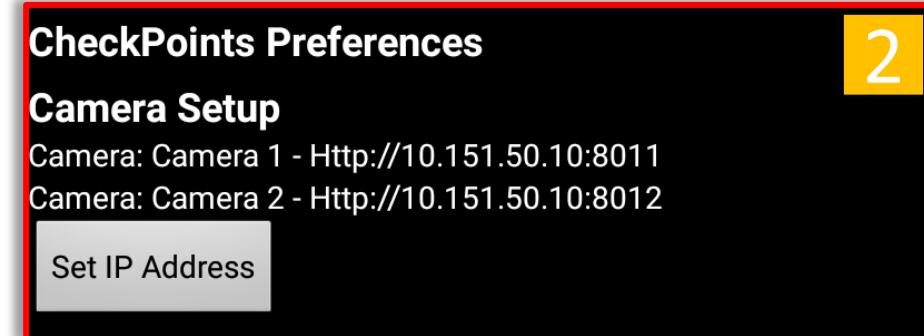
*This should be done with extreme caution!



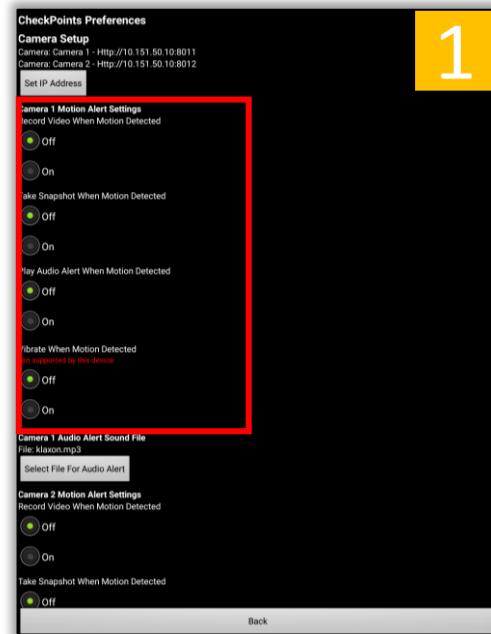
CheckPoints™ Standalone: Settings – Camera Setup



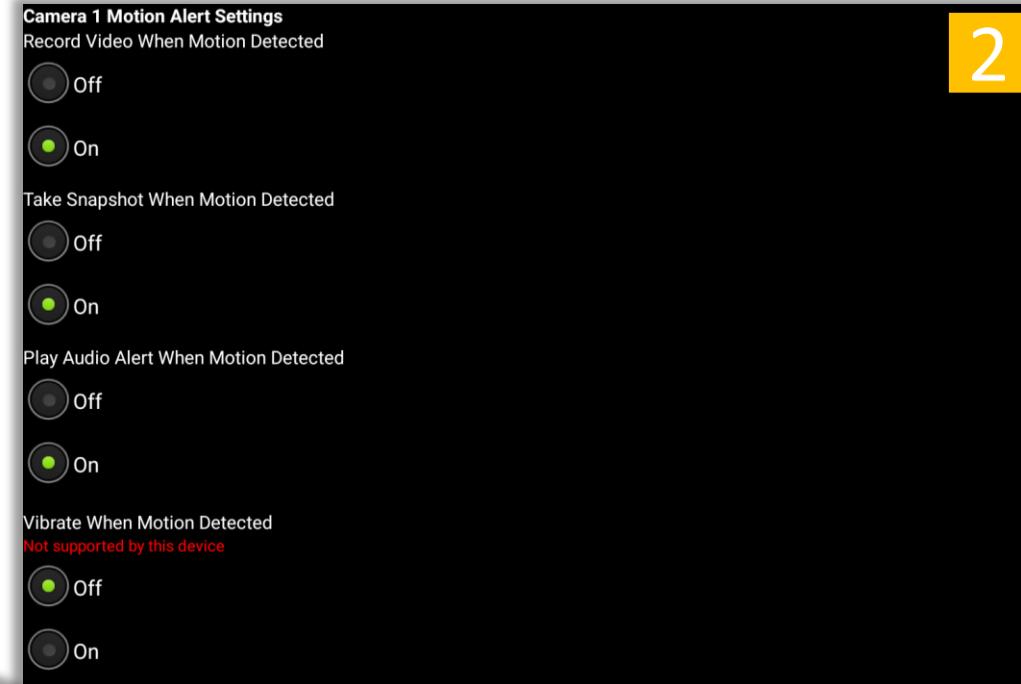
1. Locate Camera Setup in the CheckPoints Preferences.
2. **Tap Set IP Address.**
3. Change the Camera Setup parameters as needed. **Tap Confirm** to save the new settings. **Tap Back** at the bottom of the “CheckPoints Preferences” screen to return to the “CheckPoints Main” screen.



CheckPoints™ Standalone: Settings – Motion Alert Settings



1

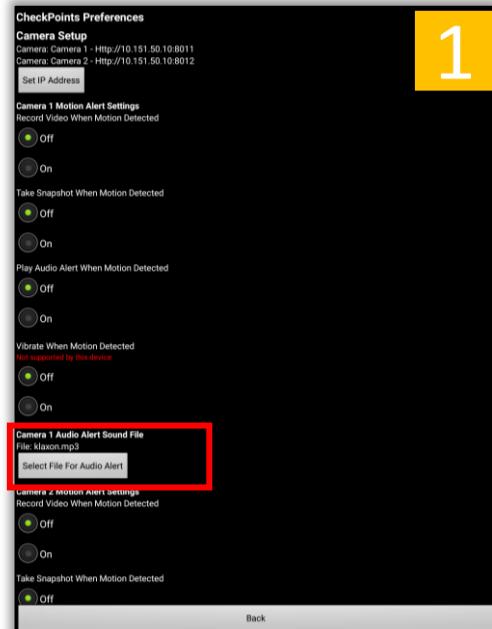


2

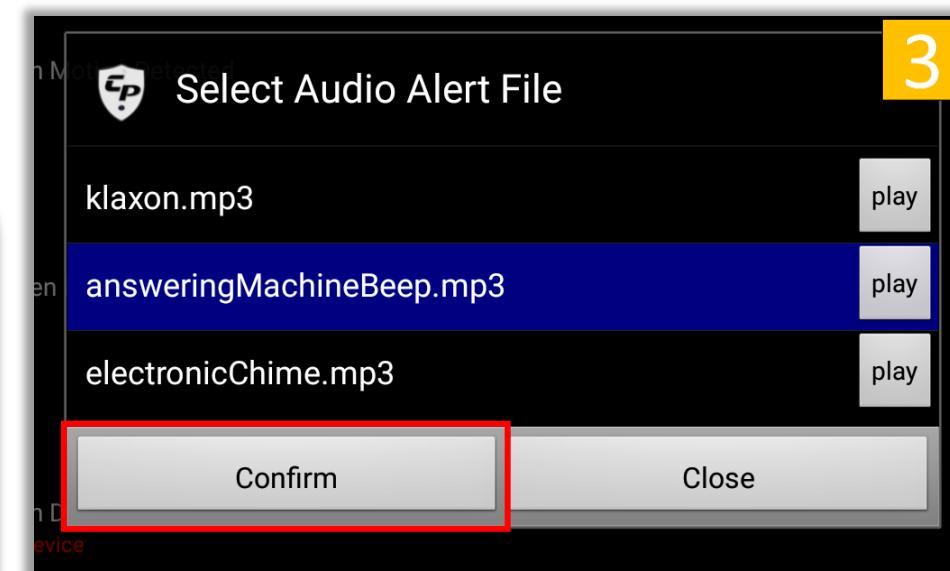
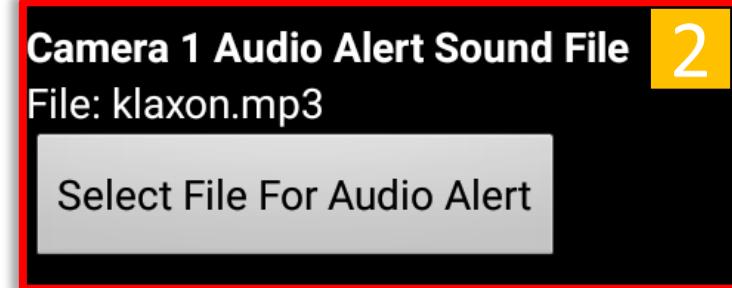
1. Locate the Motion Alert Settings for “Camera 1” or “Camera 2”.
2. ***Toggle Camera Motion Alert Settings*** from Off to On as desired. Settings for “Camera 1” and “Camera 2” are independent of each other. Changes must be made for both cameras. ***Tap Back*** at the bottom of the “CheckPoints Preferences” screen to return to the CheckPoints Main” screen.

