

OverWatch™ Standalone Application

Quick Reference Guide



OverWatch™ Overview



OverWatch™ Provides persistent video surveillance at the tactical edge. Networked to stream video through a tethered connection or broadcast over an encrypted tactical radio network. OverWatch™ will present a “live” view of the battlespace from a fixed and/or concealed position.

OverWatch™ reduces the risk of exposure and possible detection by allowing the user to leave the system behind and access the video stream remotely through Mobile Tactical & Command Post Systems. The system can be configured to broadcast tactical video and snap shots, as well as save the data to the End User Device (EUD).

OverWatch™ is a low-voltage capability powered through a micro USB connection or tethered to standard military batteries for extended operations. The system provides automatic network routing and multicast support for rapid deployment and ease of use.

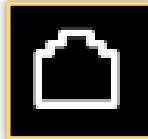


Before We Begin...



This document assumes the following:

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



This icon indicates the tablet/EUD detects a network connection



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

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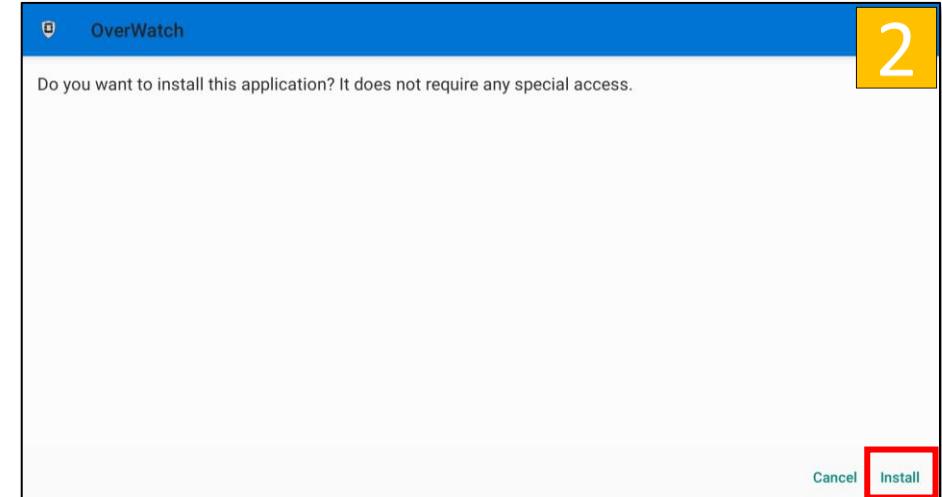
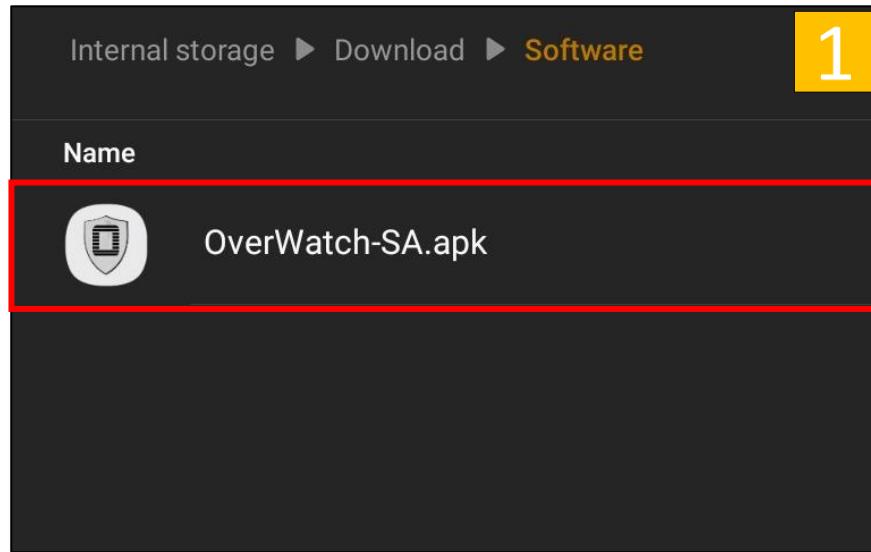
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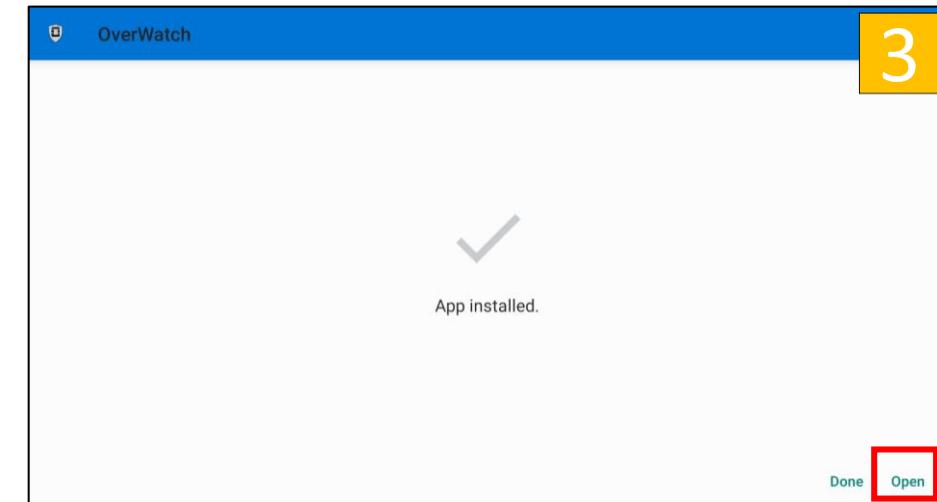


Install Overwatch™ Standalone App



1. Tap the Overwatch 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

Allow OverWatch to access photos, media, and files on your device?

1 of 2

Deny

1

Allow OverWatch to access this device's location?

2 of 2

Deny

2

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

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



Initial Camera Setup

1

Camera Name: Camera Name

http:// url port

Confirm Cancel

2

Camera Name: OW1

http:// 10.151.51.10 8011

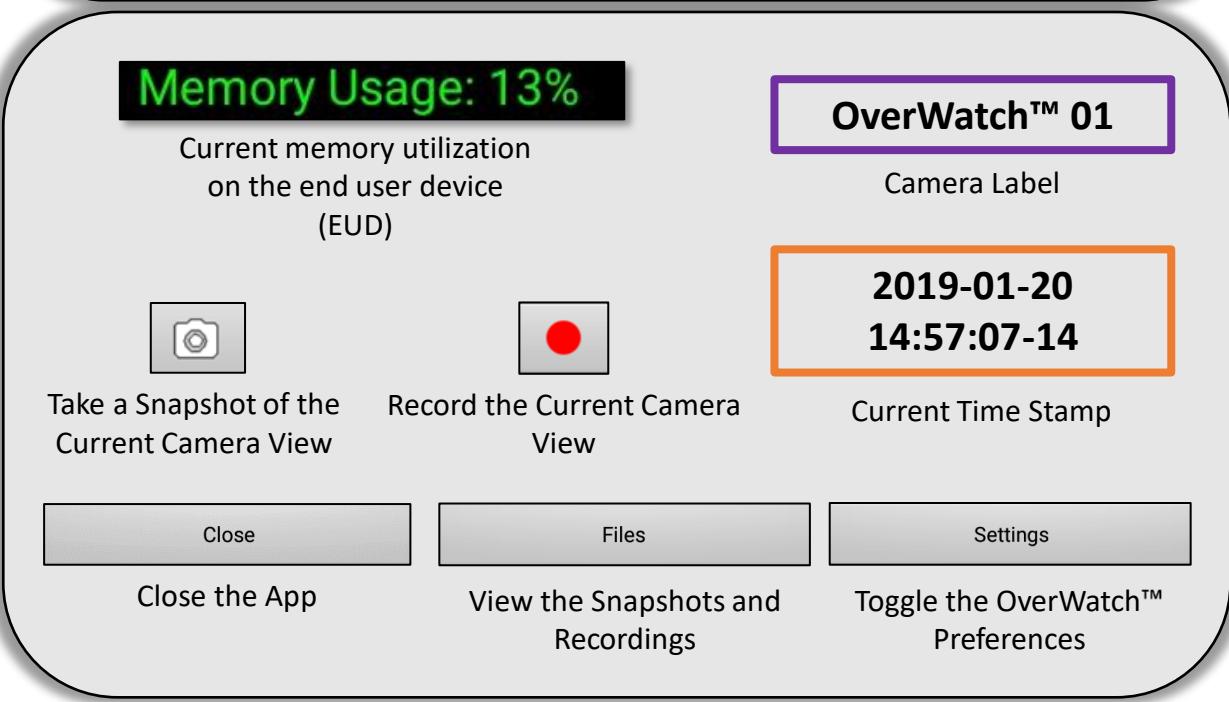
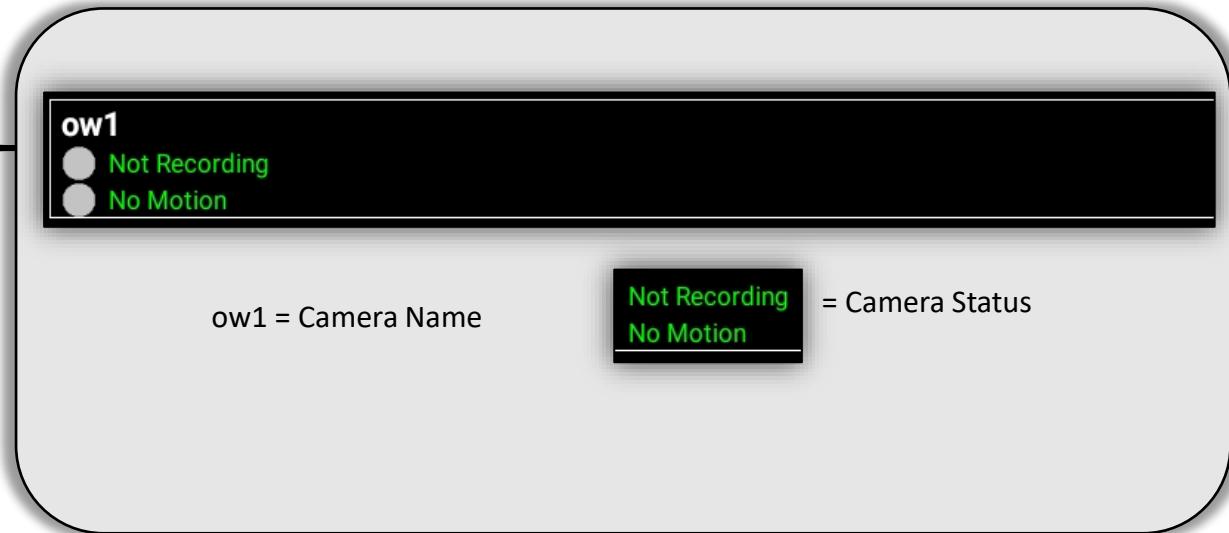
Confirm Cancel

1. **Enter** the Camera Names, URL, and Camera Ports:
 - Camera Names are user defined.
 - The Default Camera URL is: 10.151.51.10.
 - The Default Port is 8011.
2. **Tap** Confirm to continue.

