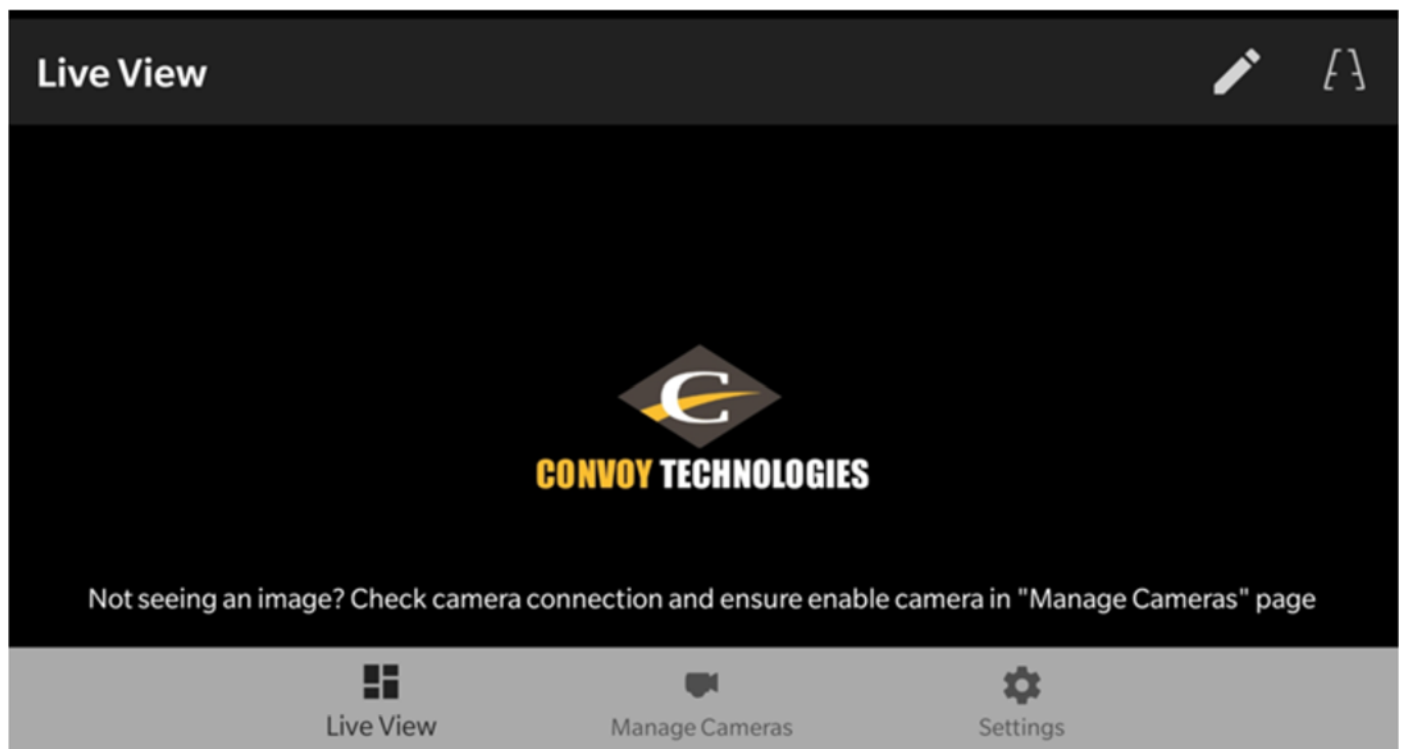


User Guide for Convoy Vue Tablet Application



Please read this manual thoroughly before operating the application, and keep it for further reference.

User Guide for Convoy Vue Tablet Application

Introduction

Convoy Vue is an Android app for live-viewing video feeds from Convoy IP1910 series cameras, which are designed specifically for heavy-duty vehicles, RVs, and buses. These high-resolution video displays on your Android devices will deliver safe driving experiences with scalable IoT integration for easy deployment to your vehicles and to your entire fleet.

Hardware Requirement:

- Convoy Camera model IP1910-IR / M1625REVB with firmware ver. V7.0.0.33 or above
- Compatible Type-C Ethernet Adapter (NIC chipset RTL8153, AX88179)



- Android-based tablet (See certified device for detail)

ATTENTION: APP INSTALLED IN ANDROID SYSTEM WITH NON-SUPPORTED PROCESSOR WILL RESULT IN SUBOPTIMAL OR FAILED IMAGE DISPLAY. CONNECTING TO SOME ANDROID VIDEO DRIVERS WITHOUT PROPERLY ADJUSTED DISPLAY SETTINGS MAY LIKEWISE RESULT IN FAULTY VIDEO PERFORMANCE. PLEASE CONSULT CONVOY TECHNICAL SUPPORT BEFORE SYSTEM DEPLOYMENTS.



User Guide for Convoy Vue Tablet Application

Introduction

Minimum System Requirement for Android-Based Tablet:

For version v1.0 – 1.x

Android 4.4.2 (KitKat), 1GB RAM with 640 x 480 screen resolution

For v2.0 or above

ARMv7 or above with dual Core Processor architecture

Android 4.4.2 (KitKat), 2GB RAM with 1280 x 720 screen resolution or above

Recommended System Requirement for Android-Based Tablet:

ARMv8-A or above with dual Core Processor architecture

Android 6 (Marshmallow) or above, 3GB RAM with 1920 x 1080 screen resolution

OS Permission: System Setting, Network Access

Certified Device with compatible Ethernet adapter

Samsung Galaxy Tab S3 (SM-T820 SMT825)

Samsung Galaxy Tab A 8.0 2019 (SM-T290 SM-T295)