The CheckPoints™ App provides visual, haptic, and audio alerts to users when the system detects motion.

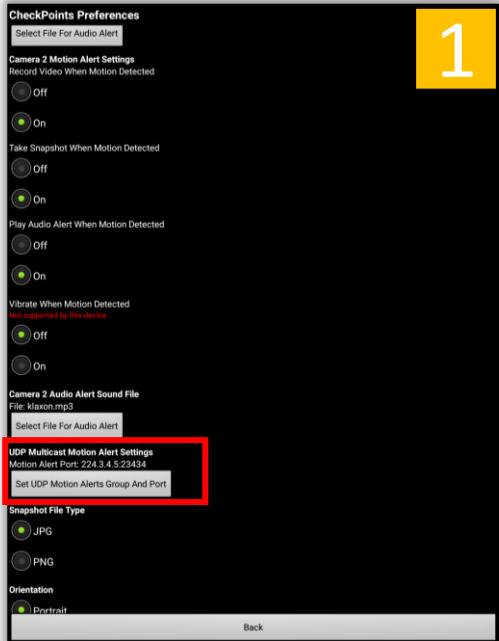
CheckPoints™ Standalone: Settings – Audio Alert Sound File



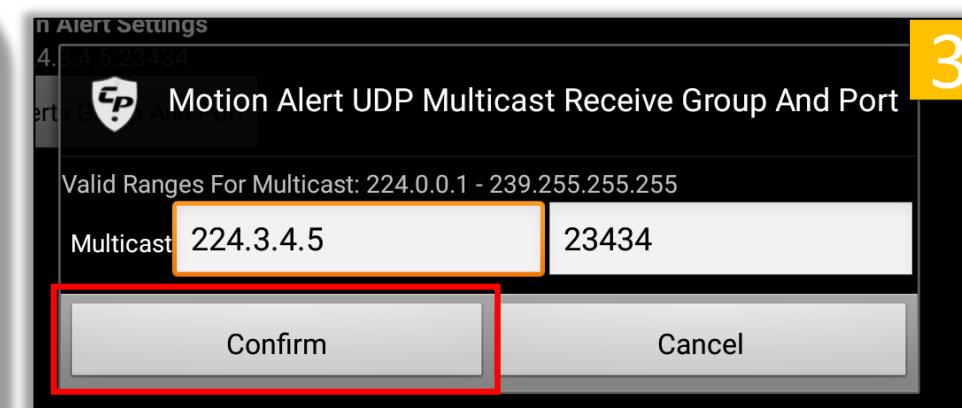
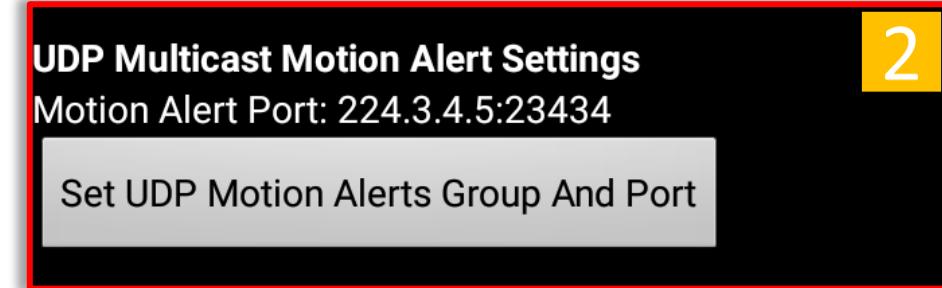
1. Locate the Audio Alert Sound File for “Camera 1” or “Camera 2”.
2. ***Tap Select File For Audio Alert.***
3. ***Tap the desired Audio Alert File then tap Confirm.*** Settings for “Camera 1” and “Camera 2” are independent of each other. Changes must be made for both cameras. ***Tap Back*** at the bottom of the “CheckPoints Preferences” screen to return to the “CheckPoints Main” screen.



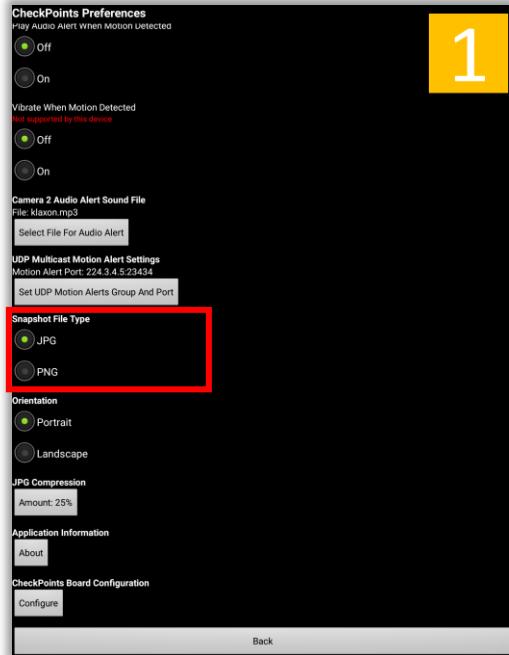
CheckPoints™ Standalone: Settings – UDP Multicast Motion Alert Settings*



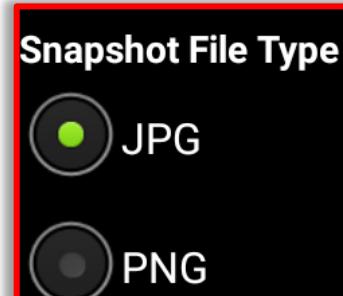
1. Locate UDP Multicast Motion Alert Settings.
2. Tap Set UDP Motion Alerts Group and Port.
3. Enter the desired Multicast and Port number then tap Confirm. (*In most cases you shouldn't edit this!) Tap Back at the bottom of the “CheckPoints Preferences” screen to return to the “CheckPoints Main” screen.



CheckPoints™ Standalone: Settings – Snapshot File Type



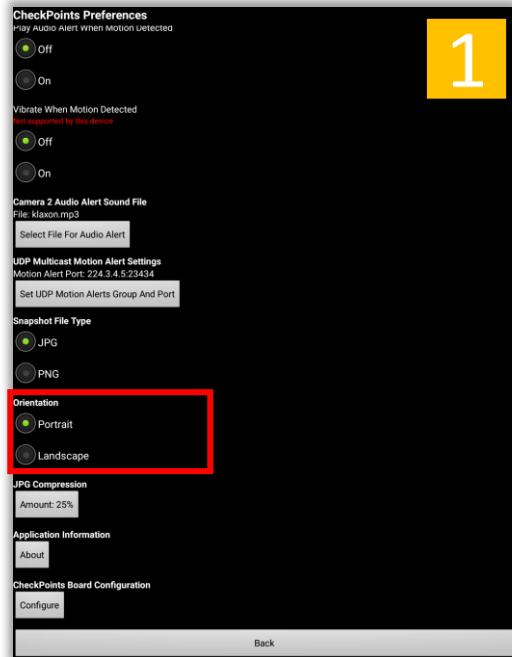
1



2

1. Locate Snapshot File Type.
2. Tap JPG or PNG to change the snapshot file type. The default value is JPG. Tap Back at the bottom of the “CheckPoints Preferences” screen to return to the “CheckPoints Main” screen.