OverWatch™ Standalone User Interface



OverWatch™ Standalone Quick Reference Guide



OverWatch™ Motion Detection



The Camera 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 OverWatch™ 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.

OverWatch™ Camera Status Matrix



No Motion Detected	Motion Detected not recording	Motion Detected Auto recording
ow1  Not Recording  No Motion	ow1  Not Recording  Motion Detected	ow1  Recording  Motion Detected

No Motion Detected -- Motion has not been detected by the OverWatch™ system

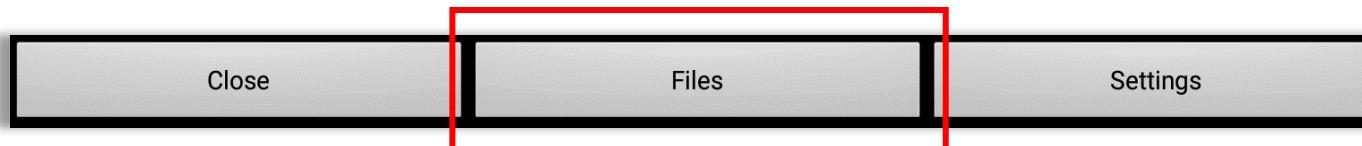
Motion Detected -- Motion has been detected by the OverWatch™ System

Recording -- The OverWatch™ system is recording camera footage while there is motion detected



OverWatch™ Standalone: Files

OverWatch™ Standalone: Files Overview



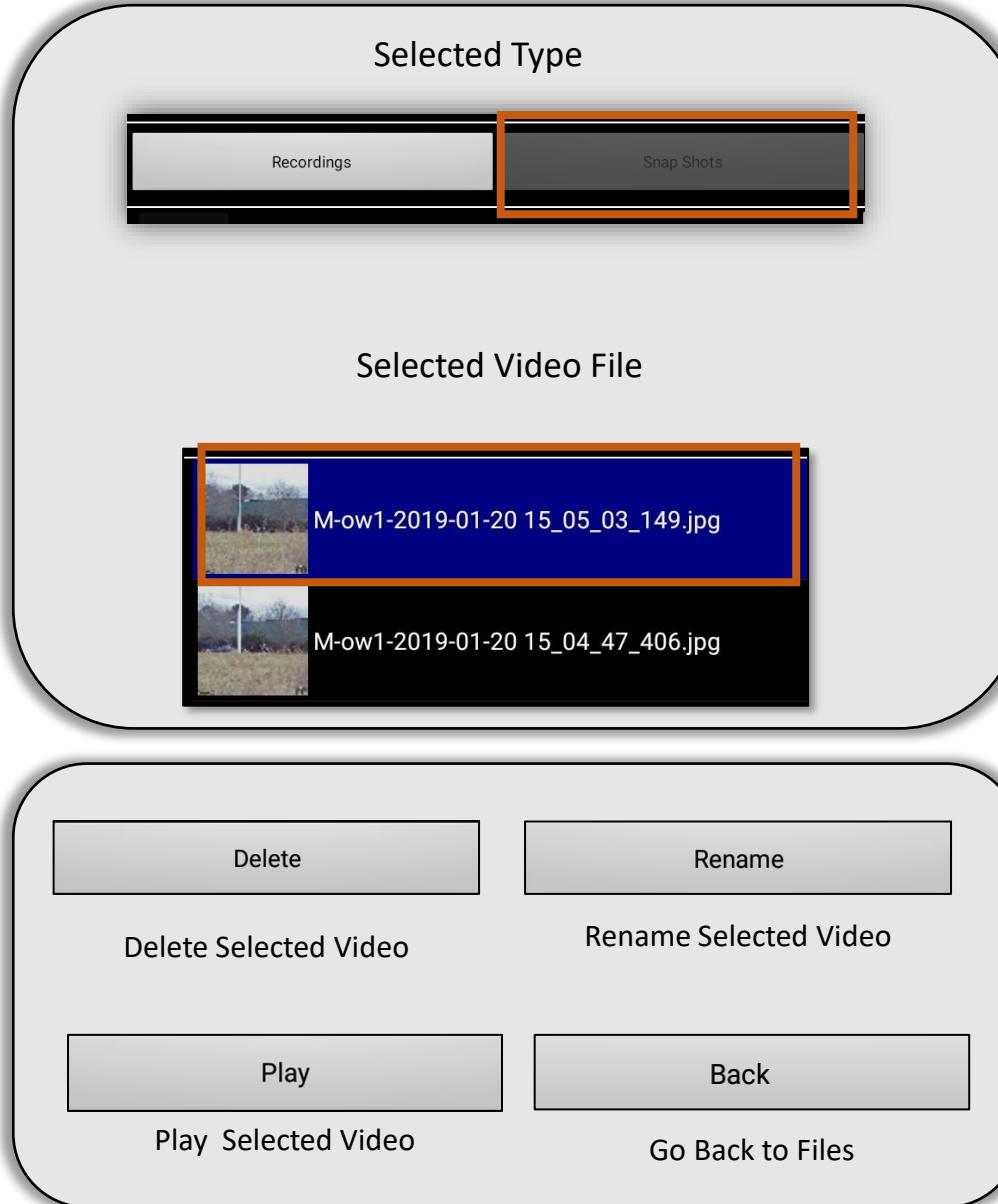
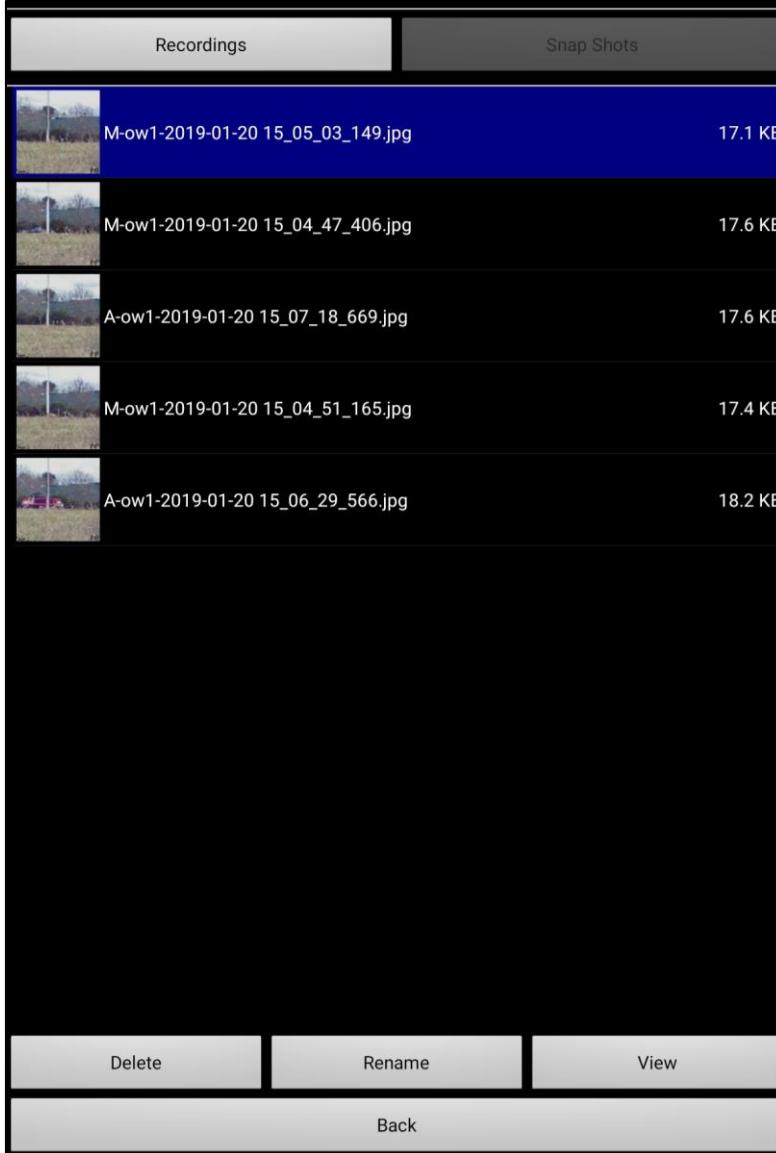
The OverWatch Files allows users to view snapshots and recordings. These files are either manually created using the snapshot or record buttons from the main interface or by toggling the OverWatch™ settings to automatically record when motion is detected. Files tagged with A_ were automatically captured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



Recordings	Snap Shots
	M-ow1-2019-01-20 15_05_03_149.jpg 17.1 KB
	M-ow1-2019-01-20 15_04_47_406.jpg 17.6 KB
	A-ow1-2019-01-20 15_07_18_669.jpg 17.6 KB
	M-ow1-2019-01-20 15_04_51_165.jpg 17.4 KB
	A-ow1-2019-01-20 15_06_29_566.jpg 18.2 KB

Below the table are three buttons: Delete, Rename, and View. A large blue button labeled Back is at the bottom.