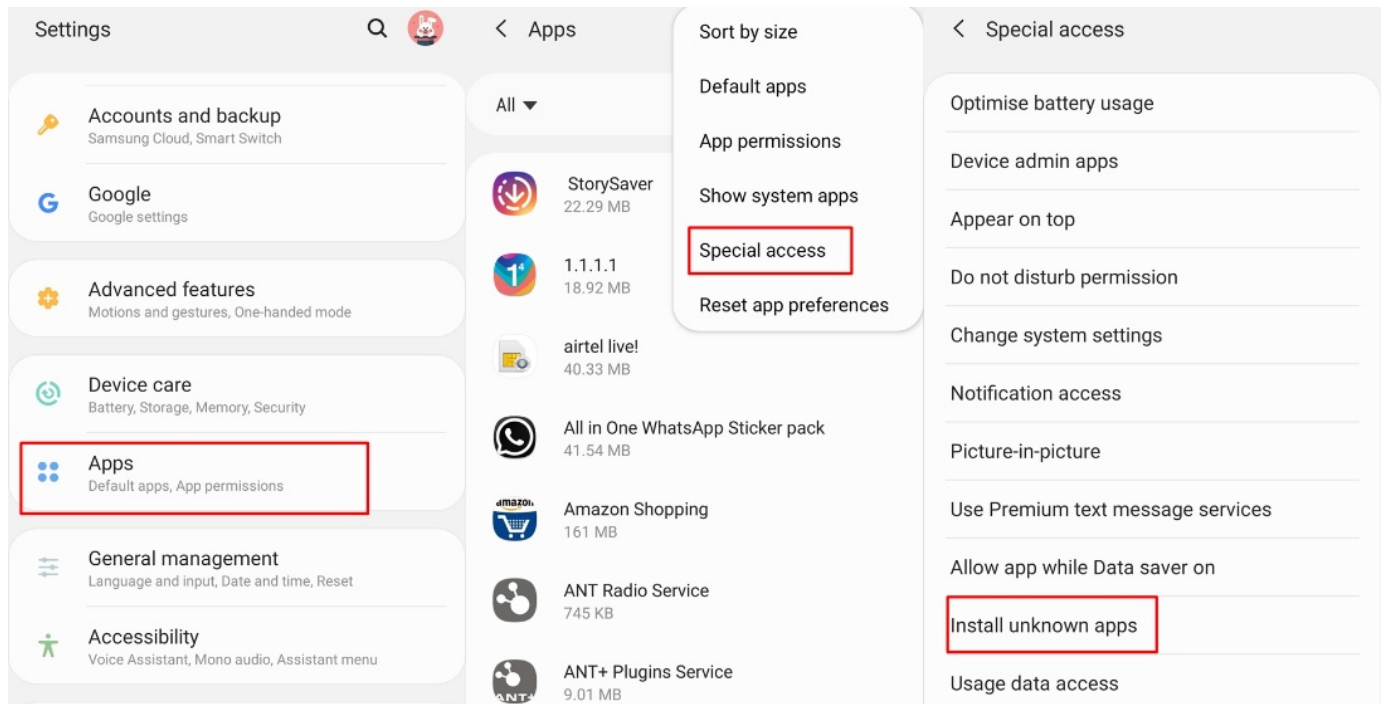
Samsung Galaxy Note 8 (SM-N9500)

User Guide for Convoy Vue Tablet Application

Downloading and Installing the App

App Installation

- Locate a copy of Convoy Vue app file with extension “.apk” and perform side load method transfer to Android Device to prepare for installation.
- Enable devices to accept installation from unknown source. (Setting may vary across Android versions and device brands. Below steps apply for Samsung Galaxy Tab series with Android 9.)

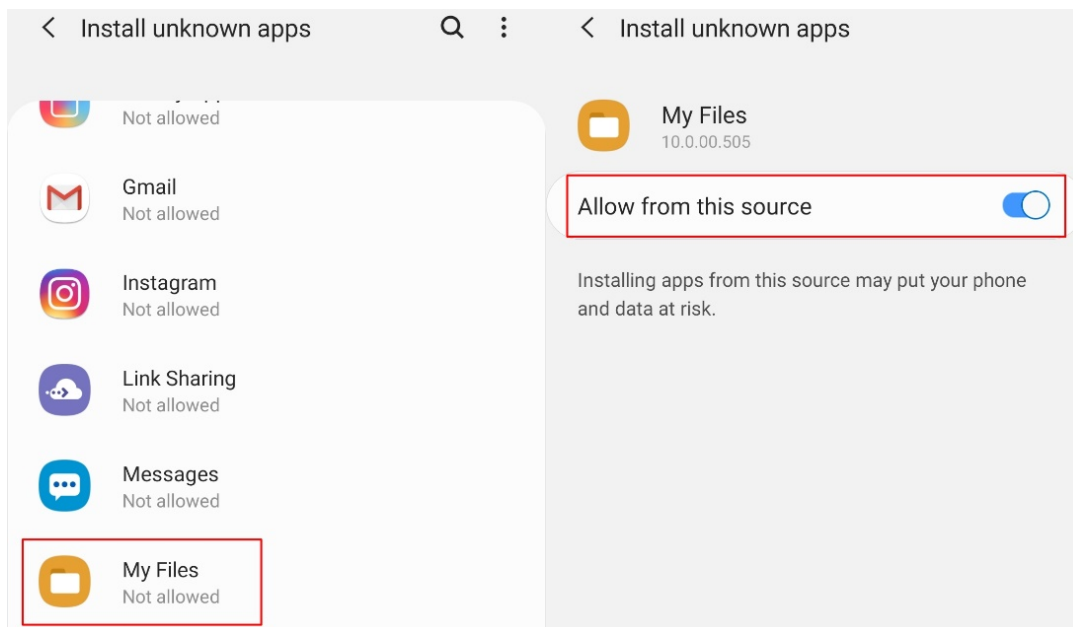


- Open the Settings application on your device.
- Tap on Apps & notifications.
- Now tap on the 3-dots icon located at the top right of the screen.
- Select Special access.
- Tap on install unknown apps.