CheckPoints™ Standalone: Settings – Orientation



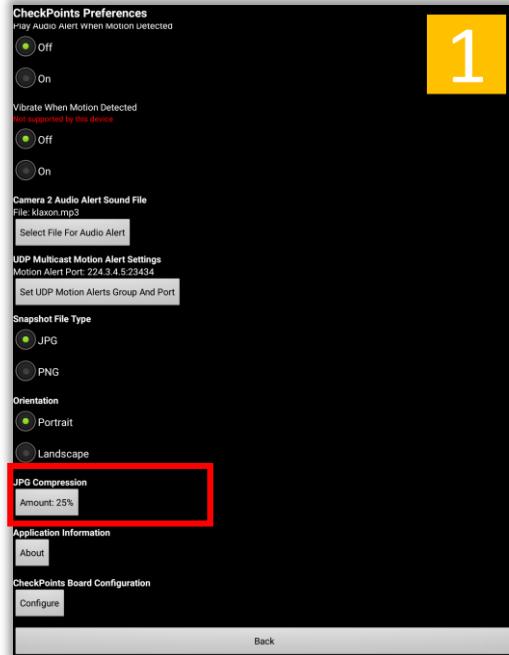
1



2

1. Locate Orientation.
2. **Tap** Portrait or Landscape to change the orientation of the app. The default value is Portrait. **Tap** Back at the bottom of the “CheckPoints Preferences” screen to return to the “CheckPoints Main” screen. You will have to restart the app to apply the orientation change.

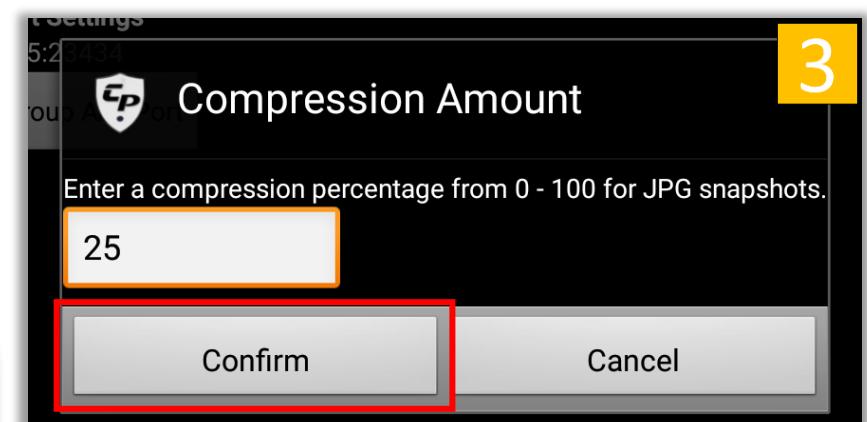
CheckPoints™ Standalone: Settings – JPG Compression



1



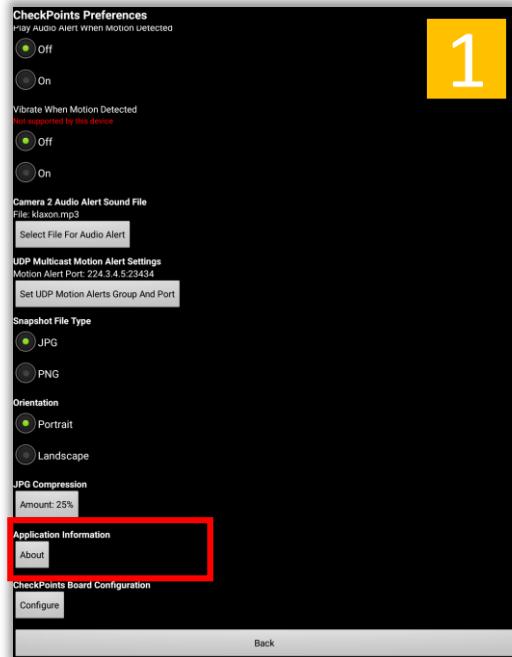
2



3

1. Locate JPG Compression.
2. Tap Amount to change the compression amount of the JPG snapshots.
3. Enter the new compression value. The default value is 25%.
Tap Confirm to accept the new value or Cancel to disregard.
Tap Back at the bottom of the "CheckPoints Preferences" screen to return to the "CheckPoints Main" screen.

CheckPoints™ Standalone: Settings – Application Information

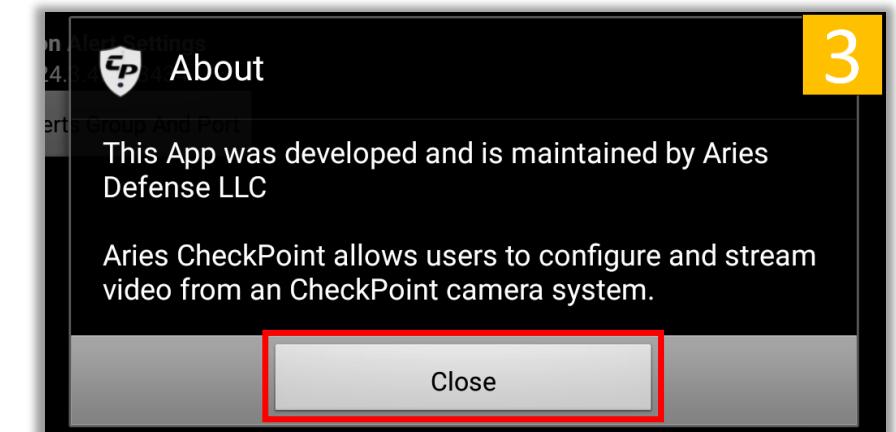


1



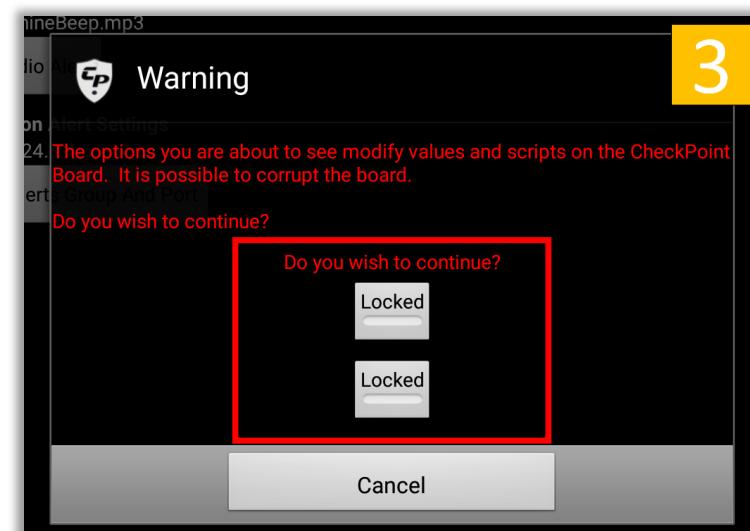
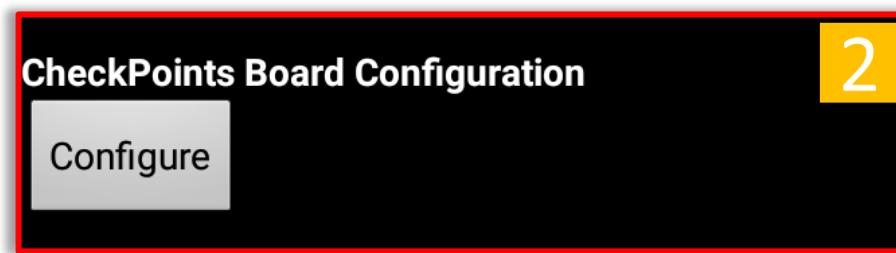
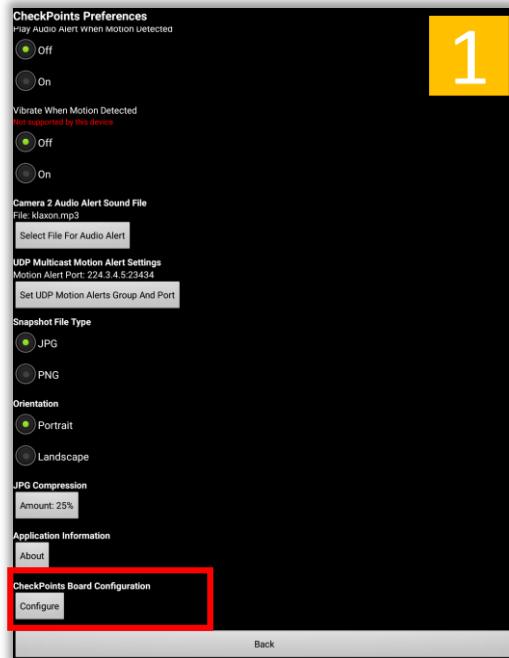
2

1. Locate Application Information.
2. Tap About to view the Application Information.
3. Tap Close to exit the About window. Tap Back on the bottom of the “CheckPoints Preferences” screen to return to the “CheckPoints Main” screen.