OverWatch™ Standalone: Files - Recordings



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



Video Recording File Syntax

M ow1 2019-01-20-15_05_26_833 MP4

1 2 3 4

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

1 of 7

Current file of total files

Video Progress Bar

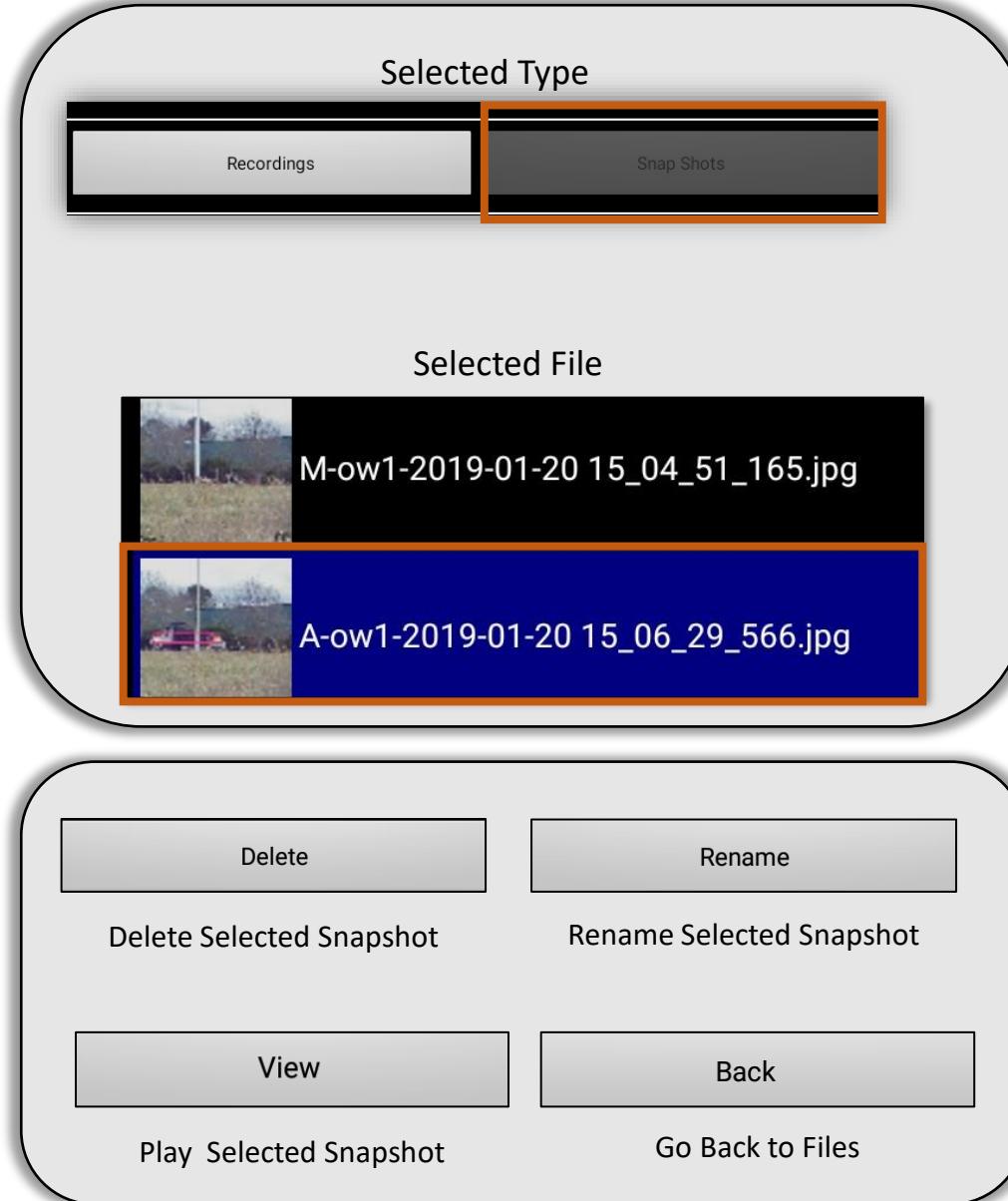
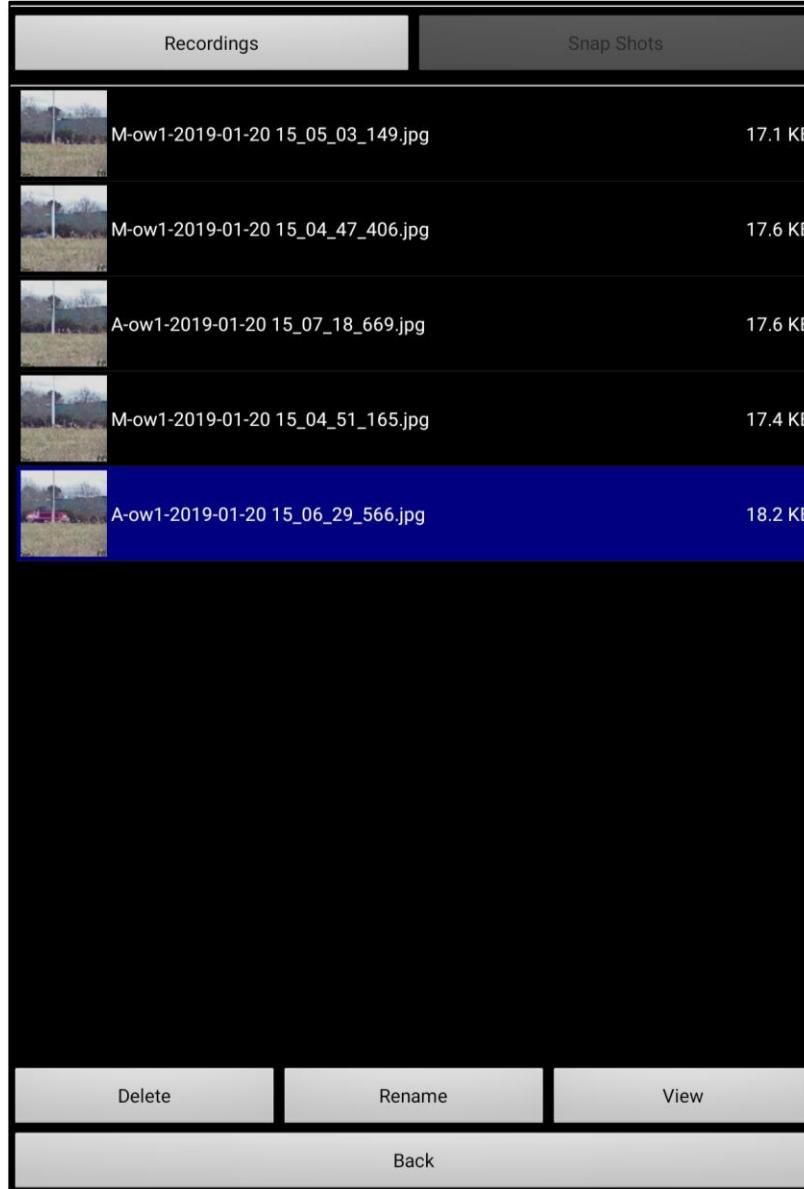
Previous Next

Go to Previous Video Go to Next Video

Play / Stop Video Back

Go Back to Files

OverWatch™ Standalone: Files - Snapshots



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



Video Recording File Syntax

A ow1 2019-01-20-15_06_29_566 JPG

1 2 3 4

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

5 of 5

Current file of total files

Previous Next

Go to Previous Snapshot Go to Next Snapshot

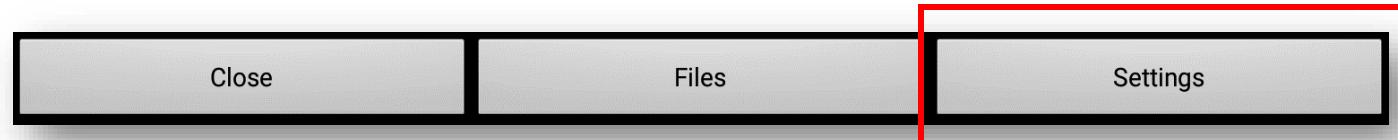
Back

Go Back to Files



OverWatch™ Standalone: Settings

OverWatch™ Standalone: Settings Overview



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

The OverWatch™ 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 OverWatch™ App
- Configure the Settings on the OverWatch™ board (**ADVANCED**)*

*This should be done with extreme caution!

OverWatch Preferences

Camera Settings
Camera: OW1 - Http://10.151.51.10:8011
Set IP Address

UDP Multicast Motion Alert Settings
Motion Alert Port: 224.3.4.5:23434
Set UDP Motion Alerts Group And Port

General Motion Alert Settings
Record Video When Motion Detected
 Off
 On

Take Snap Shot When Motion Detected
 Off
 On

Play Audio Alert When Motion Detected
 Off
 On

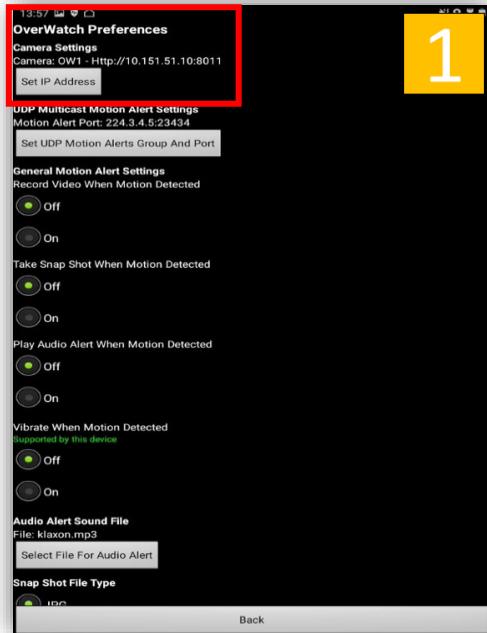
Vibrate When Motion Detected
Supported by this device
 Off
 On