User Guide for Convoy Vue Tablet Application

Downloading and Installing the App

From here you can enable the permission for individual apps to install unknown APK files.
(Example: My Files and set Allow from this source)



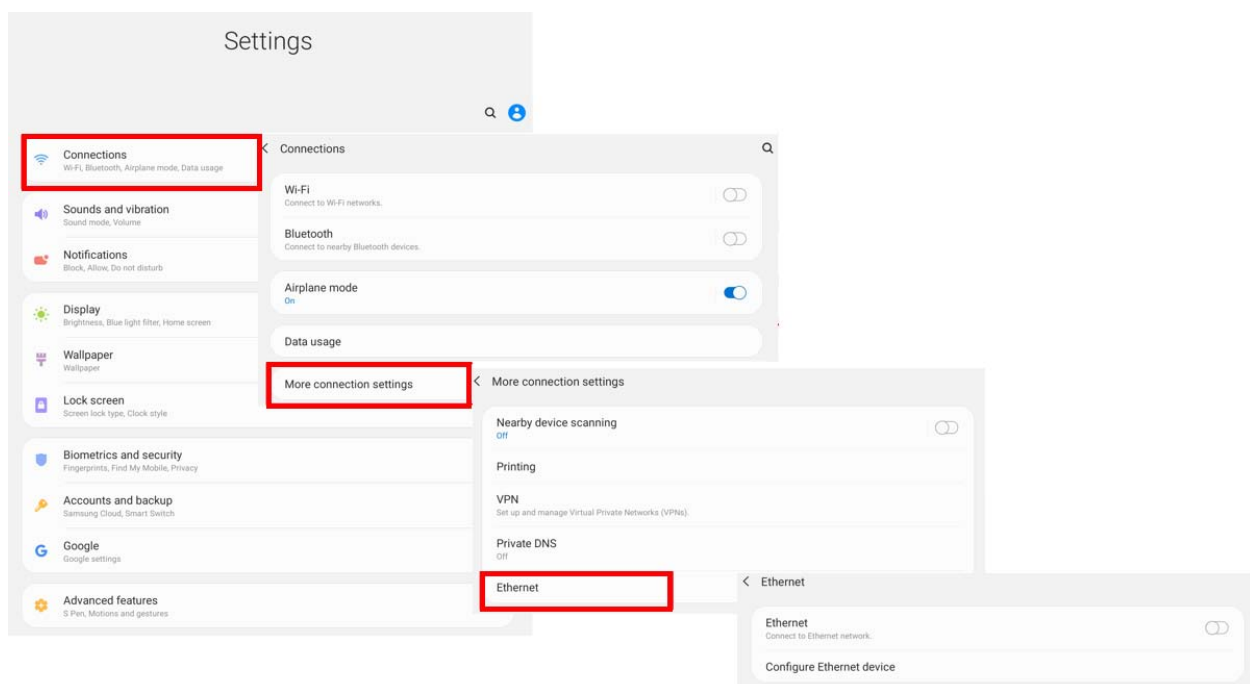
If the device is Samsung Galaxy Tab series, use “My Files” to locate the APK file and tap to bring up app installation screen.

User Guide for Convoy Vue Tablet Application

Downloading and Installing the App

Ethernet Adapter Installation and Configuration

- Connect compatible Ethernet Adapter to your tablet's type-c port and follow screenshot to locate configuration page of your Ethernet Adapter.



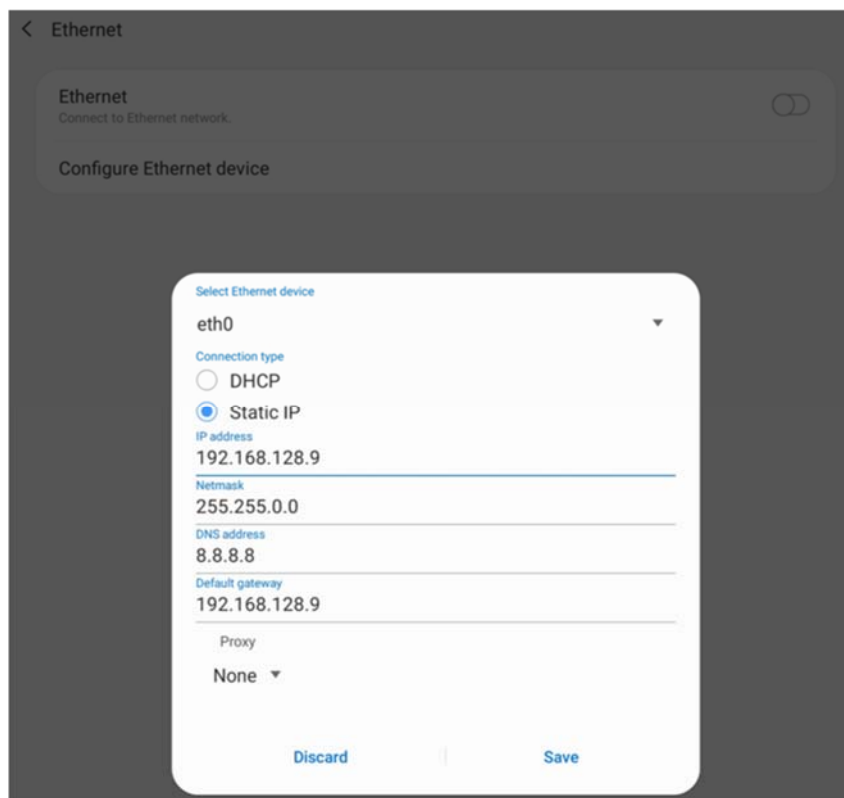
- Adapter is turned off by default. DO NOT turn it on at this stage. Tap “Configure Ethernet device”.

User Guide for Convoy Vue Tablet Application

Downloading and Installing the App

Your Ethernet Adapter's IP Address must belong to the same network as your Convoy Camera.