3

CheckPoints™ Standalone: Settings – Board Configuration



1. Locate CheckPoints™ Board Configuration.
2. Tap Configure
3. Read the warning message then **Tap** both Locked Buttons to set them to Confirm then tap Continue enter the Configuration Menu.
WARNING Entering in invalid settings could potentially render the system inoperable.



CheckPoints™ Board Configuration

CheckPoints™ Board Configuration - Overview



Please see “CheckPoints™ Settings – Board Configuration” on Page 20 and follow the steps to access the Board Configuration Menu. Configuring the preferences options in this section assumes the user has done this step.

The CheckPoints™ Board Configuration allows the user to:

- Set Camera Label
- Adjust Camera Framerate
- Toggle Motion Detection, Threshold, and Noise Level
- Change Motion Marker
- Modify IP Addresses and Ports

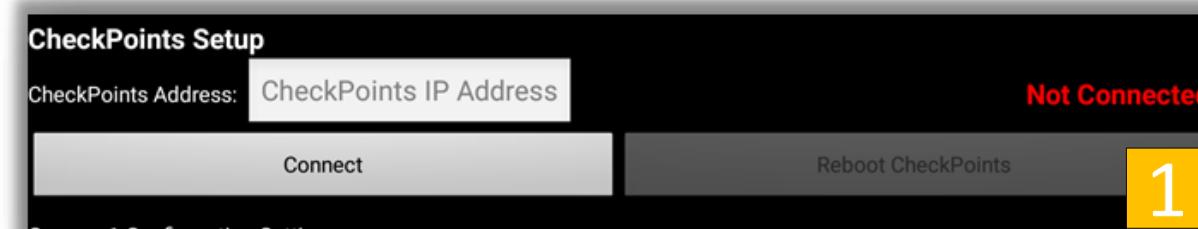
Remember – Cameras configurations are independent of each other. Changes must be done to BOTH cameras

****IMPORTANT***** After the configurations have been altered the board must be rebooted. This can be done by taping the Reboot CheckPoints Button. Close the CheckPoints™ App and relaunch once the EUD receives a DHCP IP Address from the CheckPoints™ Board.

Proceed with caution

The screenshot shows the "CheckPoints Setup" application interface. At the top, it displays the address "CheckPoints Address: 10.151.50.10" with a "Connected" status indicator. Below this is a "CheckPoints Configuration" section containing a "Configurations" button and a list of settings: Callsign: Sean, Cam 1 Name: CheckPoints_1, Cam 2 Name: CheckPoints_2, Publish MCH: true, Publish ATAK: true, Video Port 1: 8011, Video Port 2: 8012. The next section is "Camera Configuration", which includes "Camera 1" and "Camera 2" buttons, each with its own set of configuration parameters: Framerate: 30, Quality: 99, Detection: on, Threshold: 50, Noise: 32, Marker: redbox. The "Motion Alert Settings" section contains a "Motion Alerts" button and a list of notification parameters: UDP Group: 224.3.4.5, UDP Port: 23434, TCP Port: 1772, LTE Notification 1: true, LTE Notification 2: true, Notification Port: 1773. Finally, the "SA Network Settings" section includes an "SA Network" button and a list of network parameters: UDP Interval: 1, TCP Interval: 2, Timeout: 10, MCH UDP Group: 224.3.4.6, MCH UDP Port: 23435, MCH TCP Port: 1771, ATAK UDP Group: 224.3.4.1.

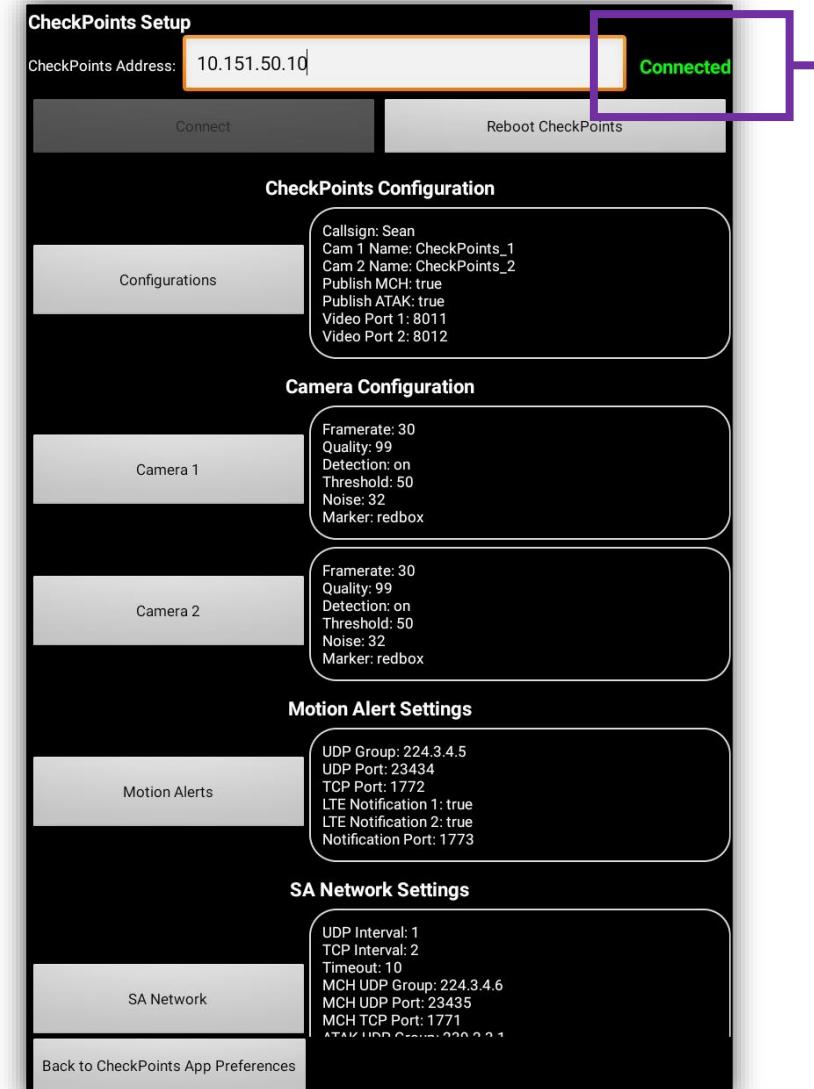
CheckPoints™ Board Configuration – Connect to Board



1. Enter the IP Address of the board. The Default IP Address is 10.151.50.10.
2. **Tap Connect.**

Connection Status:

Not Connected – The CheckPoints App is not logged into the Board
Connecting... – The CheckPoints App is trying to establish a logon session
Connected – The CheckPoints App is currently logged into the board.