Audio Alert Sound File
File: klaxon.mp3
Select File For Audio Alert

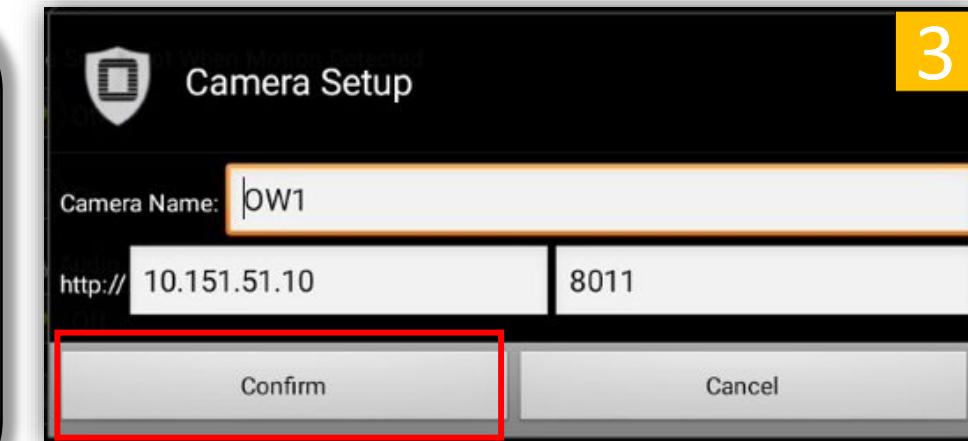
Snap Shot File Type
 JPG
 ICO

Back

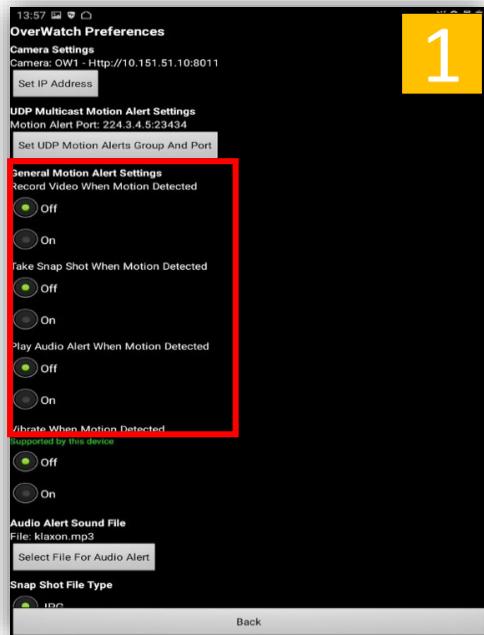
OverWatch™ Standalone: Settings – Camera Setup



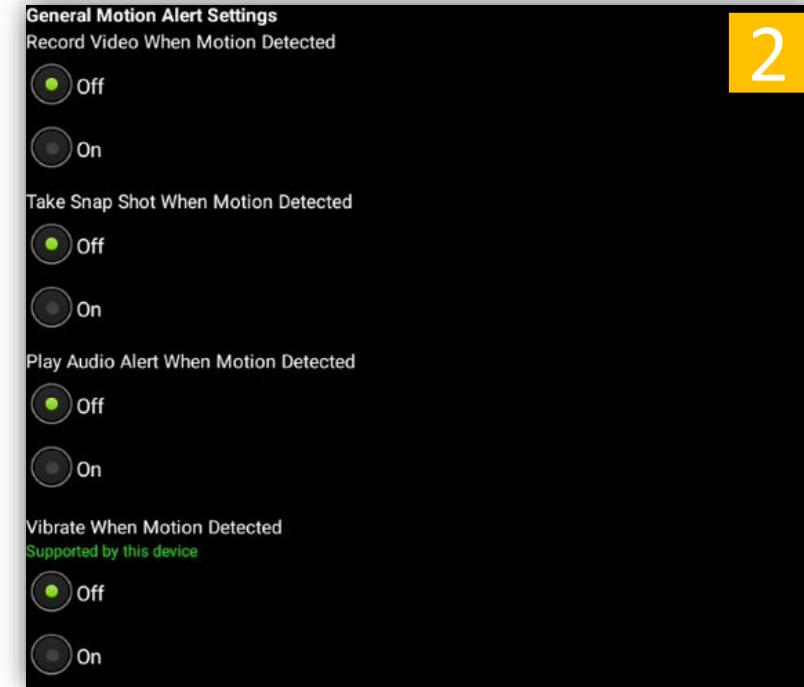
1. Locate Camera Settings in the OverWatch™ Preferences.
2. Tap Set IP Address.
3. Change the Camera Setup parameters as needed. Tap Confirm to save the new settings. Tap Back at the bottom of the “OverWatch Preferences” screen to return to the “OverWatch Main” screen.



OverWatch™ Standalone: Settings – Motion Alert Settings



1

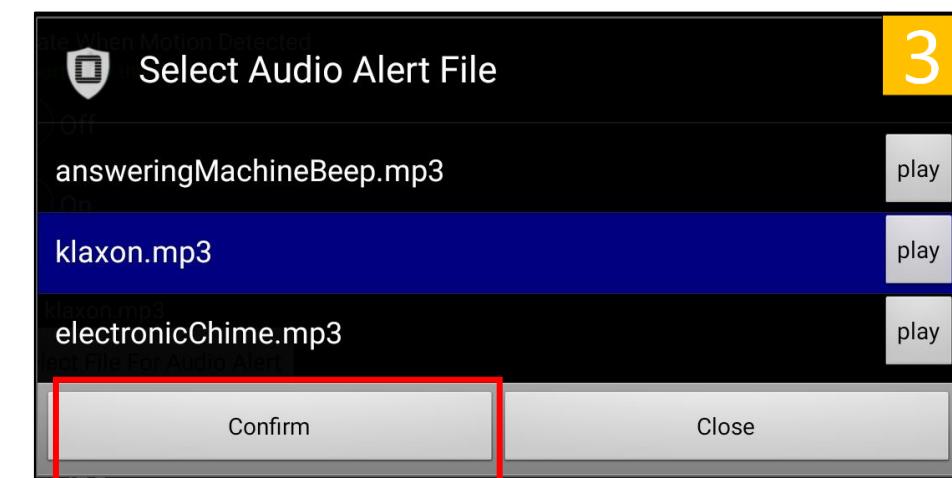
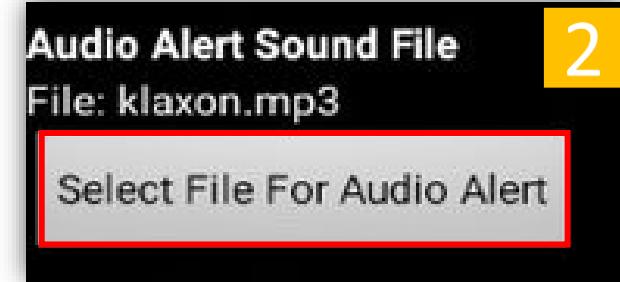
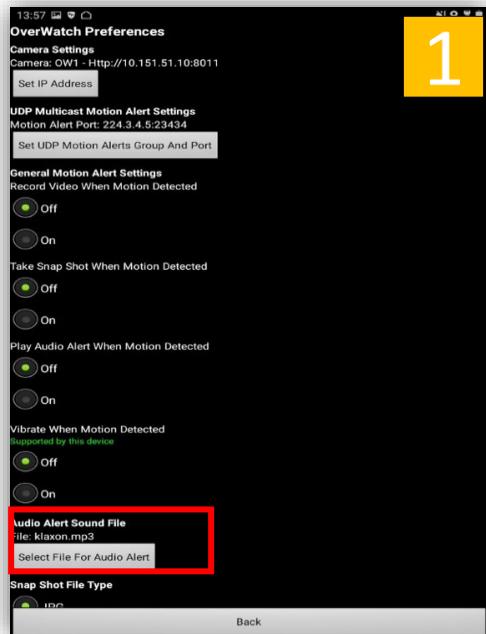


2

1. Locate the General Motion Alert Settings.
2. ***Toggle Camera Motion Alert Settings*** from Off to On as desired. ***Tap Back*** at the bottom of the “OverWatch Preferences” screen to return to the OverWatch Main” screen.

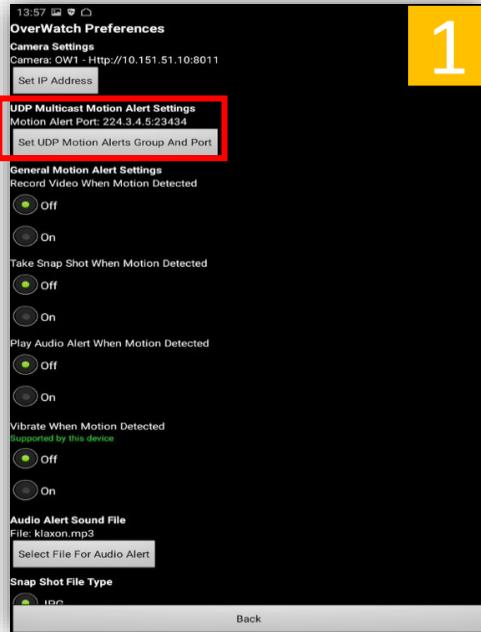
The OverWatch™ App provides visual, haptic, and audio alerts to users when the system detects motion.