- Click Static IP, and input below information
 - IP address "192.168.128.X" (*where X is available IP of your network*)
 - Netmask "255.255.0.0" (*CAUTION: Samsung has reported a known bug that does not allow certain subnet formats to be input. Use 255.255.0.0 or 16 for subnet bit*).
 - DNS (*any value is acceptable*)
 - Default Gateway (*your router IP address, not required*)
- Tap Save to exit page, then tap the switched on Ethernet button to turn on the adapter.



User Guide for Convoy Vue Tablet Application

Connecting the Cameras



The IP cameras have 2 cable connections, one for power and the other to connect to the device. Once both cables are connected and the settings are adjusted, the camera can be found through the Convoy Vue application.



The application can display images from up to 4 cameras simultaneously, but you can connect more cameras using an appropriate IP67 M12 Ethernet Switch.

5-Port IP67 M12 Ethernet Switch

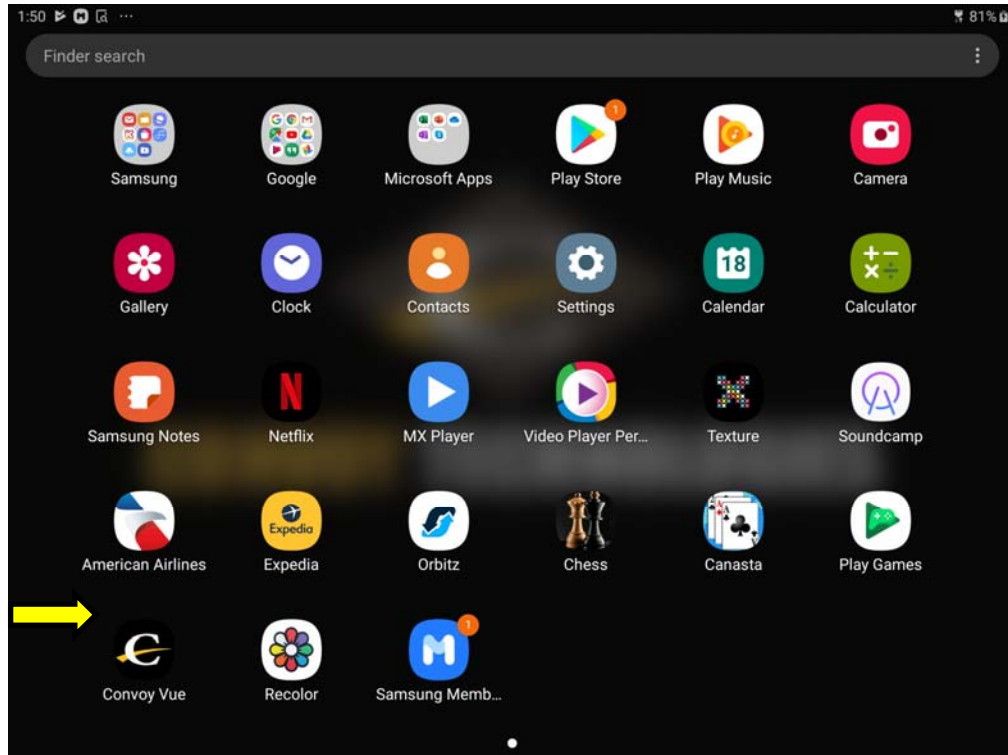


8-Port IP67 M12 Ethernet Switch

User Guide for Convoy Vue Tablet Application

Using the App — Getting Started

To launch the **Convoy Vue** app, tap the black C icon on the touchscreen.



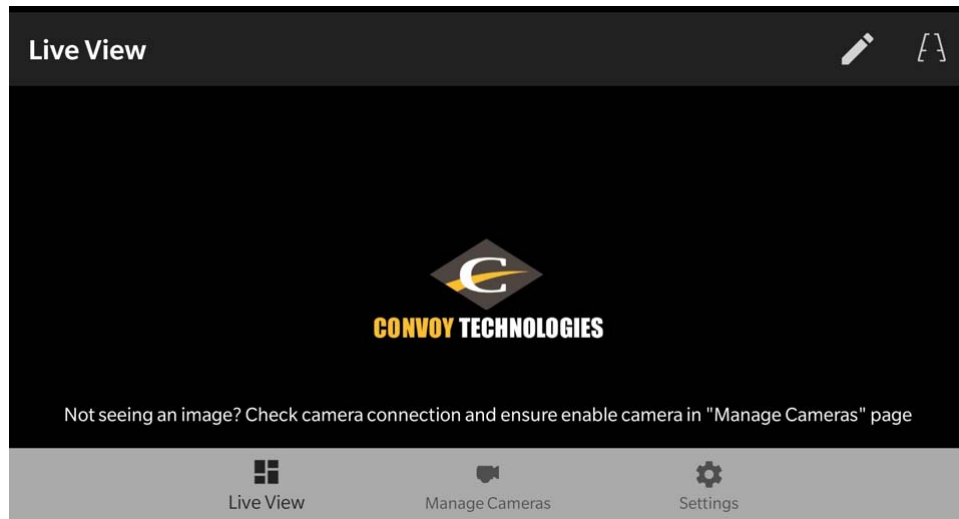
The app is divided into 3 primary pages:

- **Live View**
- **Manage Cameras**
- **Settings**

Launching the app brings you to the **Live View** page, where images from connected cameras will appear. If no cameras are connected, the screen appears as black with the C icon in the middle.