CheckPoints™ Board Configuration

CheckPoints™ Configuration

CheckPoints™ Board Configuration – Camera Label



CheckPoints Configuration

1

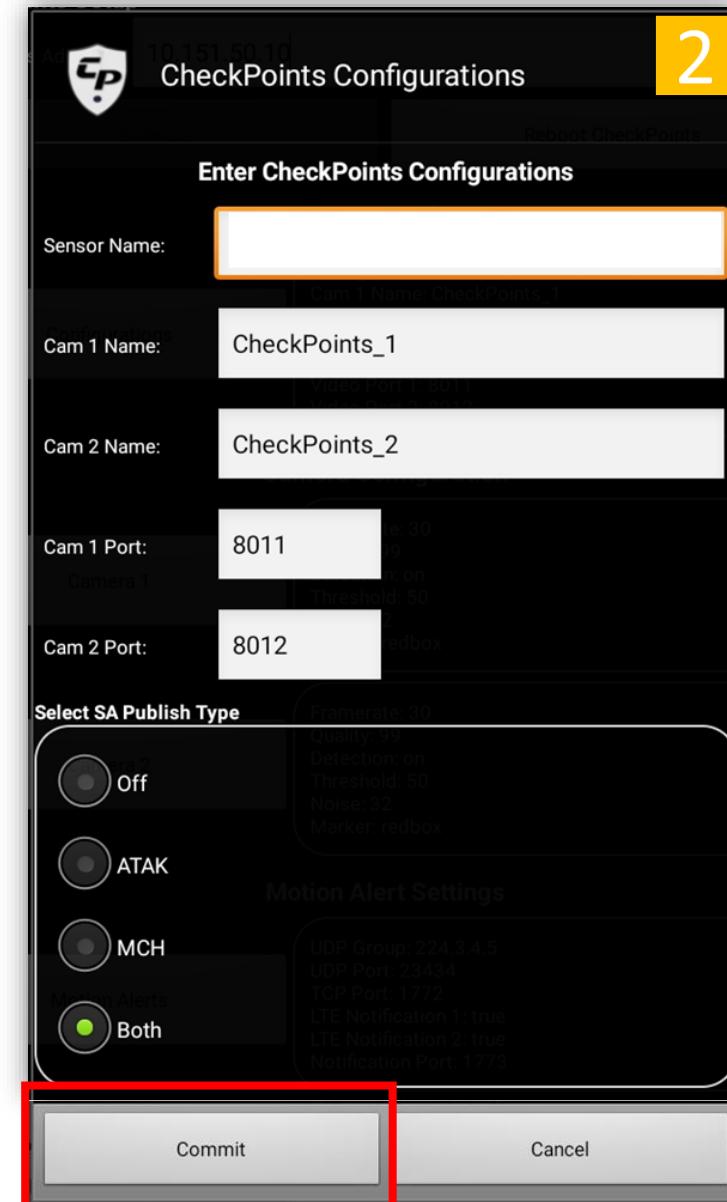
Configurations

Callsign: Sean
Cam 1 Name: CheckPoints_1
Cam 2 Name: CheckPoints_2
Publish MCH: true
Publish ATAK: true
Video Port 1: 8011
Video Port 2: 8012

1. Locate and tap Configurations Button under CheckPoints Configuration.
2. Toggle the new CheckPoints Configurations settings then tap Commit.

The SA Publish type will send situational awareness ports to either ATAK or MCH but can be set to publish to both (default setting)

You may continue to make changes to the board. When finished Tap the Reboot CheckPoints button.

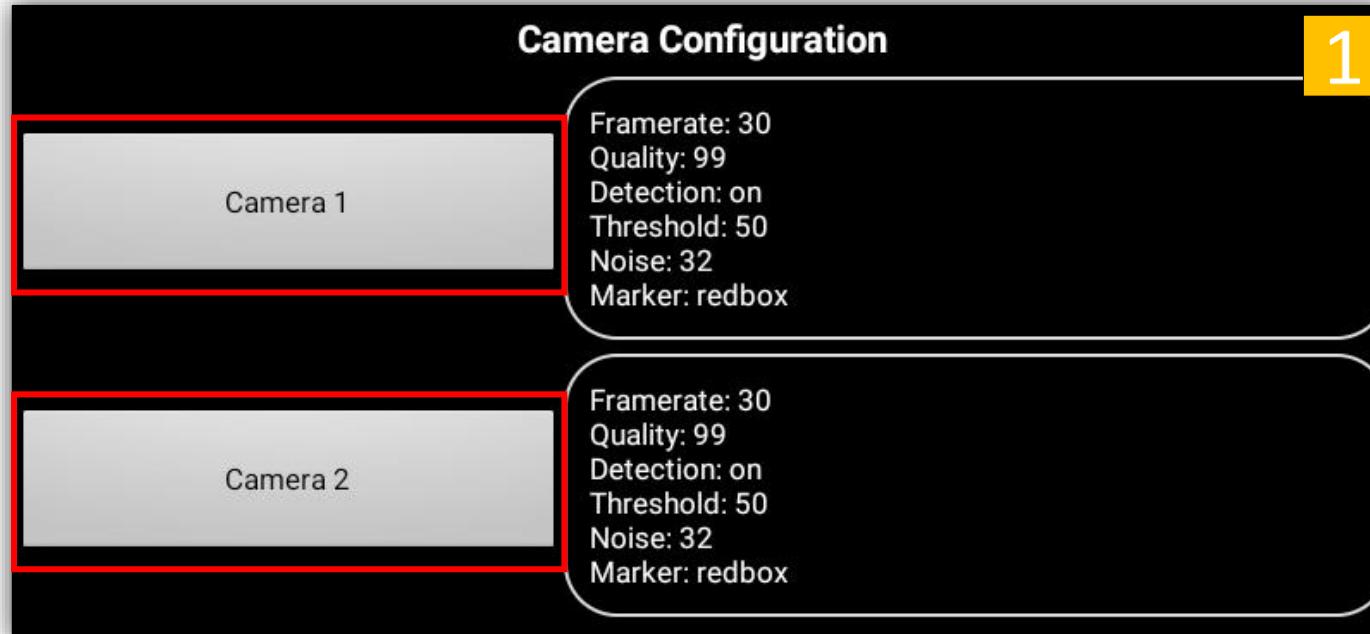




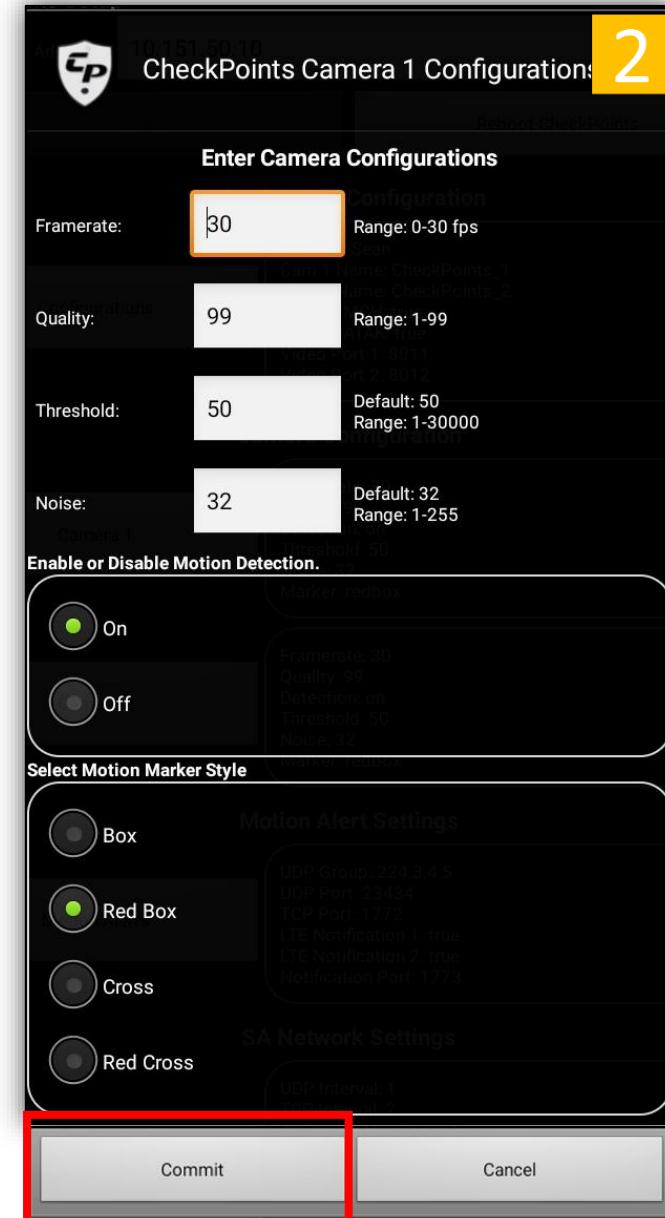
CheckPoints™ Board Configuration

Camera Configuration

CheckPoints™ Board Configuration – Camera Configuration



1



2

1. Tap either the Camera 1 or Camera 2 buttons to modify the camera configuration settings
2. Toggle the new Camera Configurations settings then **tap Commit**