OverWatch™ Standalone: Settings – Audio Alert Sound File

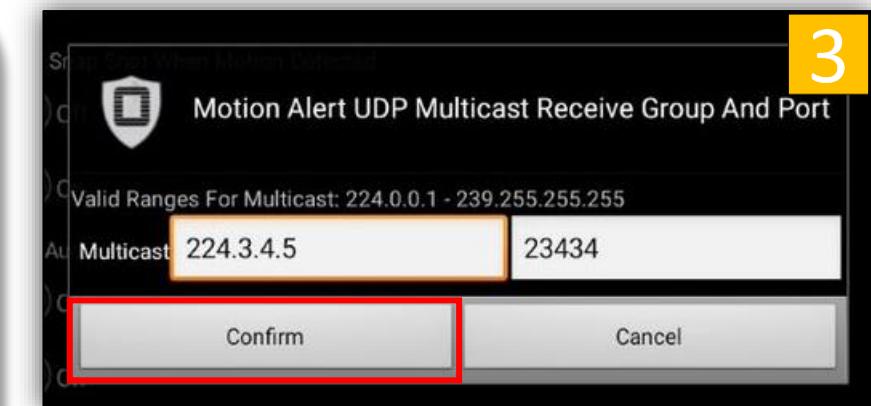
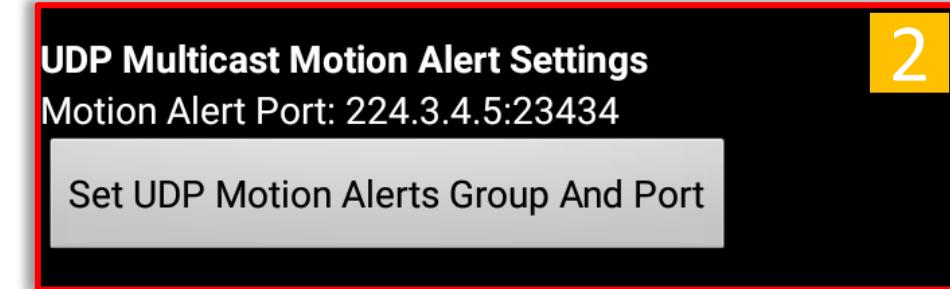


1. Locate the Audio Alert Sound File.
2. ***Tap Select File For Audio Alert.***
3. ***Tap the desired Audio Alert File***
then ***tap Confirm. Tap Back*** at the bottom of the “OverWatch Preferences” screen to return to the “OverWatch Main” screen.

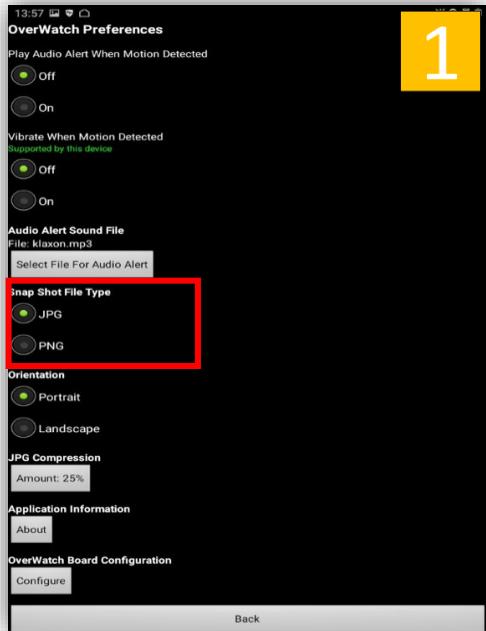
OverWatch™ Standalone: Settings – UDP Multicast Motion Alert Settings*



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 “OverWatch Preferences” screen to return to the “OverWatch Main” screen.



OverWatch™ Standalone: Settings – Snapshot File Type



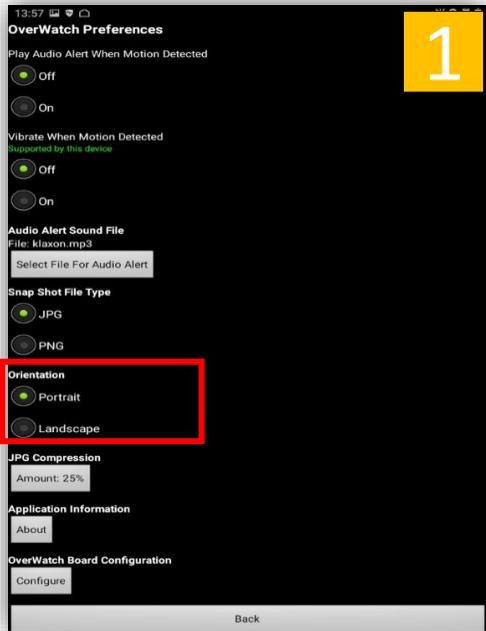
1



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 “OverWatch Preferences” screen to return to the “OverWatch Main” screen.

OverWatch™ Standalone: Settings – Orientation



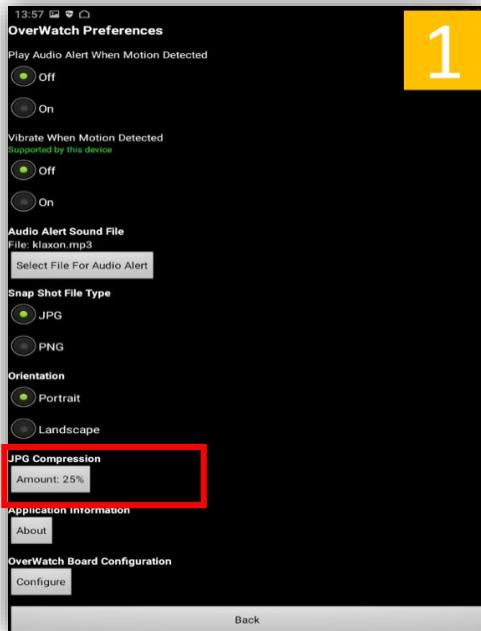
1



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 “OverWatch Preferences” screen to return to the “OverWatch Main” screen. You will have to restart the app to apply the orientation change.

OverWatch™ Standalone: Settings – JPG Compression



1



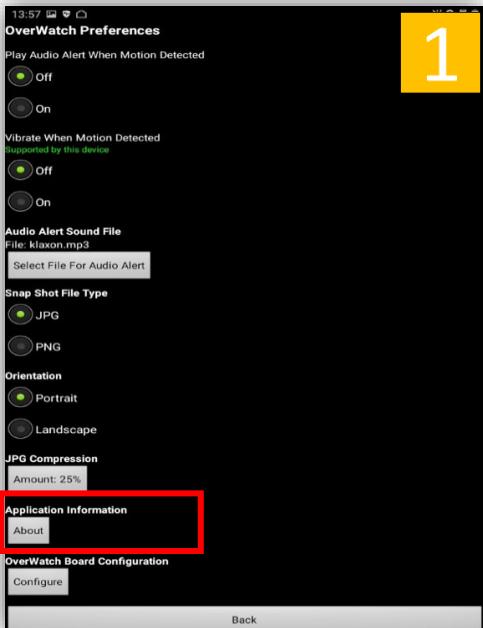
2



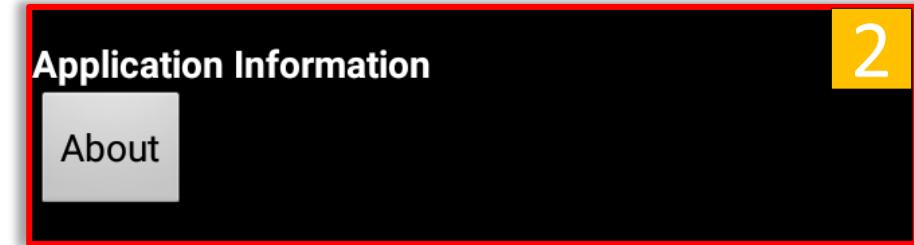
3

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 “OverWatch Preferences” screen to return to the “OverWatch Main” screen.

OverWatch™ Standalone: Settings – Application Information

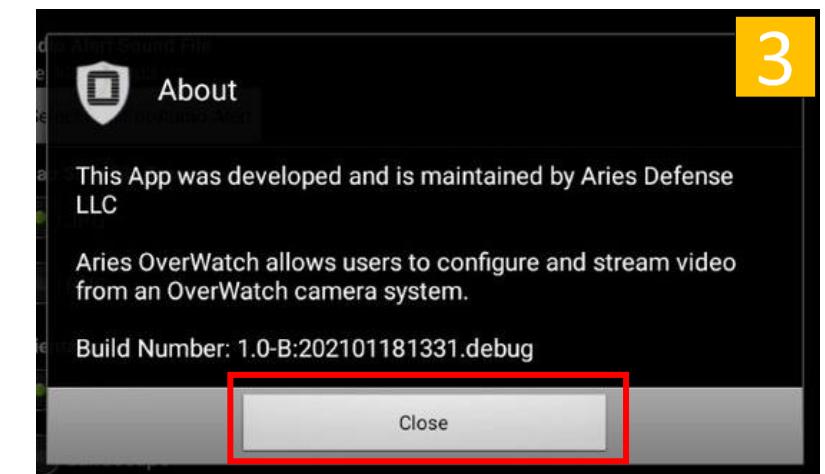


1



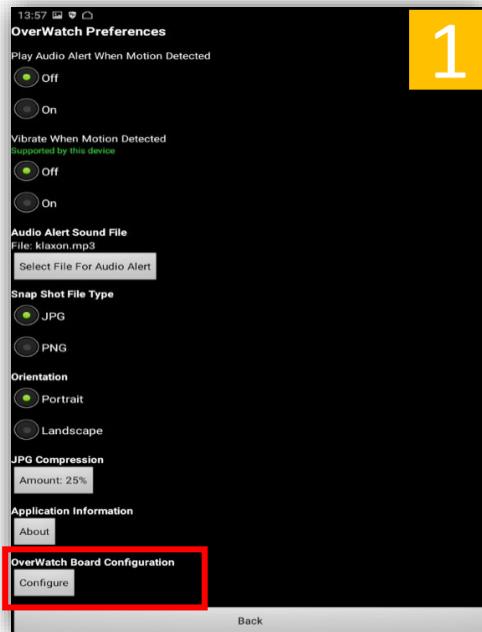
2

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 “OverWatch Preferences” screen to return to the “OverWatch Main” screen.