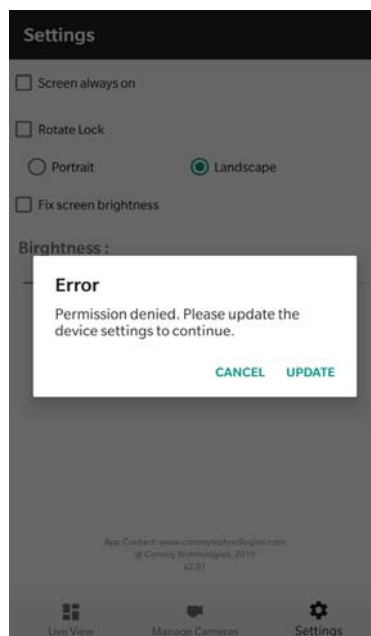
User Guide for Convoy Vue Tablet Application

Using the App — Getting Started



Open Convoy Vue app and you will see above screen (when no cameras are connected). You will need to grant system setting permissions for the app to function properly.

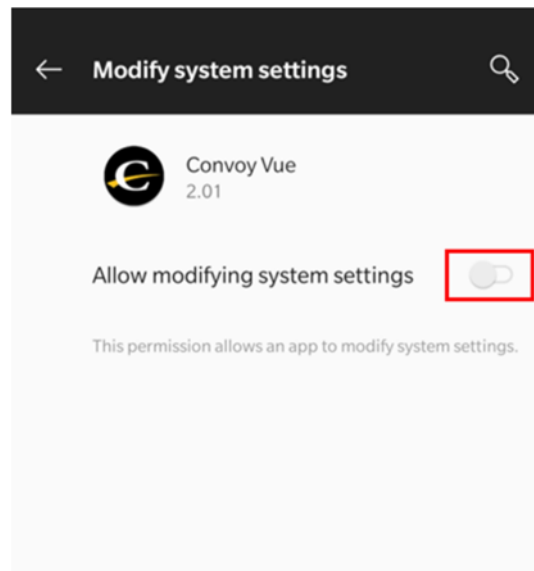
Initial settings without permission granted will bring up the error message below.



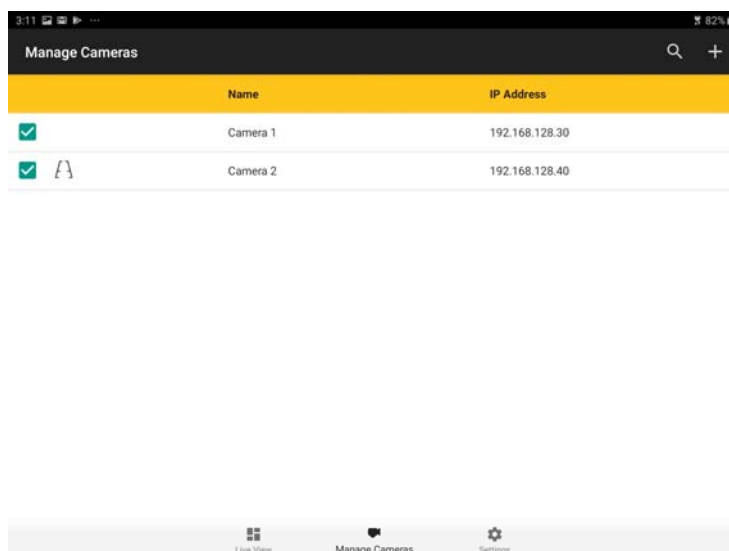
User Guide for Convoy Vue Tablet Application

Using the App — Getting Started

Tap “UPDATE” and allow Convoy Vue access to the system settings.



Once the IP cameras are connected, find the gray menu bar at the bottom of the screen and tap the **Manage Cameras** button in the center. This brings you to a white screen with a yellow band across the top.

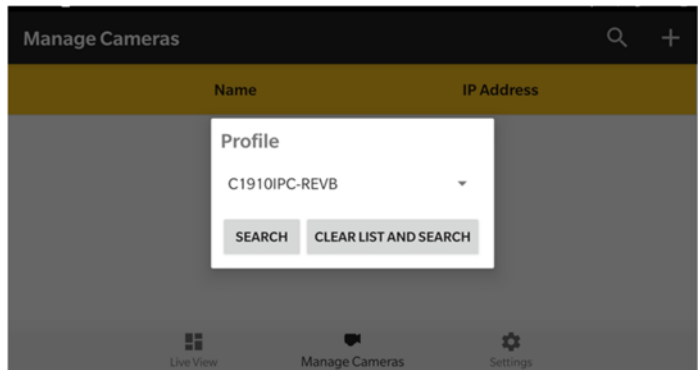
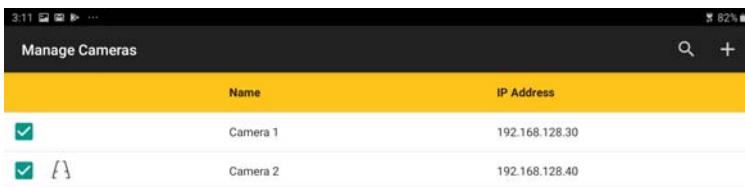


User Guide for Convoy Vue Tablet Application

Using the App — Getting Started

In the black space above the yellow bar, you'll find a search icon (a magnifying glass tilted to the left).

Tapping this icon brings up a window that allows you to choose between searching for new cameras to add to the existing list or clearing the existing list and searching for all currently connected cameras.

	Name	IP Address
<input checked="" type="checkbox"/>	Camera 1	192.168.128.30
<input checked="" type="checkbox"/>	Camera 2	192.168.128.40

Tapping the **Clear List and Search** button brings up a selection of all the cameras connected to the tablet.

The list includes 2 columns:

- Camera Name
- IP Address

To view image feeds from any camera on the list, check the box to its left (by tapping) and then tap the **Live View** button on the gray menu bar at the bottom of the screen. (Images from unchecked cameras will not be accessible through the **Live View** page).