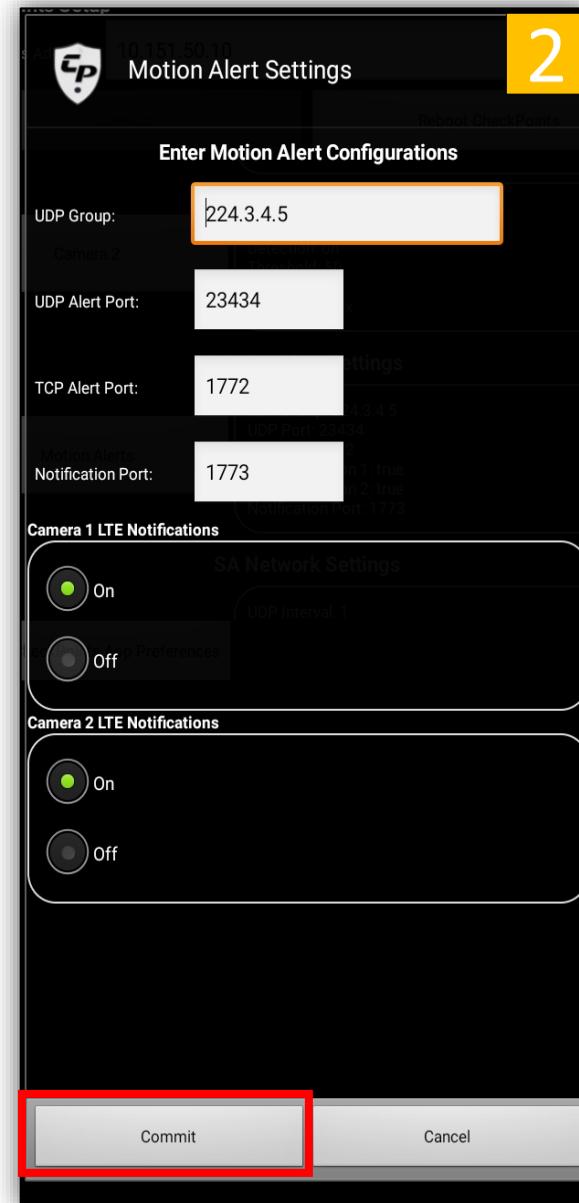
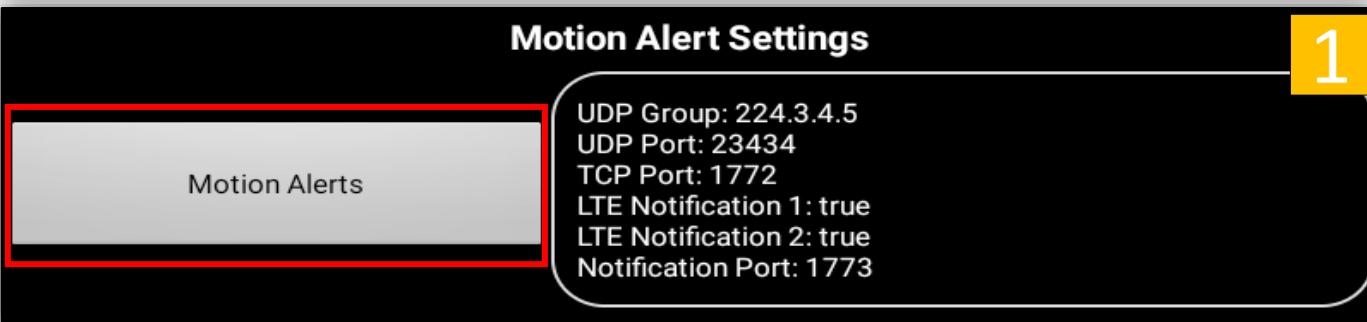
You may continue to make changes to the board. When finished **Tap** the Reboot CheckPoints button.



CheckPoints™ Board Configuration

CheckPoints™ Motion Alert Settings

CheckPoints™ Board Configuration – Motion Alert Settings



1. Locate and tap Motion Alerts Button under CheckPoints Configuration.
2. Toggle the new Motion Alerts Configurations settings then tap Commit.

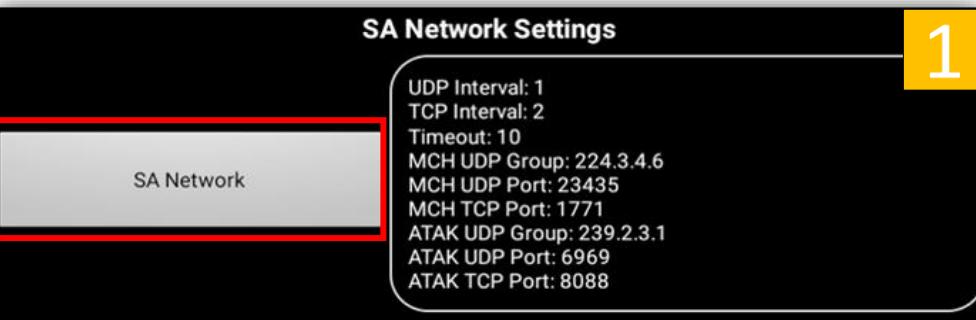
You may continue to make changes to the board. When finished Tap the Reboot CheckPoints button.



CheckPoints™ Board Configuration

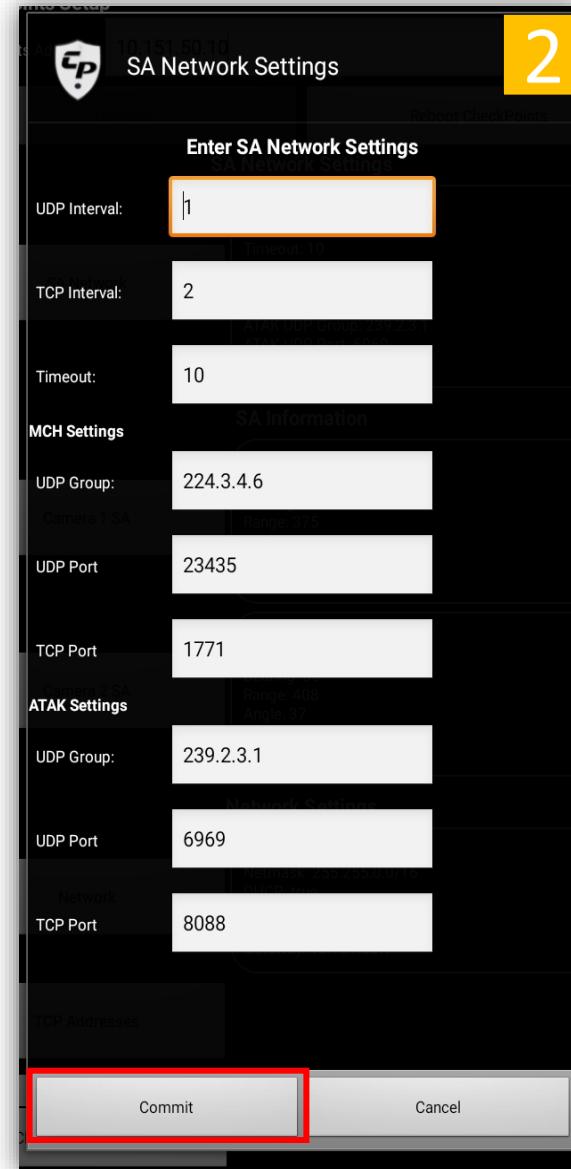
CheckPoints™ SA Network Settings

CheckPoints™ Board Configuration – SA Network Settings



1. Locate and tap SA Network Button under CheckPoints Configuration.
2. Change the new SA Network settings then tap Commit.