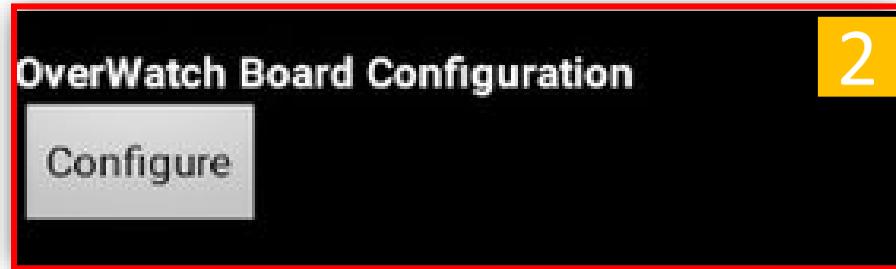


3

OverWatch™ Standalone: Settings – Board Configuration



1



2



3



1. Locate OverWatch 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.



OverWatch™ Board Configuration

OverWatch™ Board Configuration - Overview



Please see “OverWatch™ 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 OverWatch™ 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

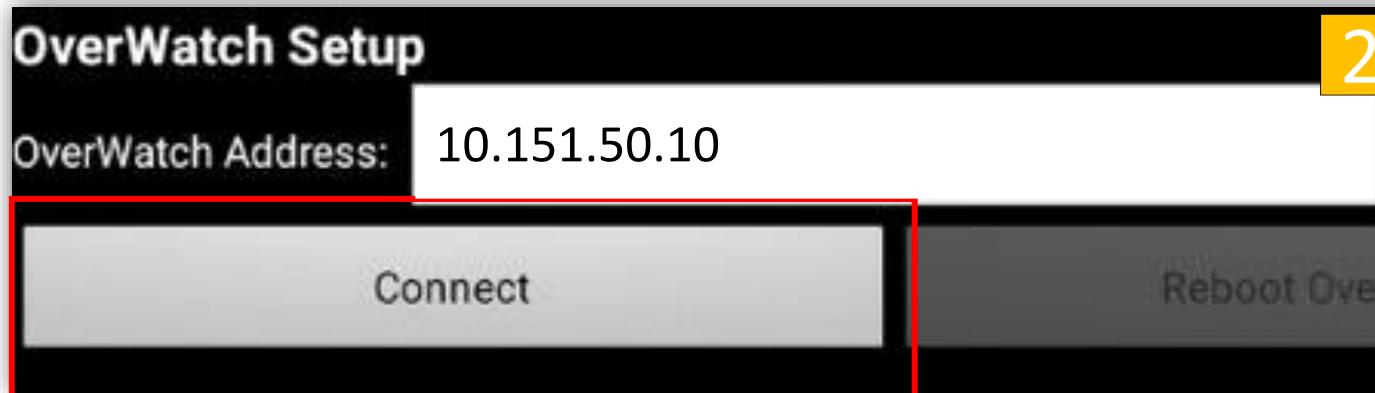
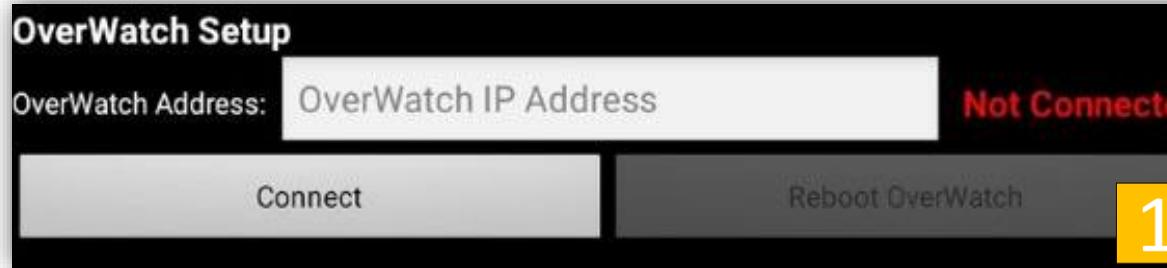
****IMPORTANT**** After the configurations have been altered the board must be rebooted. This can be done by **taping** the *Reboot OverWatch™ Button*. Close the OverWatch™ App and relaunch once the EUD receives a DHCP IP Address from the OverWatch™ Board.

Proceed with caution

The screenshot shows the OverWatch Board Configuration app interface. At the top, it displays the OverWatch Address as 10.151.51.10 with a green "Connected" status. Below this is a "Connect" button and a "Reboot OverWatch" button. The main area is divided into several sections: "OverWatch Configuration" (highlighted), "Camera Configuration", "Motion Alert Settings", "SA Network Settings", and "SA Information". Each section contains specific configuration parameters. A "Back to OverWatch App Preferences" button is at the bottom.

Section	Parameter	Value
OverWatch Configuration	Callsign	OW_1
	Cam Name	OverWatch_1
	Publish MCH	true
	Publish ATAK	true
	Video Port	8011
Camera Configuration	Framerate	30
	Quality	75
	Detection	on
	Threshold	50
	Noise	32
Motion Alert Settings	Marker	redbox
	UDP Group	224.3.4.5
	UDP Port	23434
	TCP Port	1775
	LTE Notification	true
SA Network Settings	Notification Port	1774
	UDP Interval	1
	TCP Interval	2
	Timeout	10
	MCH UDP Group	224.3.4.6
SA Information	MCH UDP Port	23435
	MCH TCP Port	1776
	ATAK UDP Group	239.2.3.1
	ATAK UDP Port	6969
	ATAK TCP Port	8089

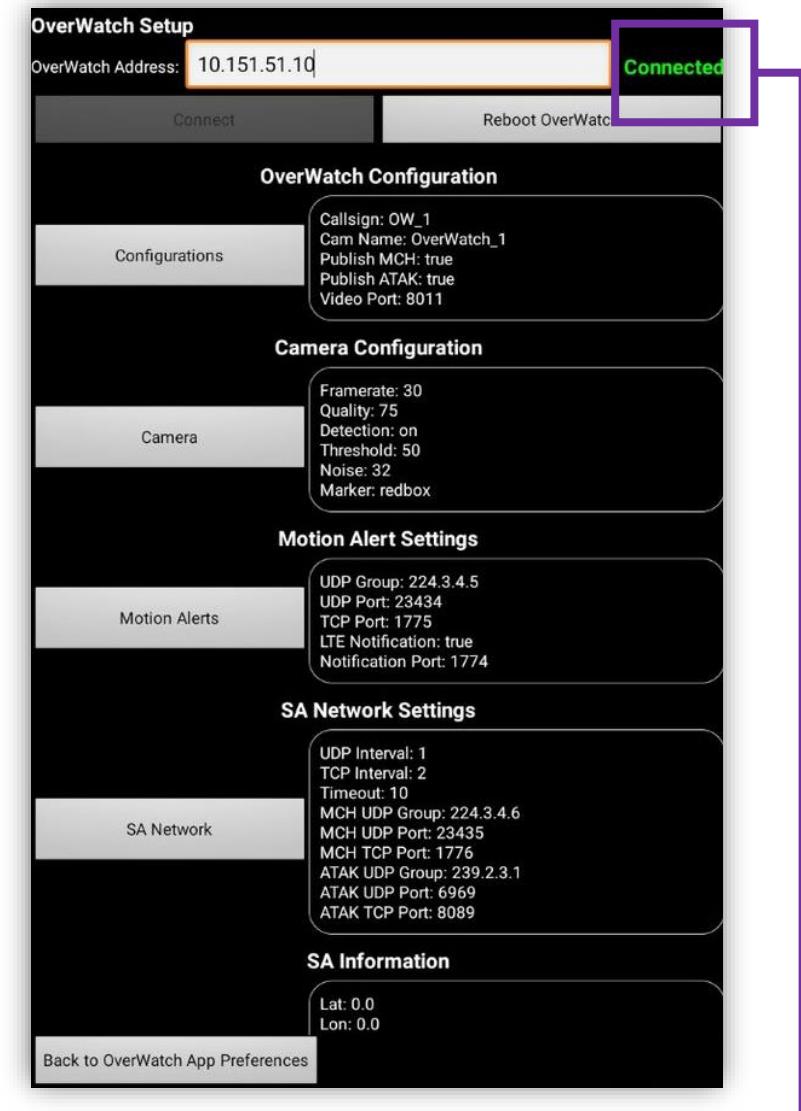
OverWatch™ Board Configuration – Connect to Board



1. Enter the IP Address of the board. The Default IP Address is 10.151.51.10.
2. **Tap Connect.**

Connection Status:

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





OverWatch™ Board Configuration

OverWatch™ Configuration

OverWatch™ Board Configuration – Camera Label



OverWatch Configuration

1

Configurations

Callsign: OW_1
Cam Name: OverWatch_1
Publish MCH: true
Publish ATAK: true
Video Port: 8011

1. Locate and tap Configurations Button under OverWatch™ Configuration.
2. Toggle the new OverWatch™ 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 OverWatch™ button.



OverWatch Configurations

2

Enter OverWatch Configurations

Board Name: OW_1

Cam Name: OverWatch_1

Cam Port: 8011

Select SA Publish Type

- Off
- ATAK
- MCH
- Both

Quality: 75
Desired: on
Threshold: 50
Hyst: 37
Marker: reduction

Motion Alert Settings

SA IP Group: 128.3.4.5
SA IP Port: 1234
TCP Port: 1725
SA IP Address: 128.3.4.5
Notification Port: 1724

SA Network Settings

JDP Interval: 1
TCP Interval: 2
Timeout: 10
MCH UDP Group: 224.9.4.4
MCH UDP Port: 23138
MCH TCP Port: 1725
ATAK UDP Group: 229.2.2.1
ATAK UDP Port: 6909
ATAK TCP Port: 6909