User Guide for Convoy Vue Tablet Application

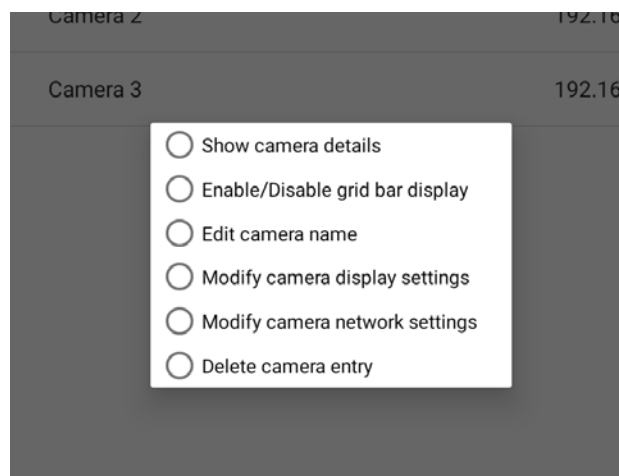
Using the App — Basic Functions

Action Key for **Live View** page:

- Single tap clears or returns menu bar.
- Double tap enlarges individual image to full screen or shrinks full-screen image while returning images from other cameras to the screen.
- Single tap on any menu button takes you to the indicated page.

Action Key for **Manage Cameras** page:

- Single tap on Search button brings up option to search for additional cameras or clear current list and search again.
- Single tap on boxes checks or unchecks them, activating or deactivating indicated camera.
- Single tap on camera name or IP address brings up camera settings menu:
 - Single tap on any of these options allows you to adjust the relevant settings. For instance, select Enable/Disable grid bar display to bring up a highlighted track for the camera. (When this is enabled, you will see a grid bar symbol on the line to the right of the checkbox.)

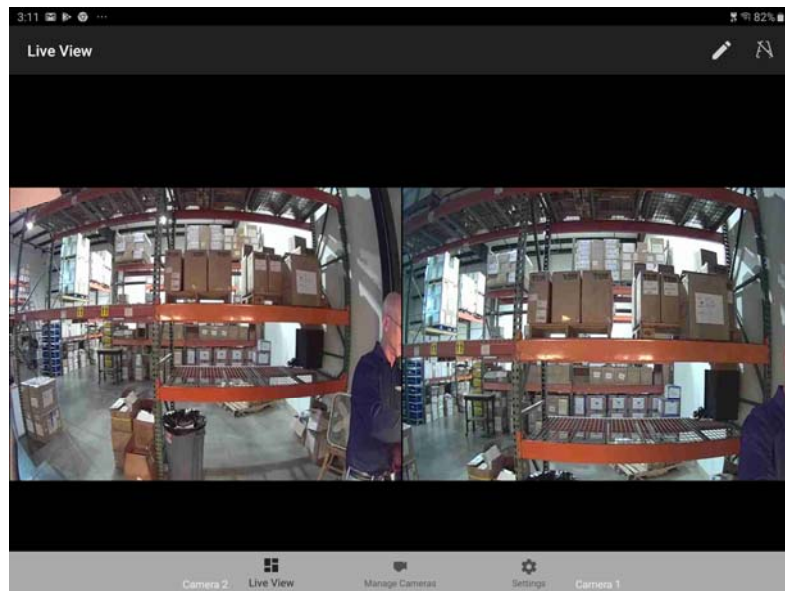


User Guide for Convoy Vue Tablet Application

Using the App — Getting Started

Clicking the boxes for multiple cameras on the **Manage Cameras** page before going to **Live View** will allow you to view images from each camera simultaneously (up to 4 cameras) along with the menu. Single-tapping any of the images clears the menu.

Double-tapping any of the individual images expands it to cover the entire image space. Single tapping the enlarged image again eliminates the menu.



Another single tap on the full-screen image brings back the menu bar at the bottom of the screen.

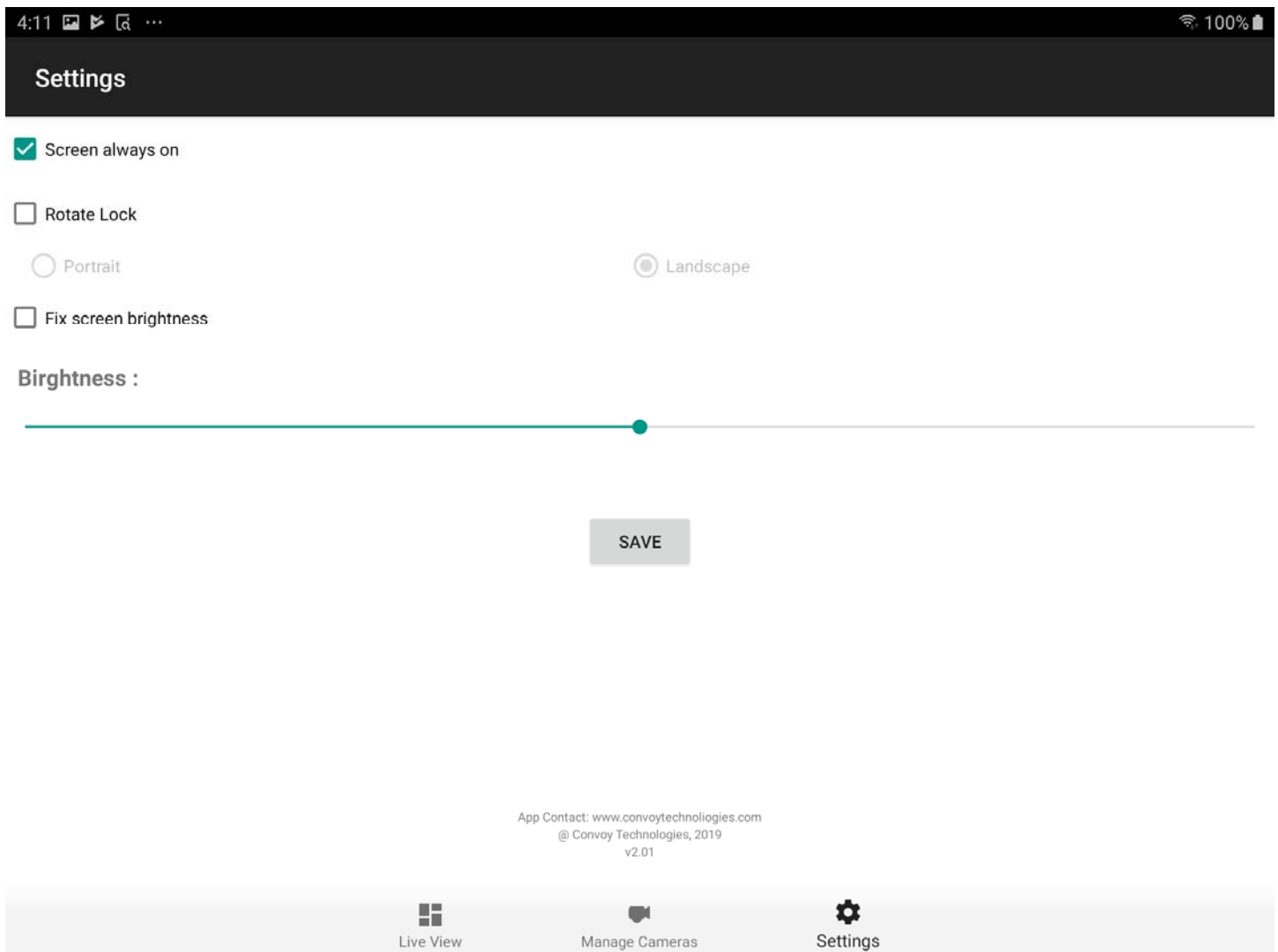
Another double tap shrinks the image and returns the images from the other cameras to the screen.