You may continue to make changes to the board. When finished Tap the Reboot CheckPoints button.

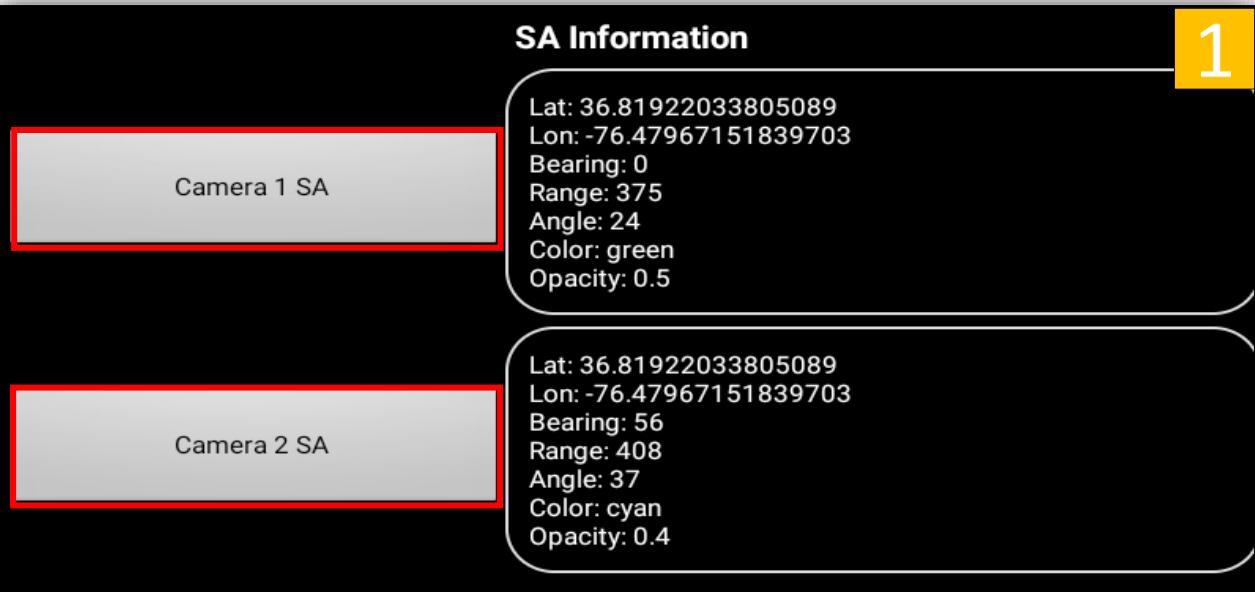




CheckPoints™ Board Configuration

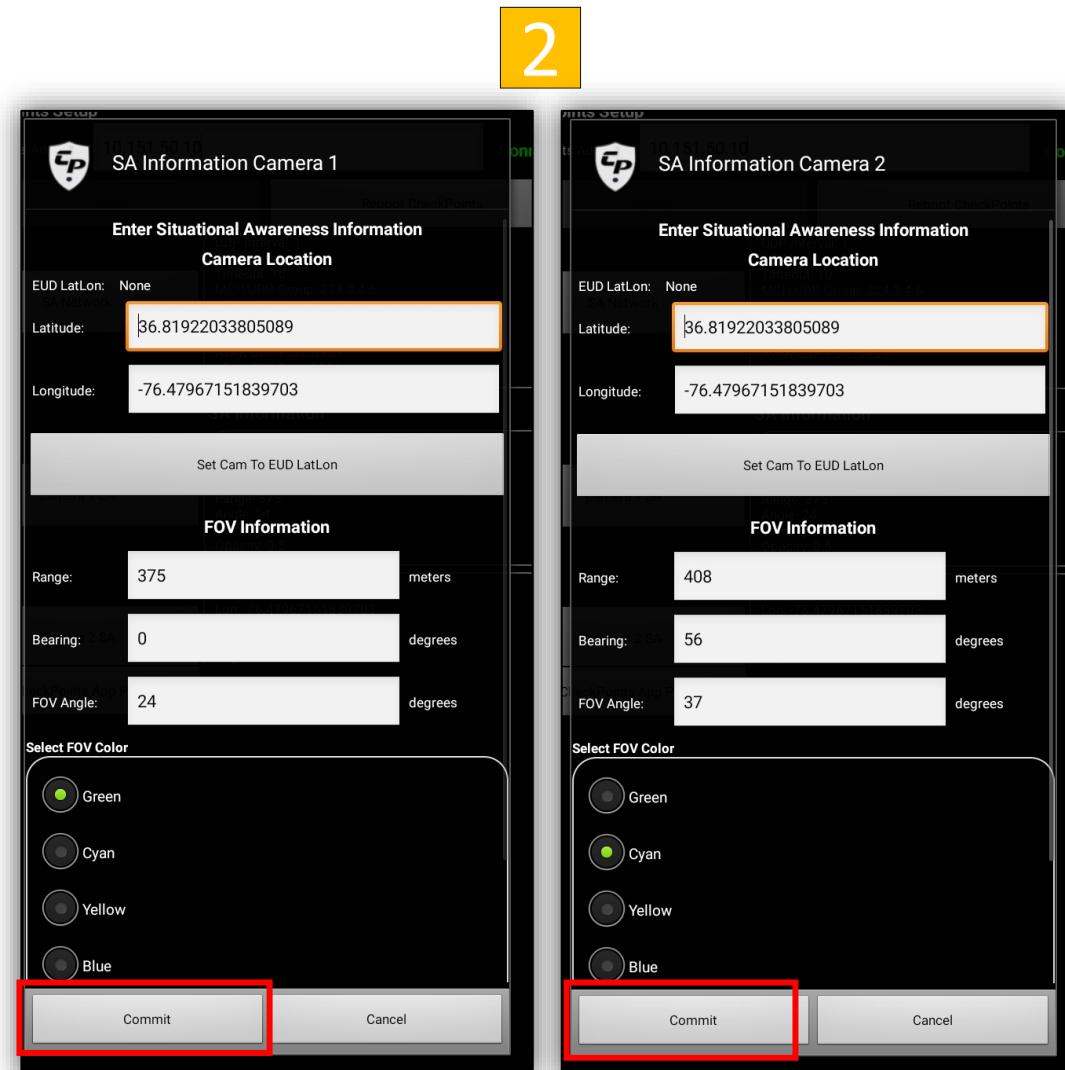
CheckPoints™ SA Information

CheckPoints™ Board Configuration – SA Information



1. Locate and **tap** Camera 1 or Camera 2 SA Button under CheckPoints Configuration.
2. Toggle the new Camera Sa Information then **tap** Commit.

You may continue to make changes to the board. When finished **Tap** the Reboot CheckPoints button.