SA Information

Commit

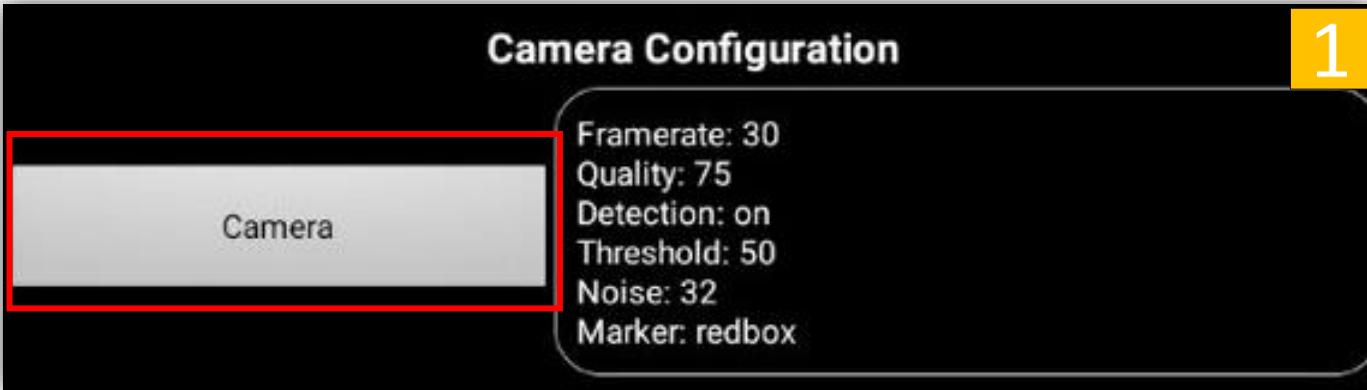
Cancel



OverWatch™ Board Configuration

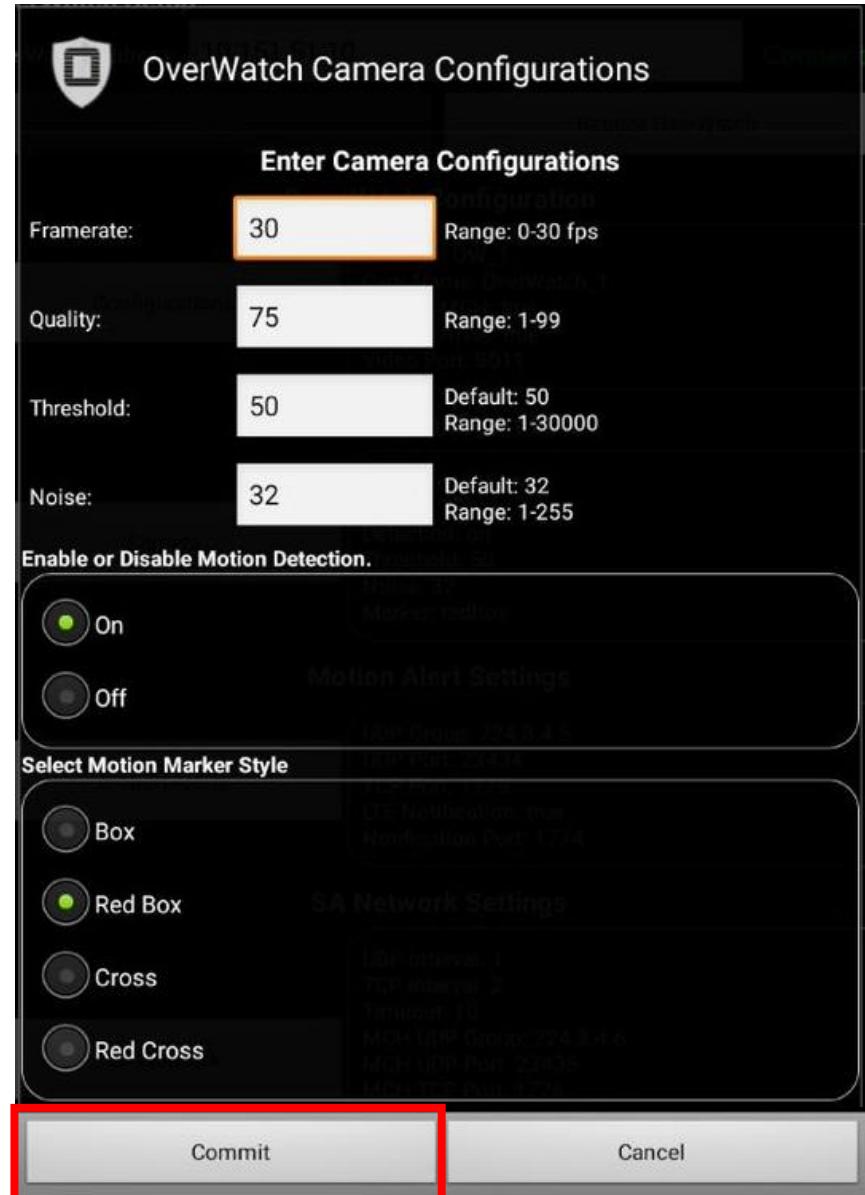
Camera Configuration

OverWatch™ Board Configuration – Camera Configuration



1. Tap the Camera button 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 OverWatch™ button.





OverWatch™ Board Configuration

OverWatch™ Motion Alert Settings

OverWatch™ Board Configuration – Motion Alert Settings



Motion Alert Settings

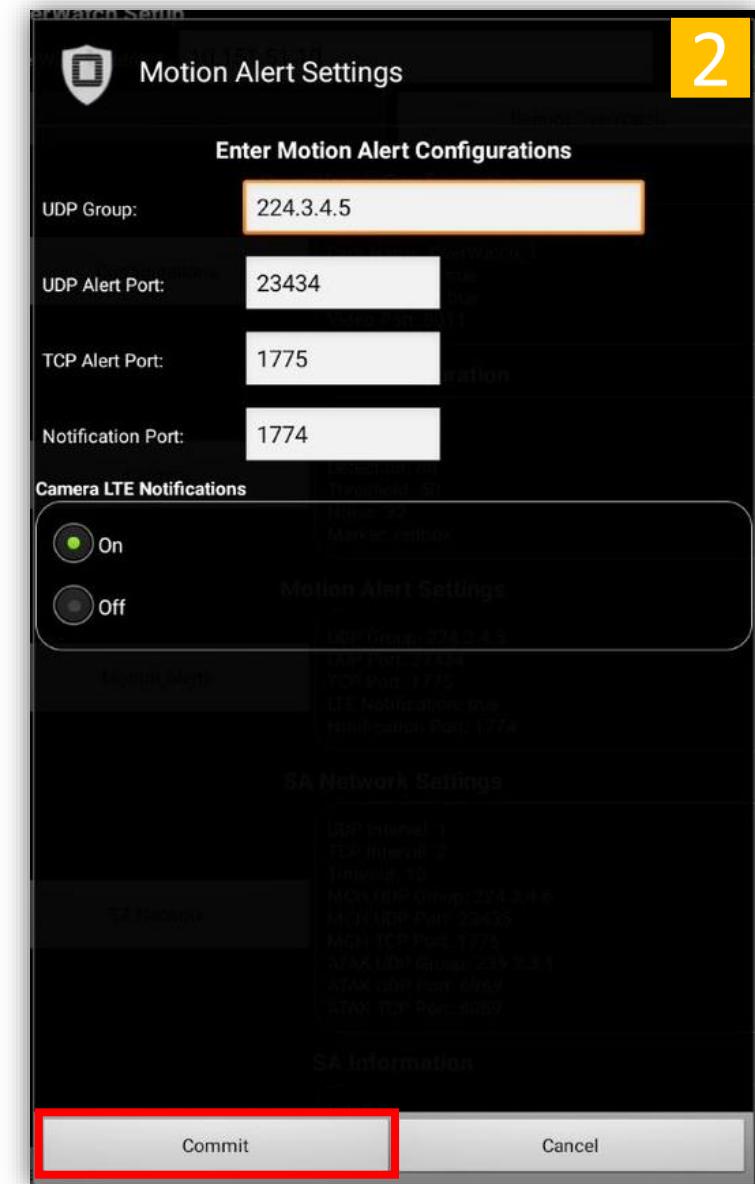
Motion Alerts

UDP Group: 224.3.4.5
UDP Port: 23434
TCP Port: 1775
LTE Notification: true
Notification Port: 1774

1

1. Locate and tap Motion Alerts Button under OverWatch™ 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 OverWatch™ button.





OverWatch™ Board Configuration

OverWatch™ SA Network Settings

OverWatch™ Board Configuration – SA Network Settings



SA Network Settings

1

SA Network

UDP Interval: 1
TCP Interval: 2
Timeout: 10
MCH UDP Group: 224.3.4.6
MCH UDP Port: 23435
MCH TCP Port: 1776
ATAK UDP Group: 239.2.3.1
ATAK UDP Port: 6969
ATAK TCP Port: 8089

SA Network Settings

2

Enter SA Network Settings

UDP Interval:

1

TCP Interval:

2

Timeout:

10

MCH Settings

UDP Group:

224.3.4.6

UDP Port:

23435

TCP Port:

1776

ATAK Settings

UDP Group:

239.2.3.1

UDP Port:

6969

TCP Port:

8089

Commit

Cancel

1. Locate and tap SA Network Button under OverWatch™ 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 OverWatch™ button.



OverWatch™ Board Configuration

OverWatch™ SA Information

OverWatch™ Board Configuration – SA Information



SA Information

1

Lat: 0.0
Lon: 0.0
Bearing: 0
Range: 200
Angle: 70
Color: green
Opacity: 0.3
Location Mode: user
Radio IP: 10.1.0.2

Camera SA

1. Locate and **tap** Camera SA under OverWatch™ 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 OverWatch™ button.