User Guide for Convoy Vue Tablet Application

Using the App — Advanced

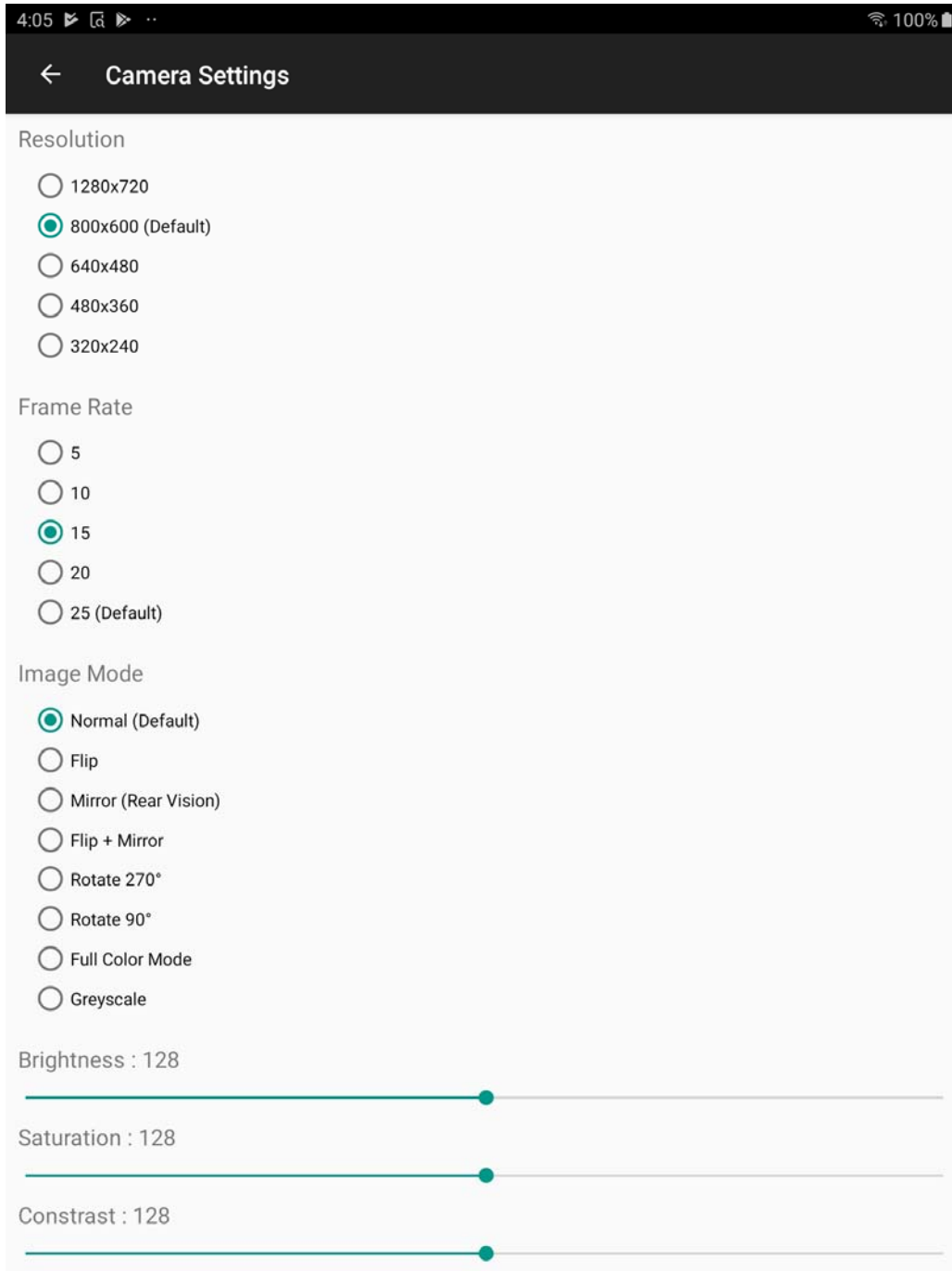
The **Settings** page is straightforward, allowing you to decide whether the screen turns off after a set period of time, whether the screen rotates to remain upright as the device is moved, and how bright the screen will appear.