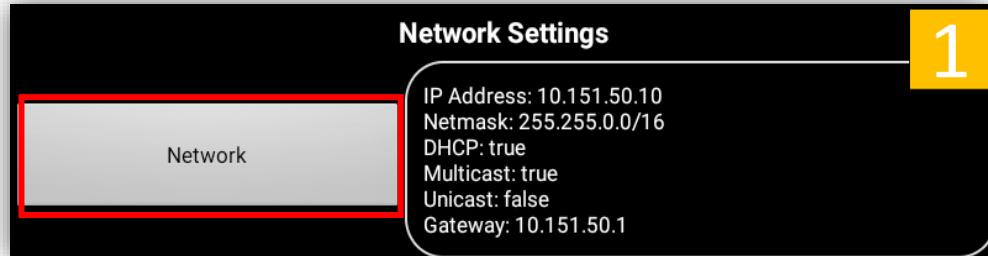




CheckPoints™ Board Configuration

CheckPoints™ Network Settings

CheckPoints™ Board Configuration – Network Settings



1. Locate and **tap** Network Settings Button under CheckPoints Configuration.
2. Toggle the new Network settings then **tap** Commit.

*If your network setup requires a gateway, please **tap** Unicast or Both under Network Protocol. This will unhide the gateway option.

Gateway:

You may continue to make changes to the board. When finished **Tap** the Reboot CheckPoints button.

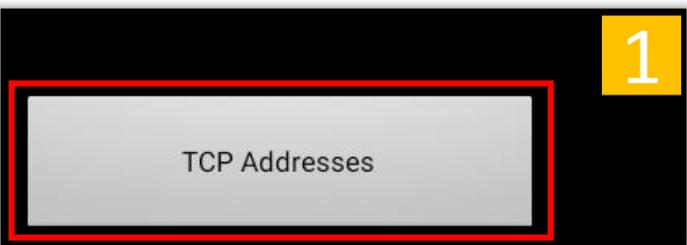




CheckPoints™ Board Configuration

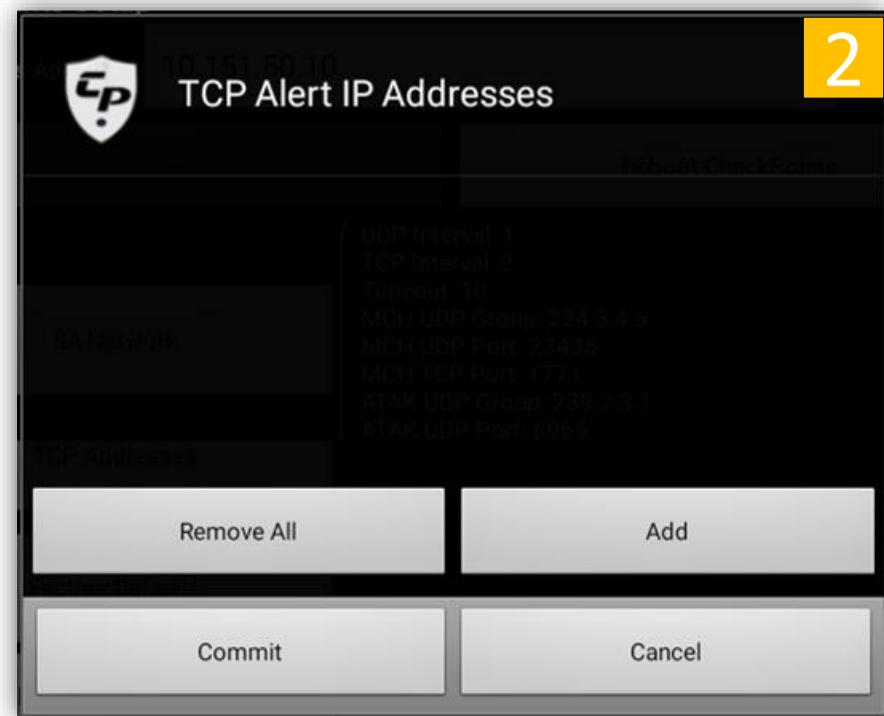
CheckPoints™ Other Settings

CheckPoints™ Board Configuration – TCP Address



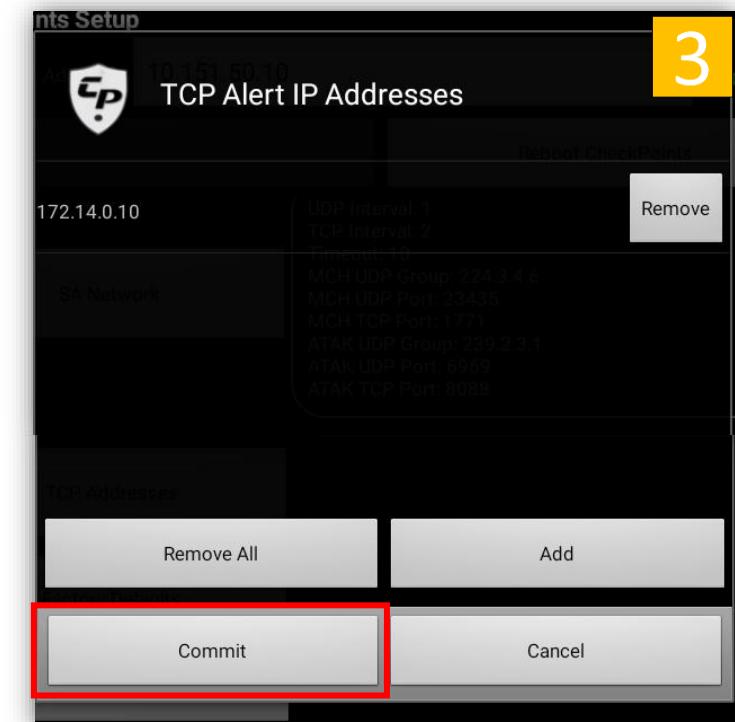
1. Locate and **tap** the TCP Addresses button under CheckPoints Configuration.
2. This menu will allow the user the ability to Add, Remove, and Commit IP addresses to receive TCP based alerts.

You may continue to make changes to the board. When finished **Tap** the Reboot CheckPoints button.



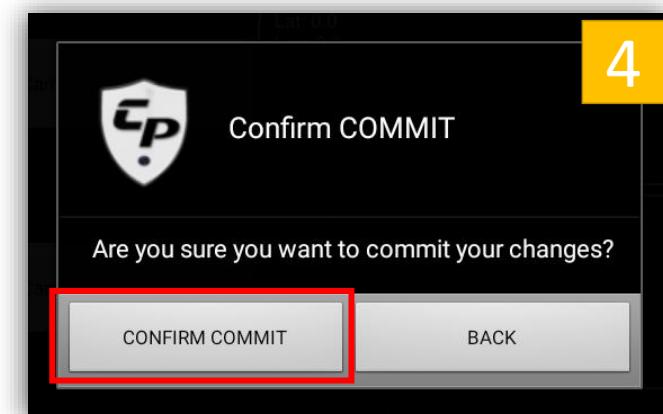
Button	Description
Remove All	Remove All IP Addresses in the list
Add	Add an IP address to receive TCP Alerts
Commit	Commit newly added TCP Addresses
Cancel	Cancel current actions.

CheckPoints™ Board Configuration – Add TCP Address.

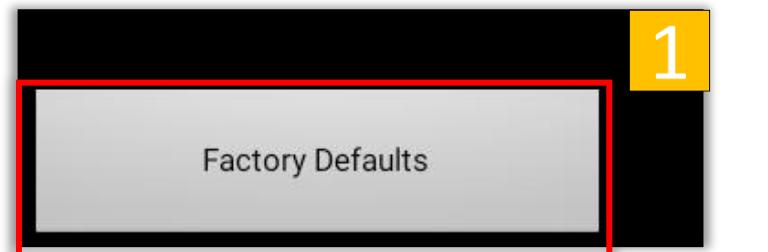


1. Locate and **tap** the Add button under TCP Alert IP Addresses Menu.
2. **Enter** an IP address to receive TCP Alerts then **tap** Confirm.
3. **Tap** Commit and then confirm commit to add the IP address

You may continue to make changes to the board. When finished **Tap** the Reboot CheckPoints **button**.



CheckPoints™ Board Configuration – Factory Reset



1. Locate and tap *Factory Defaults Button* under CheckPoints Configuration.
2. Read the items and make sure you are ready to reset the board and then tap the *Confirm Button*