OverWatch Setup

SA Information

2

Enter Situational Awareness Information

Location Mode

- User Defined
 TrellisWare Radio GPS

Set Camera Location

EUD LatLon: None

Latitude: 0.0

Longitude: 0.0

Set Cam To EUD LatLon

FOV Information

Range: 200 meters

Bearing: 0 degrees

FOV Angle: 70 degrees

Select FOV Color

- Green
 Cyan
 Yellow

Network Settings

IP Address: 10.151.51.10
Netmask: 255.255.0.0/16
DHCP: true
Multicast: true
Unicast: false
Gateway: 10.151.51.1

Commit

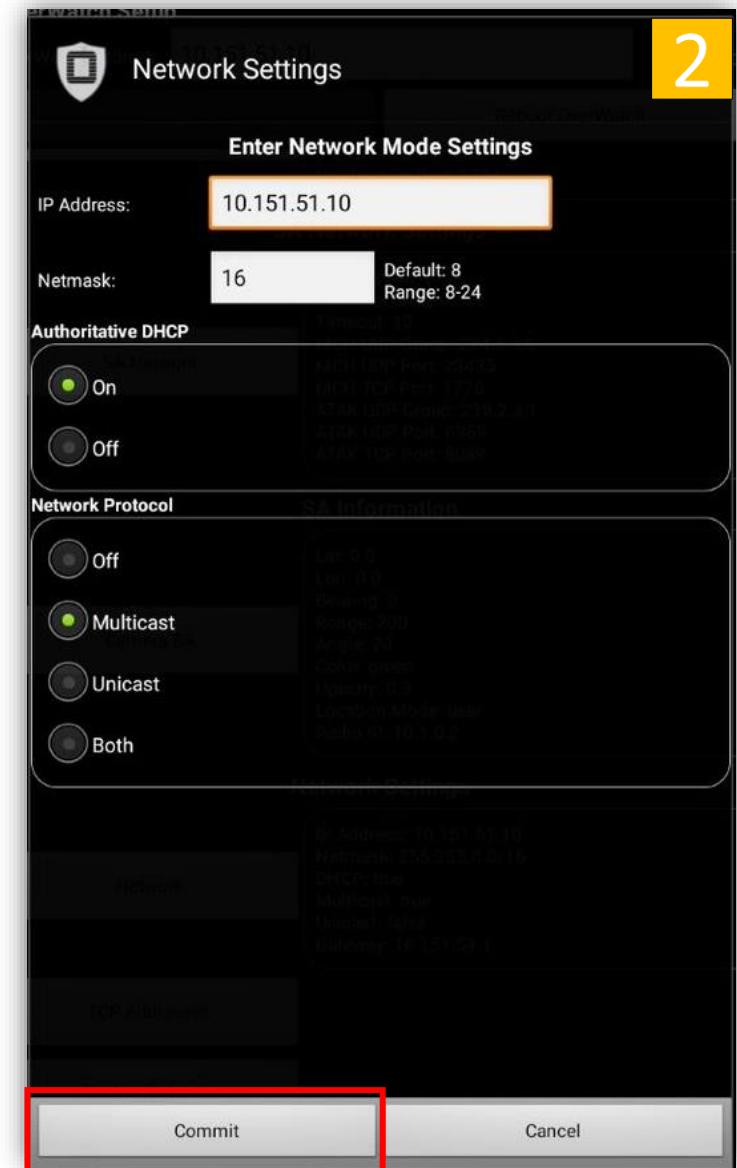
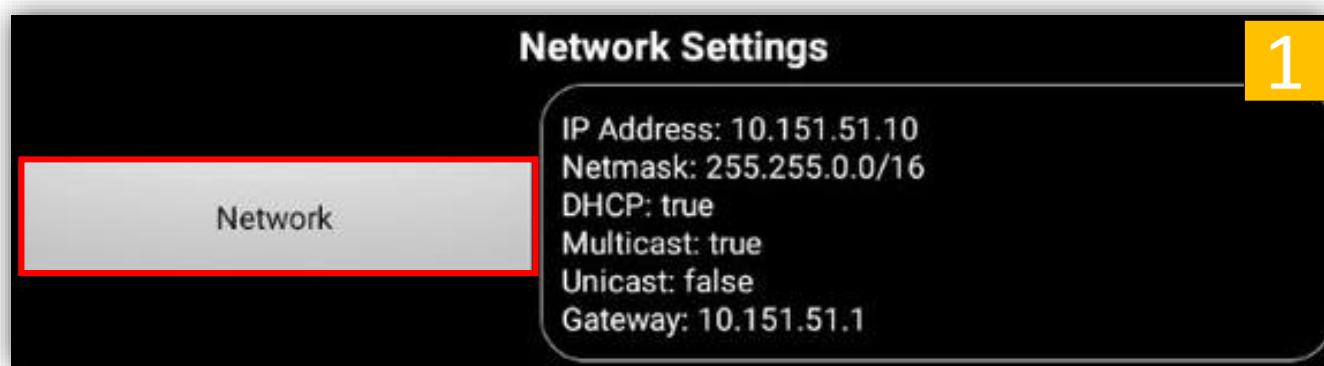
Cancel



OverWatch™ Board Configuration

OverWatch™ Network Settings

OverWatch™ Board Configuration – Network Settings



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

If your network setup requires a Gateway select either Unicast or Both under Network Protocol.

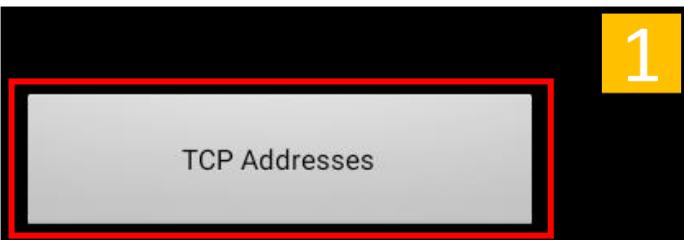
You may continue to make changes to the board. When finished **Tap** the **Reboot OverWatch™ button**.



OverWatch™ Board Configuration

OverWatch™ Other Settings

OverWatch™ Board Configuration – TCP Address



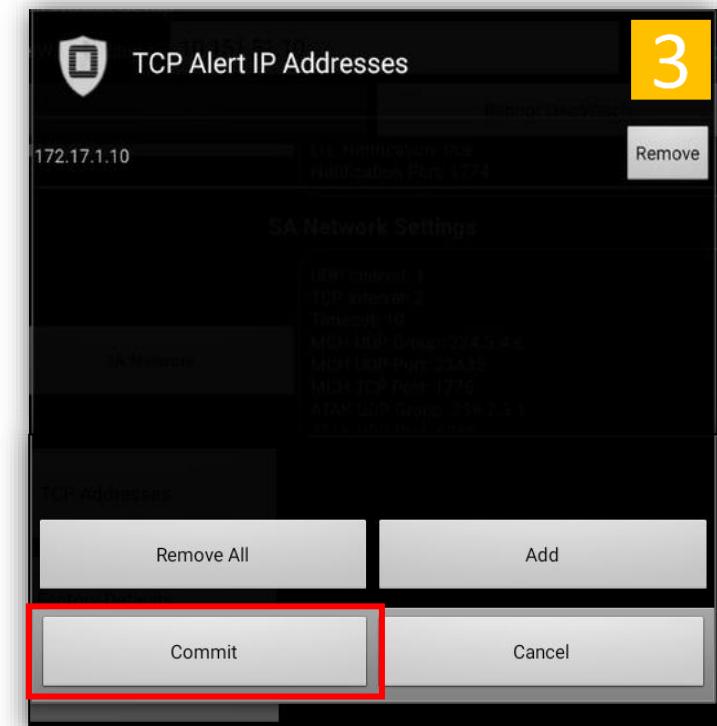
1. Locate and **tap** the TCP Addresses button under OverWatch™ Configuration.
2. This menu will allow the user the ability to Add, Remove, and Commit IP addresses to receive TCP based alerts.

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



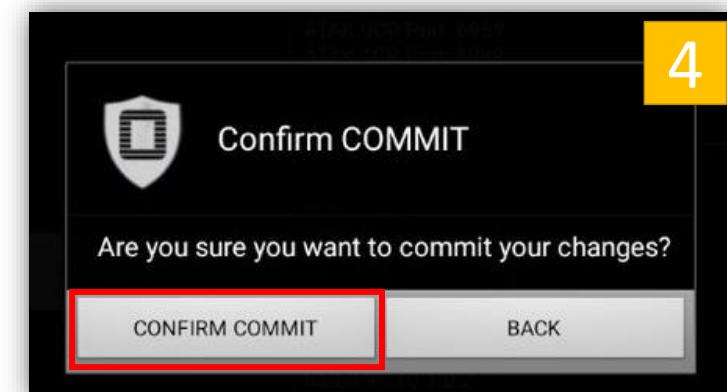
Button	Description
Remove All	Remove All IP Addresses in the list
Add	Add an IP address to receive TCP Alerts
Commit	Commit newly added TCP Addresses
Cancel	Cancel current actions.

OverWatch™ Board Configuration – Add TCP Address

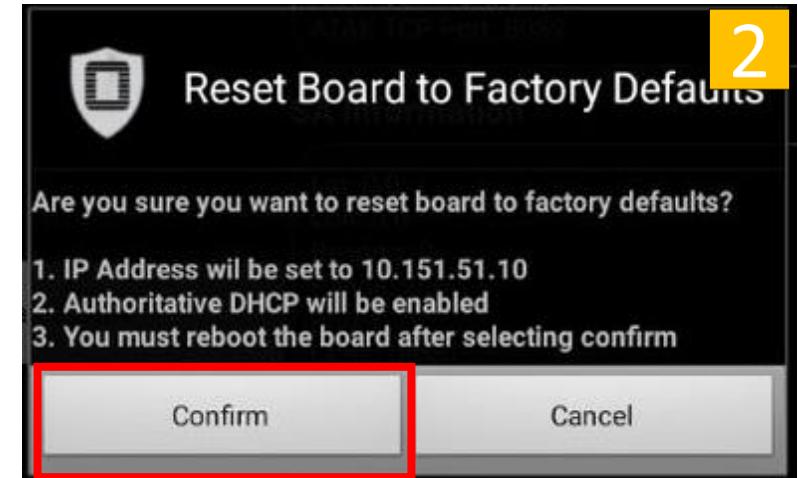
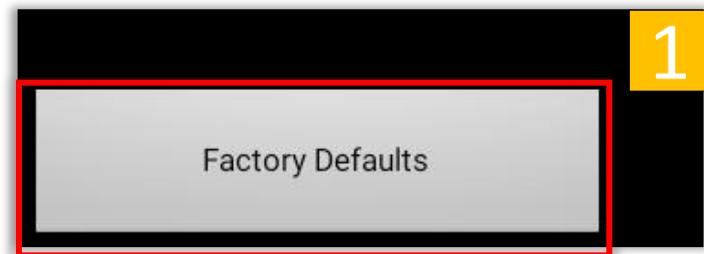


1. Locate and **tap** the Add button under TCP Alert IP Addresses Menu.
2. **Enter** an IP address to receive TCP Alerts then **tap** Confirm.
3. **Tap** Commit and then Confirm Commit to add the IP address

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



OverWatch™ Board Configuration – Factory Reset



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