User Guide for Convoy Vue Tablet Application

Using the App — Advanced

To find more Settings options for each camera, go to the **Manage Cameras** page and tap the line to select a camera. Tapping to select **Modify Camera Display Settings** will bring up this screen:



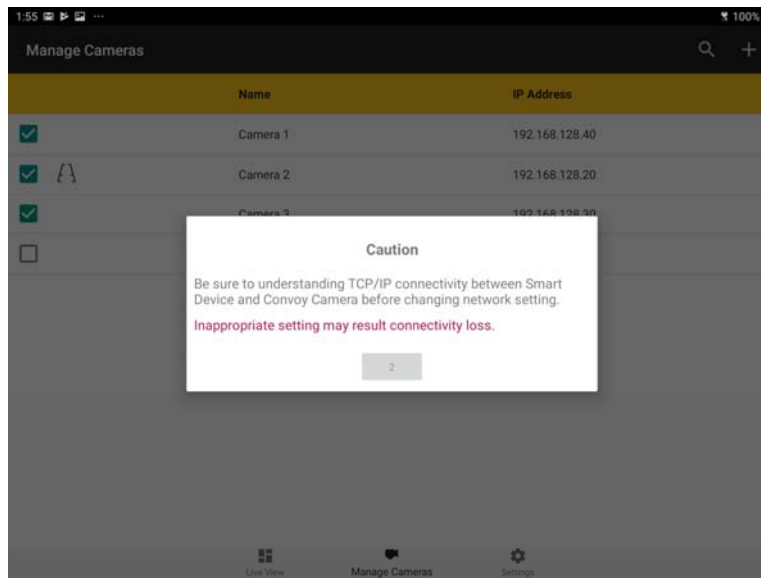
The screenshot shows the 'Camera Settings' screen. At the top, there is a status bar with the time 4:05, signal strength, and 100% battery. Below the status bar is a dark header with a back arrow and the title 'Camera Settings'. The settings are organized into sections:

- Resolution:** A list of radio button options: 1280x720, 800x600 (Default), 640x480, 480x360, and 320x240. The '800x600 (Default)' option is selected.
- Frame Rate:** A list of radio button options: 5, 10, 15, 20, and 25 (Default). The '15' option is selected.
- Image Mode:** A list of radio button options: Normal (Default), Flip, Mirror (Rear Vision), Flip + Mirror, Rotate 270°, Rotate 90°, Full Color Mode, and Greyscale. The 'Normal (Default)' option is selected.
- Brightness, Saturation, and Contrast:** Each has a label followed by a value of 128 and a horizontal slider. The sliders are currently positioned at the 128 mark.

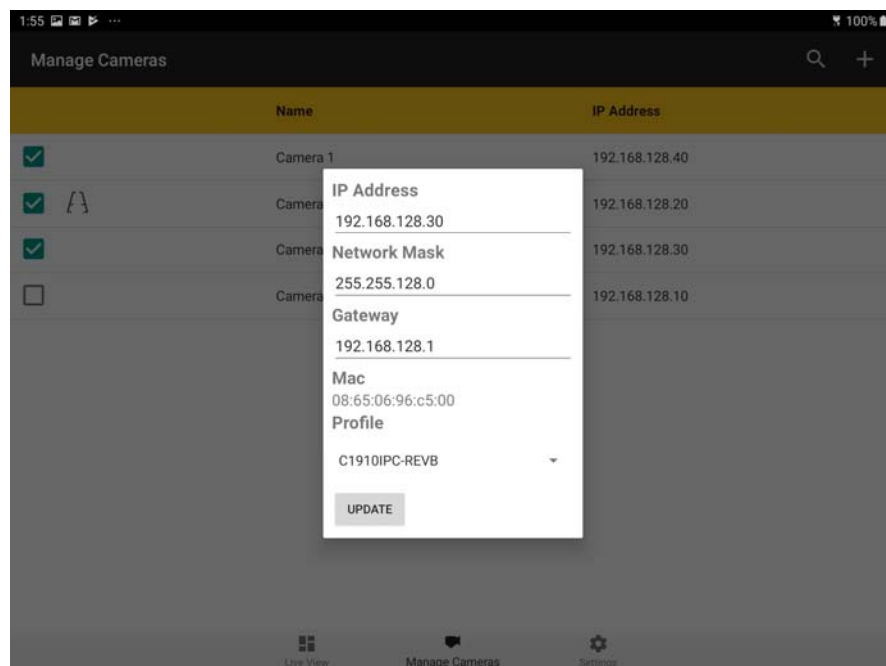
User Guide for Convoy Vue Tablet Application

Using the App — Advanced

From the **Manage Cameras** page, you can select **Modify Camera Network Settings** to adjust IP address, mask, or gateway. But first you'll see a **Caution** about potential connectivity loss:



The **Okay** button will appear after a countdown. Tapping it brings up the **Network Settings** options. Tapping on any line will bring up the keypad to type in new values.





User Guide for Convoy Vue Tablet Application

Troubleshooting

No image in **Live View**

Possible fixes:



- Go to **Manage Cameras** page and make sure cameras are connected and the boxes next to them checked. 
- If no cameras are found through searching, check both the power cable and the cable connecting the IP camera to the device.

Manage Cameras		
	Name	IP Ad
<input checked="" type="checkbox"/>	Camera 1	192.1
<input checked="" type="checkbox"/> 	Camera 2	192.1

Colored bars appear overlaying camera image

Fix:

- Go to **Manage Cameras** page and tap to select the camera
- Tap to **Disable Grid Bar Display**
- Tap in the space outside the menu box to return to the **Manage Cameras** page.
- The grid icon should no longer appear in the space between the camera name and the selection box on the far left.

Manage Cameras		
	Name	
<input checked="" type="checkbox"/>	Camera 1	
 <input type="checkbox"/> 	Camera 2	